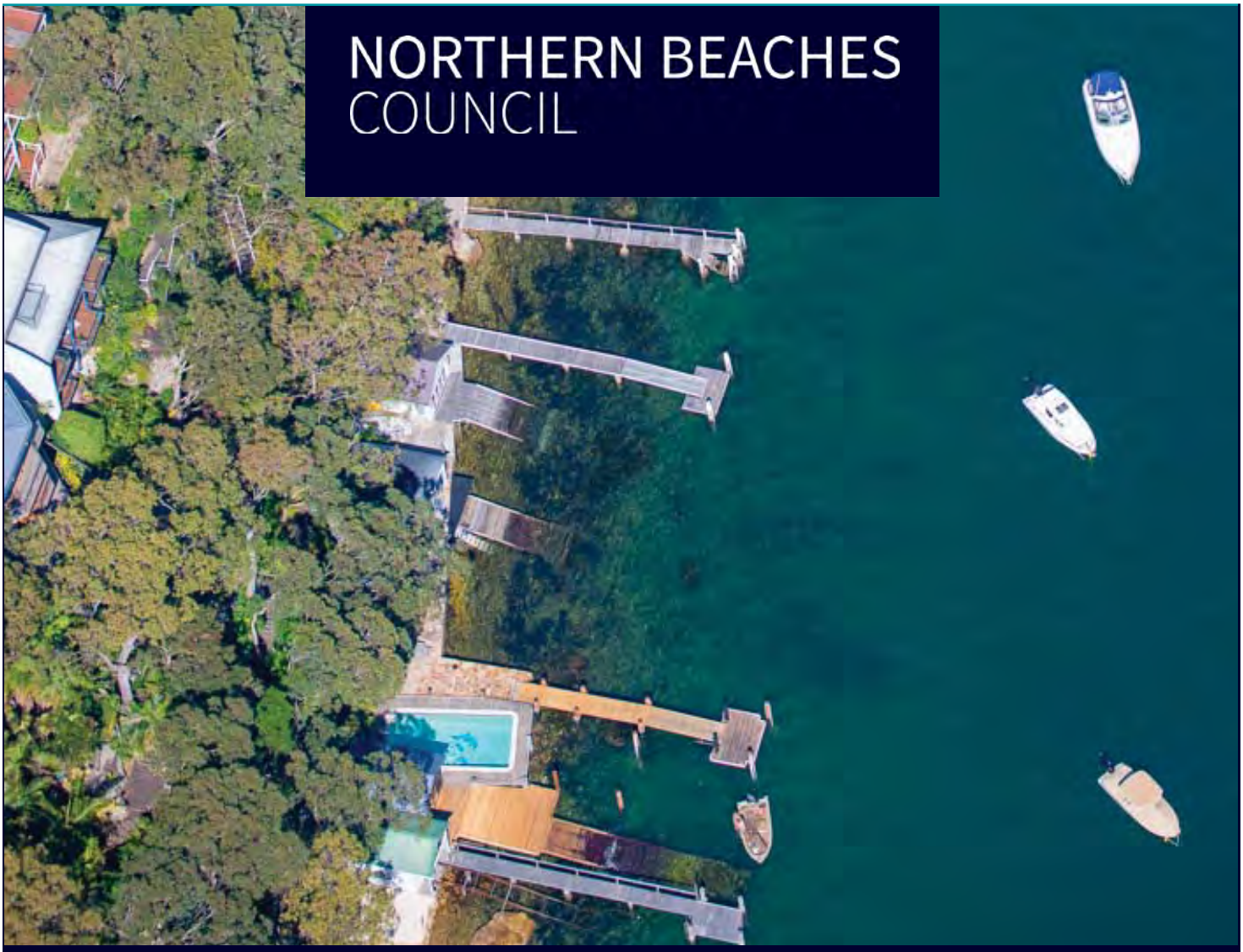
NORTHERN BEACHES
COUNCIL



PITTWATER 21 DCP
APPENDICES

INCOPORATING AMENDMENTS 1 TO 22

ADOPTED: 8 DECEMBER 2003
IN FORCE: 28 AUGUST 2017

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PITTWATER COUNCIL

Appendix 2

Heritage Conservation

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1. What is Heritage?

What is heritage?

Heritage consists of those items which have survived from earlier times, things that have been "inherited".

Just as everyone has a personal heritage, an area and its community has a heritage which is embodied in those items which are still remaining and can illustrate past human occupation and development of an area.

This heritage includes any remnants of both European and Aboriginal settlement of an area. Items of European heritage are covered by the provisions of the *Heritage Act 1977* and are often what people immediately associate with heritage.

Aboriginal heritage is covered by the provisions of the *National Parks & Wildlife Act 1974*.

Heritage items can be landscapes, places, works, buildings or relics of architectural, archaeological, aesthetic, social, cultural, technical, scientific or natural heritage significance.

A heritage item may play an important part in the history and development of an area or be of great architectural, archaeological, scientific or other value.

Items take many varied forms, the most identifiable ones being buildings such as houses, shops, churches etc. An item can however be part of the natural landscape of an area (e.g. a significant tree or an important garden), or archaeological remains.

Why should we conserve heritage?

Conservation of heritage is important as it retains links between the current and past communities of the area. Heritage items are remnants of times past as well as a record of the historical development of an area.

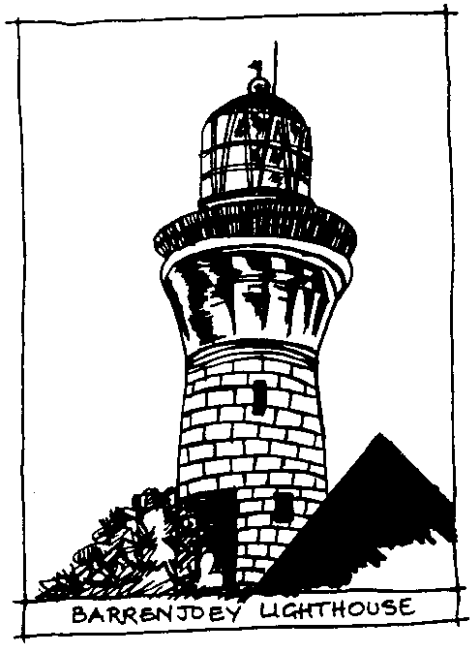
Individual items whether they be built or landscape items, serve as a reminder of persons and events that have occurred in the development and maturing of an area.

Just as a child grows and develops, so does an area or local community, and it is important for remnants of this development to be recorded and retained. If important items of heritage significance are not conserved, then they could be lost forever.

In some cases, the items may represent examples which are rare or valuable on a regional or statewide basis, for example a particularly intact and good example of a particular style of architecture or a specific outstanding species of tree.

This does not imply that all "old" things in an area have heritage significance and should be listed and conserved. All heritage studies are carried out using defined assessment criteria developed by the NSW Heritage Office.

An item must meet the requirements of the assessment criteria before listing, to ensure that only those items worthy of conservation are listed. In doing so the integrity of heritage listings is maintained with only those items which meet the criteria, being listed. Only the best, most representative, rare, intact, socially significant etc, items are then conserved by heritage protection. It is important to understand however, that conservation of heritage items does not mean preserving them as museums or the like. Heritage conservation is about managing change to the items in such a way that their integrity is not compromised.



What is the purpose of this Appendix?

This Appendix explains the importance of heritage in the Pittwater area and Council's aims and objectives in relation to heritage conservation.

The Council's main aim in identifying and introducing controls and guidelines for heritage items is to ensure that items of importance in the historical development of the Pittwater area are not destroyed and lost for present and future generations.

The reason why there are only a small number of identified heritage items in the Pittwater area is that man-made development has destroyed a significant amount of evidence and relics from previous times.

The character of the area has changed over time as a result of the area becoming more accessible to the centre of Sydney. Permanent houses now dominate the area, which was previously occupied by holiday houses and market gardens. Housing and other urban development has been gradually replacing these previous uses.

By identifying items of heritage and introducing controls to conserve these items, the Council is attempting to arrest

the erosion of the integrity of the built and landscape heritage of the Pittwater area.

Its purpose is to provide clear guidelines for owners and potential developers in relation to the design and implementation of works proposed for identified heritage items and areas. It also is proposed to assist Council itself in the assessment and management of change to the identified heritage items.

What does this Appendix apply to?

Generally this Appendix applies to all land within the local government area of Pittwater.

Specifically, it applies to all items and areas of heritage, which have been identified within *Pittwater Local Environmental Plan 2014*. Additionally it applies to all items identified in Heritage Studies which have been undertaken and adopted by Council.

The guidelines within this document will be taken into account by Council in the assessment of any building, development or subdivision application which relates to a heritage item, a heritage conservation area, or is within the vicinity of a heritage item or area.

What does Pittwater's heritage consist of?

The nature of the heritage of Pittwater is diverse and unique. Every area has a heritage which is unique and has specific importance to the locality.

From looking at the various heritage studies which have been prepared for the Pittwater area, certain characteristics are evident.

Given the relative isolation of the Pittwater peninsula in the 19th century, very little development occurred in this period. As a result, the majority of heritage evidence in Pittwater dates from the 20th century, mainly in the form of standing structures and features such as buildings, jetties, roads and houses.

Of the built items identified, domestic houses predominate, given the largely residential character of the Pittwater area.

Man-made redevelopment in the 20th century, along with natural factors such as fire, erosion, landslip etc. has extensively, if not completely removed traces of earlier settlement – including archaeological evidence.

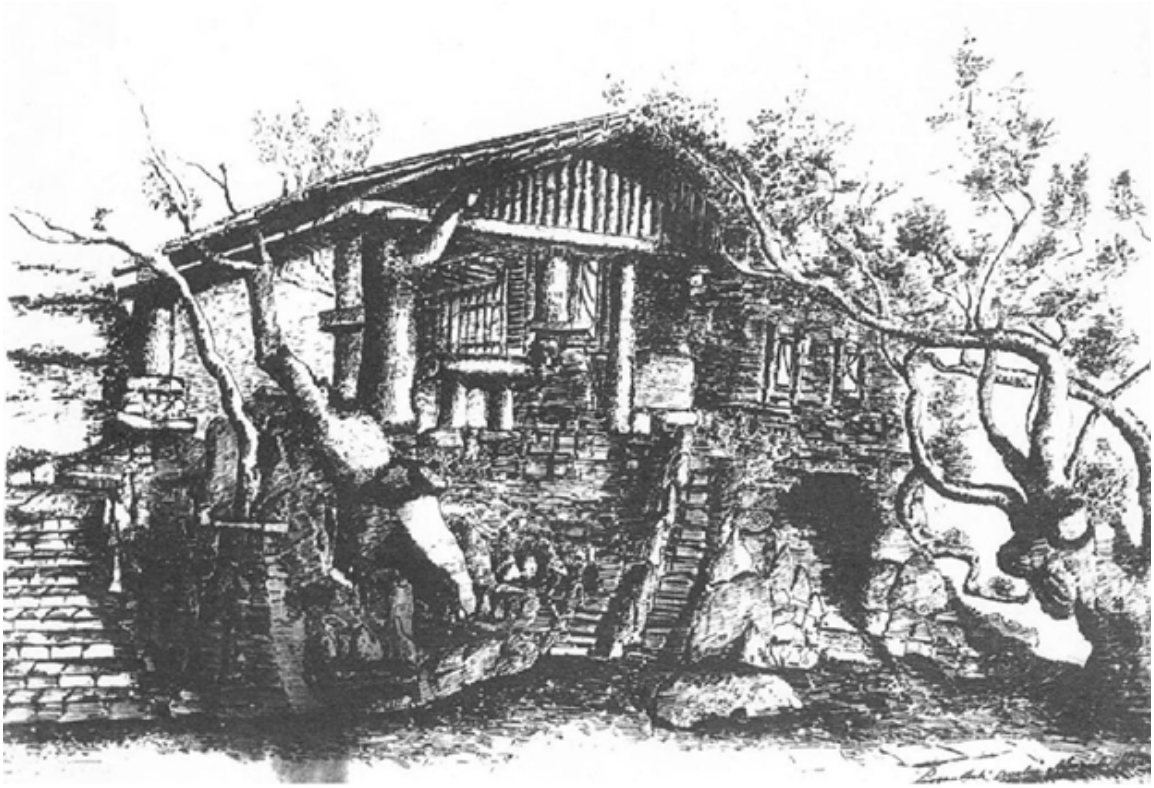
The architectural heritage of the area is characterised by the house form which, in Pittwater, evolved as a structure subordinate to the landscape and which utilised natural materials to harmonise with the surroundings and lessen their visual impact.

The notable house form in Pittwater was that of the "holiday house" which reflected the development and use of the area in the early 20th century.

Pittwater's heritage also contains important landscape elements or items of heritage, such as individual or groups of trees, important gardens, landscape features such as stone retaining walls as well as the natural elements such as the headlands, bushland and water bodies.

Controlling change to these items is more difficult to quantify in guidelines, especially as they are, in many instances living, evolving items.

Rather than specific guidelines, it is the qualities that these landscape items impart and the "specialness of place" which exists in the Pittwater area, which should be of paramount concern, is assessing any applications for change to landscape items of heritage.



"Loggan Rock" 111 Whale Beach Road
Stone and timber cottage built 1929-1939
Sketch by A.S. Jolly
(Source: D Anderson, *Alexander Stewart Jolly – his life and works)*

The Burra Charter

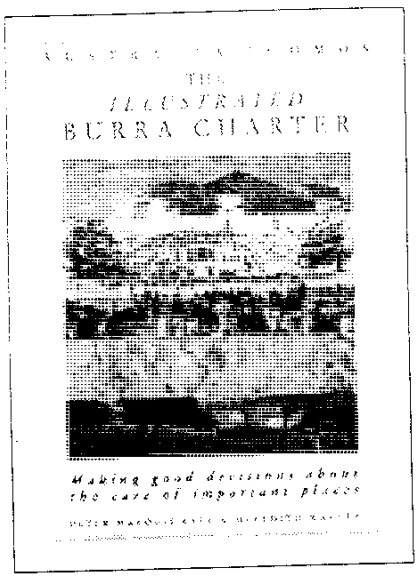
The conservation of heritage is an issue of worldwide importance. There is an international organisation linked to UNESCO, called ICOMOS (International Council on Monuments and Sites), which is dedicated to conserving the world's heritage.

Australia ICOMOS is a non-government organisation which promotes good practice in caring for culturally important places. This body formulated and adopted what is called “The Burra Charter" in 1977 (Most recent edition: 2013), which outlines and explains the principles and procedures which should be taken into account when conserving important places or heritage items.

While there are many different approaches to heritage conservation, the approach in this Appendix is based on the principles outlined within the Burra Charter.

It is a useful source in any heritage conservation matters, for both the Council and any person with an interest in a heritage item.

These guidelines are particularly useful when deciding whether changes to a heritage item are appropriate in their context.



Heritage organisations

There are a number of organisations concerned with heritage conservation issues, and there is often confusion about their respective roles. The main bodies are:

Australian Heritage Council

This is a federal body, which assesses nominations for the National Heritage List and the Commonwealth Heritage List and compiles the Register of the National Estate, which contains items of importance to Australia as a nation.

Such a listing does not have any statutory force, except for land which is owned by Commonwealth Government Departments.

Visit www.ahc.gov.au for further information.

National Trust of Australia

This is a non-profit organisation devoted to the conservation of Australia's heritage. The NSW Division keeps a National Trust Register of heritage items, in which it lists items which are considered to be of heritage significance.

The National Trust is an advisory body and therefore the listings do not have any statutory force.

NSW Office of Environment and Heritage

This is a state government body responsible for helping the community conserve our heritage. It is guided by the Heritage Council of NSW and the *Heritage Act 1977*. The *Heritage Act 1977* contains certain statutory powers which can be used to temporarily or permanently protect heritage items.

The powers of this Act are mainly reserved for the protection of items which are of state or regional heritage significance.

The NSW Office of Environment and Heritage maintains the NSW Heritage Database, an online list of all statutory heritage items in NSW. For further information see www.environment.nsw.gov.au/heritage

Local Councils

Local councils are responsible for the identification and protection of items of heritage significance.

The provisions of the *Environmental Planning & Assessment Act 1979* enable a Council to identify heritage items in a local zoning instrument (Local Environmental Plan or LEP) and in doing so, include statutory heritage provisions to protect the items. Clause 79C lists matters to be considered in the assessment of an application including the provisions of an environmental planning instrument (e.g. the provisions of a LEP).

Clause 89 of the *Local Government Act 1993* also lists matters to be considered by Council for certain applications. These matters include "any items of cultural and heritage significance which might be affected".

Role of Local Council in protecting heritage

Council's role in protecting heritage is two-fold. Firstly, it has a responsibility to identify items of heritage significance and to provide protection by statutory listing.

Secondly, it has a responsibility to consider heritage issues in the assessment of development applications under the *Environmental Planning and Assessment Act 1979*.

In relation to the identification and listing of heritage items in a zoning document (LEP), Council must first have a Heritage Study prepared for its area or for the assessment of an item.

A Heritage Study includes a thematic history outlining the history of development in the particular area along with an inventory of heritage items and areas of significance, formulated from a field survey of the area.
It also provides recommendations as to what actions should be undertaken to conserve the heritage identified.

A number of heritage studies have been prepared which relate to the Pittwater local government area:

Barrenjoey Peninsula & Pittwater Heritage Study, prepared by McDonald McPhee Pty Ltd in 1989. This applied to all land generally north of Mona Vale Road;

Ingleside/Warriewood Urban Land Release Heritage Study, prepared by Tropman & Tropman Architects in 1993. This applied specifically to the urban release area of Ingleside/Warriewood;

Warringah Heritage Study, prepared by Hughes Trueman Ludlow. This applies to that part of Pittwater generally south of Mona Vale Road, being that area not included in the Barrenjoey Peninsula and Pittwater Heritage Study.

All these studies have been prepared to identify items of heritage importance within the Pittwater Council area, and they provide the base information required by the Council to introduce statutory heritage controls and guidelines to conserve the items identified.

There are also multiple individual studies of items, prepared by various heritage consultants that have been prepared to assess additional potential items. These studies are kept in the Local Studies section of Mona Vale Library.

Statutory framework

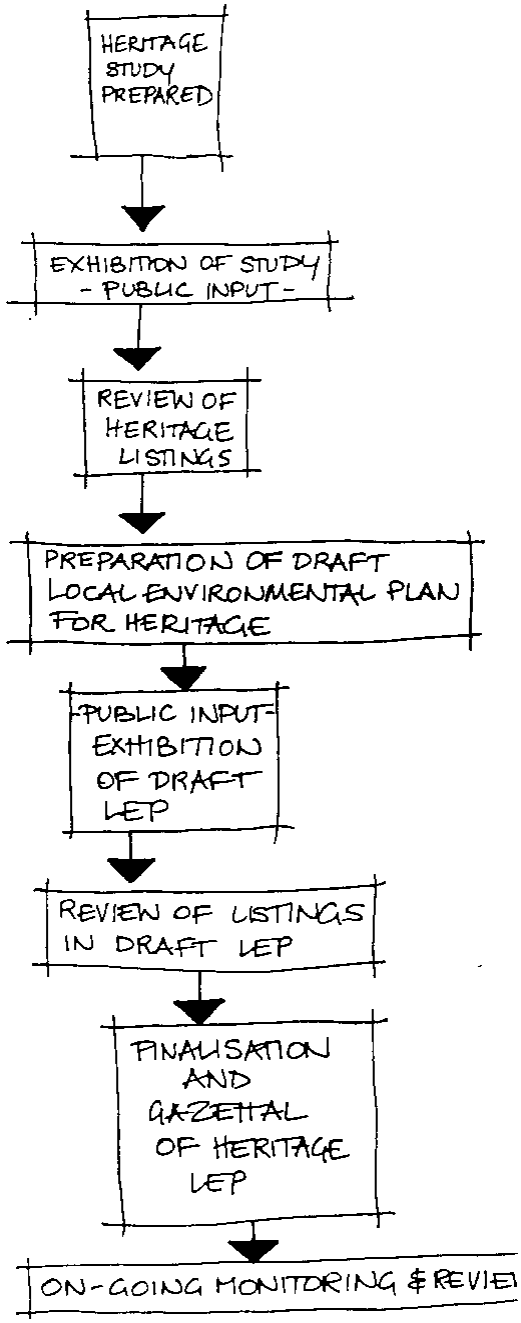
The mechanism for providing some control over changes to identified heritage items, is by way of the preparation of a Local Environmental Plan or LEP. An LEP is a legal zoning document which sets out what uses land or a building can be put to, and also what uses require the obtaining of development consent.

Pittwater Local Environmental Plan 2014 already includes standard heritage provisions which apply to a schedule of heritage items which were identified in the Barrenjoey Peninsula & Pittwater Heritage Study.

When a heritage item has been listed in the LEP, the heritage provisions require that a development application be submitted for any proposed works and that the significance of the heritage item be taken into account in the assessment of this application.

A heritage study contains a "statement of significance" for each identified item and this forms the basis for the assessment of any proposed works to that item.

To assess a proposal however, it is often necessary for a "Conservation Plan" to be prepared for the item or property, so that its significance as a heritage item is clearly stated and that the proposed works are assessed in relation to the impact on the integrity of the item itself.



On going monitoring of heritage

The items identified and listed as items of heritage within a local environmental plan are not necessarily the only heritage items in an area. New ones may come to light over time, their significance assessed, and their possible addition to the heritage schedule within the LEP.

In this regard, input from the community is important as they may be aware of items of heritage significance as a result of living in the area. Council encourages any member of the community to notify it of potential items. This will enable the Council to have the items investigated and assessed by a heritage professional.

What does it mean to be an owner of a heritage item?

If you are the owner of a heritage item, you are custodian of an important part of Pittwater's development history.

It does not mean however, that you cannot make any changes to the item. If for example you own a house which has been listed as a heritage item, it would be difficult to get approval for total demolition, however, you can still propose alterations and additions. Buildings evolve over time reflecting the architectural styles and the needs and tastes of the various occupiers and this evolution is part of its heritage.

While it would be difficult to get approval to totally demolish a heritage building, alterations and additions can be applied for. Development approval is likely to be given if the additions/alterations have been sympathetically designed, taking into account the stated significance of the item itself.

The emphasis should not be on replication, but rather on identification of the key design elements (e.g. roof pitch, size & shape of windows etc.) and the reflection of these elements in any new additions. The original building should be clearly distinguishable from the new but sympathetic to the overall appearance.

Design guidelines to assist owners in the planning of alterations and additions to their homes are provided in Section 4A of this Appendix.

Commonly used heritage terms

It is important to understand what the terms used in heritage conservation mean, so as to avoid confusion in their use. The following terms are used throughout this Appendix and are from the Burra Charter.

Place - means site, area, building or other work, group of buildings or other works together with associated contents and surrounds.

Cultural significance - means aesthetic, historic, scientific or social value for past, present or future generations.

Fabric - means the physical material of the *place.*

Conservation - means the processes of looking after a *place* so as to retain its *cultural significance.* It includes *maintenance* and may according to circumstances include *preservation, restoration, reconstruction* and *adaptation* and will be commonly a combination of more than one of these.

Maintenance - means the continuous protective care of the *fabric*, contents and setting of a *place* and is to be distinguished from repair. Repair involves *restoration* and *reconstruction* and it should be treated accordingly.

Preservation - means maintaining the *fabric* of a *place* in its existing state and retarding deterioration.

Restoration - means returning the EXISTING *fabric* of a *place* to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

Reconstruction - means returning a *place* as nearly as possible to a known earlier state and is distinguished by the introduction of materials (new or old) into the *fabric*.

Adaptation - means modifying a *place* to suit proposed compatible uses.

Compatible use - means a use which involves no change to the culturally significant fabric, changes which are substantially reversible or changes which require a minimal impact.

Newport
(Source: R Bean Local History Resource Unit, Warriewood)

Introduction

These guidelines are intended to help owners of heritage buildings or owners of land which contain items of heritage significance, in the planning of any future changes to their properties.

Given the range and type of heritage items found within the area, the formulation of specific guidelines is not easy.

Unlike some other local government areas the heritage of Pittwater is not dominated by one period of development, one architectural style or by large conservation areas. Rather, the heritage of Pittwater is scattered throughout the area and while built heritage is dominated by the house form, there is no one dominant architectural style present.

However, it is important that general principles of heritage conservation are understood as these form the basis of any specific guidelines.

Post office box Nabilla Road Palm Beach

Main heritage issues

There are a number of main issues regarding heritage conservation which the Council has to deal with.

The major issue is the assessment of development applications for changes to identified heritage items, particularly proposals for alterations and additions to buildings.

In assessing such applications, the Council needs to determine whether the proposed changes will affect the integrity of the heritage item concerned. This comes back to the question of "why is this item significant?"

Other applications involving heritage items may be made for demolition, subdivision, dual occupancy etc, and this Appendix provides guidance as to the way such development proposals should be approached.

A major part of Pittwater's heritage is the landscape quality of the area with natural vegetation playing an important part in the character and development of the area.

There is increasing pressure for subdivision of land and construction of large houses and dual occupancies, which are impacting upon the landscape integrity of the Pittwater area.

Council needs to determine the effect of such development on the landscape heritage of Pittwater.

Principal objectives
In assessing the impact of any change to a heritage item, the most important factor to consider is whether the proposal conserves those items and features of the item which make it **significant**.

The significance of an item, or specifically why it is important, is outlined on the inventory forms prepared as part of any Heritage Study of an area.

This "Statement of Significance" will indicate why the item has been listed. Perhaps it is a building with an intact exterior representing a particular phase or style of development. Or it may be that the importance lies in the garden & curtilage, or part of the interior (e.g. an important fireplace).

Consulting the inventory form in the Heritage Study is the first step in determining what changes to the item may be acceptable.

In most instances, depending on the item and the degree of proposed works or changes, the Council may require the submission of what is known as a Conservation Management Plan, prepared by a practitioner who has specialist conservation expertise.

A Statement of Heritage Impact, outlining the ways in which the proposed development relates to and respects the stated significance of the heritage item, must accompany all other development applications.

The conservation of items of heritage significance does not mean that they must be "frozen in time".

Rather the important issue is that the identified significance of the item should not be eroded by unsympathetic works.

With additions to a building for example, recognising the significance and respecting the integrity of that building, does not mean that the architectural style should be mimicked. Rather, the important design elements should be examined and any extension designed should be compatible in scale and proportion.

It is important to understand, however, that every application for works to, or alteration of a heritage item must be dealt with on its merits, as every circumstance will be different.

Basic rules
In relation to changes to heritage items it is important to keep in mind Article 3 of the Burra Charter which states:

"Conservation is based on a respect for the existing fabric and should involve the least possible physical intervention. It should not distort the evidence provided by the fabric"

As such, the basic rule with any proposed change to a heritage item is that features of its significance should be conserved or reinstated. This equally applies to built or landscape items of heritage.

Only those pieces of fabric which are missing should be replaced and any remaining existing fabric should be kept. Inappropriate alterations should be removed, however in many cases, fabric which is not original is also important to the evolution of the building.

Any new building work should not pretend to be part of the original fabric, and should be clearly distinguishable from the original fabric. As such, any alterations and additions should be clearly later additions and should not mimic the original fabric.

Also, additional detailing should not be added if it is out of character with the architectural style and period of the original building.

This comes back to the general principle that only those things which were originally part of the item and are now missing should be reinstated. Only replace what was there before.

Steps to take

The following general guidelines are applicable to any proposed changes to any identified items of heritage. As an owner of land which includes a heritage item, it is important that certain steps are followed:

1. Contact the Council

The Council can advise you as to whether your property has been listed in *Pittwater Local Environmental Plan 2014* as an item of heritage or whether it has been identified within a Heritage Study which has been adopted by the Council.

If you are planning to carry out any works to the item, you should first see the Council and obtain a copy of the relevant inventory form. This will provide basic information on the item and a "Statement of Significance".

Council planners are available to discuss your preliminary ideas and you are encouraged to do this at an early stage.

Other documents are also available from the Council which may be of assistance, such as heritage paint charts, directory of conservation specialists and tradesmen etc.

2. Obtain Expert Advice

Depending on the level of heritage significance of your item and the degree of works proposed, you may need to contact a practitioner who specialises in heritage conservation issues.

The Council will in most cases require the submission of a Conservation Plan with your development application. For the preparation of this report you will need to engage a specialist heritage practitioner.

There are also a number of reference books available which you may wish to consult. A list of references is contained in Section 13 - Bibliography of this Appendix, however these primarily relate to the identification and care of houses.

3. Undertake your own Research

The references will also enable you to learn more about your item and why it is significant.

If it is a house, they will enable you to identify the period and architectural style of your building and to research the relevant characteristics. Another useful source of information is the local history collection at Mona Vale Library.

It is necessary to understand the specific cultural significance of the heritage item and the existing condition of the item.

You can also find out information about the history of your building or item by talking to previous owners or neighbours, searching photo archives to find any original photos or plans etc.

In the case of a building, a lot of information can be gleaned by a close examination of the fabric itself. This can reveal what portions may have been added to or altered and paint scrapings can reveal original colour schemes.

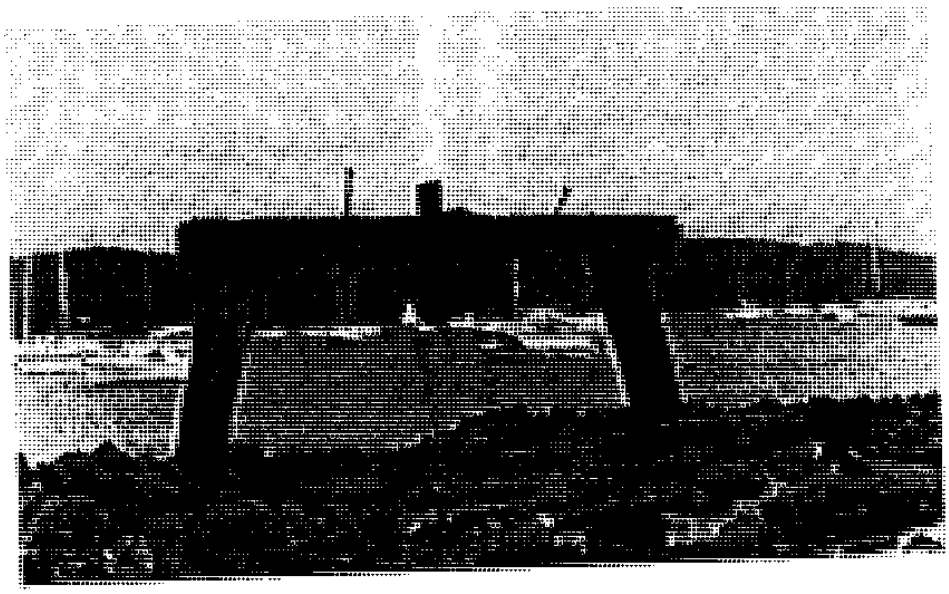
It is also recommended that a photographic record be undertaken prior to any alterations being made to the item. These can then form a personal record, or more appropriately can be given to the Council for inclusion into their local history photographic collection.

4. Prepare the Development Application

With a sound understanding of the history and significance of your item, and with expert advice, you will then be in a position to lodge a completed development application with the Council, for your proposal.

The specific requirements for a heritage development application are outlined in detail in Section 12 of this Appendix. These will vary depending on the type of heritage item.

The following Sections of this Appendix deal with the various types of heritage items and provide guidance as to what things should be taken into account in planning any change.



Avalon Wharf
(Source: Y Emery, Local Studies Collection)

A. Built Items

Design principles

With alterations and additions to buildings of heritage significance, the important consideration is often the broad design principles inherent in the building.

Each architectural style displays underlying design principles. The recognition of these features enables any new work to be designed to respect these design principles and therefore be in harmony with the original building.

These same principles are also relevant for alterations and additions to create dual occupancy, and also to the construction of new buildings in the vicinity of heritage items, whether they be detached dual occupancies on the same land, or new development in the vicinity of heritage buildings.

There are a number of important elements which should be taken into account in designing new additions:

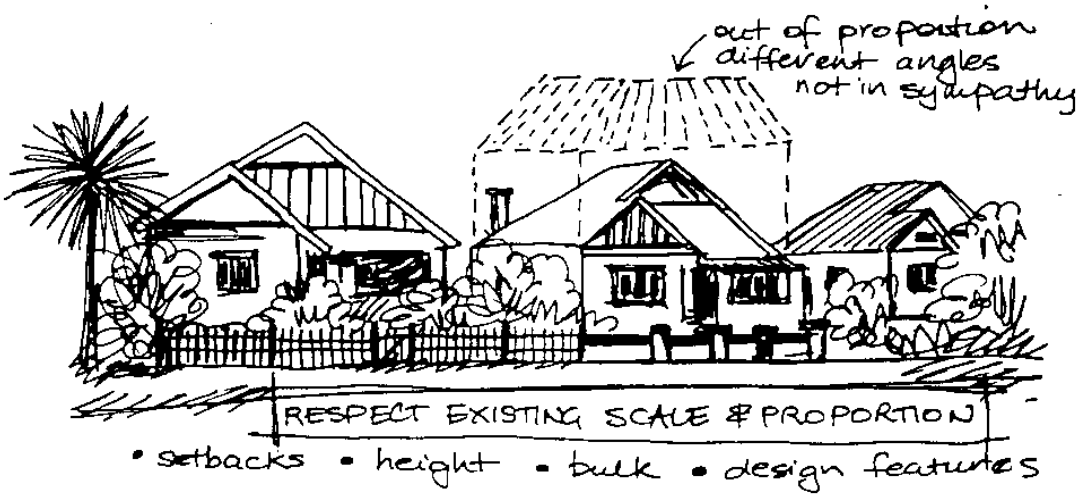
Scale & Proportion

Any heritage building will display a characteristic scale and proportion, in both its larger elements such as the roof and also in its smaller elements such as window and door openings, and even timber mouldings.

These individual elements give the building its proportions, while its scale relates to the size of the overall building.

Additions to heritage buildings should not dominate the item itself, and if possible should be located at the rear of the site, in such a way that the visual impact from the street is minimised.

Any new buildings in the vicinity should also take scale and massing into consideration, so that the new buildings do not dominate.



Architectural Detail

It is important to recognise the architectural elements and details in the building and draw upon this character.

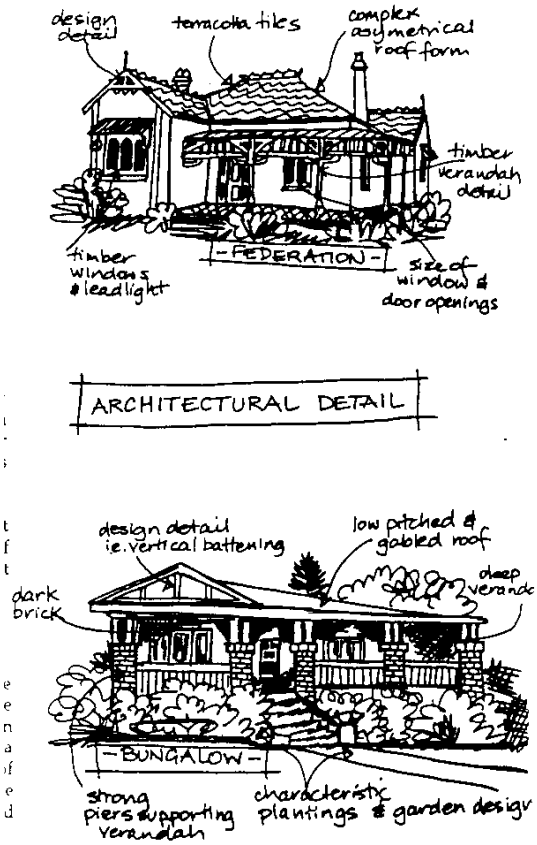
The location and proportions of openings in a wall of a building are important, especially the proportions of windows and doors.

Also important are verandahs, which are a specifically Australian characteristic, both in their form and detailing. As many of the houses in Pittwater were built as holiday houses, many incorporate verandahs. Where existing they should not be enclosed, as this alters their form and function.

One of the major architectural details is that of the roof, with the important thing to look at, being its pitch and form.

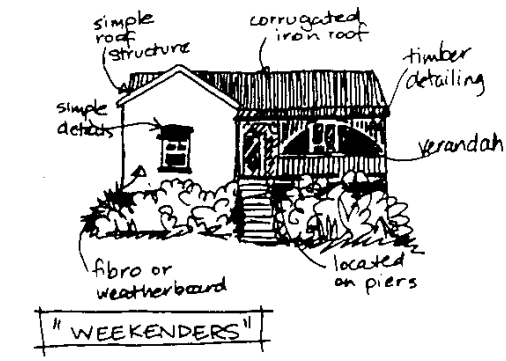
The pitch and form of a Californian Bungalow roof is significantly different from the pitch and form of a Federation roof. This major element of detail to a large extent determines the scale and proportion of the building itself.

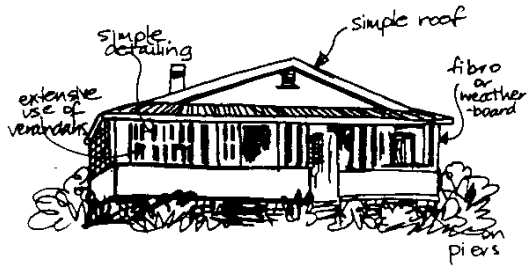
It is important to note that new work does not have to reproduce the architectural detail of the old, but importantly should not conflict with this original character.

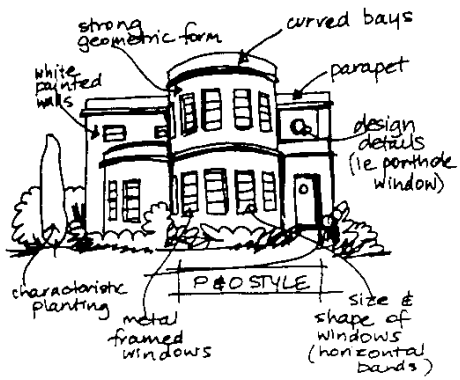


Shape

It is necessary to recognise whether the building has a particular shape, which may be typical of a particular architectural style. As an example, a 1920's bungalow would have a shape formed by a low pitched, gabled roof form, whereas a Federation house would have a shape characterised by a complex roof and plan form.







Symmetry/Asymmetry

Architectural styles also display characteristic elements of symmetry or asymmetry. For example, a Federation house is characterised by a front gable which is asymmetrically placed, even though it normally has windows symmetrically arranged.

Materials

It is important to recognise the characteristics of the building materials which were common in the particular architectural period or in the particular architectural style.

While exact replication of materials is not recommended for additions and alterations, it is important that the nature, texture and colour of the materials are sympathetic with the nature of the original fabric.

Additionally in the replacement of materials as part of the original building, attention to detail must be given and where possible traditional building materials and crafts used.

The nature of the materials used in the walls and roof of the building are of particular importance, as these are the most dominant features of the building.

Also important are the colours used as an out of keeping colour scheme may greatly detract from the aesthetic significance of the particular heritage building.

Where possible, traditional materials and methods should be used in the restoration of buildings, with sympathetic modern alternatives being acceptable in certain circumstances.

Landscape Setting

Fences, gates, walls and landscaping have a big impact on the streetscape and therefore alteration of these elements may have a detrimental effect upon the setting of a heritage building.

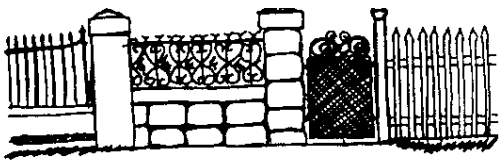
New landscaping should relate to character and height of surrounding planting. Planting can be used as a screen to soften the lines of new development.

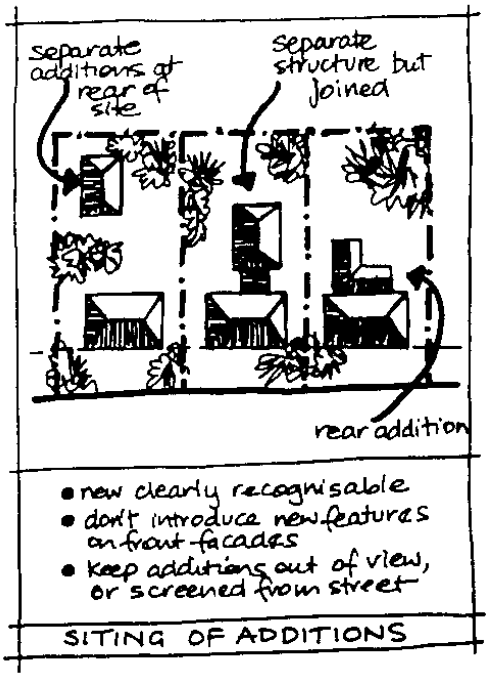
Original walls and fences should be retained and restored wherever possible. If new walls or fences are proposed, then they should be compatible with the style and characteristics of fencing from the particular architectural period.

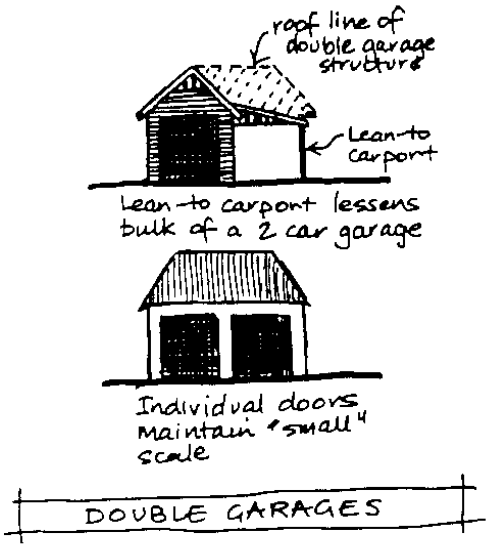
Modifying Facades

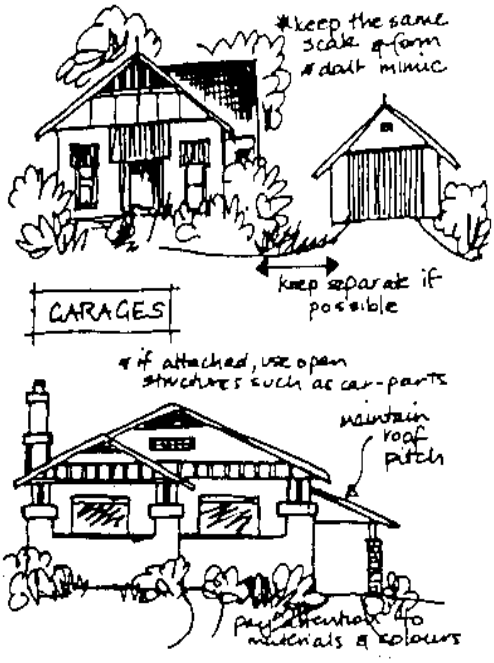
In general, modification of the facades of heritage buildings should be minimised. Each application would need to be considered on its merits, in view of the statement of significance for the item. However, the general rule in any proposed alterations to a built heritage item is that any change to original fabric should be minimised.

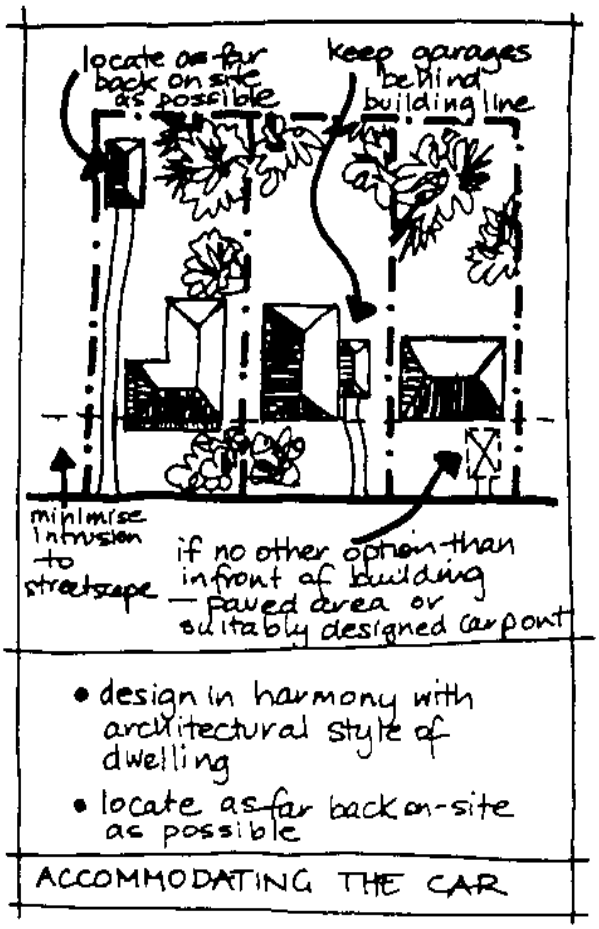
Changes should also be minimised to materials and the roof form, and decorative elements should not be added if they were never originally part of the building.











Site planning

As most of the built items in Pittwater are private homes, most proposed changes to these items are alterations and additions, including dual occupancy. In these cases site planning is important. The following principles should be followed:

New work

Generally, new work should be located so that it is not highly visible from the street. This can be done by ensuring that extensions are carried out at the rear of properties. This also ensures maximum retention of original fabric.

If possible any new work should be designed as distinctly separate from the main building. If this is not possible, then the new work should be clearly recognisable as new and should not replicate the original building.

It is preferable that new features not be introduced on the front facades of important buildings.

Accommodating the car

This is a common dilemma with older houses, as many were built at a time when accommodating the car was not a consideration in the design and construction of dwelling houses.

If possible, it is preferable that any new garage or carport be located as far back on the site as possible. If this is not possible an open paved parking area or a suitably designed carport structure may be acceptable.

Garages should not be proposed at the front of sites as they can obscure views of the main building and disrupt the streetscape setbacks.

Where double garages are proposed, they should be designed to minimise their bulk and scale. Individual doors maintain a "small scale" and lean-to carports lessen the bulk of a structure accommodating two cars.

Summary

Main Principles for Alterations and Additions

- **Be consistent with the original.** When blending old with new, observe the massing, scale, proportion, character and details of the existing fabric.
- **Use similar scale and bulk** to original building to ensure that new structure does not dominate and overwhelm. Preferably any new building should be smaller in size than the original.
- **Site new additions carefully**. They should be located at the side or rear, so as to avoid changes to the street facade and therefore minimise the impact of change.
- **Respect design of existing building form.** Roof type, pitch and material; proportion of windows and doors; the ratio of solids to voids are all important in ensuring a compatible design.
- **Keep original fabric intact and distinct** with new work clearly distinguishable. It is desirable to distinguish new building work from the old original work.
- **Use experienced practitioners** where possible, who have heritage conservation experience or are aware of the issues involved.
- **Talk to Council** early in the design exercise. Council planners can assist and provide guidance in relation to your proposed works.

Main Principles for Infill or Adjacent Development

- **Respect the architectural character** of the heritage item/s or the important character of the conservation area.
- **Design in a similar scale and proportion**, so as to be sympathetic to the heritage item or character of the area and to ensure that new buildings do not dominate or overwhelm the item/s of importance.
- **Don't replicate or mimic design features** of the heritage item/s. New development should be clearly distinguishable from older development.
- **Use experienced practitioners** where possible, who have heritage conservation experience or are aware of the issues involved.
- **Talk to Council** early in the design exercise. Council planners can assist and provide guidance in relation to the design of new buildings.

B. Landscape Items

The landscape items of heritage within Pittwater include such things as street trees, trees within oceanfront reserves, retaining walls, pathways as well as individual trees on private properties.

Heritage Studies, in the identification of landscape items, primarily concentrate on those landscape items located on public land. Therefore, in most cases the heritage landscape items are located on land owned or under the care, control and management of the Council.

In these cases Council, in the preparation of any Plans of Management for such land, should recognise any identified heritage items and incorporate heritage aspects into the Plan.

The heritage items should be identified, their significance explained and their characteristics described. Additionally, such a Plan should address issues such as future maintenance and replacement strategies, to ensure continuity of heritage landscape significance.

With regards those trees of heritage significance identified on private property, they are under less threat of destruction than built items of heritage because Pittwater's Tree Preservation Order protects all trees and bushland within the Pittwater area.

This Order requires the approval of Council for the removal or substantial pruning of any trees or shrubs higher than 3 metres.

In the case of an application for proposed works to a landscape item, whether it be a tree or some other structure, the same general principles of assessment apply.

Any proposed works must take into account the identified significance of the item and address the effect of the proposed works on this significance.

Street Trees – Allen Avenue (Source: Musecape 2012)

In the consideration of any development application Council will consider the effect of the proposal on the cultural, historical and natural characteristics of the landscape item. This will include, for example, whether a tree is a rare or endangered species or has botanical or Aboriginal significance.

When proposing any development in the vicinity of heritage items or heritage areas, consideration must also be given to the landscape qualities which exist and whether alteration of the landscape has an effect on the significance of the built item or heritage area.

This consideration is particularly important in the Pittwater context as vegetation is a dominant element of the built environment. To preserve this characteristic, while still accommodating development, it is important to ensure that endemic and culturally significant canopy trees are retained in the landscape.

C. Archaeological Items

Little archaeological evidence has survived in the Pittwater area due to such things as:

- Constructions which only last a very short time and sparse distribution
- Natural disaster and other processes
- Subdivision, urbanisation & redevelopment

Despite this, there are a number of important European archaeological items which have been identified within the Pittwater area.

Archaeological evidence of 19th century occupation existed in the early 20th century, however, this was extensively, if not completely removed by later development and the effects of fire, erosion, landslip and other natural factors.

The majority of archaeological evidence therefore dates from the 20th century and is mainly in the form of standing structures such as buildings, jetties, pools, roads and houses.

As the historical archaeological evidence of the Pittwater area is severely limited, it is important to conserve, where possible, those few remaining sites, particularly those from the 19th century.

Given the rarity of these archaeological items within the Pittwater area, any alterations, additions or demolition is discouraged for **all** archaeological items.

Vulnerable sites, e.g. underground deposits, should be fenced off to protect them from damage.

On-going monitoring of this evidence is important and also an awareness of archaeological issues so that if further evidence is discovered, then they can be recorded and preserved.

If you are the owner of land which contains archaeological evidence, then you are encouraged to thoroughly record the site and/or item by means of black and white photography, measurement and drawings, as may be necessary.

D. Heritage Conservation Areas

In some instances, individual built or landscape items are not listed, but rather a Heritage Conservation Area is identified and listed.

In the Pittwater area there are currently four identified Heritage Conservation Areas, these being:

- Barrenjoey Conservation Area
- Sunrise Hill Conservation Area
- Florida Road Conservation Area
- Ocean Road Conservation Area
- Ruskin Rowe Conservation Area
- Currawong Conservation Area

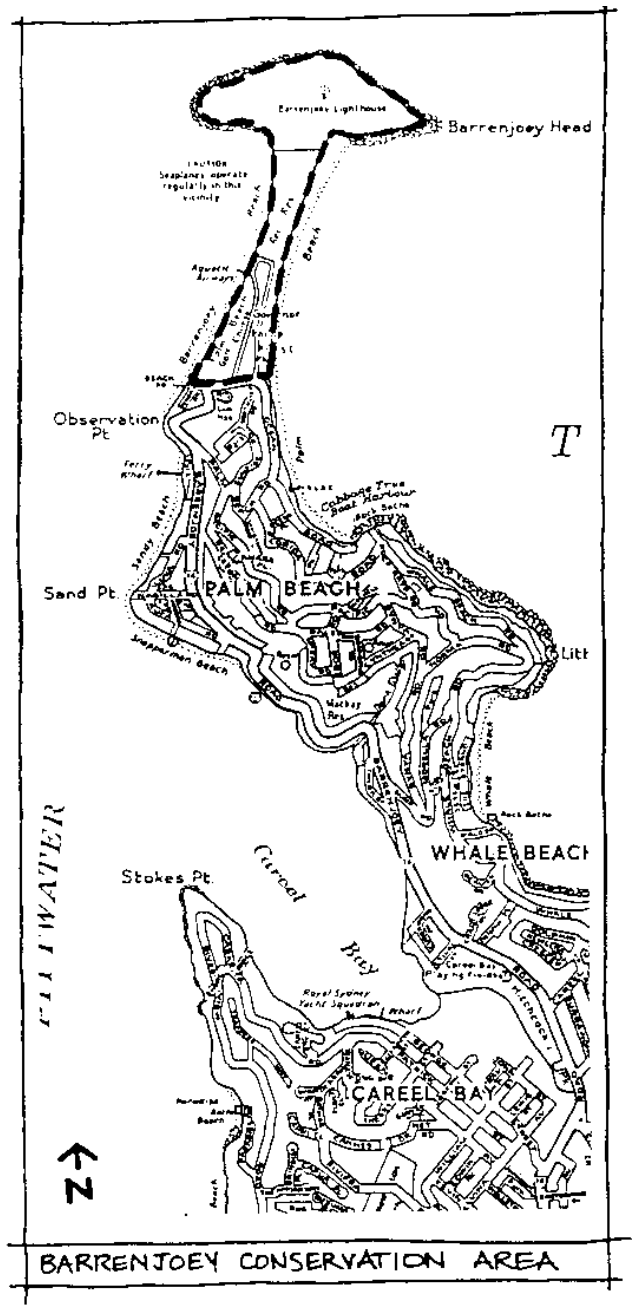
Each conservation area is important for different reasons and therefore any changes which are proposed must take into account the nature of the heritage significance of the particular area (embodied in its statement of significance).

Barrenjoey Conservation Area

This is a natural conservation area, consisting of the Barrenjoey Headland and the sand isthmus which links the headland to the Palm Beach mainland. This area is also listed on the register of the National Estate.

As well as its visual and landscape qualities, the area has strong associational significance with early settlement of Sydney, transportation and the river trade, being the site of the first Custom's House in the Colony.

The land is in public ownership, however all efforts should be made to ensure that the archaeological and historic evidence is not damaged or destroyed. Careful consideration should be given to the effects of recreation use on this area.



Sunrise Hill, Florida Road and Ocean Road Conservation Areas

These areas have been listed because of the common architectural quality of the houses contained within them.

Sunrise Hill at Palm Beach was one of the earliest areas developed in the area, and was specifically developed as holiday houses or "weekenders". A number of the small cottages dating from 1914 are still in existence with differing degrees of intactness.

The Florida Road Conservation Area also comprises a group of houses representing the early phase of Palm Beach development, specifically including houses designed by the firm Peddle Thorp Architects.

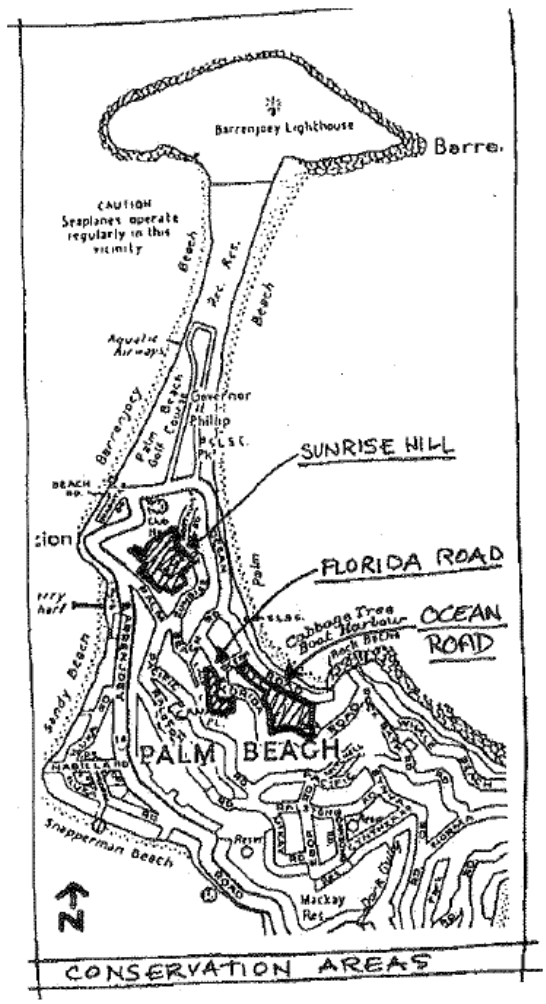
These were more substantial beach houses constructed immediately after World War I. These bungalow buildings have also been identified by the National Trust of Australia, who has classified a number of the bungalows as the Florida Road Group.

The Ocean Road Conservation Area is historically significant as it illustrates early holiday homes. It is also culturally significant as the area was owned by the first group of purchasers seeking leisure and recreation by the beach.

In the case of all three conservation areas, the importance lives in their collective architectural and aesthetic significance. Any proposals for alterations, additions or new building work within these areas should take into account the identified significance.

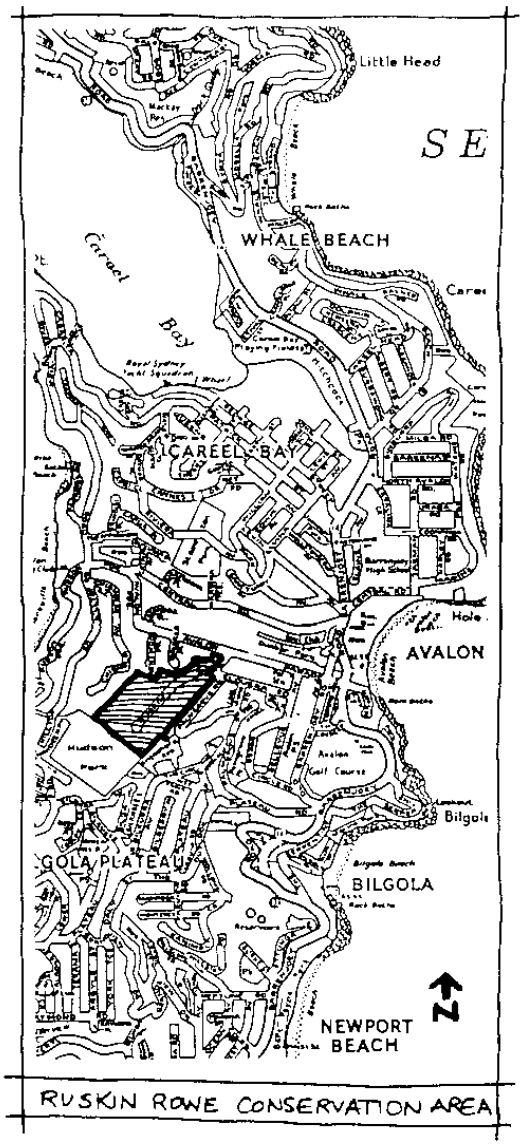
The guidelines for individual built heritage items, as contained within Section 4 of this Appendix are also applicable in these heritage conservation areas. As with individual items, successful "infill" development in these conservation areas is not based on imitation, but rather a sympathetic interpretation of the characteristics of the area (streetscape) and the design elements of the important buildings.

The aim of development within heritage conservation areas is to ensure preservation of the special qualities that give a place its character.



The main design elements which should be taken into account are:

* character
* scale
* massing
* materials and detailing
* setback and orientation



Ruskin Rowe Conservation Area

This area has been listed as a Conservation Area, its significance inherent in the subdivision design and pattern which exists.

The area was subdivided in 1950 by Harry Ruskin Rowe, a prominent Sydney architect of the early 20th century. His vision was to create a special subdivision, with very large size lots to enable the vegetation to dominate over the houses.

To ensure that his original intent was realised, he placed a number of restrictive covenants on the 43 lots, to ensure that no more than one residential dwelling could be built on each lot. The area is relatively intact, with only five additional lots being created over 44 years.

In proposing any development within this conservation area, one of the prime considerations is to maintain the existing subdivision pattern of large allotments. Council has prohibited further subdivision and dual occupancy development within this area to specifically ensure that this happens.

The other important consideration is to ensure that the vegetation continues to dominate over the buildings. In doing so, the wildlife corridor will be maintained and as will the "special" feeling of being within a rural setting while in the midst of suburban Sydney.

Any proposed structures or alterations and additions to existing houses should be designed to blend into the environment, with the use of dark, non-reflective colours and should minimise disturbance to the existing vegetation.

Currawong Conservation Area

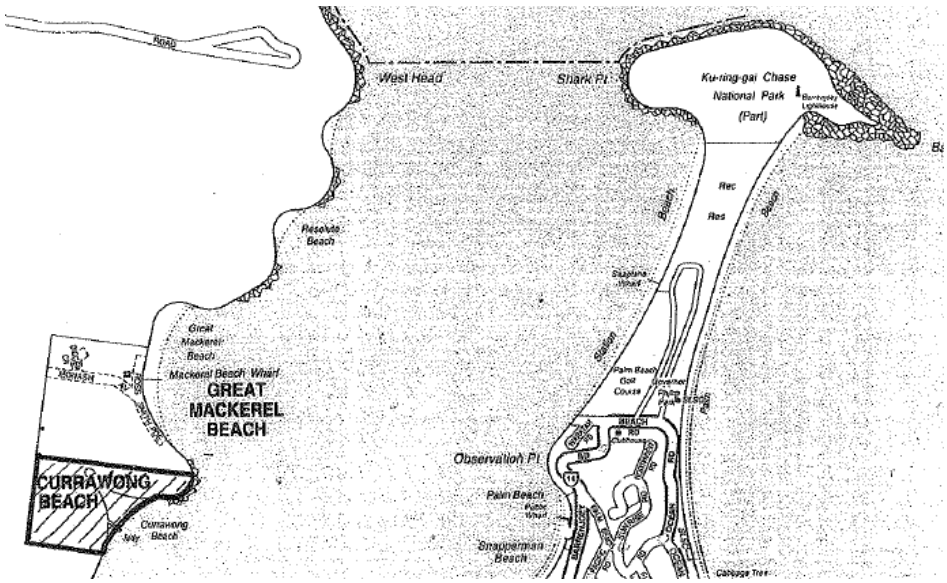
Currawong is of both State and local heritage significance. It is of local heritage significance for its historical values as a colonial farm turned workers' holiday 'paradise'.

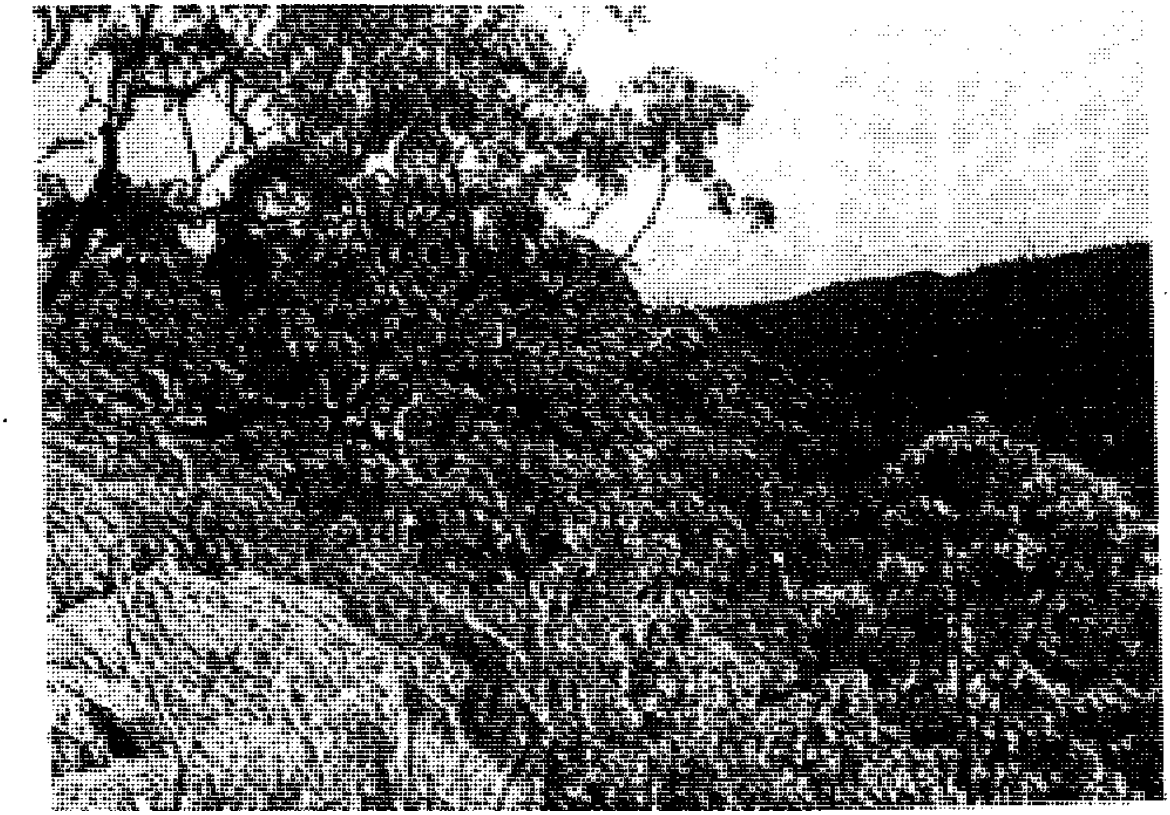
One of the early land grants in the Pittwater area, the Currawong property is rare in the area for retaining nearly half of the original 100 acre (40 hectare) grant of 1836, with much of the original grant boundary still legible in the landscape.

The historic cottage of Midholme is likely to be of local aesthetic significance as a now rare example of a farmhouse in the Pittwater region, and an early example of the use of fibro in construction there.

Currawong has research potential given that it has been continuously occupied in several distinct phases, first by Aboriginal people, then by early settlers and farmers, and most recently by leisure-seekers.

A study of the site's importance to the Aboriginal community has not been undertaken but it is likely that there may be sites within the Currawong property that are of importance to indigenous culture. There is also likely to be archaeological evidence from the farming phase of occupation.





Ridge Track and Rock Outcrop - Western Foreshores

Heritage does not only include evidence of European settlement and development but also remnants of Aboriginal settlement and culture. The Pittwater area is particularly rich in Aboriginal culture, which needs to be recognised and conserved.

Aboriginal relics and artefacts are protected under the provisions of the *National Parks and Wildlife Act 1974*, which sets out regulations for the protection and preservation of all Aboriginal relics and places throughout NSW.

An Aboriginal archaeology study has been carried out for the Ingleside/Warriewood land release however future investigations need to be undertaken, particularly with regard to the identification of areas within built-up areas of Pittwater which have potential for Aboriginal relics and sites.

In the interim, it is important that the general community are aware of the nature of Aboriginal relics and sites, so that they can identify such sites, if they happen to come across one on their land.

There are a number of main types of Aboriginal relics and sites, with some types of sites being more likely in certain areas of the State. The major types are:

¥ Occupation sites:

(a) deposits in rock shelters or overhangings - Aboriginal people used rock shelters and overhangs to make campsites, as they were sheltered from the rain. They are often therefore well preserved, however the evidence is not greatly visible to the casual observer.

(b) middens or deposits consisting mainly of shells - these sites are composed mainly of shells and are therefore found near sea coasts, beside estuaries and on the banks of inland lakes and rivers. They are built up as a result of many meals of shellfish and can be distinguished from natural shell deposits as they contain predominantly mature specimens of a limited range of edible species. Middens can also contain bones, animal teeth, stone flakes and tools and charcoal and ash. They vary in size, depending on their exposure to erosion by wind and water.

(c) open campsites are found throughout the State, often along rivers and creeks. Surface scatters of stone, charcoal or bone fragments can indicate a campsite. they may also consist of slightly raised hearths, composed of burnt clay and rocks and sometimes contain charcoal at the centre.

- Canoe, shield, container and carved trees
- Quarries and axe-grinding grooves
- Paintings
- Rock Engravings
- Burials

The nature of these sites determine their location and this then gives a clue to owners and prospective developers as to what they should look out for when carrying out works.

Scarred trees are unlikely to be found, given the degree of clearing which has occurred this century. Middens and shell deposits could be common given the proximity to both the sea and to the inland waters of Pittwater and the number of valley floors throughout the Pittwater area. Rock engravings and rock shelters are also probable, given the landforms prevalent in the area.

Disturbance of a site does not necessarily mean that it has lost all of its significance. It may be of symbolic significance to the Aboriginal population. If an Aboriginal site or relic is discovered, it should be reported as soon as possible to the National Parks and Wildlife Service and all work stopped. An archaeologist from the Service will then inspect the site and make an assessment as to the significance of the site or relic - in consultation with the Metropolitan Local Aboriginal Land Council.

Von Bieren's Powderworks, Ingleside 1880s
(Source: Local Studies, Mona Vale)

What types of work need approval?

The heritage provisions within the LEP require that a development application be lodged for any proposed works to an identified item. These works include any of the following:

- full or partial demolition
- alterations
- extensions/additions
- new structures
- change of use
- subdivision
- removal of significant vegetation
- disturbance to relics and historic landscapes

Any development application must address the proposal in relation to the stated significance of the item.

Similar requirements apply to proposed works to be carried out within an identified heritage conservation area.

Special conservation incentives provisions also apply, which enable the Council to consent to the use of a heritage item, for a use not permitted in the zoning.

This clause can only be used by the Council if the conservation of the building is dependant upon the proposed use being approved and as long as the proposal will have little or no adverse effect on the amenity of the area.

Application requirements

In the preparation of a development application it is important that the information is clear and supported by drawings and photographs.

A **Statement of Heritage Impact** is required with any development application that clearly outlines the impact of the proposed works on the heritage significance of the item.

In some cases, the Council will require the submission of a **Conservation Management Plan** in place of the Statement of Heritage Impact.

A Conservation Management Plan is a more detailed assessment which is required to be prepared by a heritage practitioner. It looks in detail at the significance of the item and the impact of the proposed works on this significance. Such a plan is required by Council if the works proposed are extensive and complex or if the item is of major significance.

Issues for consideration

In assessing a development application under the heritage provisions, Council will consider the following issues:

(a) the heritage significance of the building, work or place to the Pittwater area;

(b) the extent to which the carrying out of development would affect the identified heritage significance of the building, work or place;

(c) whether the application relates to an item located within a conservation area and the extent to which the carrying out of development would affect the heritage significance of the area;

(d) whether any stylistic, horticultural or archaeological features of the building, work or place should be retained;

(e) whether the building or work constitutes a danger to the users or occupiers of that item or to the public;

(f) the colour, texture, style, size and type of finish of any materials to be used on the exterior of the building and the effect which the use of those materials will have on the appearance of the exterior of the building and of any other building in its vicinity;

(g) the style, proportion and position of openings for any windows and doors which will result from, or be affected by, the carrying out of the development, and

(h) the pitch and form of the roof, if any.

Elanora Estate 1930's
(Source: E Barnett Local History Resource Unit, Warriewood)

The principles and guidelines contained within this Appendix are intended to act as guide, particularly for those people who are interested in undertaking works to an identified item of heritage or within an identified heritage conservation area.

All people in this position are strongly urged to contact the planners at Council in the early planning stages, to discuss their particular individual circumstances. Every heritage application must be dealt with on its merits, and while this Appendix provides general guidelines, a discussion with Council's planners can be valuable.

The NSW Office of Environment and Heritage is a good source of information. For further information see www.environment.nsw.gov.au/heritage.

The Local Studies section of Mona Vale Library also has information on local history including old photographs, documents, reference books and copies of studies. See http://www.pittwater.nsw.gov.au/library for additional information and the catalogue.

For those who wish to carry out some individual research on heritage conservation guidelines, the following list of publications can provide useful information and guidance.

Some of these are available in Council's library, while other can be obtained from the National Trust, the Department of Planning or purchased from major bookstores. The Stanton Library at North Sydney specialises in Architecture and Mona Vale Library may be able to organise an inter-library loan for those books not in their stock.

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PITTWATER COUNCIL

Appendix 5

Geotechnical Risk Management Policy for Pittwater - 2009

Adopted: 15 December 2014
In Force From: 20 December 2014

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GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER - 2009

1.0 Introduction

The Geotechnical Risk Management Policy (the Policy) establishes the Risk Management approach for property affected by geotechnical hazards within the Pittwater Local Government Area (LGA).

2.0 The Policy Statement

Development must be undertaken in accordance with the "Acceptable Risk Management" criteria defined in this document for Loss of Property and Loss of Human Life for a design project life, taken to be 100 years, unless otherwise justified by the applicant and accepted by Council. These criteria are based on the guidelines established initially in AGS 2000 and as further developed in AGS 2007.

The primary method of Geotechnical Risk Management in the Pittwater LGA is through the application of geotechnical conditions as set out in the Geotechnical Report supporting a Development Application and through the review generated by the issue of Building Certificates, for all development on land identified as Geotechnical Hazard Zone H1 and H2 and, where excavation and/or filling is to take place (subject to specific criteria) for development on all land in the Pittwater LGA.

Once geotechnical risk management measures have been identified for a site, it is the owners' responsibility to ensure their sites are maintained in accordance with AGS 2007 standards and the principal that every reasonable and practical step that is available should be used to remove risk.

3.0 Objectives

3.1 Policy Objectives

The objectives of this Policy are to ensure that:

(a) geotechnical and related structural matters are adequately investigated and documented by applicants or proponents of activities prior to the lodgment of any development application to carry out any development subject to this Policy, or wherever an application is lodged for a Building Certificate,

(b) the proposed development activity is appropriate and relevant conditions that should be applied if it is to be carried out, are identified, having regard to the results of the geotechnical and related structural investigations,

(c) in the event that a proposed development activity is only appropriate if carried out subject to geotechnical and related structural engineering conditions, those geotechnical conditions are identified by applicants prior to lodgment of the development application are able to be met, including all appropriate constraints and remedial maintenance actions required prior to, during and after the carrying out of the development,

(d) effective geotechnical conditions are specified in the Geotechnical Reports and are incorporated into the architectural and structural engineering design plans at the Construction Certificate stage,

(e) the preparation of geotechnical and related structural engineering information and certificates required to be lodged by this Policy are carried out by suitably qualified professionals with appropriate expertise in the applicable areas of engineering, and

(f) developments are only carried out if geotechnical and related structural engineering risks, and where appropriate coastal process risks, are identified and can be effectively addressed and managed for the life of the development.

(g) the development is constructed in accordance with the recommendations of the Geotechnical Engineer/Engineering Geologist and verified by the Geotechnical Engineer/Engineering Geologist.

(h) ongoing requirements to maintain the integrity of the geotechnical solution as contained in consent are effectively carried out to the specified requirements for the life of the development.

3.2 Application of this Policy

This Policy is to be applied as follows:

(a) to address both structural and geotechnical requirements relating to geotechnical issues only. Separate structural requirements will also apply for the erection of any structure in accordance with the *Building Code of Australia* (BCA), engineering standards and best engineering practice.

(b) to each of the following criteria:

(i) for development on land identified on Pittwater 21 Development Control Plan Map P21DCP-BC-MDCP087 as being areas subject to the Geotechnical Risk Management Policy.

(ii) for development on land identified on Pittwater 21 Development Control Plan Map P21DCP-BC-MDCP017and subject to the Geotechnical Risk Management Policy.

(iii) For development by Utility Companies and Public Authorities including Pittwater Council

- The Policy is to apply to all works by Council or any Authority on public land where identified on the Pittwater 21 Development Control Plan Map (P21DCP – BC-MDCP087) and subject to Part 4 of the *Environmental Planning and Assessment Act 1979* requiring the lodgement of a Development Application.

(iv) for Excavation and Landfill activities for all development on land in the Pittwater LGA that includes:

- excavations greater than 1 metre deep, the edge of which is closer to the site boundary or a structure to be retained on the site, than the overall depth of the excavation and/or
- any excavation greater than 1.5 metres deep below the existing surface and/or
- any excavation that has the potential to destabilize a tree capable of collapsing in a way that any part of the tree could fall onto adjoining structures (proposed or existing) or adjoining property and/or
- any fill greater than 1.0 metre high and/or
- any works that may be affected by geotechnical processes or which may affect geotechnical processes including but not limited to construction on sites with low bearing capacity soils.

4.0 Definitions

Any terms which are defined in the *Environmental Planning & Assessment Act 1979* or the *Environmental Planning & Assessment Act Regulations 2000* there under have the same meaning when used in this Policy.

In this Policy, the following terms have the meanings set out below:

Acceptable Risk Management – The complete process of risk assessment and control of risk to the level defined as "acceptable" in this Policy.

Acceptable Risk – Acceptable Risk includes the risk to life and the risk to property, both must be considered. The guidance for the establishment of acceptable risk criteria in this Policy has been based on the contents of AGS 2007(c & d). Acceptable Risk for Loss of Life for the person(s) most at risk, per annum is taken as having a probability of 10^{-6} per annum. Acceptable Risk for Loss of Property is taken as "Low" as defined in AGS 2007.

Risk levels for both loss of life and property should be determined in accordance with the methodologies presented in AGS 2007(c). Risk of loss of life should be determined quantitatively. Risk of loss of property can be determined quantitatively or in accordance with the qualitative terminologies and matrices presented in AGS 2007(c).

AGS – Australian Geomechanics Society.

Application - means any development application which relates to land in the Pittwater LGA

BCA - means the Building Code of Australia.

Building Certificate Geotechnical Risk Assessment – means a Geotechnical Report associated with the lodgment of a Building Certificate Application. The report must conform to the requirements of AGS 2007 for identification and treatment of risk to the "Acceptable Risk Management" criteria stated in this policy and the requirement to remove risk wherever reasonable and practical.

AGS 2000 – Australian Geomechanics Society 2000, "Landslide Risk Management Concepts

and Guidelines", AGS Sub-Committee on Landslide Risk Management, Australian Geomechanics Journal Vol 35 No. 1 March 2000 also reprinted in Australian Geomechanics Journal Vol 37 No. 2, May 2002.

AGS 2007 (a, b, c, d, e) – Australian Geomechanics Society 2007, "Landslide Risk Assessment and Management", Australian Geomechanics Journal Vol 42, No 1, March 2007. AGS 2007 may be viewed on www.australiangeomechanics.org (got to *"Download the Land Risk Management documents*" and view documents under *Landslide Management (2007)*

Building - includes any structure or part of a structure.

Building Certificate – A Certificate under Section 149a of the EPA Act that, if issued by Council, confirms that:

(a) the building or part thereof is in accordance with a consent or approval, or
(b) no action will be taken by Council in relation to a building or part thereof that was not originally approved.

The issuance of the certificate may be contingent on the carrying out of works.

Coastal Engineer - means a specialist coastal engineer who is a registered professional engineer with chartered professional status as a CP Eng with coastal engineering as a core competency and, has an appropriate level of professional indemnity insurance.

Covenant – An agreement between the Council and a landowner for the landowner to do, or to refrain from doing, certain acts in relation to the land. A restrictive covenant prevents a proprietor from carrying out specified actions. A positive covenant binds a proprietor to do or complete specified action(s).

CPEng — Chartered Professional Engineer (Institution of Engineers, Australia)

CPGeo Chartered Professional Geologist (Australasian Institute of Mining & Metallurgy)

RPGeo — Registered Professional Geoscientist (Australian Institute of Geoscientists)

Civil Engineer or Structural Engineer - means a civil or structural engineer who, is a registered professional engineer with chartered professional status (CP Eng) and, has an appropriate level of professional indemnity insurance.

Development - has the same meaning as set out in Part 4 of the *Environmental Planning & Assessment Act 1979* or any replacement or substitution of that provision and includes not only that specific development but also the overall site on which the development is located.

Engineering Geologist - means a specialist Engineering Geologist who is a registered professional engineering geologist with chartered professional status being either CPEng or CPGeo or RPGeo with Landslide Risk Management as a Core Competency, and has an appropriate level of professional indemnity insurance.

EP & A Act 1979 - means *Environmental Planning & Assessment Act 1979* (NSW).

Final Geotechnical Certificate - means a certificate of a Geotechnical Engineer or Engineering Geologist in accordance with Form 3.

Geotechnical Engineer - means a specialist Geotechnical Engineer who is a registered professional engineer with chartered professional status being either CPEng or CPGeo or RPGeo with Landslide Risk Management as a Core Competency, and has an appropriate level of professional indemnity insurance.

Geotechnical Hazard - means a condition with the potential for causing the movement of rock, debris or earth, which may cause injury or death to persons or damage to, or destruction of property

Geotechnical Maps - means the maps identifying sites subject to Pittwater Council's Geotechnical Risk Management Policy for Pittwater Local Government Area. (See 3.2(b)).

Geotechnical Report - means a report prepared by and/or technically verified by a Geotechnical Engineer or Engineering Geologist as defined by this policy, which incorporates each of the elements, where applicable to the type of development, described in the "Preparation of the Geotechnical Reports" section of this policy.

Geotechnical Works - means the elements of site modification designed by the geotechnical engineer.

Life of the Structure – This provides the context within which the geotechnical risk assessment should be made. The required 100 year baseline broadly reflects the expectations of the community for the anticipated life of a residential structure and hence the timeframe to be considered when undertaking the geotechnical risk assessment and making recommendations as to the appropriateness of a development, its design and any remedial measures that should be put in place to control risk. It is recognized that in a 100-year period external factors that cannot reasonably be foreseen may affect the geotechnical risks associated with a site. Hence, the Policy does not seek the Geotechnical Engineers to warrant the development for a 100-year period, rather to provide a professional opinion that foreseeable geotechnical risks to which the development may be subjected in that timeframe have been reasonably considered.

Minor Development and/or Minor Alteration – Development/alterations with a value of less than $20,000 or as determined by Council from time to time every five years. That is, there can only be one minor development/alterations in any five-year period to a property for consideration under this category.

Occupation Certificate – means an interim or final Certificate under Section 109c of the EPA Act that if issued by Council or an accredited certifier, authorizes occupation and use of a building or part thereof.

Orders Process – Orders issued under Protection of the Environment Operations Act, 1997; Local Government Act, 1993; Environmental Planning & Assessment Act, 1979; Roads Act, 1993; and Noxious Weeds Act, 1993.

Policy - means this Geotechnical Policy.

Related Land - means land including roads and thoroughfares that could affect or could be affected by any development proposed on a site.

Remove Risk – It is recognized that, due to the many complex factors that can affect a site, the subjective nature of the science of geotechnical engineering, the risk for a site and/or development cannot be completely removed. It is, however, essential that risk be reduced to at least that which could be reasonably anticipated by the community in everyday life. Further, landowners should be made aware of the reasonable and practical measures available to them to reduce risk as far as possible. Hence where the Policy requires that "reasonable and practical measures have been identified to remove risk" it refers to the process of risk reduction. The Policy is not requiring the Geotechnical Engineer to warrant that risk has been completely removed, as this is not meaningfully achievable.

Requirements - include all acts, statutes, regulations, by-laws, ordinances, codes, delegated legislation, all approvals granted under any such instrument, the BCA, any applicable Australian Standard.

Risk - means a measure of the probability and severity of an adverse effect to health, property or the environment.

Site - means the whole of any parcel of land to which the carrying out of any development relates.

Site Classification - means a classification of the site in accordance with AS 2870.1 Australian Standard Residential Slabs and Footings.

Structure – Any building including, but not limited to residences, residential, industrial and commercial buildings, out buildings, pools and retaining walls.

Structural Design - means the selection and proportioning of load carrying elements incorporated in a structure, which require certification by a structural engineer.

Structural Document - means a document (which may be in the form of drawings) from a Structural Engineer or Civil Engineer which makes recommendations in respect of the Structural Design and Structural Works required for any structure to be erected on the site which, under this Policy, requires certification in accordance with Form 2.

Structural Works - means the elements of any structure designed by a structural engineer.

Tolerable Risk Management – The complete process of risk assessment and control of risk to the level defined as "tolerable" in this Policy.

Tolerable Risk – 10^{-5} for the person(s) most at risk, per annum and "Moderate" for property, as defined in AGS 2007 (c & d). The Tolerable Risk criteria is only applicable to sites with structures that have been in existence in their present form for at least 10 years and have demonstrated a performance at a Tolerable Risk level, or better, during that period and there is not a foreseeable reason why this situation should change. Tolerable risk can only be considered as a criterion for the purpose of Building Certificates and under the Orders process.

Verifier - means a Geotechnical Engineer or Engineering Geologist or Coastal Engineer as defined by this policy who verifies a geotechnical report or aspects of a geotechnical report.

5.0 Geotechnical Report

5.1 Development Application or Application for a Building Certificate

A Geotechnical Report is required to be lodged with a Development Application or an Application for a "Building Certificate" as follows:

a) For all development activities on land described in Paragraph 3.2(b) Clauses (i) and (ii) – private land.

b) For all development activities on land described in Paragraph 3.2(b) Clause (iii) – Works by Utility Companies and Public Authorities.

5.2 Construction Certificate Stage

A Geotechnical Report is required to be lodged with a Construction Certificate as follows:

a) For all Excavation and Landfill activities for all development as described in Paragraph 3.2(b) Clause (iv).

6.0 Preparation of the Geotechnical Report

6.1 Level of Geotechnical Investigation

It is the responsibility of the Geotechnical Engineer/Engineering Geologist to determine the level of investigation required for a particular site/proposal.

Note: *To assist the Geotechnical Engineer/Engineering Geologist in determining the level of investigation, reference may be made to:*

Geotechnical Hazard Mapping of Pittwater LGA-2007 prepared by GHD-Geotechnics (this is a large A3 document and is available for loan through Council's Library, or available on CD through Council (at a fee specified in Council's Fees and Charges Schedule).

6.2 Minor Development, Minor alternations and/or Development separate from a Geotechnical Hazard

For minor development, minor alteration and/or Development separate from and is not affected by a Geotechnical Hazard, the Geotechnical Engineer/Engineering Geologist may determine that a detailed Geotechnical Report is not required. This must be justified as a clear professional opinion with the supporting basis on which the opinion was formed and must be certified on Form 1.

At all times any decision regarding the degree of investigations and assessment required must be dictated by consideration of risk to Life and to Property and the recognition by the Geotechnical Engineer/Engineering Geologist that the Council will rely on the Geotechnical Report/Opinion as the basis for ensuring that the geotechnical risk management aspects of the site/proposal have been adequately addressed.

6.3 Structures separate from the Primary Development

For structures separated from the primary development, eg swimming pool, retaining wall, the Geotechnical Engineer/Engineering Geologist may determine the level of investigation required

for a particular site/proposal and in particular where the primary development is pre-existing. This must be justified as a clear professional opinion with the supporting basis on which the opinion was formed and must be certified on Form 1. At all times any decision regarding the degree of investigations and assessment required must be dictated by consideration of risk to Life and to Property and the recognition by the Geotechnical Engineer that the Council will rely on the Geotechnical Report/Opinion as the basis for ensuring that the geotechnical risk management aspects of the site/proposal have been adequately addressed.

6.4 Property Located in Geotechnical Hazard Zone H3

A Geotechnical Report is not required for a Development Application or Building Certificate for sites located in Geotechnical Hazard Zone H3, other than as required to satisfy Section 5.2(a) – Construction Certificate stage.

6.5 Geotechnical Report to Support Development Application
(Information to be submitted with Development Application)

For a Development Application where a Geotechnical Report is required, a detailed Geotechnical Report to be submitted with a Development Application, is to include the following elements:

(a) An assessment of the risk posed by all identifiable Geotechnical Hazards that have the potential to either individually or cumulatively affect people or property upon the site or related land to the proposed development in accordance with the guidelines set out in AGS 2007(c) and in particular, in the format as outlined in Figure 1 "Framework for Landslide Risk Management" contained therein. Risk of loss of life should be determined quantitatively. Risk of loss of property can be determined quantitatively or in accordance with the qualitative terminologies and matrices presented in AGS 2007(c).

(b) Plans and sections of the site and related land to a minimum scale of 1:200 from survey and field measurements with contours and spot levels to AHD. Key features are to be identified, including the locations of the proposed development, buildings/structures on both the subject site and adjoining site, storm water drainage, sub-surface drainage, water supply and sewerage pipelines. Where possible, the survey plan should be augmented by geomorphological mapping.

(c) Details of all site inspections and site investigations and any other information used in preparation of the Geotechnical Report. A site inspection is required in all cases. Site investigation may require sub-surface investigation; appropriate investigation may involve boreholes and/or test pit excavations or other methods necessary to adequately assess the geotechnical/geological model for the site.

(d) Photographs and/or drawings of the site and related land adequately illustrating all geotechnical features referred to in the Geotechnical Report, as well as the locations of the proposed development.

(e) Presentation of a geological model of the site and related land showing the proposed development, including an assessment of sub-surface conditions, taking into account thickness of the topsoil, colluvium and residual soil layers, depth to underlying bedrock, and the location and depth of groundwater. Hydrogeological conditions including seepage inflows and/or dewatering impacts should also be modeled and assessed where applicable.

For Coastal bluff areas, the model must also include an assessment of the mechanism of bluff failure and assessment of the potential and scale of bluff failure that may affect the site.

(f) A conclusion as to whether the site is suitable for the development proposed to be carried out. **This must be in the form of a specific statement that "The site is suitable (or can be made suitable) for the development proposed and that the site and/or the development proposal can achieve the Acceptable Risk Management required by this Policy provided that ……".**

(g) Specify all geotechnical conditions to be referred to by the Development Consent. Geotechnical conditions to achieve the management of the Geotechnical Hazard Risk for the subject site throughout the four stages of development management as follows:

(i) Geotechnical Conditions to be provided to establish the design parameters – these conditions are to be provided in the Geotechnical Report -

- Footing levels and supporting rock quality (where applicable)
- Degree of earth and rock cut and fill (where applicable)
- Recommendations for excavation and batters (where applicable)
- Parameters, bearing capacities and recommendations for use in the design of all structural works with geotechnical components including all footings, retaining walls, surface and sub-surface drainage.
- Recommendations for the selection of building structure systems consistent with the geotechnical risk assessment
- Any other conditions required to ensure the proposal can achieve the "Acceptable Risk Management" level as defined in this Policy.
- Any other condition required to remove geotechnical risks that can reasonably and practically be addressed.

(ii) Geotechnical Conditions applying to the detailed design to be undertaken for the Construction Certificate – these conditions are to be provided in the Geotechnical Report.

- That any structural design relating to the geotechnical aspects of the proposal is to be checked and certified by a suitably qualified and experienced Structural/Civil Engineer and Geotechnical Engineer/Engineering Geologist as being in accordance with the geotechnical recommendations.
- Any other design, excavation or construction conditions the geotechnical engineer preparing the Geotechnical Report believes are required in the design phase in order to ensure the design will achieve the "Acceptable Risk Management" level as defined in this Policy for potential loss of both property and life.

(iii) Geotechnical Conditions applying to the Construction – these conditions are to be provided in the Geotechnical Report:

- Constructed works relating to the geotechnical aspects of the proposal that require the sign off by a suitably qualified and experienced Geotechnical Engineer/Engineering Geologist. The report must highlight and detail the

inspection regime to provide the builder with adequate notification for all necessary inspections.

- Any other design, excavation or construction conditions including works methodology and temporary works that the geotechnical engineer preparing the report believes are required in the construction phase in order to ensure the design will achieve the "Acceptable Risk Management" level as defined in this Policy for the potential loss of both property and life.

(iv) Geotechnical Conditions regarding ongoing management of the site/structure – these conditions are to be provided in the Geotechnical Report.

- Any conditions that may be required for the ongoing mitigation and maintenance of the site and the proposal, from a geotechnical viewpoint. Such conditions to be in the form of a recommendation for inclusion as a covenant (or similar) on the land title to ensure that any owner or future owners are clearly notified of their ongoing responsibility.

(v) Geotechnical Conditions applying to the release of the Occupation/Subdivision Certificate – these conditions are to be provided in the Geotechnical Report.

- Any conditions that may be required for the Occupation/Subdivision stage, from a geotechnical viewpoint

(h) For bushfire prone lands, as designated in the Pittwater LGA Bushfire Prone Land Map, the Geotechnical Report is to assess the potential geotechnical impacts of any Asset Protection Zones required and mitigate landslide risk due to Bushfire management.

(i) For coastal bluff areas designated on Pittwater's Coastal Risk Planning Map, a coastal engineer's report on the impact of coastal processes on the site and the coastal forces prevailing on the bluff must be incorporated into the geotechnical assessment as an appendix and the Coastal Engineer's assessment must be addressed through the Geotechnical Report and structural specification.

(j) A statement with supporting information to the effect that every reasonable and practical step available has been identified to remove any foreseeable geotechnical risk from the site over and above attainment of the "Acceptable Risk Management" criterion.

(k) A copy of Forms 1 and 1(a) bearing the original signature of the Geotechnical Engineer and/or Engineering Geologist as defined by this Policy, who has either prepared or technically verified the Geotechnical Report. Where a Coastal Engineer has been involved as required by this Policy, separate Forms 1 and 1(a) must be submitted by that Engineer.

6.6 **Geotechnical** Report **to Support a Building Certificate**

Where a Geotechnical Report is to be submitted in support of a Building Certificate Application it is the responsibility of the Geotechnical Engineer/Engineering Geologist to determine, from consideration of the site, the structures and the risk to life and property, whether a detailed assessment is required. Where, in the opinion of the Geotechnical Engineer, the site/structures have been in existence for at least 10 years and have demonstrated a performance at a tolerable risk level, or better, during that period, and there is not a foreseeable reason why this

situation should change the Geotechnical Report to be submitted with the application for a Building Certificate should at least address the following elements:

(a) An assessment of the risk posed by the identifiable Geotechnical Hazards that have the potential to either individually or cumulatively affect people or property upon the site or related land to the existing development in accordance with the guidelines set out in AGS 2007 (c) and the criteria in this Policy for Tolerable Risk".

(b) For coastal bluff areas designated on Pittwater's Coastal Risk Planning Map, a coastal engineer's report on the impact of coastal processes on the site and the coastal forces prevailing on the bluff must be incorporated into the geotechnical assessment as an appendix and the Coastal Engineer's assessment must be addressed through the Geotechnical Report and structural specification.

(c) Details of all site inspections and site investigations and any other information used in preparation of the Geotechnical Report. A site inspection is required in all cases. Site investigation may require sub-surface investigations; appropriate investigations may involve bore holes and/or test pit excavation or other methods necessary to adequately assess the geotechnical/geological model for the site. It is the responsibility of the Geotechnical Engineer/Engineering Geologist to determine the level of investigation required to adequately address the issues of risk to life and property.

(d) Photographs and/or drawings of the site and related land adequately illustrating all geotechnical features referred to in the Geotechnical Report, as well as the existing structure.

(e) A conclusion as to whether the site and the existing development achieves the Tolerable Risk Management criteria "and if not, what specific actions are required to achieve this criteria to enable a Building Certificate to be issued.

(f) Any further reasonable and practical action that should be undertaken to remove risk.

(g) Any covenant that would be necessary to ensure the ongoing mitigation and maintenance of the site from a geotechnical viewpoint.

(h) A copy of Form 4 bearing the signature of the Geotechnical Engineer/Engineering Geologist as defined by this Policy who has either prepared or technically verified the Geotechnical Report. Where a Coastal Engineer has been involved, as required by this Policy a separate Form 4 must be submitted by that Coastal Engineer.

6.7 Geotechnical Report to Support a Construction Certificate

Where a Geotechnical Report is to be submitted in support of a Construction certificate for all Excavation and Landfill activities on all land within the Pittwater LGA, it is the responsibility of the Geotechnical Engineer/Engineering Geologist and/or the Structural Engineer to determine a detailed assessment is required. The Geotechnical Report may be a full assessment as set out in Section 6.5 or a Statement to the effect that the Structural Engineer has fully considered the Geotechnical issues into the design of the temporary and/or permanent structure to manage risk and safety to workers and/or occupants of the development.

The Geotechnical Engineer/Engineering Geologist may elect to address the Excavation and Landfill issues in the Geotechnical Report at the Development Application phase for properties located in Geotechnical Hazard Zone H1 and/or H2.

7.0 Circumstances in which Pittwater Council would not support a Development Application or an application for a Building Certificate

Council may not support a Development Application or application for a Building Certificate as follows:

(a) Where, under clause 5.1, a Development Application is required to be accompanied by a Geotechnical Report, then this report must be prepared and/or verified by a Geotechnical Engineer or Engineering Geologist and a Coastal Engineer (where applicable) as defined by this policy, through the submission of Forms 1 and 1(a). Where a Geotechnical Report accompanying a Development Application has been prepared by an engineer(s) with qualifications that do not meet the requirements of this policy then Pittwater Council shall refuse to support the development application, until the Geotechnical Report has been verified by a Geotechnical Engineer or Engineering Geologist and, where applicable, Coastal Engineer, as defined by this policy.

(b) Where under Clause 5.1, a Building Certificate Application is required to be accompanied by a Geotechnical Report, then this report must be prepared and/or verified by a Geotechnical Engineer or Engineering Geologist and a Coastal Engineer (where applicable) as defined by this policy, through the submission of Form 4. Where a Geotechnical Report accompanying a Building Certificate Application has been prepared by an engineer(s) with qualifications that do not meet the requirements of this policy then Pittwater Council shall refuse to support the development application, until the Geotechnical Report has been verified by a Geotechnical Engineer or Engineering Geologist and, where applicable, Coastal Engineer, as defined by this policy.

(c) Where a Geotechnical Report or independent review of a Geotechnical Report accompanying an application, identifies the risk to property and/or life posed by the geotechnical hazard as greater than the level of “Acceptable Risk Management” in the case of a Development Application or “Tolerable Risk Management” in the case of a Building Certificate as defined in this Policy after all feasible measures to reduce the risk have been considered and/or;

(d) Where the Geotechnical Report does not follow the methodology of AGS 2007.

8.0 General Requirements

The following general requirements are also applicable:

(a) Pittwater Council may, if appropriate, impose conditions on a development consent requiring the lodgment of interim Geotechnical Certificates related to the stages of the construction of any development the subject of the consent. The form of any such interim certificate must be consistent with Forms 3, amended as required to reflect its status as an interim certificate only.

It is the responsibility of the Geotechnical Engineer/Engineering Geologist preparing the Geotechnical Report in support of the Development Application submission to ensure the necessary Geotechnical Conditions requiring interim inspections are included in the Geotechnical Report.

(b) All conditions relating to the geotechnical aspects of the proposal for the design and construction phase are to be incorporated in the report as per Clause 6.4(g). Council will rely on those conditions as being the complete set required to ensure the proposed outcome achieves an "Acceptable Risk Management" level as defined in this Policy.

(c) Any development application for a development subject to this Policy must incorporate any conditions the Geotechnical Engineer or Engineering Geologist believes are necessary to incorporate into a covenant on title to ensure that the land owner both at the time of application and into the future is aware of their responsibilities for any necessary on-going works or monitoring to ensure the site and the development remain within the "Acceptable Risk Management" level.

9.0 Other Analysis Requirements

Other analysis Requirements are as follows:

(a) Where a Geotechnical Report contains a recommendation for a separate analysis of the site to be carried out by another consultant, for example a flood study to be compiled by a hydrological consultant, this recommendation is to be highlighted to the applicant in the submission of the Geotechnical Report. This would enable the applicant to engage the required consultant and obtain the necessary report prior to the lodgment of the Development Application.

(b) This policy requires that the civil/structural engineer, who prepares the structural documentation, is a civil or structural engineer as defined by this Policy. This Policy also requires that the engineer, in preparing the structural documentation, has viewed and where necessary used the recommendations given in the Geotechnical Report for the same development. These requirements need to be verified by accompanying the submission of the structural documentation with a completed copy of Form 2.

(c) This Policy requires that where the site is in a coastal bluff area, as defined by Council's Coastal Risk Planning Map, the Geotechnical Engineer must engage a Coastal Engineer to provide an assessment of the impact of coastal process and identification of the coastal forces that impact on the site. This report should form an appendix to the Geotechnical Report and the geotechnical analysis must include an interpretation of the influence of coastal processes and forces on the site and the development.

(d) Pittwater Council retains the right to have a Geotechnical report submitted with a Development Application peer reviewed by an independent Geotechnical Engineer or Engineering Geologist or Coastal Engineer (where applicable) at the applicant's cost.

10.0 Forms

10.1 Form 1 and Form 1(a) - Declaration and Certification made by Geotechnical Engineer or Engineering Geologist and Coastal Engineer (where applicable) in relation to the DA Geotechnical Report.

When is Form 1 and Form 1(a) to be submitted?

Form 1 and Form 1(a) are to be submitted with a Geotechnical Report accompanying a development application. Attach Form 1 to the inside cover of the Geotechnical Report.

Why is Form 1 and Form 1(a) necessary?

These forms are essential to verify that the author of a Geotechnical Report is a Geotechnical Engineer or Engineering Geologist as defined by this policy. Where a coastal bluff area is included, then it is verified that the author of the coastal component is a Coastal Engineer. Alternatively, where a Geotechnical Report has been prepared by a professional person not recognised by this Geotechnical Policy, then Form 1 and Form 1(a) may be used as technical verification of the Geotechnical report if signed by a Geotechnical Engineer or Engineering Geologist as defined by this Policy.

10.2 Form 2— Declarations and Certification made by Part A - Structural Engineer or Civil Engineer and Part B - Geotechnical Engineer or Engineering Geologist in relation to the design plans and structural plans.

The purpose of this form is to ensure the Geotechnical Engineer verifies that the structural and/or civil engineer has correctly interpreted and incorporated the geotechnical requirements into their design and that the structural and/or civil engineer has prepared their documents in accordance with the geotechnical requirements.

When is Form 2 submitted?

This form must be attached to the submission of the structural documentation required for the determination of a Construction Certificate. The applicant must issue a copy of the structural documents and Form 2 to the Geotechnical Engineer who prepared or technically verified the Geotechnical Report for the Development Application now requiring a Construction Certificate.

This form is also required when a Geotechnical Report is required at the Construction Certificate stage to address Excavation and Landfill activity.

Why is Form 2 necessary?

Form 2 is essential, as it provides evidence to Pittwater Council or other certifying authority determining the construction certificate, that structural documents have been prepared or verified by a structural/civil engineer as defined by this policy, and that the structural documents have been prepared in accordance with the recommendations given in the Geotechnical Report for the same development.

Form 2 is also essential to establish that the recommendations given in the Geotechnical Report have been interpreted and incorporated in the structural design as originally intended by the Geotechnical Engineer or engineering Geologist in preparing the Geotechnical Report.

10.3 Form 3—Post Construction Geotechnical Certificate – Declaration and Certification by Geotechnical Engineer or Engineering Geologist in relation to the Occupation Certificate or Subdivision Certificate

The purpose of this form is to ensure that the recommendations made in the Geotechnical Report have been complied with during construction. In most cases the Geotechnical Engineer or Engineering Geologist who prepared and/or verified the design will need to observe foundation materials, and excavation cut and fill retention systems, subsoil drainage etc prior to signing Form 3.

When is Form 3 submitted?

This form must be submitted at the completion of a project, prior to occupation of the premises and prior to the issue of an Occupancy Certificate.

Why is Form 3 necessary?

Form 3 is essential, as it provides certification that the building works have been carried out in accordance with the requirements of the Geotechnical Report, and any subsequent geotechnical requirements introduced during the construction process.

10.4 Form 4—Geotechnical Certificate (To accompany Application for Building Certificate or response to an Order issued by Council)

The purpose of this form is to ensure that the site and the structures on the site have been assessed by a Geotechnical Engineer/Engineering Geologist in accordance with Council's Policy and has been found to achieve at least a "Tolerable" Risk Management" status. Further that reasonable and practical measures to remove foreseeable geotechnical risk have been identified and suitable recommendations have been included in the report.

When is Form 4 submitted?

This form must be submitted with the geotechnical report accompanying a Building Certificate Application or a response to an Order. Should in the opinion of the Geotechnical Engineer/Engineering Geologist, the site and the development not be at a "Tolerable Risk Management" level from a geotechnical risk viewpoint then the remedial action required is to be identified in a report and indicated on Form 4 is before it is signed and lodged with Council. Where such remedial action requires works that would need Development Approval a Development application must be lodged. Form 4 would then be supported by Form 3 on completion of the necessary works.

Why is Form 4 necessary?

Form 4 is essential, as it provides certification that the site and the existing structures achieve the "Tolerable Risk Management" criteria detailed in this policy.

11.0 Community Awareness

11.1 Section 149 Certificates

Notification of properties known to be potentially affected by Geotechnical Hazards is to be undertaken by inclusion on the Section 149 Certificate. This provides advice to current owners as to the potential for geotechnical risk and the advice transfers to new owners with the sale of the property.

11.2 88B Instruments

Where there are specific management, maintenance or monitoring requirements to ensure the geotechnical risk is managed within the "Acceptable Risk Management" criterion, and/or reasonable practical steps can be taken to remove risk, then these are to be included as a covenant on the title of the property to ensure current and future owners are aware of their responsibilities.

Any recommendation for inclusion of a covenant on the title of the property must be contained in the Geotechnical Conditions attached to the Geotechnical Report

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1 – To be submitted with Development Application

Development Application for_____
Name of Applicant

Address of site _____

Declaration made by geotechnical engineer or engineering geologist or coastal engineer (where applicable) as part of a geotechnical report

I, _____ *on behalf of* _____
(Insert Name) (Trading or Company Name)

on this the _____ certify that I am a geotechnical engineer or engineering geologist or coastal engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009 and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2million.
I:

Please mark appropriate box

☐ have prepared the detailed Geotechnical Report referenced below in accordance with the Australia Geomechanics Society's Landslide Risk Management Guidelines (AGS 2007) and the Geotechnical Risk Management Policy for Pittwater - 2009

☐ am willing to technically verify that the detailed Geotechnical Report referenced below has been prepared in accordance with the Australian Geomechanics Society's Landslide Risk Management Guidelines (AGS 2007) and the Geotechnical Risk Management Policy for Pittwater - 2009

☐ have examined the site and the proposed development in detail and have carried out a risk assessment in accordance with Section 6.0 of the Geotechnical Risk Management Policy for Pittwater - 2009. I confirm that the results of the risk assessment for the proposed development are in compliance with the Geotechnical Risk Management Policy for Pittwater - 2009 and further detailed geotechnical reporting is not required for the subject site.

☐ have examined the site and the proposed development/alteration in detail and I am of the opinion that the Development Application only involves Minor Development/Alteration that does not require a Geotechnical Report or Risk Assessment and hence my Report is in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009 requirements.

☐ have examined the site and the proposed development/alteration is separate from and is not affected by a Geotechnical Hazard and does not require a Geotechnical Report or Risk Assessment and hence my Report is in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009 requirements.

☐ have provided the coastal process and coastal forces analysis for inclusion in the Geotechnical Report

Geotechnical Report Details:

Report Title:

Report Date:
:
Author:

Author's Company/Organisation:

Documentation which relate to or are relied upon in report preparation:

I am aware that the above Geotechnical Report, prepared for the abovementioned site is to be submitted in support of a Development Application for this site and will be relied on by Pittwater Council as the basis for ensuring that the Geotechnical Risk Management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature ……..……..

Name ……..

Chartered Professional Status…….

Membership No. ……

Company……

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1(a) - Checklist of Requirements For Geotechnical Risk Management Report for Development Application

Development Application for_____
Name of Applicant

Address of site _____

The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk Management Geotechnical Report. This checklist is to accompany the Geotechnical Report and its certification (Form No. 1).

Geotechnical Report Details:

Report Title:
Report Date:
Author:
Author's Company/Organisation:

Please mark appropriate box

☐ Comprehensive site mapping conducted _____
(date)

☐ Mapping details presented on contoured site plan with geomorphic mapping to a minimum scale of 1:200 (as appropriate)

☐ Subsurface investigation required
- ☐ No Justification ……...
- ☐ Yes Date conducted ……

☐ Geotechnical model developed and reported as an inferred subsurface type-section

☐ Geotechnical hazards identified
- ☐ Above the site
- ☐ On the site
- ☐ Below the site
- ☐ Beside the site

☐ Geotechnical hazards described and reported

☐ Risk assessment conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009
- ☐ Consequence analysis
- ☐ Frequency analysis

☐ Risk calculation

☐ Risk assessment for property conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009

☐ Risk assessment for loss of life conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009

☐ Assessed risks have been compared to "Acceptable Risk Management" criteria as defined in the Geotechnical Risk Management Policy for Pittwater - 2009

☐ Opinion has been provided that the design can achieve the "Acceptable Risk Management" criteria provided that the specified conditions are achieved.

☐ Design Life Adopted:
- ☐ 100 years
- ☐ Other ……
specify

☐ Geotechnical Conditions to be applied to all four phases as described in the Geotechnical Risk Management Policy for Pittwater - 2009 have been specified

☐ Additional action to remove risk where reasonable and practical have been identified and included in the report.

☐ Risk assessment within Bushfire Asset Protection Zone.

I am aware that Pittwater Council will rely on the Geotechnical Report, to which this checklist applies, as the basis for ensuring that the geotechnical risk management aspects of the proposal have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated, and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature ……...
Name ……..
Chartered Professional Status……
Membership No. ……..
Company……

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 2 – PART A – To be submitted with detailed design for Construction Certificate

Development Application for_____
Name of Applicant

Address of site _____

PART A: Declaration made by Structural or Civil Engineer in relation to the incorporation of the Geotechnical issues into the project design

I,_____ **on behalf of**_____
(insert name) (trading or company name)

on this the_____
(date)

certify that I am a Structural or Civil Engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009. I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2million. I also certify that I have prepared the below listed structural documents in accordance with the recommendations given in the Geotechnical Report for the above development and that

Please mark appropriate box

☐ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto.
☐ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy.

Geotechnical Report Details:

Report Title:
Report Date:
Author:
Author's Company/Organisation:

Structural Documents list:

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified.

Signature ……..……...

Name ……..

Chartered Professional Status…….

Membership No. ……

Company……

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 2 – PART B – To be submitted with detailed design for Construction Certificate

PART B Declaration made by Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer (where applicable) in relation to the incorporation of the Geotechnical issues into the project design

I, _____ on behalf of _____
(insert name) (trading or company name)

on this the _____
(date)

certify that I am a Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2099 and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2million. I also certify that I have reviewed the design plans and structural design plans for the Construction Certificate Stage and that I am satisfied that:

Please mark appropriate box

☐ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto.
☐ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy.

Geotechnical Report Details:

Report Title:
Report Date:
Author:

Documentation which relates to or is relied upon in report preparation:

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified.

Signature ……..……...

Name ……..

Chartered Professional Status…….

Membership No. ……

Company……

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 3 – Post Construction Geotechnical Certificate to be submitted with Occupation Certificate or Subdivision Certificate

Development Application for_____
Name of Applicant

Address of site _____

Declaration made by geotechnical engineer on completion of the Development

I, _____ on behalf of _____
(Insert Name) (Trading or Company Name)

on this the _____
certify that I am a Geotechnical Engineer, Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009. I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2million. I prepared and/or verified the Geotechnical Report as per Form 1 dated referred to below.

Geotechnical Report Details:

Report Title:
Report Date:
Author:
Author's Company/Organisation:

I reviewed the original structural design, and where applicable the subsequently amended structural details (below listed) which have been incorporated into the completed project.

I have inspected and/or am satisfied that the foundation materials, upon which the structural elements (as detailed in the original and amended structural documents) of the development have been erected, comply with the requirements specified in the Geotechnical Report and the Construction Certificate approved Structural Plans.

I have inspected the site during construction and to the best of my knowledge, I am satisfied that the development referred to in the development consent D.A. _____ dated _____
(D.A.No) (Date consent given)

has been constructed in accordance with the intent of the Geotechnical Report, the requirements of the conditions of Development Consent and the Construction Certificate approved Structural Plans relating to the geotechnical issues (including any treatment and/or maintenance plan that may be required to remove risk where reasonable and practical).

I am aware that Pittwater Council require this certificate prior to issuing an occupancy certificate for the development identified above and will rely on this certificate in regard to the development having achieved the "Acceptable Risk Management" criterion defined in the Policy and that reasonable and practical measures have been taken to remove foreseeable risk.

List of all work as executed drawings and Ongoing Maintenance plans relevant to geotechnical risk management.

Signature ……..……..

Name ……..

Chartered Professional Status…….

Membership No. ……

Company……

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 4 (As per Pittwater Council's Geotechnical Risk Management Policy) – To be submitted with Application for a Building Certificate/Response to an Order

Building Certificate Application/Response to an Order (delete that not applicable)for_____
Name of Applicant

Address of site _____

Order No. (if applicable)

Declaration made by geotechnical engineer in relation to the submission of an application for a Building Certificate/Response to an Order

I, _____ on behalf of _____
(Insert Name) *(Trading or Company Name)*

on this the _____
(Date)

certify that I am a geotechnical engineer as defined by the Geotechnical Risk Management Policy for Pittwater 2009. I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2million.

☐ I have inspected the site and the existing development and am satisfied that both the site and the development achieves at least the "Tolerable Risk Management" requirement of the Geotechnical Risk Management Policy for Pittwater - 2009. The attached report provides details of the assessment in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009. The report also contains recommendations as to any reasonable and practical measures that can be undertaken to remove foreseeable risk. I am aware that Pittwater Council will rely on this certification as the basis for ensuring that the geotechnical risk management aspects of the site and the development have been adequately addressed to achieve at least a "Tolerable Risk Management" level for the life of the structure taken as 100 years unless otherwise stated and justified in the Report.*

or

☐ I have inspected the site of the existing development. The attached report details the remedial actions required to be undertaken prior to me being prepared to certify that the site and the development achieves at least the "Tolerable Risk Management" criteria required in accordance with the Policy.

Geotechnical Report Details:

Report Title:
Report Date:
Author:

Signature ……..……..

Name ……..

Chartered Professional Status…….

Membership No. ……

Company……. ……

* Note: If life of structure taken as less than 100 years, please indicate ---------- years

PITTWATER COUNCIL

Appendix 6

Coastline Risk Management Policy For Development In Pittwater

TABLE OF CONTENTS

1.0 INTRODUCTION

The Coastline Risk Management Policy for Development in Pittwater (the Policy) establishes the risk management approach for development or activities on land affected by coastal processes within the Pittwater Local Government Area (LGA).

2.0 THE POLICY STATEMENT

Development must be undertaken in accordance with the acceptable risk management criteria defined in this document for a design project life, taken to be 100 years, unless otherwise justified by the applicant and acceptable to Council. These criteria have been developed to be consistent with the coastline management principles contained in the *NSW Coastline Management Manual*, 1990.

The primary method of Coastline Risk Management in the Pittwater LGA is through the application of development controls under Part 4 and environmental assessment under Part 5 of the *Environmental Planning & Assessment Act 1979*. A coastal risk management review may also be generated by an application for a Building Certificate for any development on lands that have been identified as being within a coastline hazard area.

Once the coastal risk management measures have been identified on the land, it is the owner's responsibility to ensure that these measures are properly maintained for the design project life of the development.

3.0 OBJECTIVES

The objectives of this Policy are to ensure that:

(a) coastal processes (affecting coastline development or likely to be affected by coastline development) are adequately investigated and documented by applicants or proponents of activities prior to the lodgement of any development application or Part 5 assessment to carry out any development/activity subject to this Policy, or wherever an application is lodged for a Building Certificate on land identified on the Coastal Risk Planning Map;

(b) to establish whether or not the proposed development or activity is appropriate to be carried out, and the conditions of development consent that should be applied if it is to be carried out, having regard to the results of coastal, geotechnical and structural investigations;

(c) In the event that a proposed development activity is only appropriate if carried out subject to coastal engineering and related structural engineering conditions, those conditions are able to be met and are identified by applicants prior to lodgement of the development application including all appropriate constraints and remedial maintenance actions required prior to, during and after the carrying out of the development;

(d) to ensure effective controls exist to guarantee that a development is carried out in accordance with the requirements of this Policy;

(e) to ensure that the preparation of coastal related information and certificates required to be lodged by this Policy are carried out by suitably qualified professionals with appropriate expertise in the applicable areas of engineering; and

(f) that developments are only carried out if coastal hazards and related structural engineering risks are identified and can be effectively addressed and managed for the life of the development at an acceptable level of risk.

4.0 RELATIONSHIP OF THIS POLICY TO OTHER DOCUMENTS

The provisions of this Policy are to be read in conjunction with:

- Pittwater 21 Development Control Plan
- State Environmental Planning Policy No.71 – Coastal Protection
- Coastal Management Strategy – Warringah Shire Council (1985)
- Coastline Management Manual – New South Wales Government (1990)

5.0 APPLICATION OF THIS POLICY

(a) This Policy addresses both structural and coastal engineering requirements relating to coastal hazard issues only. Separate structural requirements will also apply for the erection of any structure in accordance with the *Building Code of Australia* (BCA) and best engineering practice.

(b) This Policy applies to each of the following:
  (i) land identified on Council's Coastline Hazard Map 97-003 [MDCP016];
  (ii) utility companies and public authorities – all utility companies and public authorities or their agents when designing and undertaking works within the Pittwater LGA, that may be affected by coastal processes or which may impact upon coastal processes.

6.0 GLOSSARY

6.1 Definitions

Note: For expanded list of definitions, refer to Glossaries contained within the NSW Government Floodplain Management Manual – January 2001 edition and Coastline Management Manual – September 1990.

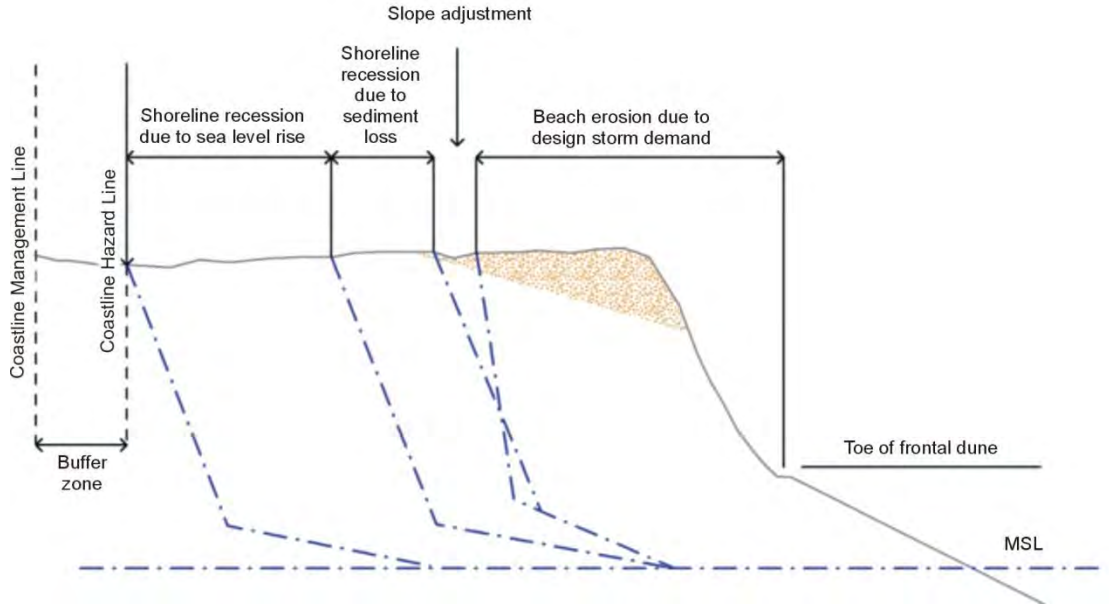
TERM	DEFINITION
Acceptable Risk	Acceptable Risk includes the risk to both life and property. Acceptable risk for the community is to be established by the Coastal Engineer on the basis that the development will be subjected to the worst case storm or combination of storm events and taking into account the impacts upon development as a result of shoreline recession, beach erosion due to storm demand, sea level rise and meteorological conditions associated with climate change during the planning period for the life of the development (taken to be 100 years unless specified otherwise and justified).
Average Recurrence Interval (ARI)	The long-term average number of years between the occurrence of a storm event as big as, or larger than, the design storm event. For the purposes of this Policy a 100 year ARI event has been adopted and 50 year and 100 year planning periods have been selected. In relation to risk during the life of a development, there is a 39% probability of experiencing a 100 year ARI storm event, or larger event, in a 50 year planning period and a 63% probability of occurrence in a 100 year planning period.

Australian Height Datum (AHD)	A common national surface level datum corresponding approximately to mean sea level.
Buffer Zone	Buffer for dune maintenance, emergency access and/or visual and recreational amenity.
CP Eng	Chartered Professional Engineer (Institution of Engineers, Australia)
Civil Engineer or Structural Engineer	A civil or structural engineer who is a registered professional engineer with chartered professional status (CP Eng) and has an appropriate level of professional indemnity insurance.
Coastal Engineer	A specialist engineer who is a registered professional engineer with chartered professional status (CP Eng) and with coastal engineering as a core competency and has an appropriate level of professional indemnity insurance.
Coastal Processes	The interaction of natural biophysical systems as well as human activities that occur within the coastal zone. Coastal processes include astronomical, meteorological, hydrological, geological and human activities influencing the coastal zone. (The processes either individually or in combination can produce a situation where natural and built assets are placed at risk due to beach erosion, shoreline recession, sand drift, coastal inundation, slope and cliff instability, stormwater erosion and climate change).
Coastline Affected Properties	Properties shown on the Coastal Risk Planning Map.
Coastline Hazard Line or Erosion Escarpment Line	The extent to which a beach may erode as a result of a design storm event, taking into consideration the following factors: • any shoreline recession due to sediment loss • shoreline recession due to sea level rise over the designated planning period • beach erosion due to design storm demand • slope adjustment [refer to diagram 1]
Coastline Hazards	Detrimental impacts of coastal processes on land use, land capability and amenity of the coastline. The NSW Government Coastline Management Manual identifies seven coastline hazards: • Beach erosion • Shoreline recession • Entrance instability • Sand drift • Coastal inundation • Slope and cliff instability • Stormwater erosion.

Coastline Management Line (CML)	Coastline Management Line is a setback line that equates to the Coastline Hazard Line plus the addition of a landward buffer zone, generally 10 metres wide unless specified otherwise and justified [refer to Diagram 1].
Coastline Planning Level (CPL)	Water levels selected for planning purposes as determined for the coastline based on the 100 year ARI elevated water level due to astronomical tide, storm surge (barometric setup and open coast wind setup), local wind setup, sea level rise, wave runup and wave setup, plus a freeboard, generally 500mm unless specified otherwise and justified.
Design Storm	For this Policy the 100 year ARI storm event, unless otherwise specified.
Erosion Escarpment Line or Coastline Hazard Line	The extent to which a beach may erode as a result of a design storm event, taking into consideration the following factors: • any shoreline recession due to sediment loss • shoreline recession due to sea level rise over the designated planning period • beach erosion due to design storm demand • slope adjustment [refer to diagram 1]
First Floor Additions	This is the next building level above the Ground Floor.
Flood Proofing – DRY	Protecting a building by sealing its exterior walls to prevent inundation.
Flood Proofing – WET	A combination of measures incorporated in the design, construction and alteration of individual buildings, structures and surrounds, to mitigate potential damages due to inundation.
Freeboard	The factor of safety usually expressed as a height above the design water level. Freeboard tends to compensate for some uncertainty in estimating the components that make up the design water level.
Minor Development and/or Alterations	This includes minor internal alterations and may include minor additions, with a value of less than $10,000 or as determined by Council from time to time. There can only be one minor development and/or alteration to a property in any five year period for consideration under this category.

Remove Risk	It is recognised that, due to the many complex factors that can affect a site, the risk for a site and/or development cannot be completely removed. It is, however, essential that risk be reduced to at least that which could be reasonably anticipated by the community in everyday life. Furthermore, landowners should be made aware of the reasonable and practical measures available to them to reduce risk as far as possible. Hence where the Policy requires that "reasonable and practical measures have been identified to remove risk" it refers to the process of risk reduction. The Policy is not requiring the Coastal Engineer to warrant that risk has been completely removed, as this is not meaningfully achievable.
Revetment or Seawall	Walls built parallel to the shoreline to limit shoreline recession.
Wave Run-up	The vertical distance above mean water level reached by the uprush of water from waves across a beach or up a structure.
Zone of Wave Impact	An area where any structure or its foundations would be subjected to wave attack during a severe storm [refer to Diagram 2].
Zone of Slope Adjustment	The area relating to the steep seaward face of a dune resulting from removal of sand by wave erosion, and its subsequent slump to a stable angle of repose [refer to Diagrams 1 and 2].
Zone of Reduced Foundation Capacity	Area immediately landward of the erosion escarpment where the bearing capacity to support structures is reduced [refer to Diagram 2].

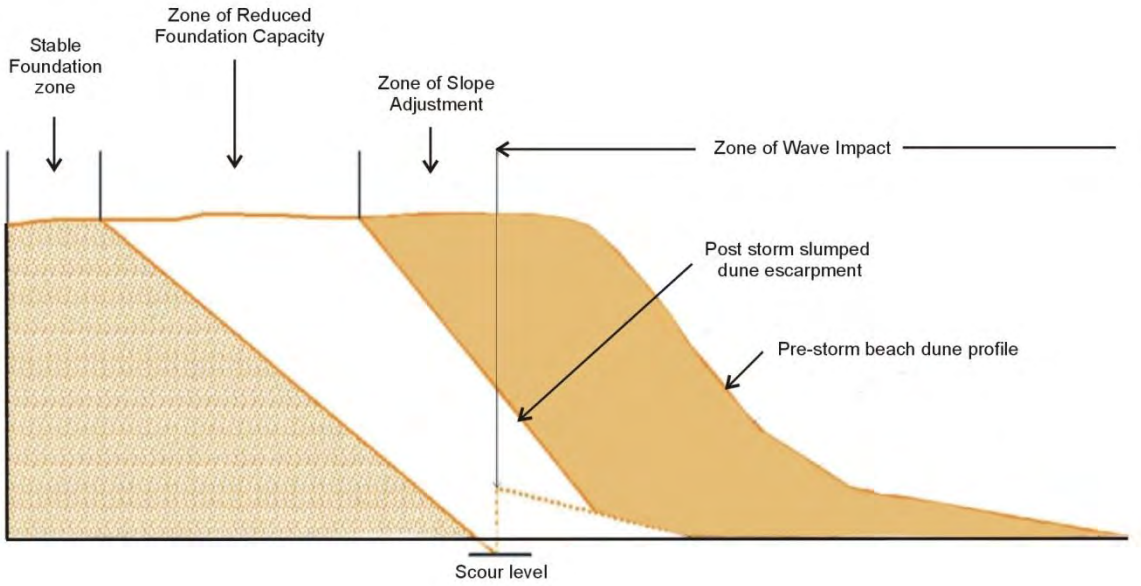
6.2 DIAGRAM 1 - Schematic of Determination of Coastline Management Line



The shoreline recession allowances due to sediment loss and due to sea level rise are a function of the number of years adopted for the planning period. For the "immediate" planning period, the allowances are zero.

after Patterson Britton & Partners *et al* ("Bate Bay Coastline Management Plan" 2003)

6.3 DIAGRAM 2 - Schematic of Stability Zones for Foundation Design



after Geomarine and Coffey ("Narrabeen-Collaroy Fishermans Beach, Criteria for the Siting and Design of Foundations for Residential Development" 1991)

7.0 COASTAL EROSION AND WAVE INUNDATION INFORMATION

Development along the coast in the Pittwater LGA has been threatened, damaged or destroyed by the action of storm waves in the mid 1950s, 1967, 1974 and 1978, with the 1974 storms causing widespread damage.

Following these major storm events, rock revetment structures (generally of dumped rock) were constructed as an emergency measure at many beaches. In most cases, these structures are now buried beneath revegetated foredunes.

Applicants will need to seek their own professional advice on the identification of coastline hazards affecting the property, the associated risk to the existing dwelling (where retained) and proposed development, and measures to reduce this risk to an acceptable level (including the adequacy of any existing rock revetments or other property protection works).

Measures to reduce risk include appropriate setbacks and buffer zones (i.e. definition of the Coastline Management Line), appropriate floor levels and freeboard allowances (i.e. definition of the Coastline Planning Level), and appropriate foundation design. These need to take account of current conditions and likely future conditions (e.g. increased risks due to sea level rise) for the life of the development (usually taken to be 100 years unless specified otherwise and justified).

8.0 DEVELOPMENT CONTROLS

8.1 Coastline (Beach) Hazard area - Residential Development up to 2 Dwellings (dwelling house, secondary dwelling and dual occupancy)

Outcomes
Protection of people. (S)
Protection of the natural environment. (En)
Protection of private and public infrastructure and assets. (S)

"S" refers to social objectives and "En" to environmental objectives as stated in Pittwater 21.

Land to which this control applies
Land identified on the Coastal Risk Planning Map.

Development to which this development control applies

- *Specified Residential Development*
  Dwelling house
  Secondary dwelling
  Dual occupancy (attached)
  Dual occupancy (detached)
  Rural workers dwelling
- *Unspecified Residential Development*
  Includes all other residential development not individually specified above

Controls

(i) General

(a) All structures below the Coastline Planning Level shall be constructed from flood compatible materials.

(b) All development must be designed and constructed so that it will have a low risk of damage and instability due to wave action and/or oceanic inundation hazards.

(c) All development and/or activities must be designed and constructed so that they will not adversely impact on surrounding properties, coastal processes or the amenity of public foreshore lands.

(d) All uncontaminated dune sand excavated during construction operations shall be returned to the active beach zone as approved and as directed by Council.

(e) Wherever present, remnant foredune systems shall be appropriately rehabilitated and maintained for the life of the development to stabilise an adequate supply of sand (as determined by a coastal engineer) that is available to buffer erosion processes and/or minimise the likelihood of oceanic inundation.

(f) All vegetated dunes, whether existing or created as part of coastal protection measures shall be managed and maintained so as to protect the dune system from damage both during construction of the development and as a result of subsequent use during the life of the development.

(g) All electrical equipment, wiring, fuel lines or any other service pipes and connections must be waterproofed to the Coastline Planning Level.

(h) The storage of toxic or potentially polluting goods, materials or other products, which may be hazardous or pollute waters during property inundation, will not be permitted below the Coastline Planning Level.

(i) For existing structures, a tolerance of up to minus 100mm may be applied to the Coastline Planning Level in respect of compliance with these controls.
(j) Building heights must not exceed 8.0 metres above the Coastline Planning Level or 8.5 metres above existing ground level, whichever is higher.
(k) Where land is also subject to the provisions of the Flood Risk Management Policy for Development around Pittwater, the higher of the Coastline Planning Level and Flood Planning Level shall apply.

(ii) Coastal Protection Works

Hazard mitigation and coastal protection works that modify the oceanic inundation and wave action behaviour within the development site, may be permitted subject to a Coastal Risk Management Report that demonstrates the following:

(a) The works do not have an adverse impact on any surrounding properties or coastal processes
(b) A Section 88B notation under the *Conveyancing Act 1919* is to be placed on the title describing the location and the types of mitigation works with a requirement for their retention and maintenance.
(c) Hazard mitigation works will result in the protection of the proposed development from coastal processes.
(d) Where coastal protection structures such as rock revetments or boulder seawalls already exist within the beach compartment, the position of such structures has been used to determine the location and alignment for any new terminal revetment or coastal protection works for the land on which development is proposed.
(e) In the case of an existing protection structure, a suitably qualified professional/s with appropriate expertise in the applicable areas of engineering has certified the structural integrity and competency of the works for their intended purpose and for the design storm event.

(iii) Coastline Management Line

New development and major additions to existing development must be sited on the landward side of the 100 year Coastline Management Line.

(iv) Floor Levels – New Development

All floor levels shall be at or above the Coastline Planning Level.

(v) Floor Levels - Additions

For an addition to an existing residential dwelling:

(a) The floor levels of the addition must be at or above the Coastline Planning Level.

(b) If the floor level of the existing dwelling is to be retained and is below the Coastline Planning Level, the existing dwelling must be satisfactorily flood proofed (either wet or dry) to the Coastline Planning Level.

(c) The addition must be designed and constructed such that it does not preclude the raising of the existing structure to the Coastline Planning Level at a future date or when further additions are proposed, e.g. through the provision of a construction joint.

(d) A second storey addition to the dwelling requires the floor level of the second storey to be at a height that allows for the internal ground floor of the existing dwelling to be either at or raised to the Coastline Planning Level whilst maintaining minimum floor to ceiling height requirements.

(vi) Floor Levels - Carparking Facilities

New enclosed garages: floor level shall be at or above the Coastline Planning Level.

Covered basement (i.e. below natural ground level) or covered bunded carparking facilities must have all access, ventilation and any other potential water entry points above the Coastline Planning Level and a clearly signposted inundation free pedestrian evacuation route from the basement or bunded area separate to the vehicular access ramps.

Open carpark areas and carports (i.e. at least one side is open): permissible at the existing ground level

Variations

(i) Coastline Management Line – Minor Additions to Existing Development

Additions to existing dwellings may be permitted between the 50 and 100 year Coastline Management Lines provided that the addition is not located forward of the existing dwelling, and that the combined additional Gross Floor Area to the dwelling forward of the 100 year Coastline Management Line does not exceed a maximum total area of $30m^2$ effective from the date of adoption of this Policy.

(ii) Floor Levels - Carparking Facilities

New enclosed garages: consideration may be given to a floor level for carparking facilities at a lower level where it can be demonstrated that providing the floor level at the Coastline Planning Level is not practical and that the enclosed garage is not a part of, or is detached from, the dwelling and is used for car parking only.

(iii) Ancillary Structures

Relocatable or sacrificial, ancillary, non-habitable, detached, light weight structures associated with landscaping, storage or outdoor living areas may be permitted seaward of the 100 year Coastline Management Line where their destruction by coastal processes is unlikely to exacerbate property damage during a storm event.

8.2 Coastline (Beach) Hazard area - All development other than up to 2 dwellings

Outcomes
Protection of people. (S)
Protection of the natural environment. (En)
Protection of private and public infrastructure and assets. (S)

"S" refers to social objectives and "En" to environmental objectives as stated in Pittwater 21.

Land to which this control applies
Land identified on the Coastal Risk Planning Map.

Development to which this development control applies

- *Specified Residential Development*
  Attached dwelling
  Boarding house
  Group home
  Hostel
  Multi dwelling housing
  Residential flat building
  Semi-detached dwelling
  Seniors housing
- *Unspecified Residential Development*
  Includes all other residential development not individually specified above
- *Business Development*
- *Industrial Development*
- *Other Development*
  Includes development not included in residential development, business development, industrial development, or subdivision.

Controls

(i) General

(a) All structures below the Coastline Planning Level shall be constructed from flood compatible materials.

(b) All development must be designed and constructed so that it will have a low risk of damage and instability due to wave action and/or oceanic inundation hazards.

(c) All development and/or activities must be designed and constructed so that they will not impact adversely on surrounding properties, coastal processes or the amenity of public foreshore lands.

(d) All uncontaminated dune sand excavated during construction operations shall be returned to the active beach zone as approved and as directed by Council.

(e) Wherever present, remnant foredune systems shall be appropriately rehabilitated and maintained for the life of the development to stabilise an adequate supply of sand (as determined by a coastal engineer) that is available to buffer erosion processes and/or minimise the likelihood of oceanic inundation.

(f) All vegetated dunes, whether existing or created as part of coastal protection measures shall be managed and maintained so as to protect the dune system

from damage both during construction of the development and as a result of subsequent use during the life of the development.

(g) All electrical equipment, wiring, fuel lines or any other service pipes and connections must be waterproofed to the Coastline Planning Level.

(h) The storage of toxic or potentially polluting goods, materials or other products, which may be hazardous or pollute waters during property inundation, will not be permitted below the Coastline Planning Level.

(i) For existing structures, a tolerance of up to minus 100mm may be applied to the Coastline Planning Level in respect of compliance with these controls.

(j) Building heights must not exceed 8.0 metres above the Coastline Planning Level or 8.5 metres above existing ground level, whichever is higher.

(k) Where land is also subject to the provisions of the Flood Risk Management Policy for Development around Pittwater, the higher of the Coastline Planning Level and Flood Planning Level shall apply.

(ii) Coastal Protection Works

Hazard mitigation and coastal protection works that modify the oceanic inundation and wave action behaviour within the development site, may be permitted subject to a Coastal Risk Management Report that demonstrates the following:

(a) The works do not have an adverse impact on any surrounding properties or coastal processes

(b) A Section 88B notation under the *Conveyancing Act 1919* is to be placed on the title describing the location and the type of mitigation measures with a requirement for their retention and maintenance.

(c) Hazard mitigation works result in the protection of the proposed development from coastal processes.

(d) Where coastal protection structures such as rock revetments or boulder seawalls already exist within the beach compartment, the position of such structures has been used to determine the location and alignment for any new terminal revetment or coastal protection works for the land on which development is proposed.

(e) In the case of an existing protection structure, a suitably qualified professional/s with appropriate expertise in the applicable areas of engineering has certified the structural integrity and competency of the works for their intended purpose and for the design storm event.

(iii) Coastline Management Line

New development and major additions to existing development must be sited on the landward side of the 100 year Coastline Management Line.

(iv) Floor Levels – New Development and Additions

All floor levels shall be at or above the Coastline Planning Level or raised to the Coastline Planning Level.

(v) Floor Levels – Carparking Facilities

Enclosed garage, enclosed carpark and enclosed carport: floor level shall be at or above the Coastline Planning Level.

Covered basement (i.e. below natural ground level) or covered bunded carparking facilities must have all access, ventilation and any other potential water entry points above the Coastline Planning Level and a clearly signposted inundation free pedestrian evacuation route from the basement or bunded area separate to the vehicular access ramps.

Open carpark areas and carports for residential carparking: floor level shall be at or above the Coastline Planning Level.

Variations

(i) Coastline Management Line – Minor Additions to Existing Development

Additions to existing buildings may be permitted between the 50 and 100 year Coastline Management Lines provided that the addition is not located forward of the existing development, and that the combined additional Gross Floor Area to the building(s) forward of the 100 year Coastline Management Line does not exceed a maximum total area of $30m^2$ effective from the date of adoption of this policy.

(ii) Business Light Industrial and Other Development (not applicable to residential component)

Where constructing the floor level at the Coastline Planning Level or raising the floor level of the existing development to the Coastline Planning Level may be difficult to achieve due to site and access constraints, consideration may be given to all floor levels for additions being at the existing floor level. This is subject to demonstration, through a Coastal Risk Management Report, that in respect of the development type proposed the assessed risk is acceptable. The whole of the development below the Coastline Planning Level must be satisfactorily flood proofed (either wet or dry) to the Coastline Planning Level.

(iii) Ancillary Structures

Relocatable or sacrificial, ancillary, non-habitable, detached, light weight structures associated with landscaping, storage or outdoor living areas may be permitted seaward of the 100 year Coastline Management Line where their destruction by coastal processes is unlikely to exacerbate property damage during a storm event.

8.3 Coastline (Beach) Hazard area - Subdivision

Outcomes
Protection of people. (S)
Protection of the natural environment. (En)
Protection of private and public infrastructure and assets. (S)

"S" refers to social objectives and "En" to environmental objectives as stated in Pittwater 21.

Land to which this control applies
Land identified on the Coastal Risk Planning Map.

Development to which this control applies

- Subdivision

Controls

(i) Coastline Management Line

(a) Subdivision of land will not be permitted where building platforms will be created on the seaward side of the 100 year Coastline Management Line.

(b) Subdivision of land may be permissible where it can be demonstrated through a coastal risk management report that building platforms of an adequate area for development (including carpark facilities and access) are suitable or can be made suitable to satisfy the requirements of the Policy.

(ii) Levels – Building Platforms Residential Allotments

(a) Subdivision of land will not be permitted where the building platforms of residential allotments will be created below the Coastline Planning Level.

Variations
Nil

9.0 INFORMATION TO BE SUBMITTED – COASTLINE RISK MANAGEMENT

9.1 Coastline Planning Levels and Coastline Management Line

Form 1 must be completed setting out the Coastline Planning Level and Coastline Management Line details that apply to the subject property and must be submitted with the application.

9.2 Survey Details

In addition to the requirement to lodge survey details with the Development Application, the Survey Plan prepared by a Registered Surveyor must also indicate the following:

- The location of existing buildings or structures;
- The floor levels and ceiling heights of all existing buildings or structures to be retained;
- Coastline Planning Level;
- Coastline Hazard Line and Coastline Management Line;
- 0.2 metre contour intervals across the entire property; and
- All levels must be relative to Australian Height Datum (AHD).

9.3 Coastal Risk Management Report

A Coastal Risk Management Report is <u>NOT</u> required to be submitted with the development application where it is demonstrated that:

1. All floor levels, including those of existing components of the development, are at or above the Coastline Planning Level (CPL), or raised to the Coastline Planning Level and/or all development (existing and proposed) is landward of the 100 year Coastline Management Line (CML).

A Coastal Risk Management Report is to be submitted for all development on land that is affected by coastal processes and has floor levels and/or carparking levels below the nominated development criteria. This report is to be prepared by suitably qualified coastal engineering and structural engineering consultants and must consider and address the following:

(a) Coastline Planning Level and other relevant information.

(b) Coastline Management Line.

(c) Proposed floor levels (and existing floor levels where these are proposed to be retained) of habitable and non-habitable structures, and where basement or enclosed carparking is proposed, include levels of access, ventilation and any other potential water entry points.

(d) Constraints due to coastline impacts on the land, including an assessment of the degree of inundation, hazard level, impacts of waterborne debris, buoyancy effects, evacuation and other emergency issues during the design storm event (100 ARI event).

(e) Compliance with the Controls.

(f) Recommendations for the structural design and construction of the total development, including foundation design, protection measures and any existing structures to be retained (where existing structures to be retained include coastline protection structures, these must be certified as fit for purpose for the design storm event).

(g) Recommendations on the monitoring and maintenance of all coastal protection and hazard mitigation measures proposed for the total development (including any existing structures to be retained) for the life of the development (taken to be 100 years unless specified otherwise and justified).

(h) Recommendations on all measures and precautions to minimise risk to personal safety of occupants and the risk of property damage for the total development (including any existing structures to be retained) to address the impacts on the site for the design storm event (100 ARI event) for the life of the development (taken to be 100 years unless specified otherwise and justified). These precautions shall include but are not limited to the following:

- Types of materials to be used, up to the Coastline Planning Level to ensure the structural integrity for immersion and impact.
- Waterproofing methods, including but not limited to electrical equipment, wiring, fuel lines or any other service pipes and connections.
- Warning signs/depth indicators for areas that may be inundated, such as open carparking areas.
- An evacuation strategy to minimise harm; a point of assembly within a place of low risk; and a suitable method of transporting people to a place of low risk away from the effects of coastline hazards.

(i) Specify architectural/engineering plans on which the assessment is based.

(j) Specify date/s of inspection.

(k) Specify professional qualifications and experience of the authors.

10.0 FORMS

10.1 Form 1 and Form 1(a) – Declaration and Certification made by Coastal Engineer and by Structural Engineer or Civil Engineer in relation to the DA Coastal Risk Management Report

When are Form 1 and Form 1(a) to be submitted?
Form 1 and Form 1(a) are to be submitted with a Coastal Risk Management Report accompanying a Development Application/Part 5 Assessment. Attach Form 1 to the inside cover of the Coastal Risk Management Report. In respect to lands identified as located in the Bluff/Cliff Instability Areas, the Coastal Risk Management Report including Form 1 is to be incorporated as an Appendix to the Geotechnical Report.

Why are Form 1 and Form 1(a) necessary?
These forms are essential to verify that the author of a Coastal Risk Management Report is a Coastal Engineer as defined by this Policy. Alternatively, where a Coastal Risk Management Report has been prepared by a professional person not recognised by this Policy, then Form 1 and Form 1(a) may be used as technical verification of the Coastal Risk Management Report if signed by a Coastal Engineer as defined by this Policy.

10.2 Form 2 – Declarations and Certification made by Structural Engineer or Civil Engineer and Coastal Engineer in relation to the design

The purpose of this form is to ensure the Coastal Engineer verifies that the structural and/or civil engineer has correctly interpreted and incorporated the coastal risk management requirements into their design and that the structural and/or civil engineer has prepared their documents in accordance with the Coastal Risk Management Report.

When is Form 2 submitted?
This form must be attached with the submission of the structural documentation required for the determination of a Construction Certificate. The applicant must issue a copy of the structural documents and Form 2 to the Coastal Engineer who prepared or technically verified the Coastal Risk Management Report for the Development Application now requiring a Construction Certificate.

Why is Form 2 necessary?
Form 2 is essential, as it provides evidence to Pittwater Council or other certifying authority determining the Construction Certificate that structural documents have been prepared or verified by a structural or civil engineer as defined by this Policy, and that the structural documents have been prepared in accordance with the recommendations given in the Coastal Risk Management Report for the same development.

10.3 Form 3 – Final Coastal Certificate (Post Construction Coastal Certificate)

The purpose of this form is to ensure that the recommendations made in the Coastal Risk Management Report have been complied with during construction. In most cases the Coastal Engineer who prepared and/or verified the design will need to observe construction including foundations, coastal protection and hazard mitigation works, etc, prior to signing Form 3.

Why is Form 3 submitted?
This form must be submitted at the completion of a project, prior to occupation of the premises and prior to issue of an Occupancy Certificate.

Why is Form 3 necessary?
Form 3 is essential, as it provides certification that the building works have been carried out in accordance with the requirements of the Coastal Risk Management Report and any subsequent coastal risk management requirements introduced during the construction process.

10.4 Form 4 – Final Construction Certificate (To accompany Application for Building Certificate or response to an Order issued by Council)

The purpose of this form is to ensure that the site and the structures on the site have been assessed by a Coastal Engineer in accordance with Council's Policy. Further that reasonable and practical measures to remove foreseeable risks associated with coastal hazards have been identified and suitable recommendations have been included in the Coastline Risk Management Report.

When is Form 4 submitted?
This form must be submitted with the Coastal Risk Management Report accompanying the Building Certificate Application or a response to an Order. Should, in the opinion of the Coastal Engineer, the site and the development not be at an acceptable level of risk from a coastal hazards viewpoint, then the remedial action required is to be identified in a report and indicated on Form 4 before it is signed and lodged with Council. Where such remedial action requires works that would need Development Approval, a Development Application must be lodged. Form 4 would then be supported by Form 3 on completion of the necessary works.

Why is Form 4 necessary?
Form 4 is essential, as it provides certification that the site and the existing structures achieve the risk management criteria detailed in this Policy.

Summary

Form	
1	To be submitted with Development Application
1(a)	Checklist of requirements for Coastal Risk Management Report for Development Application or Part 5 Assessment
2	To be submitted with detailed design for Construction Certificate
3	Post Construction Coastal Certificate
4	To be submitted with Application for a Building Certificate/Response to an Order

COASTLINE RISK MANAGEMENT POLICY FOR PITTWATER

FORM NO. 1 – To be submitted with Development Application

Development Application for_____

Name of Applicant

Address of site _____

Declaration made by a Coastal Engineer as part of a Coastal Risk Management Report

I, _____ on behalf of _____
(Insert Name) (Trading or Company Name)

on this the _____
(date)

certify that I am a Coastal Engineer as defined by the Coastline Risk Management Policy for Pittwater and I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2 million.

I have:

Please mark appropriate box

☐ Prepared the detailed Coastal Risk Management Report referenced below in accordance with the Pittwater Council Coastline Risk Management Policy

☐ Am willing to technically verify that the detailed Coastal Risk Management Report referenced below has been prepared in accordance with the Pittwater Council Coastline Risk Management Policy

☐ Have examined the site and the proposed development/alteration in detail and, as detailed in my report, am of the opinion that the Development Application only involves Minor Development/Alterations or is sited such that a detailed coastal hazard analysis or risk assessment is not required.

☐ Provided the coastal hazard analysis for inclusion in the Coastal Risk Management Report

Coastal Risk Management Report Details:

Report Title:
Report Date:
Author:

Documentation which relate to or are relied upon in report preparation:

I am aware that the above Coastal Risk Management Report, prepared for the above mentioned site is to be submitted in support of a Development Application for this site and will be relied on by Pittwater Council as the basis for ensuring that the coastal risk management aspects of the proposed development have been adequately addressed to achieve an acceptable risk management level for the life of the structure, taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature ……..

Name ……..

Chartered Professional Status…….

Membership No. ……

COASTLINE RISK MANAGEMENT POLICY FOR PITTWATER

FORM NO. 1(a) - Checklist of Requirements for Coastal Risk Management Report for Development Application or Part 5 Assessment

Development Application for_____

Name of Applicant

Address of site _____

The following checklist covers the minimum requirements to be addressed in a Coastal Risk Management Report. This checklist is to accompany the Coastal Risk Management Report and its certification (Form No. 1).

Coastal Risk Management Report Details:

Report Title:
Report Date:
Author:

Please mark appropriate box

☐ Comprehensive site mapping conducted _____

(date)

☐ Mapping details presented on contoured site plan to a minimum scale of 1:200 (as appropriate)

☐ Subsurface investigation required

☐ No Justification ……...

☐ Yes Date conducted ……

☐ Impact by and upon coastal processes identified

☐ Coastal hazards identified

☐ Coastal hazards described and reported

☐ Risk assessment conducted in accordance with Council's Policy

☐ Adequacy of existing coastal protection measures assessed and certified

☐ Opinion has been provided that the design can achieve the risk management criteria in accordance with Council's Policy provided that the specified conditions are achieved.

☐ Design Life Adopted:

☐ 100 years

☐ Other …….
specify

☐ Development Controls as described in the Pittwater Coastline Risk Management Policy have been specified

☐ Additional actions to remove risk where reasonable and practical have been identified and included in the Coastal Risk Management Report.

I am aware that Pittwater Council will rely on the Coastal Risk Management Report, to which this checklist applies, as the basis for ensuring that the coastal risk management aspects of the proposal have been adequately addressed to achieve an acceptable risk management level for the life of the structure, taken as at least 100 years unless otherwise specified, and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature ……..

Name ……..

Chartered Professional Status……

Membership No. ……

COASTLINE RISK MANAGEMENT POLICY FOR PITTWATER

FORM NO. 2 – To be submitted with detailed design for Construction Certificate

Development Application for_____

Name of Applicant

Address of site _____

Declaration made by Structural or Civil Engineer in relation to the incorporation of Coastal issues into the project design

I, _____ on behalf of _____
(insert name) (trading or company name)

on this the _____
(date)

certify that I am a Structural or Civil Engineer as defined by the Coastline Risk Management Policy for Pittwater. I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2 million. I also certify that I have prepared the below listed structural documents in accordance with the recommendations given in the Coastal Risk Management Report for the above development

Coastal Risk Management Report Details:

Report Title:
Report Date:
Author:

Structural Documents list:

I am also aware that Pittwater Council relies on the assessments covered by the Coastline Risk Management Policy, including this certification as the basis for ensuring that the coastal risk management aspects of the proposed development have been adequately addressed to achieve an acceptable risk management level for the life of the structure taken as at least 100 years unless otherwise specified and justified.

_____ _____
(name) (signature)

Declaration made by Coastal Engineer in relation to Structural Drawings

I prepared and/or technically verified the above mentioned Coastal Risk Management Report as per Form 1 dated _____ and now certify that I have viewed the above listed structural documents prepared for the same development. I am satisfied that the recommendations given in the Coastal Risk Management Report have been appropriately taken into account by the structural engineer in the preparation of these structural documents.

I am aware that Pittwater Council relies on the processes covered by the Coastline Risk Management Policy, including this

certification as the basis for ensuring that the coastal risk management aspects of the proposed development have been adequately addressed to achieve an acceptable risk management level for the life of the structure taken as at least 100 years unless otherwise stated and justified in the Coastal Risk Management Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature ……..

Name ……..

Chartered Professional Status…….

Membership No. ……

Date:…….

FORM NO. 3 – Post Construction Coastal Certificate

Development Application for_____

Name of Applicant

Address of site _____

Declaration made by Coastal Engineer on completion of the Development

I, _____ on behalf of _____
(Insert Name) (Trading or Company Name)

on this the _____
(date)

certify that I am a Coastal Engineer as defined by the Coastline Risk Management Policy for Pittwater. I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2million. I prepared and/or verified the Coastal Risk Management Report as per Form 1 referred to below.

Coastal Risk Management Report Details:

Report Title:
Report Date:
Author:

I reviewed the original structural design, and where applicable the subsequently amended structural details (below listed) which have been incorporated into the completed project.

I have inspected the site during construction and to the best of my knowledge, I am satisfied that the development referred to in the development consent D.A. _____ dated _____

(D.A. No.) (Date consent given)

has been constructed in accordance with the intent of the Coastal Risk Management Report, and the requirements of the conditions of Development Consent relating to the coastal hazard issues (including any treatment and/or maintenance plan that may be required to remove risk where reasonable and practical).

I am aware that Pittwater Council requires this certificate prior to issuing an Occupancy Certificate for the development identified above and will rely on this certificate in regard to the development having achieved the acceptable risk management criteria defined in the Policy and that reasonable and practical measures have been taken to remove foreseeable risk.

List of all work as executed drawings and ongoing maintenance plans relevant to coastal risk management.

Signature ……..

Name ……..

Chartered Professional Status…….

Membership No. ……

FORM NO. 4 – To be submitted with Application for a Building Certificate/Response to an Order

Building Certificate Application/Response to an Order (delete that not applicable)
for_____

Name of Applicant

Address of site _____

Order No. (if applicable)

Declaration made by Coastal Engineer in relation to the submission of an application for a Building Certificate/Response to an Order

I, _____ on behalf of _____
(Insert Name) (Trading or Company Name)

on this the _____
(Date)

certify that I am a Coastal Engineer as defined by the Coastline Risk Management Policy for Pittwater. I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least $2million.

☐ I have inspected the site and the existing development and am satisfied that both the site and the development achieve the risk management requirements of the Policy. The attached Coastal Risk Management Report provides details of the assessment in accordance with Council's Policy. The Report also contains recommendations as to any reasonable and practical measures that can be undertaken to remove foreseeable risk. I am aware that Pittwater Council will rely on this certification as the basis for ensuring that the coastal risk management aspects of the site and the development have been adequately addressed to achieve the acceptable risk management criteria in accordance with the Policy for the life of the structure taken as 100 years unless otherwise specified and justified in the Report.*

or

☐ I have inspected the site of the existing development. The attached report details the remedial actions required to be undertaken prior to me being prepared to certify that the site and the development achieves at least the acceptable risk management criteria required in accordance with the Policy.

Coastal Risk Management Report Details:

Report Title:

Report Date:

Author:

Signature ……..

Name ……..

Chartered Professional Status……

Membership No. ……

* Note: If life of structure taken as less than 100 years, please indicate ..... years

PITTWATER COUNCIL

APPENDIX A

COASTLINE RISK MANAGEMENT POLICY FOR DEVELOPMENT IN PITTWATER - SECTION 149 CERTIFICATE NOTATIONS

REVISED SECTION 149 CERTIFICATE NOTATIONS – COASTAL RISK MANAGEMENT

The following are the revised Section 149(2) and Section 149(5) notations for planning certificates issued under Section 149 of the Environmental Planning and Assessment Act (1979) with respect to any lands identified in the Coastline Risk Management Policy for Development in Pittwater.

1. Section 149(2) Notation

For properties located within Coastline (Beach) Hazard areas.

"On the information available to Council, the land in question is affected by coastal processes. Restrictions on development in relation to coastline effects apply to this land as set out in Council's Coastline Risk Management Policy for Development in Pittwater and Pittwater 21 DCP."

1. Section 149(5) Notation

For properties located within Coastline (Beach) Hazard areas.

"Development along the coast in the Pittwater Local Government Area has been threatened, damaged or destroyed by the action of storm waves on a number of occasions in the past. Council may hold records of past storm damage and/or emergency works that occurred at certain locations for particular storm events."

PITTWATER COUNCIL

Appendix 7

Estuarine Risk Management Policy for Development in Pittwater

TABLE OF CONTENTS

1.0 INTRODUCTION

The Estuarine Risk Management Policy for Development in Pittwater (the Policy) establishes the estuarine risk management approach for development or activities on land affected by wave action and tidal inundation around the Pittwater waterway within the Pittwater LGA.

2.0 THE POLICY STATEMENT

Development must be undertaken in accordance with the acceptable risk management criteria defined in this document for a design project life, taken to be 100 years, unless otherwise justified by the applicant and acceptable to Council. These criteria have been developed to be consistent with the estuarine management principles contained in the *NSW Estuary Management Manual*, 1992, which supports the NSW Government's Estuary Management Policy.

The primary method of Estuarine Risk Management for development in the Pittwater LGA is through the application of development controls under Part 4 and environmental assessment under Part 5 of the *Environmental Planning and Assessment Act 1979* (a Part 5 Assessment). An estuarine risk management review may also be generated by an application for a Building Certificate for any development on lands that have been identified as being within an estuarine hazard area.

Once the estuarine risk management measures have been identified on the land, it is the owner's responsibility to ensure that these measures are properly maintained for the design project life of the development.

3.0 OBJECTIVES

The objectives of this Policy are:

(a) To ensure that wave action and tidal inundation processes (affecting development or likely to be affected by development) are adequately investigated and documented by applicants or proponents of activities prior to the lodgement of any development application or Part 5 Assessment to carry out any development/activity subject to this Policy, or wherever an application is lodged for a Building Certificate; and

(b) to establish whether or not the proposed development or activity is appropriate to be carried out having regard to the results of investigations; and

(c) to ensure effective controls exist to guarantee that a development is carried out in accordance with the requirements of this Policy; and

(d) to ensure that the preparation of wave action and tidal inundation related information and certificates required to be lodged by this Policy are carried out by suitably qualified professionals with appropriate expertise in the applicable areas of engineering; and

(e) that developments are only carried out if estuarine and related structural engineering risks are identified and can be effectively addressed and managed for the life of the development at an acceptable level of risk.

4.0 APPLICATION OF THIS POLICY

a) This Policy addresses both estuarine and structural engineering requirements relating to estuarine risk management issues only. Separate structural requirements will also apply for the erection of any structure in accordance with the *Building Code of Australia* (BCA) and best engineering practice.

b) This policy applies to each of the following

(i) Land identified on Council's Estuarine Hazard Map.
(ii) Utility companies, public authorities or their agents, when designing and undertaking works within the Pittwater LGA that may be affected by estuarine processes, or which may impact upon estuarine processes.

5.0 DEFINITIONS

5.1 Definitions

Note: For expanded list of definitions, refer to:

1. *Glossary contained within the NSW Government Floodplain Development Manual – April 2005 edition, the NSW Government Estuary Management Manual – October 1992 and the NSW Government Coastline Management Manual – September 1990.*
2. *Pittwater 21 Development Control Plan.*

Annual Exceedance Probability (AEP) - The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. The 1% AEP means that there is a 1% chance (that is, one-in-100 chance) of the corresponding flood discharge or larger occurring in any one year. In relation to the economic life of structures, there is a 26% chance of the 1% AEP event occurring in a 30 year period, a 40% change of occurrence in a 50 year period and a 63% chance within a 100 year period.

Architect – An architect who is a Registered Architect with The Royal Australian Institute of Architects, with at least 5 years of relevant professional experience, and has an appropriate level of professional indemnity insurance.

Average Recurrence Interval (ARI) - The long-term average number of years between the occurrence of a flood as big as, or larger than, a particular flood. ARI is an alternative to AEP to express the likelihood of occurrence of a flood event. For example, a 100 year ARI will occur, on average, every 100 years.

Australian Height Datum (AHD) - A common national surface level datum corresponding approximately to mean sea level. All flood levels and ground levels are quoted based on Australian Height Datum.

Basement Carpark – Carpark set below natural ground level.

Basement Boatshed – Boatshed set below natural ground level.

Coastal Engineer - A specialist coastal engineer who is a registered professional engineer with chartered professional status (CP Eng) with coastal engineering as a core competency and, has an appropriate level of professional indemnity insurance.

Carport – Carport structure having at least one side open to allow the ingress of water.

Council's Web Site – www.pittwater.nsw.gov.au

Estuarine Affected Properties - Properties shown on the Estuarine Hazard Map.

Estuarine Hazard Map – Map that depicts those properties affected by estuarine flooding around Pittwater. The maps form part of the Pittwater 21 Development Control Plan and are available on Council's Web site. This map may also be referred to as the "Wave Action and Tidal Inundation Map"

Estuarine Planning Level (EPL) – refer Figure 1 - Water level selected for planning purposes as determined for Pittwater based on the 100 year ARI storm tide (i.e. 1% AEP event), 200mm sea level rise due to climatic conditions, associated wind setup, wave run up plus a freeboard allowance (0mm to 300mm depending on adopted foreshore edge treatment and height of wave run up).

The Estuarine Planning level is determined based on:

a) a base EPL which varies dependent upon the existing/proposed foreshore edge treatment, less;
b) a reduction factor based on the distance to the development from the foreshore edge treatment "Base EPL" at RL 1.5mAHD contour.

Estuarine Planning Level Advice – Refers to the information from the 'Flood and Estuarine Levels Tool' available on Council's Web Site for each property in Pittwater affected by Estuarine Hazard and an Estuarine Planning Level.

Estuarine Processes - The interaction of natural biophysical systems as well as human activities that occur within the tidal portions of river mouths, bays and coastal lagoons that have an open or intermittently open connection with coastal waters. Estuarine processes affect the physical, chemical and biological behaviour of an estuary. (These processes either individually or in combination can produce a situation where natural and built assets are placed at risk due to foreshore erosion, shoreline recession, tidal inundation, shoaling, accelerated eutrophication and poor water quality)

Eutrophication – The build-up of nutrient levels in a water body, leading to the excessive growth of aquatic plants, which in turn depletes dissolved oxygen levels in the water body.

First Floor Additions – The next building level above the Ground Floor.

Flood Proofing – Dry – Measures that protect a building from inundation by sealing a building's exterior walls and other water entry points..

Flood Proofing – Wet - A combination of measures incorporated in the design, construction and/or alteration of buildings, structures and surrounds, to enable a building or structure to withstand forces due to wave and tidal inundation, whilst remaining structurally sound to mitigate potential damages from inundation.

Foreshore Building Line – As set out in the Pittwater *Local Environmental Plan 2014*.

Foreshore Edge Treatment – this describes what is present at the foreshore edge, such as a sandy beach, vertical wall, sloping rock wall, natural rocky shoreline, etc.

Freeboard – The factor of safety usually expressed as a height above the design water level. Freeboard tends to compensate for some uncertainty in estimating the components that make up the design water level. Varying freeboards have been adopted for the EPL depending on the magnitude of the wave run-up component.

Minimise Risk – It is recognised that, due to the many complex factors that can affect a site along the estuary zone, the estuarine risk for a site and/or development cannot be completely removed. It is, however, essential that risk be minimised to at least that which could be reasonably anticipated by

the community in everyday life. Further, landowners should be made aware of the reasonable and practical measures available to them to minimise risk as far as possible. Hence where the Policy requires that “an acceptable level of risk“ be achieved or where measures are to be taken to “minimise risk” it refers to the process of risk reduction. The Policy recognises that development within a risk-managed estuarine zone does not lead to complete risk removal as this is not meaningfully achievable.

Open Carpark Areas – Carparking facilities that are not enclosed so as to allow the free flow of floodwaters.

Revetment or Seawall – Walls built parallel to the shoreline to limit shoreline recession.

Shoaling – The influence of the sea bed on wave behaviour. Such effects only become significant in water depths of 60 metres or less and include reduction in wave speed, a shortening of wave length and an increase in wave height.

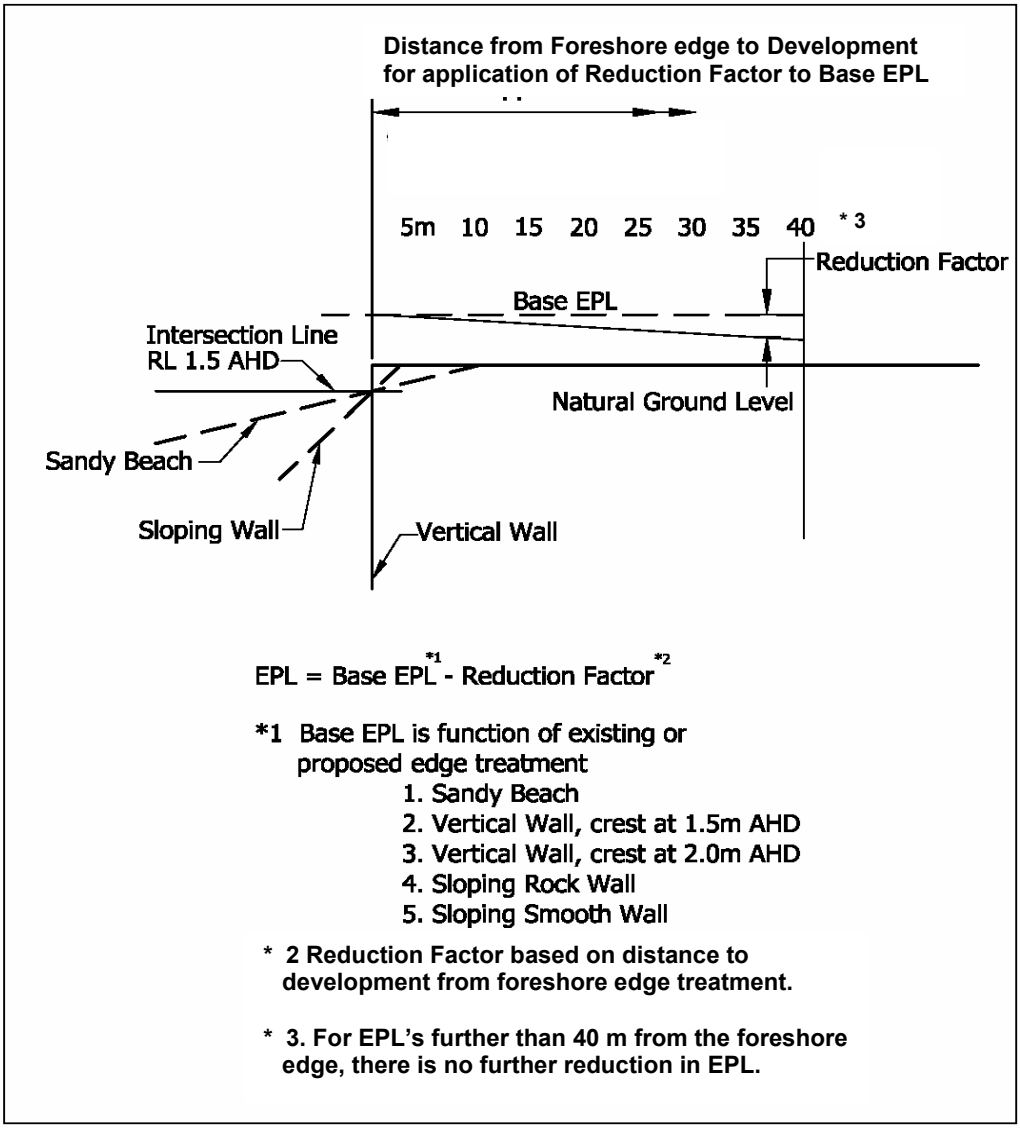
Shoreline Recession – A net long-term landward movement of the shoreline caused by a net loss in sediment.

Structural Engineer – A structural engineer who is a registered professional engineer with chartered professional status (CP Eng) and, has an appropriate level of professional indemnity insurance.

Wave Action and Tidal Inundation Map – see Estuarine Hazard Map

Wave Run-up – The vertical distance above mean water level reached by the uprush of water from waves across a beach or up a structure.

Wind Setup – The increase in mean sea level caused by the ‘piling up’ of water on the coastline (or estuary) by the wind.



Property Estuarine Planning Level Advice is available from the 'Flood and Estuarine Levels Tool' at Council's Web Site

6.0 PITTWATER WAVE ACTION AND TIDAL INUNDATION INFORMATION

6.1 Council Held Estuarine Information

Pittwater wave action and tidal inundation information is available from Council as follows:

i) Estuarine Hazard Map – available from Council's Web Site

Properties defined as being affected by estuarine wave action and tidal inundation have been mapped for the Pittwater LGA. Council is progressively undertaking further detailed mapping where information is currently not available.

ii) Flood and Estuarine Level Enquiry Service (Estuarine Planning Level Advice) – available from Council's Web Site

Estuarine Planning Level information for individual land identified on the Estuarine Hazard Map is available on Council's website using the 'Flood and Estuarine Levels Tool'. The estuarine levels depend on location along the Pittwater Estuary, the edge treatment along the foreshore of each property (individual properties have not been assessed, so a range of levels are provided), and the inland distance of the development from the foreshore edge structure (individual properties have not been assessed, so a range of levels are provided). Further details of the derivation of the estuarine level information are contained in the document *Estuarine Planning Level Mapping Pittwater Estuary* (Lawson & Treloar, 2004).

Applicants may also seek their own professional advice on estuarine planning levels. For land of a complex nature in terms of topography, multiple hazard impacts or existing development, applicants may also need to seek their own professional advice.

Council is progressively seeking the best available estuarine level information, so the database will be reviewed and updated as required to reflect the most up to date outcomes when further information is available.

Estuarine Planning Level Mapping Pittwater Estuary (Lawson and Treloar) September 2004 – available from Council's Library

NSW Government Estuary Management Manual (October 1992) – available from Council's Library

6.2 Council Issued Certificates under Section 149, Environmental Planning and Assessment Act 1979

Council issues Section 149 certificates under the *Environmental Planning and Assessment Regulations 2000* [Clause 279 and Schedule 4(7)]. The primary function of the Section 149 Certificate Notation is as a planning tool for notification that the land is affected by a policy that restricts development due to the likelihood of a risk, in this instance, estuarine hazard. Part of Council's statutory responsibility is to update Section 149 Certificates as new information, that poses a risk to the community, becomes available.

6.3 Independently Derived Information

Independent wave action and tidal inundation information may be sought from a suitably qualified Coastal Engineer, at the expense of the individual applicant, in relation to any of the information currently available from Council, or on information not currently provided by Council.

It is the responsibility of the applicant to submit the independent wave action and tidal inundation information and assessment to Council in the form of a technical Estuarine Risk Management Report of adequate qualitative and quantitative detail addressing estuarine level information, the management of estuarine risk and other criteria (where applicable) as it affects the subject land and its surrounds.

PITTWATER COUNCIL

Appendix 9

Landscape and Vegetation Management

TABLE OF CONTENTS

PART 1. General

1. Introduction

Landscape quality and natural heritage in Pittwater
The Pittwater peninsula is an area of great natural beauty and biological diversity. The spectacular natural landscape includes ocean beaches and headlands, waterways, estuaries, coastal lagoons, wetlands, escarpments and bushland. Much of this natural heritage has been depleted by development since settlement of the peninsula. Part of what remains is protected in National Parks or by Environmental Protection zonings, or is retained in reserves. The remainder, however, remains subject to the rigours of development.

Pittwater Council is committed to ensuring the protection and enhancement of the natural heritage of the area and the conservation of local biodiversity. This plan provides a basis for development which reflects Council's commitment to landscape conservation and enhancement.

1.2 Land to which this Appendix applies

This Appendix applies to all lands covered by the *Pittwater Local Environmental Plan 2014* excluding Ku-ring-Gai Chase National Park.

1.3 Purpose of this Appendix

The *Environmental Planning and Assessment Amendment Act 1997* places a strong emphasis on planning and development control specific to particular Local Government Areas. Moreover, the legislation provides the opportunity for many developments to be assessed by Accredited Certifiers who may be private practitioners rather than Council officers.

This Appendix has been prepared in order to facilitate thorough assessments by Council officers and private Certifiers of the impacts of development proposals on landscape quality within Pittwater. This Appendix provides a set of development controls pertaining to the management and enhancement of Pittwater's landscape heritage.

The provisions detailed in this Appendix are designed to give the applicant a clear understanding of community and Council attitudes together with expectations for suitable planning and development in relation to landscape and vegetation management.

1.4 Why is landscape documentation required?

The landscape component of a proposed development is a vital factor to consider in developing a site. It can improve the quality of the development in terms of aesthetics, amenity, streetscape, micro-climate and the relationship between the surrounding natural and built environment.

The landscape of the Pittwater Local Government Area is one in which vegetation and natural landforms tend to dominate manmade elements. It is this dominance of natural forms which gives the area its unique landscape quality and it is Pittwater Council's intention to ensure that development occurs in a manner which retains this predominantly natural landscape.

In order to retain and enhance the landscape character of Pittwater and to provide an assurance that development will occur in accordance with good landscape practices, Pittwater Council

requires the submission of landscape documentation with the majority of applications for development within the Local Government Area. All applications are assessed on their individual merit.

1.5 Aims and Objectives of this Appendix

The aim of this Appendix is to provide principles, procedures and performance criteria to developers and the community for development, conservation and management of the landscape and scenic quality of Pittwater.

The ***objectives*** of this Appendix are:

a) to provide a professional consultative environment for the preparation of applications, enabling better documentation, informed Council and private sector assessment, and an improved level of control and checks on implementation;
b) to provide a framework for development that will promote ecologically sustainable outcomes, maintaining and wherever possible, enhancing visual and environmental qualities, biological diversity and ecological processes;
c) to improve retention and protection measures for long-term viability of existing remnant bushland, landscape features and tree cover within a consolidating urban environment;
d) To ensure that development occurs in a manner that responds appropriately to the context of its site and reinforces the local and regional landscape character;
e) To ensure that development occurs in a manner which preserves and enhances any landscape items of cultural or heritage value;
f) to improve the standard of landscape survey, site planning and landscape design with detailed consideration of the development's visual and environmental impact on the subject site and surrounding locality;
g) to promote landscape planning and design which is site-responsive, reinforcing the value of natural attributes, particularly within sensitive areas containing items of local, regional or state significance;
h) to establish site-sensitive work practices which minimise site disturbance, soil erosion, run-off, contamination, nutrient enrichment and vegetation clearing;
i) to promote diversity in re-planting schemes, using locally occurring native plants, and ensure elimination of any exotic weed species, and
j) to establish management structures and mechanisms for implementing this Plan, and for monitoring, reviewing and adjusting this Appendix.

1.6 Other important documents

This Plan should be read in conjunction with the following documents:

- Pittwater Local Environment Plan2014;
- Pittwater 21 DCP B4.22 Preservation of trees or bushland vegetation;
- Pittwater Environmental Values Statement;
- Pittwater Habitat and Wildlife Corridors Conservation Strategy;
- State Environmental Planning Policy No 19 - Bushland in Urban Areas
- State Environmental Planning Policy No 44 - Koala Habitat.

1.7 Definitions

For the purposes of this Appendix, the following definitions are used:

Built-upon Area:
The total site area, which is occupied by buildings and other roofed structures including verandahs. It also includes swimming pools, tennis courts, hard surface driveways and parking areas, or any like structures.

Designated Slip Areas:

Areas of steeply sloping topography, which may be affected by land slip or other geotechnical problems, as indicated on plans contained within the Pittwater Locality Plans & Building Codes.

Dieback:
General term for a significant decline in tree health and numbers, especially native trees, caused by a variety of stress-related agents including insect attack, disease, nutrient enrichment, altered drainage and pollution.

Indigenous:
Vegetation or fauna which is naturally distributed within a specific geographic region.

Landscape Works:
Proposed works related to the specific site development which may include, but are not limited to the following:

- Site Preparation & Environmental Protection;
- Grading and Soilworks;
- Automatic Irrigation Works (if applicable);
- Hardscape Works (including paving, retaining walls, free-standing walls/ fences, pools/ water features, decks, pergolas, and the like);
- Planting, Mulching & Fertilizing Works, and
- Establishment/ Planting Maintenance Period.

Local:
Of distribution confined to a restricted geographic region.

Local Environment Plan (LEP):
A statutory document prepared by Council under the *Environmental Planning and Assessment Act 1979* categorising the land within the Local Government Area into zones and placing restrictions on development, within those zones.

Sensitive Areas:
When making judgements with regard to environmental or ecological sensitivity, applicants should consider the following criteria:

- Amount and quality of vegetation cover;
- Type of vegetation cover (i.e. exotic or indigenous vegetation);
- Gradient of the land on and adjacent to the site;
- Geotechnical capacity of the land on and adjacent to the site;
- Visibility of the site – including views from Pittwater waterways;
- Proximity to ridgelines.

This DCP places the onus on the applicant to judge whether an area is environmentally or ecologically sensitive to development. Applicants are advised to seek expert advice from a landscape architect or environmental consultant if they judge that an area is likely to be sensitive to development.

Applicants should also refer to Council's Natural Environment and Education Business Unit for maps showing sensitive areas within Pittwater.

Significant Trees:
Trees that:

- Are listed as Heritage Items in Schedule 5 of the *Pittwater Local Environmental Plan 2014*; and/or
- Contribute substantially, either individually or as a component of a tree group, to the landscape character, amenity, cultural values or biodiversity values of their locality.

Generally trees with a girth greater than 500mm and a canopy spread of 6m radius would be considered significant, however this should be confirmed by an independent Arborist.

Significant Vegetation Communities

These include either:

- Tree or other vegetation groupings which are considered to have significant ecological, cultural or amenity value; or
- Communities scheduled as Endangered Ecological Communities under the *Threatened Species Conservation Act 1995* (e.g. The Pittwater Spotted Gum Forest).

The *Threatened Species Conservation Act 1995* requires that the "8-point test" under Section 5A of the *Environmental Planning and Assessment Act 1979* be carried out for developments occurring within or in the vicinity of listed endangered ecological communities to ascertain the likely impacts of the development on the ecological community. The results of the "8-point test" will point to the need or otherwise for the preparation of a Species Impact Statement to accompany the development application.

PART 2. Information required with Development / Construction Certificate Applications

2.1 The process for approval of development in Pittwater

The development control system in Pittwater has been prepared under the auspices of the NSW *Environmental Planning and Assessment Amendment Act 1997*. Development controls include the *Pittwater Local Environmental Plan 2014* (the principle planning instrument in Pittwater), and this DCP.

In assessing development applications, Council will have regard to the following:

- The prescribed Heads of Consideration included in Section 79(C) of the *Environmental Planning and Assessment Amendment Act 1997*;
- All other relevant State planning instruments including State Environmental Planning Policies and Regional Environmental Plans;
- The aims and objectives of the Pittwater Local Environmental Plan, and
- This DCP.

The flow chart at Figure 1 indicates the process for preparing approvals for a typical development in Pittwater and the relevant requirements for landscape submissions.

The flow chart at Figure 2 indicates the process for preparing approvals for a typical development in Pittwater and the relevant requirements for landscape submissions.

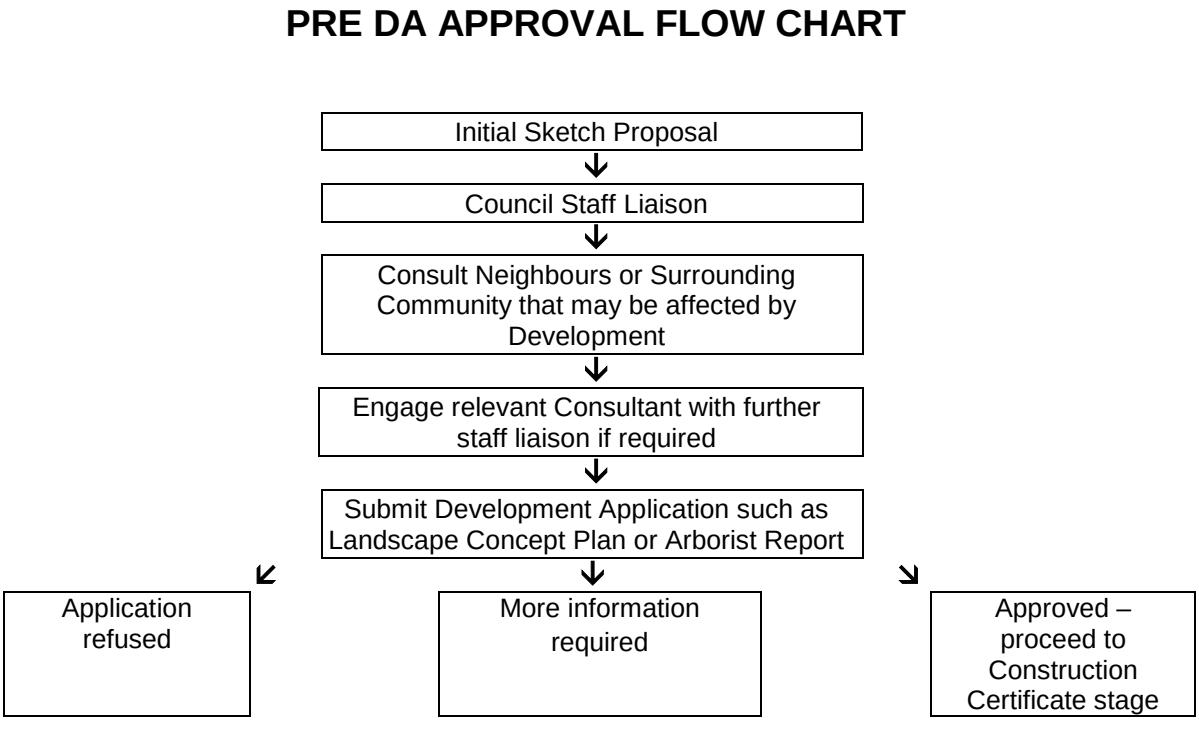


Fig 1 Pre Development Application Flow chart

POST Development Application / Construction Certificate APPROVAL FLOW CHART

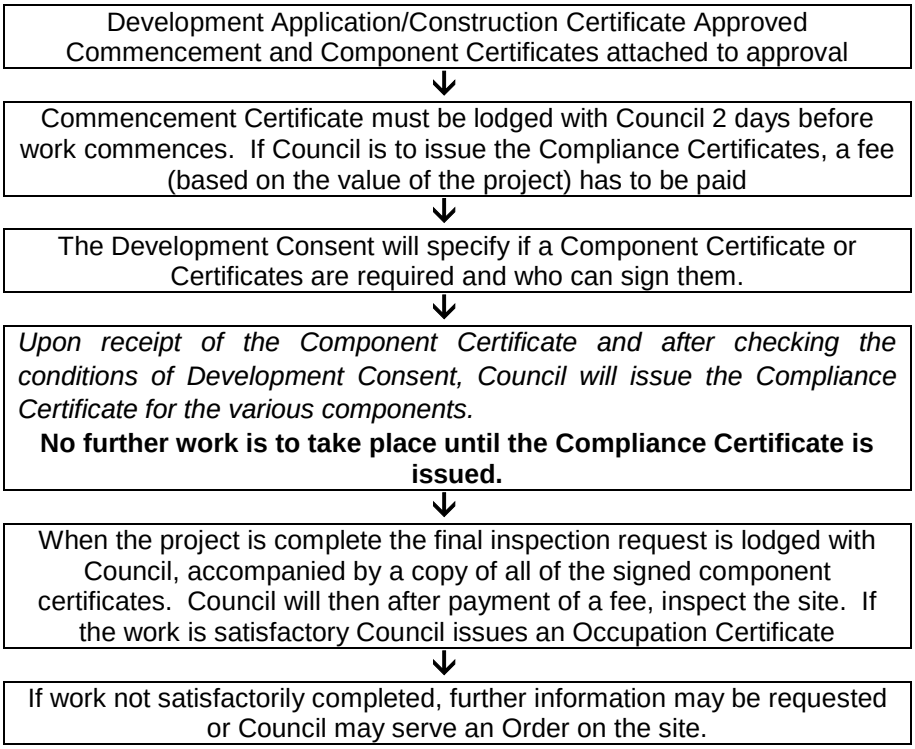


Fig 2 Post Development Application/Construction Certificate Flow Chart

2.2 When is a landscape submission required?

Development applications are to be submitted for all forms of development apart from Exempt and Complying Development (see *Pittwater Local Environmental Plan 2014* and *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*). Landscape documentation in varying forms is required to accompany all development applications involving development that will impact on the landscape of Pittwater. Refer to the attached Development Control Matrix.

A landscape submission is required with all development applications involving:

- Any Residential Developments under 40m^2 that may impact upon any significant trees, natural features or remnant bushland;
- Any Residential Developments over 40m^2 or any development impacting on significant trees or vegetation;
- Business Development;
- Industrial Development;
- Subdivision;
- Development within areas zoned E2 Environmental Conservation under the Pittwater LEP;
- Development within Road Reserves;
- Recreational Facilities;
- Child Care Centres and Schools;
- Tourist and visitor accommodation including Caravan Parks;
- swimming pools, spas, and tennis courts which impact upon any significant trees, substantial trees, natural features or remnant bushland or that may have an impact upon the aesthetics, landscape character or streetscape of an area.

For proposals not falling directly into the categories listed above, Council may require landscape documentation to ensure the preservation and enhancement of the existing landscape character

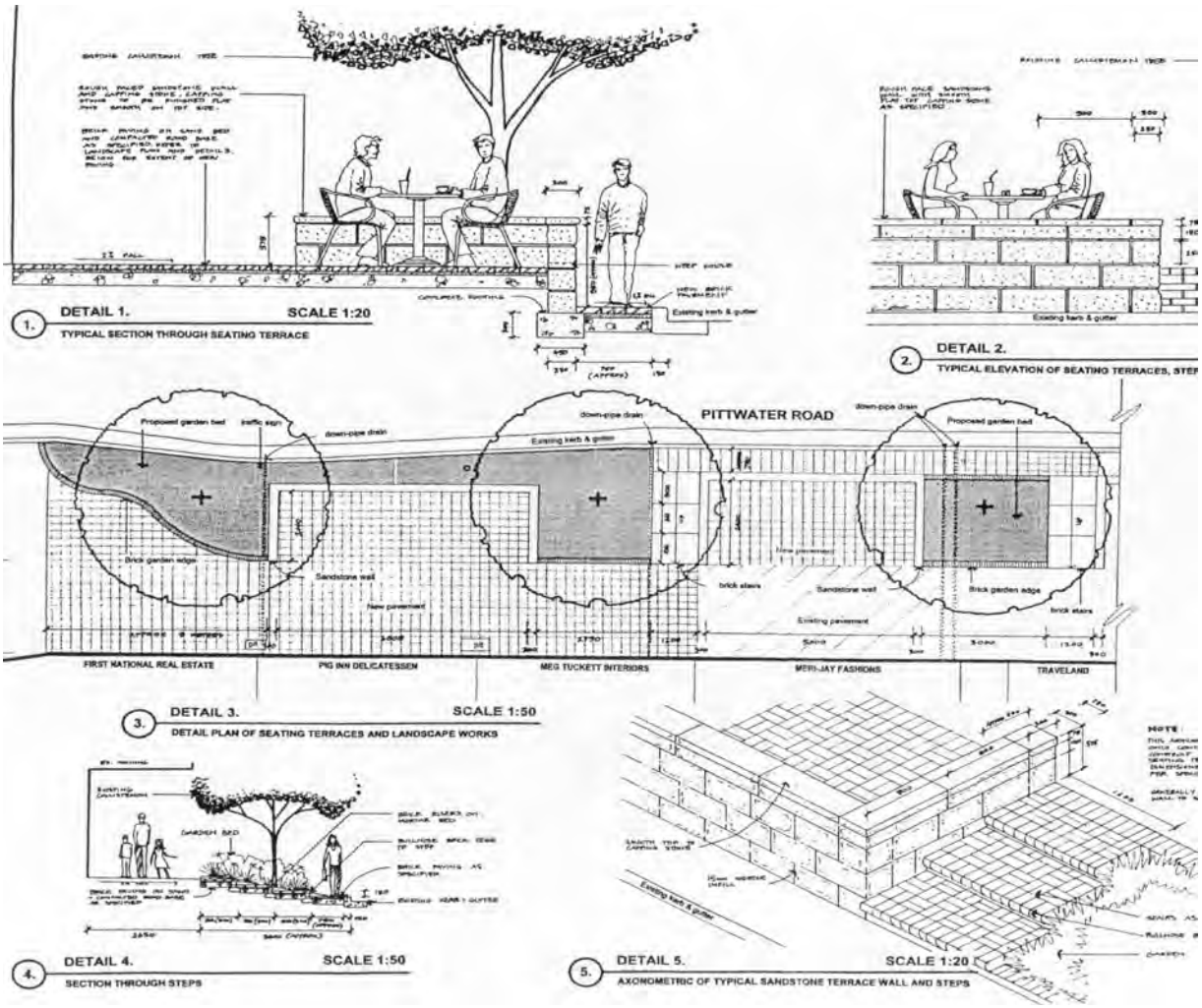
amenity and ecological integrity of the subject area. Applicants are advised to consult Council if they are in doubt as to whether a landscape submission is required to accompany a development application.

Generally, four (4) copies of the landscape documents will be required to accompany the relevant application.

For any project requiring landscape documentation, further submissions may be required to accompany the Development Application, Construction, Compliance and Occupational Certificate stages or prior to the commencement of various stages of works.

2.3 Does any development not require landscape documentation?

Apart from where outlined in *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*)and for residential developments less than 40m^2 of built upon area (not affecting significant trees) generally there are no circumstances under which an applicant is exempt from submitting landscape documentation the necessity to obtain approval of Council. If it is considered that the landscape submission does not satisfy this Appendix, a consent or certificate may not be granted. It may also result in a delay in the determination of the application and require a re-submission of the plans.



2.4 INFORMATION REQUIRED FOR A DEVELOPMENT APPLICATION

Depending on the form, complexity and size of development and on the sensitivity of the land to be developed, landscape documentation to accompany development applications may require preparation of one or more of the forms of documentation listed below. It should be noted, however, that for many projects it may be possible to present the information on a single plan. Council is only likely to require separate plans for developments on sites that are either physically complex or contain a large number of trees or bushland or for major developments.

Development Applications generally will require:

a) An Arborist's Report
b) A Vegetation Survey Plan, and
c) A Landscape Concept Plan.

Depending on the sensitivity of the site, the landscape context and the level of impact / disturbance of the proposed development, development applications may also require:

d) A Site Analysis Plan;
e) A Landscape Strategy Report;
f) An Environmental Consultants Report.

Each of these requirements and the situations in which they will be required are explained below.

2.4.1 Arborist's Report

WHAT IS AN ARBORIST'S REPORT?
An arborist's report provides technical comment on specific tree-related issues, particularly regarding the health, condition and significance of trees and tree groups and includes measures for retention and protection of significant trees. The following information is generally required:

- Type of method and techniques used during site inspections (what was assessed and what was not assessed)
- Diagram or surveyed site plan showing all tree/s on the property or adjacent properties (if relevant)
- Numbering of trees (text should correspond with diagram)
- Tree species (scientific and common names are required)
- Tree height, trunk diameter (measured at approx 1.5m above ground level), age (if known), canopy spread, form and habit
- A detailed description of each trees health based on the following;
  - The condition of its roots, trunk branches, shoots, foliage and flowers (including previous pruning work)
  - Pests and diseases that may be present
  - Any site changes and surrounding structures affecting the trees
  - Wildlife habitats, nesting hollows, shelter sites, animal scratch markings etc
- Any supporting evidence such as photographs, if relevant
- A rating of their safety based on Safe Useful Life Expectancy (SULE) or similar techniques
- A detailed consideration of the alternatives available to the applicant i.e. building repairs, development re-design, root barriers, raised pier construction, any pruning treatments required (these must be justified)
- A recommendation on the preferred option and an explanation why this is the case

WHEN IS AN ARBORIST'S REPORT REQUIRED?
If the site has Significant Trees, or Remnant Bushland. An Arborist's Report may also be required to recommend strategies for retaining significant trees or vegetation close to proposed

developments. An arborist's report must be prepared by a qualified arborist who is a member of the National Arborist's Association of Australia.

Where Arborist reports are prepared by Arborists currently engaged in the removal of trees and Vegetation, the nominated Arborist engaged to prepare the report will not be permitted to carry out such Tree/Vegetation removal works.

Mature Spotted Gum (Corymbia maculata). Pittwater Council requires an Arborist's Report to be prepared when significant Trees such as this occur on or adjacent to a site proposed for development. In many cases significant trees can be retained close to development through careful Arborist supervision and building techniques such as pier and beam footing construction minimising tree root damage.

2.4.2 Tree/Vegetation Survey Plan

Natural vegetation and its dominance over built form is a vital component of the landscape character of Pittwater. A key objective of this Appendix is to ensure that development within Pittwater retains and enhances this characteristic of the region.

WHAT IS A TREE/VEGETATION SURVEY PLAN?

A vegetation survey plan locates and identifies all existing trees vegetation on and adjacent to a site, makes assessments of the condition of this vegetation and indicates what vegetation is to be retained or removed. The Tree/Vegetation Survey Plan is to be carried out by a qualified Arborist or qualified professional with Tree Management experience.

SAMPLE SCHEDULE OF EXISTING SITE VEGETATION

Remnant Indigenous Species

Note: Site contains no remnant indigenous understorey or groundcover vegetation (existing Buffalo Turf cover only).

No.	Botanical Name	Common Name	Height (metres)	Spread (metres)	Trunk ϕ (mm)	Existing Condition	Proposed Action
1	Eucalyptus punctata	Grey Gum	12	10	600	excellent	retain/ protect
2	Corymbia maculata	Spotted Gum	22	18	1000	fair, 10% d/ wood	retain/ protect/ arborist
3	Eucalyptus robusta	Swamp Mahogany	18	15	900	good	retain/ protect
4	Pittosporum undulatum	Pittosporum	7	5	150	lopped, poor	remove
5	Corymbia maculata	Spotted Gum	10	5	200	good, immature	retain/ protect
6	Eucalyptus robusta	Swamp Mahogany	22	22	1300	poor, bird habitat	retain/ selective prune
7	Eucalyptus robusta	Swamp Mahogany	8	5	250	good, immature	retain/ protect
8	Corymbia maculata	Spotted Gum	25	22	1500	fair, 10% d/ wood	retain/ protect/ arborist
9	Corymbia maculata	Spotted Gum	25	16	1200	poor, 25% d/ wood	remove/ build footprint
10	Eucalyptus robusta	Swamp Mahogany	12	10	400	good	retain/ protect
11	Corymbia maculata	Spotted Gum	12	5	900	lopped, regrowth	retain/ protect/ arborist
12	Livistona australis	Cabbage Palm	6 CT	4	400	excellent	transplant/ build f/print
13	Corymbia maculata	Spotted Gum	10	4	250	excellent, sapling	retain/ protect

Sample Schedule of existing Site Trees and Vegetation

WHEN IS A VEGETATION SURVEY PLAN REQUIRED?

A vegetation survey plan should accompany any development application involving projects which include a decrease in landscaped area totalling >40m^2 or on any site with significant trees, tree groups and vegetation or remnant bushland that will be affected by such works.

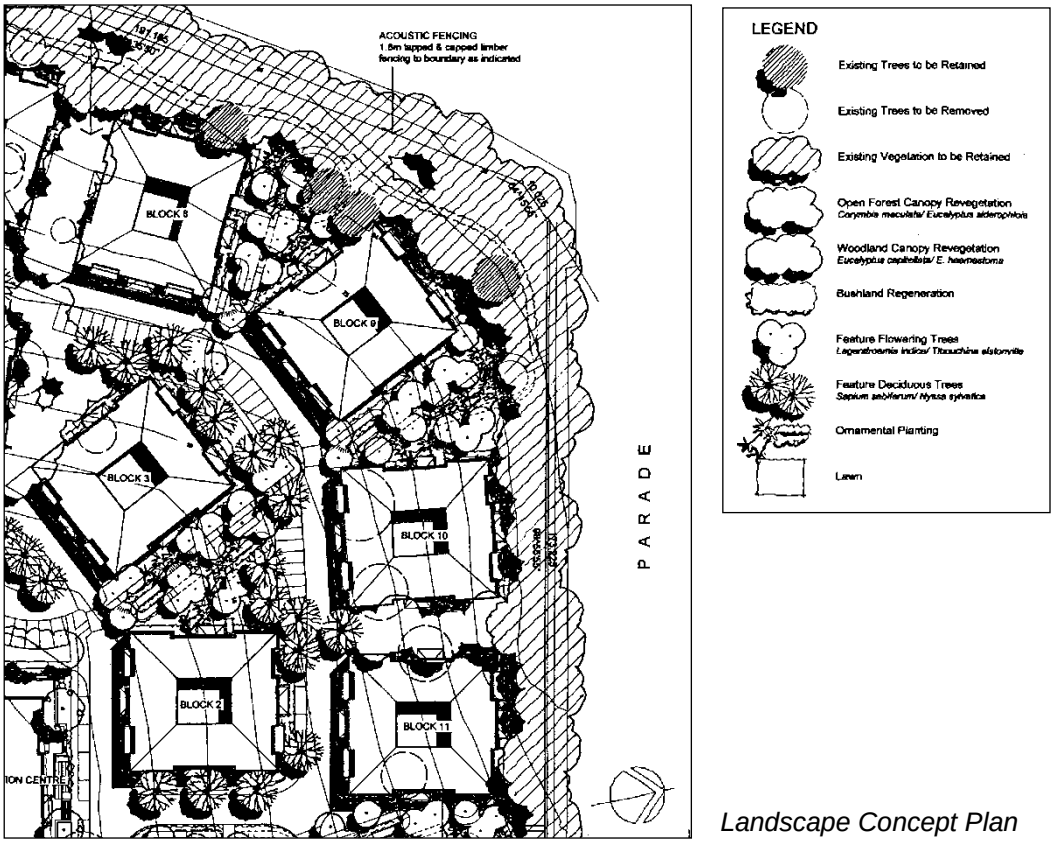
2.4.3 Landscape Concept Plan

SUBMISSION REQUIREMENTS

A landscape plan illustrates the design intent of a landscape proposal and its relationship to the architectural, civil and hydraulic design. The Landscape Concept Plan(s) shall include, but is not restricted to, the following information:

- existing site information: site boundaries, fences, underground and overhead services, easements, drainage and rights-of-way;
- existing vegetation to be retained or removed, as co-ordinated with an Arborists Report;
- co-ordination with proposed architectural layout, and any impact on the landscape proposal, including existing and proposed finished ground levels;
- co-ordination with proposed civil layouts, including road, driveways, footpaths, cut and fill, bus stops, slip lanes, taxi areas and street parking that may impact on landscape proposals, including existing and proposed finished ground levels.

- co-ordination with proposed services that may impact on landscape proposals;
- co-ordination with proposed drainage design, including location of stormwater lines, pits, water detention systems and overland surcharge paths;
- proposed surface treatment to all landscape and open space areas, including hard and soft treatments. The Landscape Concept Plan must illustrate the extent of items such as paving, podiums, retaining walls, fencing, paths, decks, stairs, lighting, garden beds, lawns and the like, including existing and proposed ground levels;
- planting design including layout to indicate proposed design, featuring trees, shrubs and groundcovers. The concept plan must contain an indication of the planting design and plant species to be used, including quantities and pot sizes to all planted areas. A plant schedule shall be included listing botanical name, quantities, pot sizes, plant spacing, staking and mature size;
- all proposed trees shall be a minimum planted size of 45 litres. All proposed shrubs shall be a minimum planted size of 200mm pot;
- standard construction and detail drawings such as sections through mass planting beds, street tree planting details and retaining wall details;
- the landscape plan must be consistent with all external designs including, but not limited to architectural, civil and hydraulic plans; and
- the landscape plan shall be illustrated at a minimum 1 to 200 scale.



Landscape Concept Plan

WHEN IS A LANDSCAPE PLAN REQUIRED?
For all projects which include increases in built upon area totalling >40m^2 or developments which may impact upon significant or substantial trees or vegetation, including remnant bushland.

For applications that are proposed in areas zoned as **non-urban**, a landscape concept plan will be required only for the zone of disturbance or the extent of works.

2.4.4 Site Analysis Plan

Effective description and analysis of existing site conditions and context is a prerequisite for effective site planning. A thorough site analysis provides the basis for site planning which maintains the desirable characteristics of a site and achieves a pleasant living or working environment. Generally the site analysis details can be incorporated into the landscape concept plan.

WHAT IS A SITE ANALYSIS PLAN?
A site analysis plan is a written and / or graphic indication of the physical characteristics of a site. It should indicate:

- Topography and slope (levels at 1.0m contours relating to Australian Height Datum);
- Drainage patterns;
- Details of existing vegetation (locations, botanical names, dimensions and surveyed levels at ground of all significant trees or tree groups on or adjacent to the site);
- Existing natural features (cliffs, rock outcrops, creek lines, etc.);
- Prevailing winds;
- Location, use and height of structures on the site and on adjacent sites; and
- A description of the existing street character.

WHEN IS A SITE ANALYSIS PLAN REQUIRED?
A site analysis plan is required to accompany development applications involving major external construction works. Site Analysis documentation may be incorporated in the Landscape Concept Plan.

2.4.5 Landscape Strategy Report

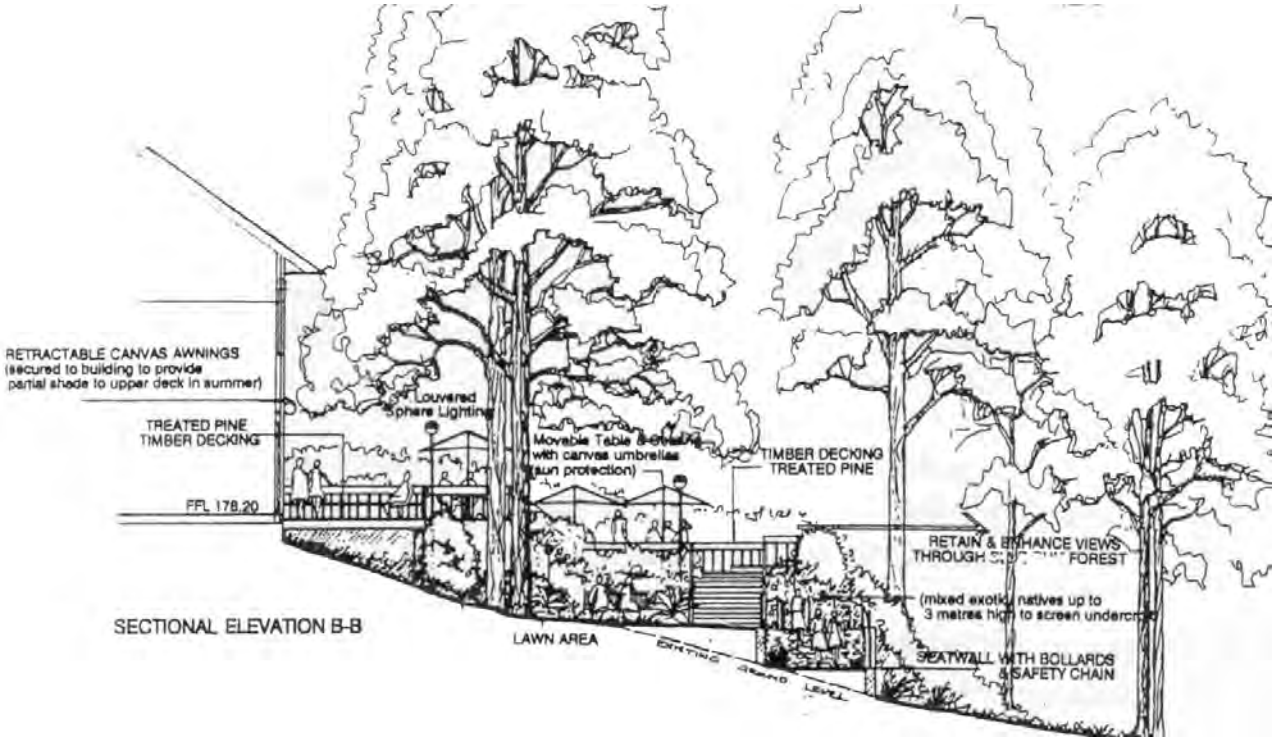
WHAT IS A LANDSCAPE STRATEGY REPORT?
In essence, this report describes in writing what is described in a graphic form in a landscape concept plan. It provides the written justification for the landscape scheme and indicates how the scheme addresses the impacts of the development on local and/or regional landscape quality. Specifically, a landscape strategy report should address the site issues affecting protection and management of existing significant tree groups, bushland habitat and existing or potential wildlife corridors.

WHEN IS A LANDSCAPE STRATEGY REPORT REQUIRED?
Council only requires a landscape strategy report for large scale developments (with landscape works areas > 200m^2 or landscape contract values >$200,000) for sensitive sites or if the site includes significant tree groups or remnant bushland.

2.4.6 Environmental Consultant's Report

WHAT IS AN ENVIRONMENTAL CONSULTANT'S REPORT?
An environmental consultant's report provides technical comment on potential environmental impacts of a development and makes recommendations for amelioration of the impacts.

WHEN IS AN ENVIRONMENTAL CONSULTANT'S REPORT REQUIRED?
Applicants are to refer to Councils Natural Environment and Education Business Unit or the or information on when an Environmental Consultants report is required.



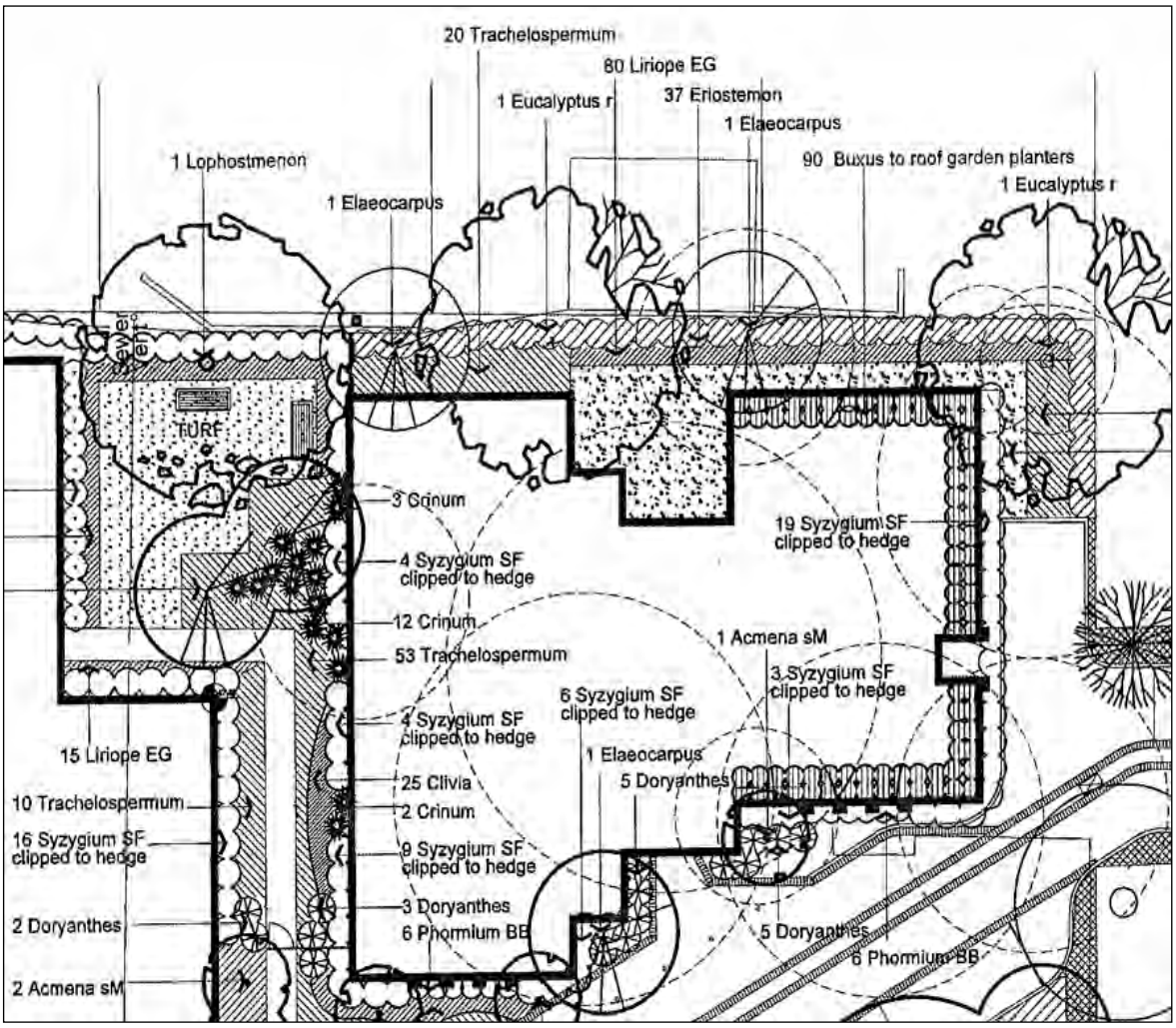
Landscape sections and elevations are helpful in assessing applications.

2.5 INFORMATION REQUIRED IN THE CONSTRUCTION CERTIFICATE APPLICATION

Landscape documentation submitted with the Construction Certificate Application must be of sufficient detail and content to be issued for construction purposes. The documentation must be consistent with the design proposed in the landscape concept plan submitted with the development application. Applicants should refer to the for particular requirements for the Construction Certificate Application.

Substantial changes to the approved landscape concept plan will require submission of either a new Development Application or an application for variation of the Development Approval under S96 of the *Environmental Planning and Assessment Act 1979*.

For further information on requirements for Construction Certificate stage, refer to Part 4 Landscape Development Control Matrix.



Typical Planting Plan required for Construction Certificate Application

2.6 COMPONENT CERTIFICATES AND CERTIFICATION OF LANDSCAPE WORKS

2.6.1 Component Certificates

Once the Construction Certificate is approved, generally Component Certificates are issued for various stages of the landscape works. These Component Certificates require the nominated consultant engaged to prepare the Development Application and Construction Certificate documentation to certify that the works have been inspected and have been completed in accordance with the appropriate standards and conditions of Development Consent.

Once these Component Certificates have been approved a Certificate of Compliance is issued, final inspections completed and Certificate of Occupation granted.

The following Component Certificates may need to be approved for landscape compliance and occupation;

- Building Component Certificate for Protection of Existing Trees or Landscaped Areas which are to be retained
- Component Certificate for Arborist supervision of development next to significant trees
- Component Certificate for Site Excavation or Filling
- Component Certificate for Site Landscaping
- Component Certificate for Irrigation, on-slab drainage and membrane drainage

Refer to section 2.1 for the development approval process in Pittwater, and Part 4. The Landscape Development Control Matrix for when a component certificate is required.

2.6.2 Landscape Practical Completion Report

For larger scale developments and sub-divisions a Landscape Practical Completion Report, prepared by the consultant landscape architect / designer must be submitted to Council within seven days of Practical Completion. The report should accompany other compliance documentation / certificates as required by Council and be submitted prior to occupation of the premises for the purposes approved.

The report should verify that all landscape works, as documented by the landscape architect/ designer and as approved by Council, have been carried out to the quality and technical standards required and that an appropriate landscape establishment / maintenance program has been commenced.

2.6.3 Landscape Establishment/ Maintenance Period

For larger scale projects and sub-divisions, Council requires a minimum landscape establishment / maintenance period of twelve months, following certification of Practical Completion (refer to section 3.5.7 Particular Requirements for land subdivision and general large scale development).

2.6.4 Final Completion Report

At the completion of the Planting Maintenance Period, the landscape architect/ designer should make a Final Inspection of the landscape works and submit a Final Completion Report to Council.

Any outstanding maintenance work or defects shall be rectified prior to issuing a Final Completion Report to Council.

2.6.5 Variations to the landscape documentation

Any variations which substantially alter the design intent or potentially affect the specific requirements are to be approved by Council prior to implementation. Written notification of the proposed variation is to be provided by the landscape architect/ designer.

2.6.6 Inspections and Non-compliance

For larger developments and sub-divisions, landscape works implementation be periodically inspected by the approved landscape architect/ designer. Tree management issues also need to be monitored periodically by the approved arborist.

Council undertakes random inspections of new developments to assess the standard of landscape works, establishment and maintenance. Where the standard of work is found to fall below the requirements of approved documentation or is contrary to the reports, issue of certificates or final approval for occupancy will be held until all matters are rectified.

2.7 Who can prepare the necessary Arborist Reports, Landscape Documentation and Component Certificates?

For all residential developments only a professionally qualified and experienced landscape architect, landscape/ environmental designer or Horticulturalist can prepare the required Landscape Plan and associated documentation.

All other developments, as noted in 2.2, can only be prepared by a professionally qualified Landscape Architect or landscape/environmental designer.

Landscape architects should be eligible for membership of the Australian Institute of Landscape Architects. Landscape or environmental designers should be eligible for membership of the Australian Institute of Landscape Designers and Managers.

Environmental Consultant's Reports must be prepared by a professionally qualified and experienced landscape architect or an accredited environmental consultant.

'Arborists Reports' must be prepared by only qualified consulting arborists who can show a demonstrated ability in tree assessment procedures and arboricultural techniques and are current members of the National Arborists Association of Australia. Consulting Arborists are not to carry out tree lopping works on the same property.

Component Certificates must be certified by the nominated consultant engaged to prepare the Development Application and Construction Certificate documentation or by a professionally qualified or accredited consultant approved by Councils Landscape Architect.

Council maintains a register of suitably qualified consultant arborists with experience in the Pittwater area. This register should not however be considered as a guarantee of compliance or endorsement from Council.

2.8 Who can implement the approved landscape works?

Landscape works are to be implemented by qualified and approved landscape contractors who are eligible for membership of the NSW Landscape Contractors Association and can demonstrate a track record of quality workmanship in the Pittwater area. The works are to be implemented in accordance with the Council approved documentation, including Landscape Plan(s), Landscape Specification, Landscape Strategy Report and Arborist's Reports as required.

2.9 Relationship between this Plan and Control B4.22

A Tree Preservation Order applies to all land within Pittwater. Under the Order, trees and vegetation groups are protected and cannot be removed or pruned without Council approval. Landscape plans accompanying development applications must indicate all trees to be removed and retained on or adjacent to a site. Specific approval must be obtained under Council's Tree Preservation before any nominated trees can be removed or pruned.

Spotted Gum Forest (Corymbia maculata) and remnant understorey are protected under Pittwater Council'' Tree Preservation Order.

2.10 Bonds and Guarantees

For site development occurring within sensitive areas containing remnant vegetation or significant trees, Council will levee a bond or guarantee on the applicant to ensure protection of the trees or vegetation. The sum of the bond will be determined by Council's Manager of Reserves and Recreation. The sum will be a reasonable estimate of the cost of rectifying any damage to trees or tree groups caused by a failure on the applicant's part to provide protection to the trees or vegetation.

For significant trees which might be affected by building works a condition to require the placement of a bond or bank guarantee of $10,000 for the first significant tree and $2000 for each significant tree thereafter will be required. This bond will is to be submitted prior to release of the building approval and released at the end of works subject to a certificate being provided by a qualified arborist that the designated significant trees have not been adversely affected by the works.

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2.10.1 Forfeit of Deposit/ Guarantee through Breach of Consent

Where protective fencing and soil erosion treatments are not properly installed, or where trees and/ or remnant bushland, identified for retention and protection, are damaged or die as a result of the building works, Council will actively pursue the breach of consent and seek to apply the deposit or guarantee in order to minimize loss of amenity and or habitat value as follows:

- to ensure that installation of fencing and soil erosion treatments are completed;
- to provide remedial tree care to affected trees;
- to replace damaged or dead trees; or
- to rehabilitate/ regenerate disturbed bushland.

2.10.2 Period of Deposit/ Guarantee and Refund

The deposit or guarantee will be released no earlier than twelve months and no later than two years after practical completion of the development. Release of the deposit / guarantee will be contingent on receipt of a report prepared by a properly qualified landscape architect / designer certifying that the significant trees / vegetation nominated for protection have been adequately protected and are in satisfactory condition.

The period for holding of the deposit/ guarantee will not be less than twelve months to allow adequate time for the developmental impact on significant trees and/ or remnant bushland to be assessed properly. For release of the deposit/ guarantee, significant trees and/ or remnant bushland will need to display vigour, integrity, sustainability of natural processes and no signs of increased decline, “die-back”, disease or pathogens.

Bonds may be placed on landscape developments to ensure there is no loss of amenity or natural vegetation and habitat.

PART 3. Development Controls & Best Practice

3.1 Introduction

Pittwater Council has developed a series of management statements reflecting its commitment to the enhancement and restoration of the landscape quality and biodiversity of Pittwater. These Statements form the basis of the development controls included in this plan.

This section of the Appendix lists and expands upon each of the management statements and includes the subsequent development controls.

3.2 Landscape and vegetation management statements

3.2.1 Protection of natural values and development within sensitive areas.

STATEMENT
Within the confines of zoning controls for development of land, Council is committed to the protection, management and conservation of natural features and environmentally sensitive areas within Pittwater.

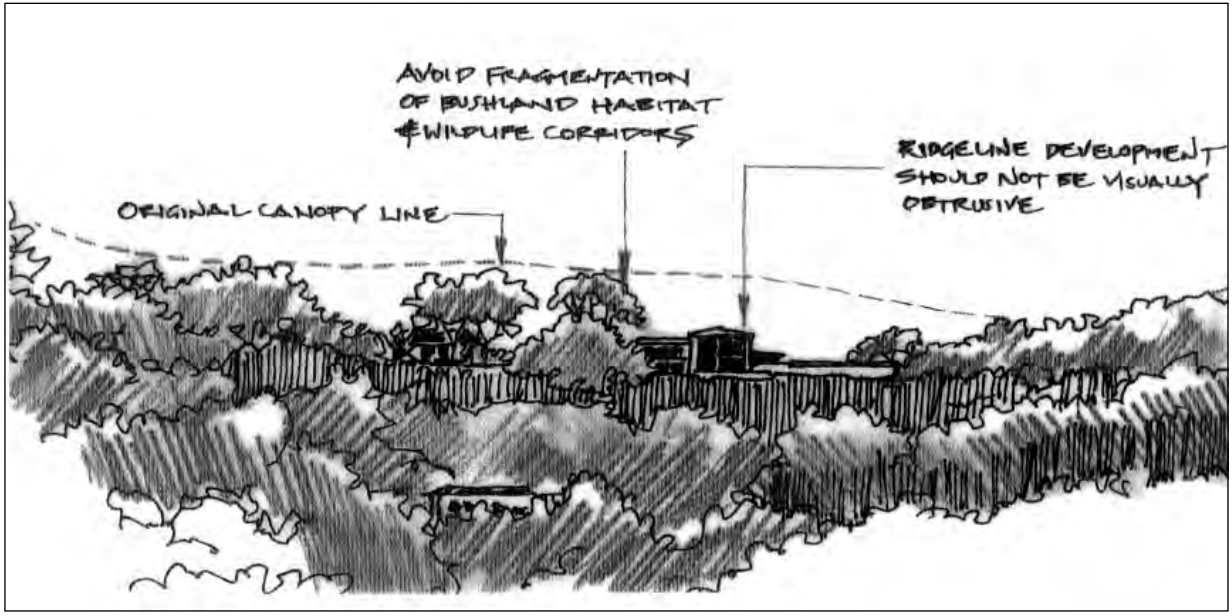
EXPLANATION AND IMPLICATIONS
The landscape character of Pittwater is reliant on the dominance of natural features over the built environment. A history of poor site planning techniques has, however, resulted in significant loss of vegetation cover and the long term decline of the indigenous tree canopy of Pittwater. In order to address this substantial tree loss and to retain the "naturalness" of the landscape character of Pittwater, the dominance of tree canopy over built form should be maintained as an overriding principle for landscape design. Moreover, proposed landscape works should identify and complement local landscape qualities and natural character, addressing site-specific issues within an appropriate developmental framework.

Pittwater Council encourages and promotes the planting of locally indigenous tree species, wherever possible, to replace a declining and fragmented indigenous tree cover. This approach will potentially ensure the long-term sustainability of threatened fauna populations and improve visual amenity and environmental quality of the area.

When making judgements regarding the level of environmental or ecological sensitivity of a site, applicants should have regard to the following criteria:

- Amount and quality of vegetation cover;
- Type of vegetation cover (i.e. exotic or indigenous vegetation);
- Gradient of the land on and adjacent to the site;
- Geotechnical capacity of the land on and adjacent to the site;
- Visibility of the site;
- Proximity to ridgelines.

Applicants are advised to seek advice from suitably qualified landscape and/or environmental professionals as to the sensitivity of any given site to a proposed development. For projects occurring on land that may be environmentally sensitive to development, applicants should engage landscape architects eligible for associate membership of the Australian Institute of Landscape Architects and/or environmental consultants who are members of the Environmental Institute of Australia.



Development on ridgelines should not be visually obtrusive. Protect existing canopy cover and avoid bushland fragmentation.

3.2.2 Role and Value of Bushland on Private Property

STATEMENT
Development within Pittwater should have regard to all existing bushland on private property and should seek to protect and enhance this important natural resource.

EXPLANATION AND IMPLICATIONS
Bushland on private property is an integral component of the visual character and amenity of the Pittwater area and plays an important role in provision of wildlife habitat and retention of biodiversity.

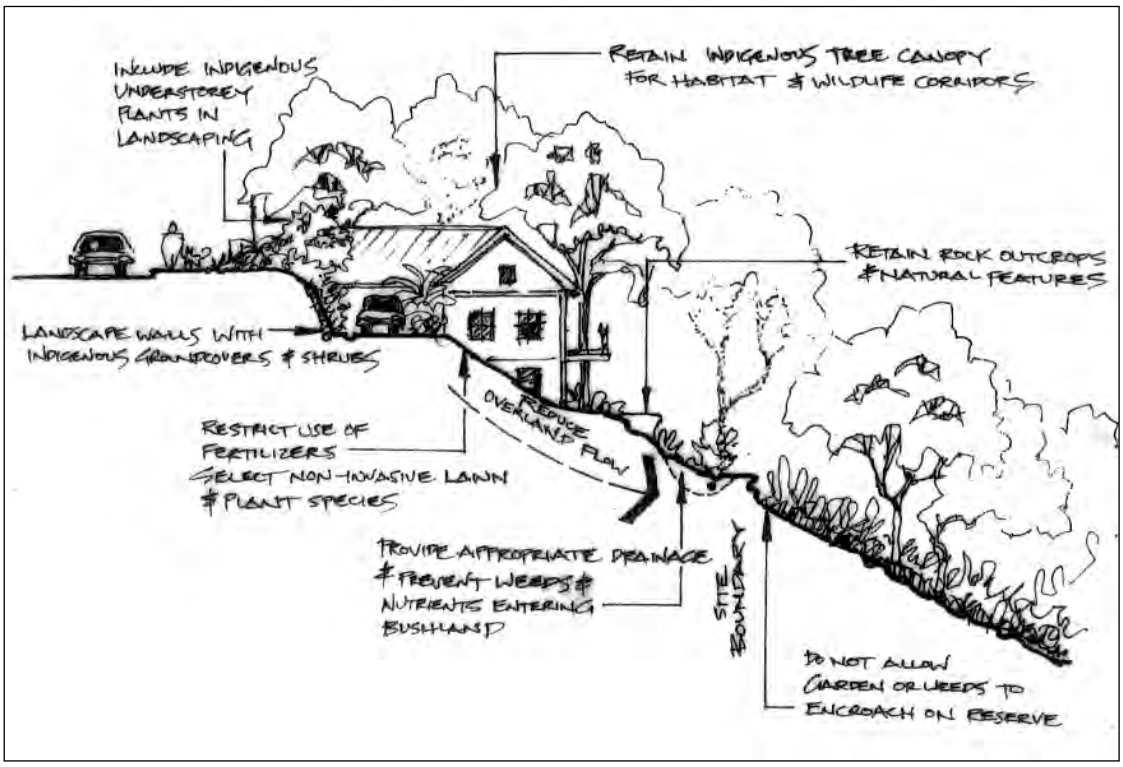
Wildlife Habitat & Corridors
Bushland on private property in Pittwater plays an important role in the conservation of native flora and fauna both by providing secondary habitat areas and by linking major bushland reserves, allowing movement of wildlife between these principle areas of habitat.

In particular, it is noteworthy that the majority of koala food trees on the peninsula are located outside Council reserves (Smith & Smith, 1990). Retention and maintenance of koala food trees located on private property is thus vital to the continued survival of the local koala colony. *State Environmental Planning Policy No.44 – Koala Habitat Protection* provides controls to ensure that such colonies are conserved.

The early residential development of Pittwater resulted in significant strips of remnant bushland remaining within large privately owned allotments. Over the past few decades, as urban growth has intensified, these large lots have been progressively subdivided leading to further substantial reduction and fragmentation of this habitat resource. In the area north of Bungan Beach, for example, the percentage of forested land was reduced from 47% in 1946 to 8% in 1989 (Smith & Smith, 1990).

Biodiversity
The bushland areas occurring on privately owned land within Pittwater support a wide variety of indigenous flora and fauna species along with at least one listed Endangered Ecological Community (the Pittwater Spotted Gum Forest). The management of these communities on private land is very important in preventing their regional extinction.

Remnant isolated Spotted Gums (Corymbia maculata) are threatened by over-clearing, drainage alterations and unsympathetic building works.



Development adjoining bushland needs to be sensitive to biodiversity issues and the protection of rare and threatened species.

Scenic and Environmental Protection

Large sections of residential development in the Pittwater area are on steep, visually prominent ridges and foreshores. Bushland remaining on these properties makes a significant contribution to the visual character and amenity of the area whilst assisting with preventing erosion and land-slip. Conversely, such land is particularly vulnerable to degradation through development due to its slope and the corresponding likelihood of loss of topsoil.

3.2.3 Protection of Significant Trees, old growth forest and Endangered Ecological Communities

STATEMENT
Significant trees, tree groups and ecological communities constitute a major component of the outstanding visual amenity and environmental quality of Pittwater. Such trees and communities must be conserved as a measure to maintain and enhance these qualities.

EXPLANATION AND IMPLICATIONS
Significant trees either:

- Are listed as items of heritage significance in Schedule 5 of the *Pittwater Local Environmental Plan 2014*; and/or
- Contribute substantially to the landscape character, amenity, cultural values or biodiversity values of their locality.

Apart from trees listed as Items of Heritage Significance in the Pittwater LEP, Council has no specific listing of significant trees within the Local Government Area. Applicants should seek expert advice as to whether particular trees or tree groups on or adjacent to sites for development are significant. Significant trees can also be determined by Council Staff during the application process and noted on building plans.

The Pittwater area contains an important natural heritage of indigenous old growth forest. These remnant communities are under threat from continued clearing and exposure of the forest canopy, alterations to drainage, soil compaction, unsympathetic root and canopy pruning, the addition of soil nutrients from garden waste, building materials, land-fill and past septic seepage.

A number of forest communities within Pittwater are listed as Endangered Ecological Communities under the *Threatened Species Conservation Act 1995*. For an explanation of legislative requirements regarding development within these Communities, applicants should refer to Part B4 of this DCP. Apart from these legislative requirements, Council encourages the exclusive planting of locally indigenous plant species within or in the vicinity of listed Endangered Ecological Communities.

Site planning and management of developments within these sensitive areas containing remnant significant trees and bushland habitat, should be based on an integrated strategy of minimal disturbance and replacement of all removed trees.

Where removal of significant trees or remnant indigenous vegetation is required to allow site development, the applicant will be required to submit the necessary supportive documentation for the proposal, prepared by approved consultants as detailed in this Plan. It is essential that the site planning demonstrates a comprehensive and site-specific approach to proposed development and that all alternatives have been properly considered.

For significant trees which might be affected by building works a condition to require the placement of a bond or bank guarantee of $10,000 for the first significant tree and $2000 for each significant tree thereafter will be required. This bond will is to be submitted prior to release of the building approval and released at the end of works subject to a certificate being provided by a qualified arborist that the designated significant trees have not been adversely affected by the works.

The purpose of the bond is to ensure that Council has sufficient monies to carry out remedial action or replacement planting's in the event of breach of the terms and conditions of the building approval which requires protection of significant trees. Refer to section 2.10 (Bonds & Guarantees).

To minimise the impact of development on significant trees, the establishment of a no build or earth work zone around significant trees will be required at a minimum of 5 metres from the base of the tree's trunk.

Developments in sensitive or visually prominent areas should seek to minimise disturbance to the site and use locally indigenous plant species.

3.3 General development controls for landscape and vegetation management

Landscape controls on development within Pittwater are generally orientated towards addressing the landscape and vegetation management statements listed in section 3.2 of this Appendix. These controls should be read in conjunction with this Appendix. General development controls pertaining to landscape and vegetation management include:

3.3.1 Site Planning

- Landscape should be considered as a component of the site planning process and should reflect the scale and form of development and its context within the landscape of the locality.

3.3.2 Retention of existing landscape character

- Significant natural features on or adjacent to a site are to be retained and protected as a component of development. The landscape documentation accompanying any development application is to illustrate any significant natural features on or adjacent to a site and to include measures for their retention and protection.

- Landscape development is to include measures to ensure that the dominance of natural vegetation over built form currently occurring in Pittwater is retained and enhanced in any

development. Development should be planned to retain wherever possible all significant trees and tree groups on a site.

- Bushland on or adjacent to any site for development is to be mapped and assessed for quality. Development on such sites is to be planned to protect and enhance bushland.

3.3.3 Street Trees

Developments on street frontages are to include planting of street trees appropriate to the locality in minimum 100 litre size containers, provided with protective tree guards.

3.3.4 Tree and vegetation protection

SIGNIFICANT TREES

Generally all proposed development should be located a minimum of 5 metres away from any significant tree currently existing on site.

Developments using *strip footings* are to be located no closer than **5 metres**, however where *pier and beam footings* are utilised this may be reduced to **3 metres**. For pier and beam footing construction near significant trees engineering details and an arborist report plus supervision will be required to indicate pier locations and minimise root disturbance.

Trees or vegetation on or adjacent to a site which have been nominated for retention as a condition of development consent must be adequately protect from damage as follows:

TEMPORARY PROTECTIVE FENCING

The installation of temporary protective fencing is required to physically define protection zones around trees or tree / vegetation groups, either within or adjacent to sites for development.

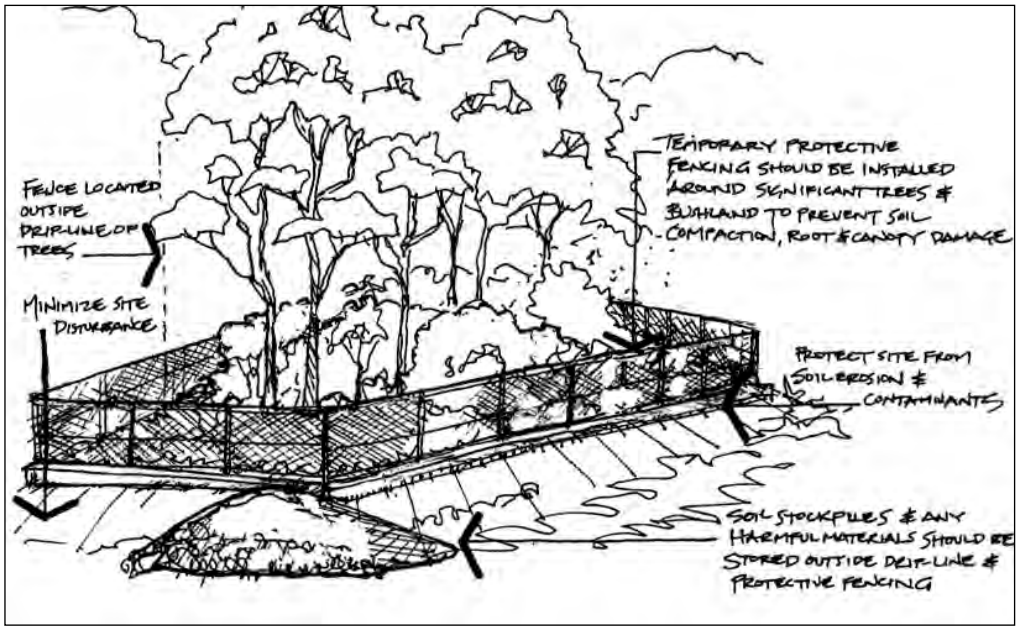
Protective fencing is to be chain-wire mesh fencing, minimum 1.8 metres high with steel pipe supporting posts. This fencing should be located a minimum distance of 1.0 metre outside the drip-line of trees and where possible, should extend to the limits of grading and filling as shown on the Drawings.

HARMFUL MATERIALS

Do not store or otherwise place bulk materials, building waste, cement/ concrete mixes and harmful materials within the drip-lines of trees or within protective fenced areas. Do not place spoil from excavations against tree trunks, even for short periods or allow fill materials or contaminants to be washed downhill into protective fenced areas. Prevent wind-blown materials such as cement from harming trees and plants.

RESPONSIBILITY

Applicants will be required to provide a bond, deposit or guarantee, as determined by Council, for the protection and management of trees and/or remnant bushland which may be affected by the proposed building works. Council advises the applicant that all parties/ trades working on the site should be made fully aware of their responsibility to tree protection, maintenance and care (refer to section 2.10 Bonds/ Guarantees).



Establish the limit of works for site disturbance and develop an appropriate earthworks strategy.

3.3.5 Soil and water management

SOIL EROSION AND DRAINAGE MANAGEMENT STRATEGY

Prior to Council approval of any earthworks on site, soil erosion and drainage management strategy details will need to be provided by the applicant, addressing the proposed method of dealing with these issues. This strategy needs to be consistent with the following guidelines and standards detailed in the document, *Urban Erosion and Sediment Control* (1992), prepared by the Department of Land and Water Conservation (formerly, Department of Conservation and Land Management).

Proposed drainage works will need to recognize the surrounding natural drainage flow conditions and system dynamics. Surface water will need to be disposed of without undue alteration to these systems. The volume and rate of stormwater runoff and the transport of contaminants, such as sediments, pollutants, nutrients, and so on are be restricted through appropriate controls and treatments at the source (eg. using hay bales, filter fences, on-site detention basins and structures, wet detention basins, etc).

DEVELOPMENT PHASING

Development should be phased so that land disturbance is confined to areas of workable size. This will limit the duration for which disturbed areas are exposed to erosion. Sediment control structures must be installed prior to any site disturbance. Stabilisation measures should be applied on the first disturbed section before works on the next section commence.

DISTURBED AREAS

Stabilize all disturbed areas, which will otherwise remain exposed for more than 30 days before permanent stabilisation and landscaping works are undertaken. The stabilization method or treatment should be appropriate and site-specific. For example, on a relatively flat site, a temporary cover of approved mulch may be spread, or a sterile, non-invasive annual grass species may be established over the disturbed areas. On steeper sites, mulched areas may need to be pegged with an approved nylon netting or covered and pegged with an erosion control mat or textile fabric. Large sites with good vehicular access, may be hydroseeded or hydro-mulched. Details of stabilization treatments will need to be provided with documentation.

SITE DETENTION

Avoid placing on-site detention basins and structures within the drip-line of trees to be retained. Ensure regular maintenance of soil erosion and stormwater management structures throughout the course of siteworks.

STOCKPILES

Stripped site topsoil, to be used for re-spreading, should be stockpiled on site and stabilized during construction works. Stockpiles should be stored outside hazard areas, protected from drainage works and erosion and not be within the drip-line of retained trees (refer to section 6.5 Temporary Protective Fencing).

PAVING MATERIALS AND FINISHES

Wherever possible, the use of hard-paved, non-porous materials and finishes will be kept to a minimum. In flat areas with low levels of foot-traffic, Council encourages the use of porous finished treatments, such as consolidated decomposed aggregates or the use of paving with open joints, filled with aggregate or planted with grass or low groundcovers. Garden areas are to be maximised in order to reduce runoff volumes, erosion and sedimentation.

DRAINAGE MANAGEMENT IN SENSITIVE AND PROTECTED AREAS

Within designated sensitive areas, natural drainage conditions should be maintained as far as possible. Prevent changes to drainage patterns such as directing water towards existing trees or remnant bushland as this can lead to tree decline, bushland degradation, loss of amenity and weed invasion.

3.4 Development controls for particular types of development

3.4.1 General residential development

The following controls apply to all residential development in Pittwater, apart from those forms listed within *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* which do not require development approval:

- Existing trees and bushland on residential land should be retained and protected.
- Canopy trees should be provided on front, rear and side setbacks where sufficient space exists to allow proper development of the trees to maturity. The use of locally indigenous tree species is encouraged.
- Effective screen planting should be provided to address issues of privacy or overlooking between adjacent properties.
- Plantings near driveways should be located so as not to obstruct visibility for the safe ingress and egress of vehicles and pedestrians.
- Developments on street frontages are required to provide street trees of species advised by Council at minimum 100 litre size with approved tree guards.
- No significant or large trees to be planted 5 metres from footing walls. Where pier and beam construction is utilised this can be reduced to 2 metres.

In addition to the general landscape controls for residential development, the following controls apply to specific forms of residential development:

3.4.2 Medium and high density residential development (residential flat buildings, multi dwelling housing and dual occupancies)

- Site planning is to ensure that existing significant trees and tree groups can be retained and protected and that adequate areas are retained around buildings to allow for effective landscape treatment, including, where appropriate, forest scale indigenous trees.
- Basement carparking is to maintain a minimum 7.5m front setback in order to allow for effective streetscape treatment and to retain existing trees in these areas.
- Hard paved areas are to be minimised and / or designed to allow for infiltration of stormwater.

3.4.3 Business development

- Landscape treatment in commercial areas should be consistent with the character of the district in which the development is proposed.
- Landscape treatment should complement existing streetscapes, urban landscape and bushland.
- Buildings, driveways and service trenches should generally have a minimum setback of 4m from trees tree groups which have been assessed as significant.
- Selection of tree species for street tree planting and decisions regarding landscape treatment on street frontages should be made in consultation with Council officers in order to ensure that the landscape treatment is consistent with any masterplan for streetscape treatment.

3.4.4 Industrial development

- Landscape treatment to front setbacks should serve to soften the appearance of the development and contribute positively to the streetscape character. Forest scale indigenous trees should be used in the front setback where area allows.
- Outdoor eating and sitting areas should be provided within sites at a rate of $1m^2$ per employee, with a minimum total of $10m^2$

3.4.5 Development in bushfire prone areas

- When preparing landscape proposals in bushfire prone areas, applicants should refer to Part B3 of this DCP.
- Plant selection in bushfire prone areas should occur in consultation with Council's Fire Control Officer and with reference to all relevant planning controls for bushfire management.

3.4.6 Development in environmentally or visually sensitive areas

- Environmental and visual impact analyses should be carried out at the development application stage for all development with the potential to impact significantly on local or regional environmental or visual quality.

- Site planning and landscape treatment should be carried out to ensure that the environmental and visual impacts of the proposal are minimised.
- Development should generally be sited and landscaped to ensure that structures do not extend beyond natural ridgelines.
- Existing indigenous trees in sensitive areas should be retained and forest scale indigenous trees should be planted to address the visual impacts of development in sensitive areas.

3.4.7 Particular requirements for land subdivision and general large scale development

For obvious reasons, larger scale developments have the potential to significantly impact on the landscape quality of their locality. The DCP includes specific controls for larger developments aimed at maintaining the dominance of vegetation and other natural features over the built form in the landscape of Pittwater. In the case of larger scale developments, applicants are advised to confer with Council's landscape division early in the design process in order to gain advice on particular landscape issues pertaining to the development.

PLANTING WORKS

In the case of large scale developments, it is particularly important that planting is aimed towards maintaining and enhancing the dominance of vegetation over built form in Pittwater. For this reason, Council requires that for larger scale developments and subdivisions, planting should include a balanced and appropriate mix of larger-sized advanced, super-advanced and/ or semi-mature field grown stock. It is recognized, however, that this solution may not be appropriate in some circumstances, particularly for sites within sensitive areas adjacent to bushland. Providing locally-sourced, indigenous plants in tubes or small containers may, in these instances, be preferable to provision of large specimen plants. Applicants should confer with Council's landscape division with regard to planting works on larger developments.

ESTABLISHMENT / PLANTING MAINTENANCE PERIOD

An Establishment/ Planting Maintenance Period of twelve months will apply to all major or larger scale developments. Suitable documentation in the form of a Maintenance Schedule will need to address recurrent works of a maintenance nature such as irrigation maintenance and watering, soil testing, weeding, staking, fertilizing, pest and disease control, replanting, cultivating, pruning, lawn mowing and edging, keeping the area neat and tidy, and the like.

INSPECTIONS AND COMPLIANCE

Council will make periodic inspections of the site to ensure that establishment/ planting maintenance levels are in accordance with the documented maintenance schedule.

PITTWATER COUNCIL LANDSCAPE DEVELOPMENT CONTROL MATRIX

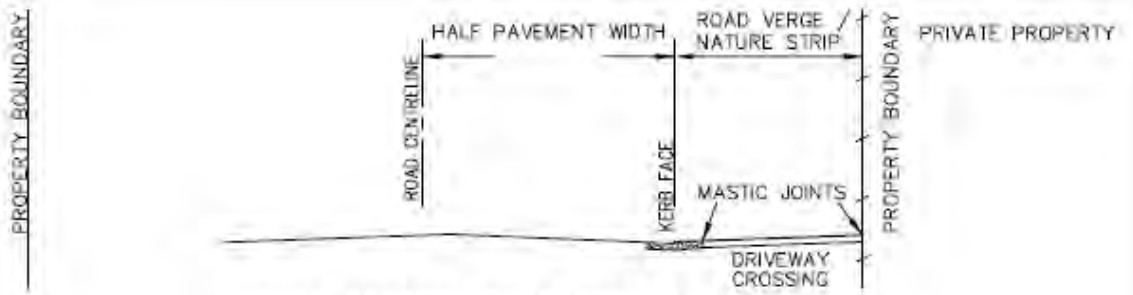
Type of Development	Required Documentation for Development Application	Required Documentation for Construction Certificate	Required Component Certificates for Compliance And Occupation	Development Controls
Residential Developments <40m² – with no impact on significant trees, natural features or remnant bushland	*Nil*	*Nil*	*Nil*	Nil
Residential Developments <40m² – with potential impacts upon any significant trees, natural features or remnant bushland	• *Landscape Concept Plan* • *Tree/Vegetation Survey* • *Arborist Report*	• *Detailed landscape Plan* • *Arborist Report*	• *Protection of existing Trees & Vegetation* • *Arborist works & supervision* • *Site Excavation or Filling* • *Site Landscaping*	Refer to Part 3. Development Controls of this Appendix
Tennis Courts, Pools, Spas or Decks which may impact upon any significant trees, natural features or remnant bushland	• *Landscape Concept Plan* • *Tree/Vegetation Survey* • *Arborist Report*	• *Detailed Landscape Plan* • *Arborist Report*	• *Protection of Existing Trees & Vegetation* • *Arborist works & supervision* • *Site Excavation or Filling* • *Site Landscaping*	Refer to part 3. Development Controls of this Appendix
Landscaped area reduction 40-500m² in total area	• *Tree/Vegetation Survey Plan* • *Landscape Concept Plan*	• *Detailed Landscape Plan*	• *Protection of Existing Trees & Vegetation* • *Site Excavation or Filling* • *Site Landscaping*	Refer to part 3. Development Controls of this Appendix, specifically Section 3.4
Landscaped area reduction 40-500m² in total area with any significant trees, natural features or remnant bushland	• *Tree/Vegetation Survey Plan* • *Landscape Concept Plan* • *Arborist Report*	• *Detailed Landscape Plan* • *Arborist Report*	• *Protection of Existing Trees & Vegetation* • *Arborist works & supervision* • *Site Excavation or Filling* • *Site Landscaping*	Refer to part 3. Development Controls of this Appendix, specifically Section 3.4
Landscaped area reduction >500m² in total area or Total Estimated Cost of Works >$200,000	• *Site Analysis Plan* • *Tree/Vegetation Survey Plan* • *Landscape Concept Plan* • *Landscape Strategy Report*	• *Grading & Siteworks Plan* • *Planting Plan* • *Hardworks Plan* • *Irrigation Plan* • *Landscape Specification*	• *Protection of Existing Trees & Vegetation* • *Site Excavation or Filling* • *Site Landscaping*	Refer to part 3. Development Controls of the Landscape DCP, specifically Section 3.4
Landscaped area reduction >500m² in total area or Total Estimated Cost of Works >$200,000 with any significant trees, natural features or remnant bushland or the site is recognised as a sensitive area	• *Site Analysis Plan* • *Tree/Vegetation Survey Plan* • *Landscape Concept Plan* • *Arborist Report*	• *Grading & Siteworks Plan* • *Planting Plan* • *Hardworks Plan* • *Irrigation Plan* • *Landscape Specification* • *Further Arboricultural details or Report*	• *Protection of Existing Trees & Vegetation* • *Arborist works & supervision* • *Site Excavation or Filling* • *Site Landscaping* • *Irrigation and drainage*	Refer to part 3. Development Controls of this Appendix, specifically Section 3.4
All other developments including: Business, Industrial, Subdivisions, Development within areas E2 Environmental Conservation, Development within Road Reserves, Recreation Facilities, Child Care Centres & Schools, Tourist and visitor accommodation inc. Caravan Parks	• *Site Analysis Plan* • *Tree/Vegetation Survey Plan* • *Landscape Concept Plan* • *Landscape Strategy Report* • *Arborist Report*	• *Grading & Siteworks Plan* • *Planting Plan* • *Hardworks Plan* • *Irrigation Plan* • *Landscape Specification* • *Further Arboricultural details or Report*	• *Protection of Existing Trees & Vegetation* • *Arborist works & supervision* • *Site Excavation or Filling* • *Site Landscaping* • *Irrigation and drainage*	Refer to part 3. Development Controls of this Appendix, specifically Section 3.4

- ❑ This Development Control Matrix is a guide only. Applicants are advised to seek Council advice on what documentation may be required at various stages of the Application process or if they are unclear as to the sensitivity of their site.
- ❑ Further Documentation or certificates may be required prior to the commencement of works, during compliance and prior to release of occupational certificate.
- ❑ For further information on Environmental Consultant Reports refer to Section B4 Natural Environment – Information to be submitted.
- ❑ For developments in areas categorized as Non-Urban, documentation is only required for the zone of landscape works.

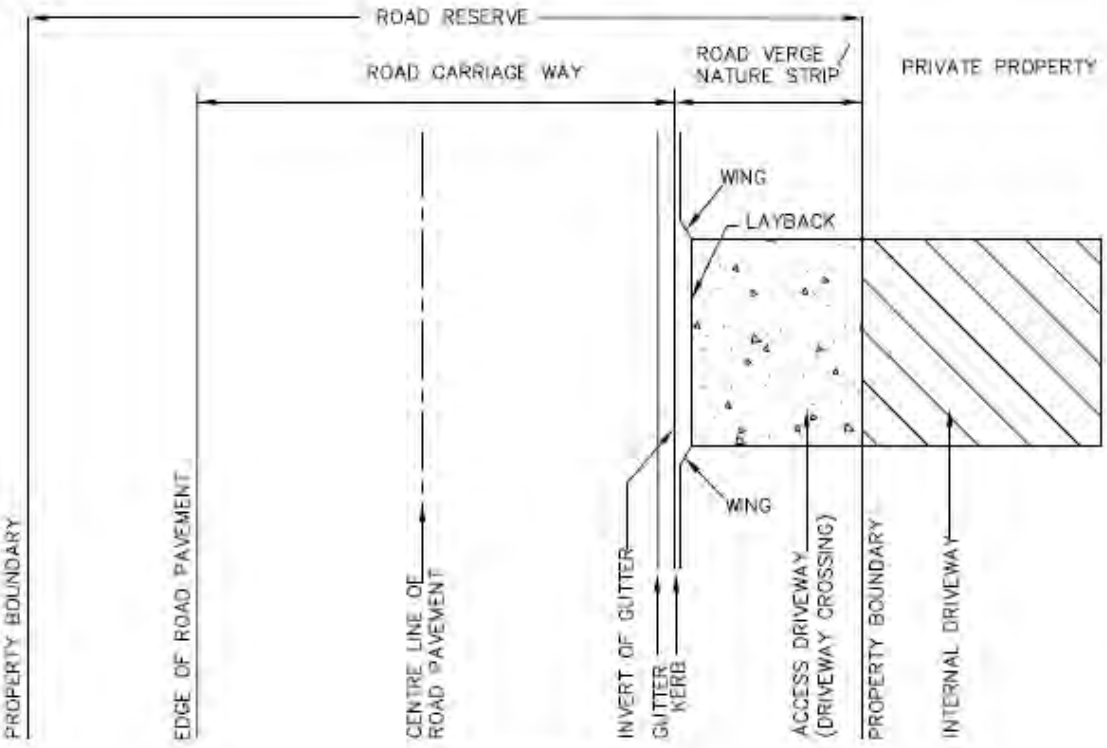
PITTWATER COUNCIL

Appendix 10

Driveway Profiles



CROSS SECTION–ROAD FROM CENTRELINE TO PROPERTY BOUNDARY



PLAN

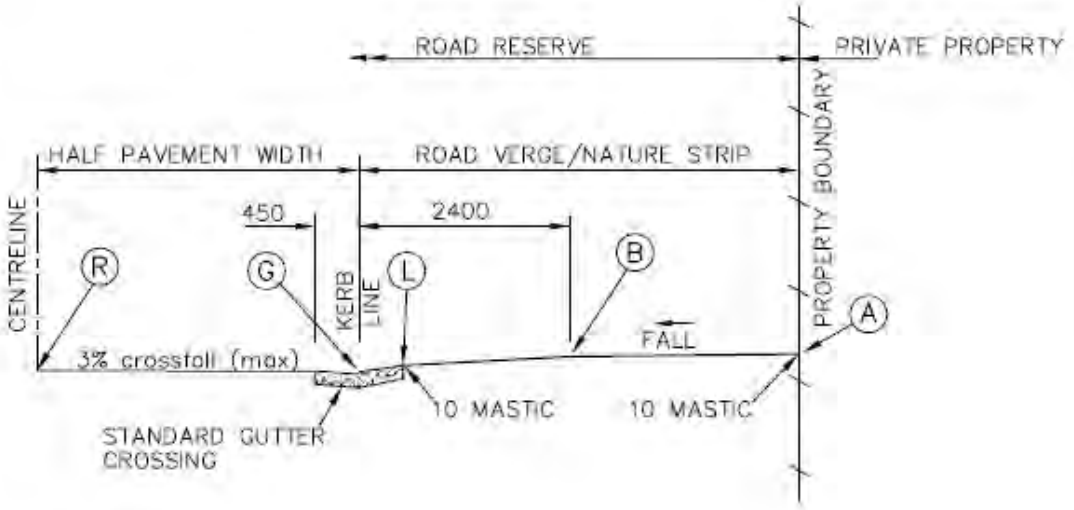
NOTES

- all construction to be concrete plain uncoloured 25MPa at 28 days.
- thickness single dwelling – 150mm with SL82 mesh. Multiple or industrial – 180mm with SL92 mesh.
- at least 24 hours notice of intention to pour shall be given to the Council's Urban Infrastructure Unit and no concrete shall be placed until the formwork has been approved.
- where kerb and gutter does not exist, the future alignment of the kerb can be provided by Council

DRAWING NOT SCALE

PITTWATER COUNCIL	VEHICULAR ENTRANCE WITH LAYBACK AND DRIVEWAY	PLAN No. STD–01
		Date: 9/11/2011

Cad File No:G:\Urban\Drawings – Current\Blocks & Standards\NEW STANDARDS 2011\Driveways\ STD-01.dwg



SET OUT

POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
L	BACK OF LAYBACK	100 ABOVE "G"
B	2400 FROM KERB LINE	MAX 180 ABOVE "G"
A	BOUNDARY	EASE REQUIRED AT GRADE CHANGE

NOTES

– To be read in conjunction with Pittwater 21 Development Controls.

MEASUREMENTS IN mm
DRAWINGS NOT TO SCALE

PITTWATER COUNCIL

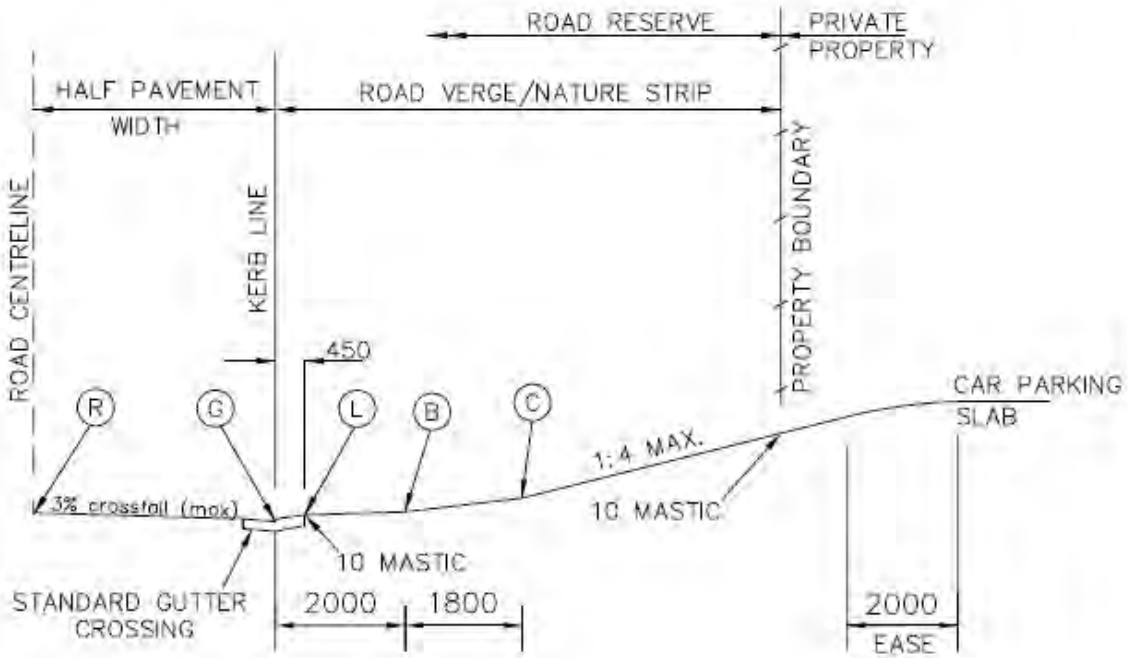
DRIVEWAY PROFILE

NORMAL

PLAN No. DP–01

Date: 9/11/2011

FOR USE ONLY FOR SINGLE
DWELLINGS OR DUAL OCCUPANCIES



SET OUT

POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
L	BACK OF LAYBACK	100 ABOVE "G"
B	2000 FROM KERB LINE	MAX 150 ABOVE "G"
C	3800 FROM KERB LINE	MAX 360 ABOVE "G"

NOTES

- To be read in conjunction with Pittwater 21 Development Controls.
- Does not cater for towed vehicles or vehicles with tow bars.
- Design required where crossfall exceeds 3%.

MEASUREMENTS IN mm
DRAWINGS NOT TO SCALE

PITTWATER COUNCIL

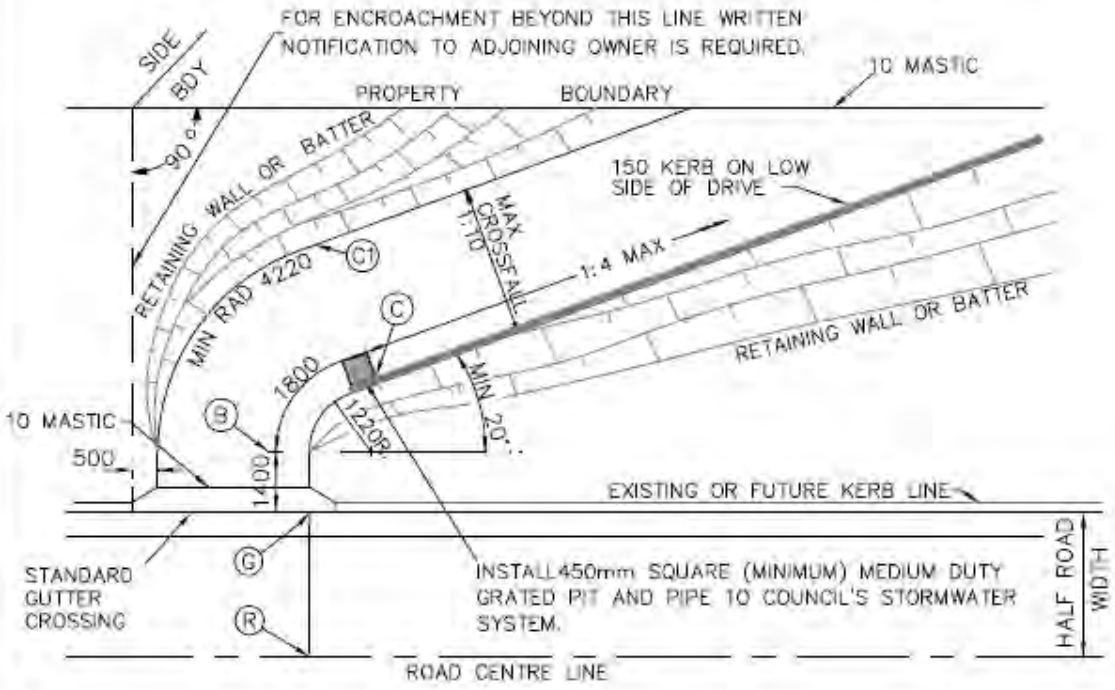
DRIVEWAY PROFILE
EXTRA HIGH

PLAN No.
DP–02

Date:
9/11/2011

PLAN MAY BE MIRROR REVERSED FOR ACCESS FROM OPPOSITE SIDE OF LOT

FOR USE ONLY FOR SINGLE DWELLING OR DUAL OCCUPANCIES



SET OUT

POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
B	1400 FROM KERB FACE	130 ABOVE "G"
C	3200 FROM KERB FACE	NOT HIGHER THAN 440 ABOVE "G"
C1	6900 FROM KERB FACE	MIN 440 MAX 740 ABOVE "G"

NOTES

- To be read in conjunction with Pittwater 21 Development Controls.
- Retaining wall & batter slopes to comply with Geotechnical Risk Management Policy for Pittwater.
- Does not cater for lowed vehicles or vehicles with tow bars.
- Design levels are calculated along inside edge NOT centreline.

MEASUREMENTS IN mm.
DRAWING NOT TO SCALE.

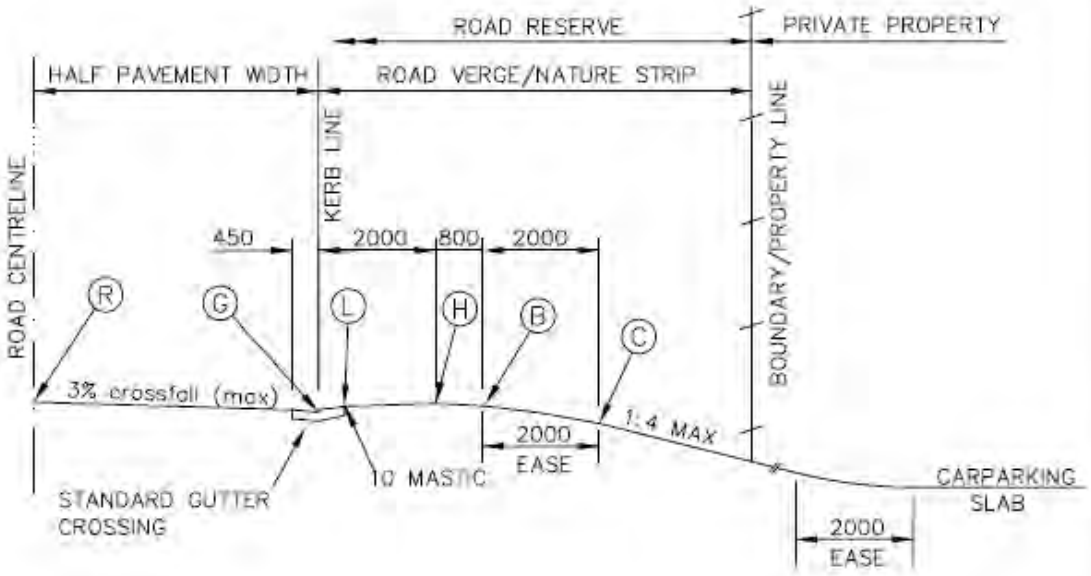
PITTWATER COUNCIL

DRIVEWAY PROFILE
HIGH LEVEL SKEW

PLAN No. DP-03

Date: 9/11/2011

FOR USE ONLY FOR SINGLE DWELLINGS OR DUAL OCCUPANCIES



SET OUT

POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
L	BACK OF LAYBACK	100 ABOVE "G"
H	2000 FROM KERB LINE	150 ABOVE "G"
B	2800 FROM KERB LINE	110 ABOVE "G"
C	4800 FROM KERB LINE	190 BELOW "G"

NOTES

- To be read in conjunction with Pittwater 21 Development Controls.
- Design required where crossfall exceeds 3%.

MEASUREMENT IN mm
DRAWINGS NOT TO SCALE

PITTWATER COUNCIL

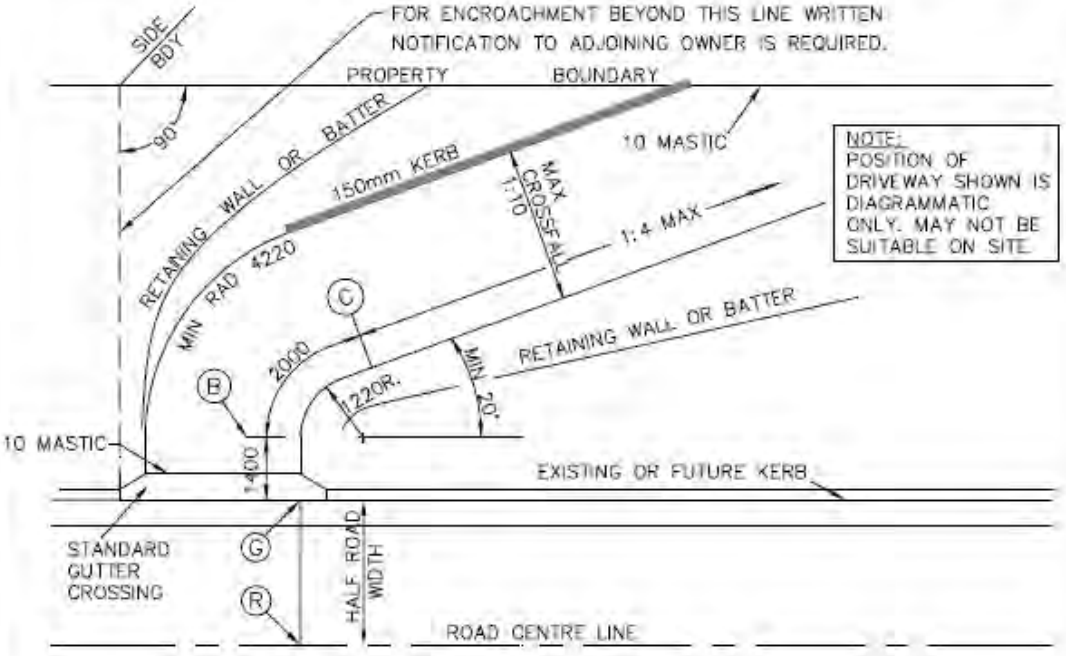
DRIVEWAY PROFILE
EXTRA LOW

PLAN No. DP-04

Date: 4/11/2011

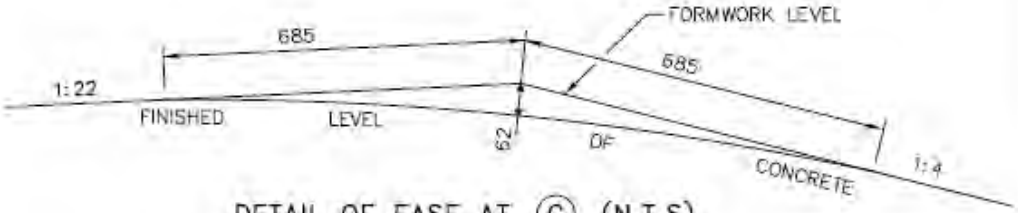
PLAN MAY BE MIRROR REVERSED FOR ACCESS FROM OPPOSITE SIDE OF LOT.

FOR USE ONLY FOR SINGLE DWELLING OR DUAL OCCUPANCIES



SET OUT

POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
B	1400 FROM KERB FACE	130 ABOVE "G"
C	3400 FROM KERB FACE	100 ABOVE "G" (FORMWORK LEVEL)



DETAIL OF EASE AT (C) (N.T.S)

NOTES
- To be read in conjunction with Pittwater 21 Development Controls.
- Retaining walls & batter slopes to comply with Geotechnical Risk Management Policy for Pittwater.
- Design levels are calculated along inside edge NOT centreline.

PITTWATER COUNCIL

DRIVEWAY PROFILE
LOW LEVEL SKEW

PLAN No. DP-05

Date: 9/11/2011

PITTWATER COUNCIL

Appendix 11

Stormwater Management Technical Data

PITTWATER COUNCIL
STORMWATER MANAGEMENT
TECHNICAL DATA

CONTENTS

Table 1
On-Site Detention Tanks - Orifice size according to depth of ponding of water and Permissible Site Discharge (PSD)

	Depth of tank above centreline of orifice																				
PSD																					
L/s	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	
2	55	46	42	39	37	35	34	33	32	31	30	30	29	28	28	28	27	27	26	26	
3	67	57	51	48	45	43	41	40	39	38	37	36	36	35	34	34	33	33	32	32	min.
4	78	65	59	55	52	50	45	46	45	44	43	42	41	40	40	39	38	38	37	37	100mm
5	87	73	66	62	58	56	54	52	50	49	48	47	46	45	44	44	43	42	42	41	diameter
6	95	80	72	67	64	61	59	57	55	54	52	51	50	49	48	48	47	46	46	45	outlet
7	103	87	78	73	69	66	63	61	59	58	57	55	54	53	52	51	51	50	49	49	pipe
8	110	93	84	78	74	70	68	65	64	62	60	59	58	57	56	55	54	53	53	52	
9	117	98	89	83	78	75	72	69	67	66	64	63	61	60	59	58	58	57	56	55	
10	123	104	94	87	82	79	76	73	71	69	68	66	65	64	63	62	61	60	59	58	
11	129	109	98	91	86	82	79	77	75	73	71	69	68	67	66	65	64	63	62	61	
12	135	113	102	95	90	88	83	80	78	76	74	72	71	70	69	67	66	65	65	64	
13	140	118	107	99	94	90	86	83	81	79	77	75	74	73	71	70	69	68	67	66	
14	146	122	111	103	97	93	90	87	84	82	80	78	77	75	74	73	72	71	70	69	min.
15	151	127	115	107	101	96	93	90	87	85	83	81	79	78	77	75	74	73	72	71	150mm
16	156	131	118	110	104	99	96	93	90	88	85	84	82	80	79	78	77	76	75	74	diamter
17	160	135	122	113	107	103	99	95	93	90	88	86	85	83	82	80	79	78	77	76	outlet
18	165	139	125	117	110	106	102	98	95	93	91	89	87	85	84	83	81	80	79	78	pipe
19	170	143	129	120	113	108	104	101	98	95	93	91	89	88	86	85	84	82	81	80	
20	174	146	132	123	116	111	107	104	100	98	96	94	92	90	88	87	86	85	83	82	
21	178	150	136	126	119	114	110	106	103	100	98	96	94	92	91	89	88	87	85	84	
22	183	154	139	129	122	117	112	109	105	103	100	98	96	94	93	91	90	89	87	86	
23	187	157	142	132	125	119	115	111	108	105	102	100	98	97	95	93	92	91	89	88	
24	191	160	145	135	128	122	117	113	110	107	105	102	100	99	97	95	94	93	91	90	
25	195	164	148	138	130	124	120	116	112	109	107	105	102	101	99	97	96	94	93	92	
26	198	167	151	140	133	127	122	118	115	112	109	107	105	103	101	99	98	96	95	94	
27		170	154	143	135	129	124	120	117	114	111	109	107	105	103	101	100	98	97	96	
28		173	156	146	138	132	127	122	119	116	113	111	108	106	105	103	101	100	99	97	
29		176	159	148	140	134	129	125	121	118	115	113	110	108	107	105	103	102	100	99	
30		179	162	151	143	136	131	127	123	120	117	115	112	110	108	107	105	104	102	101	
31		182	165	153	145	138	133	129	125	122	119	116	114	112	110	108	107	105	104	102	
32		185	167	156	147	141	135	131	127	124	121	118	116	114	112	110	108	107	105	104	
33		188	170	158	150	143	137	133	129	126	123	120	118	116	114	112	110	109	107	106	min.
34		191	172	160	152	145	140	135	131	128	125	122	120	117	115	113	112	110	109	107	225mm
35		194	175	163	154	147	142	137	133	129	126	124	121	119	117	115	113	112	110	109	diamter
36		196	177	165	156	149	144	139	135	131	128	125	123	121	119	117	115	113	112	110	outlet
37		199	180	167	158	151	146	141	137	133	130	127	125	122	120	118	117	115	113	112	pipe
38		202	182	170	160	153	148	143	139	135	132	129	126	124	122	120	118	116	115	113	
39		204	185	172	163	155	149	145	140	137	133	131	128	126	124	122	120	118	116	115	
40		207	187	174	165	157	151	146	142	138	135	132	130	127	125	123	121	120	118	116	
41		210	189	176	167	159	153	148	144	140	137	134	131	129	127	125	123	121	119	118	
42		212	192	178	169	161	155	150	146	142	139	136	133	130	128	126	124	122	121	119	
43		215	194	180	171	163	157	152	147	144	140	137	134	132	130	128	126	124	122	121	
44		217	196	183	173	165	159	154	149	145	142	139	136	133	131	129	127	125	124	122	
45		220	198	185	175	167	161	155	151	147	143	140	138	135	133	131	129	127	125	123	
46		222	201	187	177	169	162	157	152	148	145	142	139	136	134	132	130	128	126	125	
47		224	203	189	178	170	164	159	154	150	147	143	141	138	136	133	131	130	128	126	
48		227	205	191	180	172	166	160	156	152	148	145	142	139	137	135	133	131	129	128	
49		229	207	193	182	174	168	162	157	153	150	146	143	141	138	136	134	132	131	129	
50		231	209	195	184	176	169	164	159	155	151	148	145	142	140	138	136	134	132	130	

min. 375mm diameter outlet pipe

min. 300mm diameter outlet pipe

For orifice diameter less than 52mm, a 90mm diameter plastic pipe may be used as the outlet pipe from the basin

Table 2a
Design Rainfall Intensity Diagram for Elanora Heights

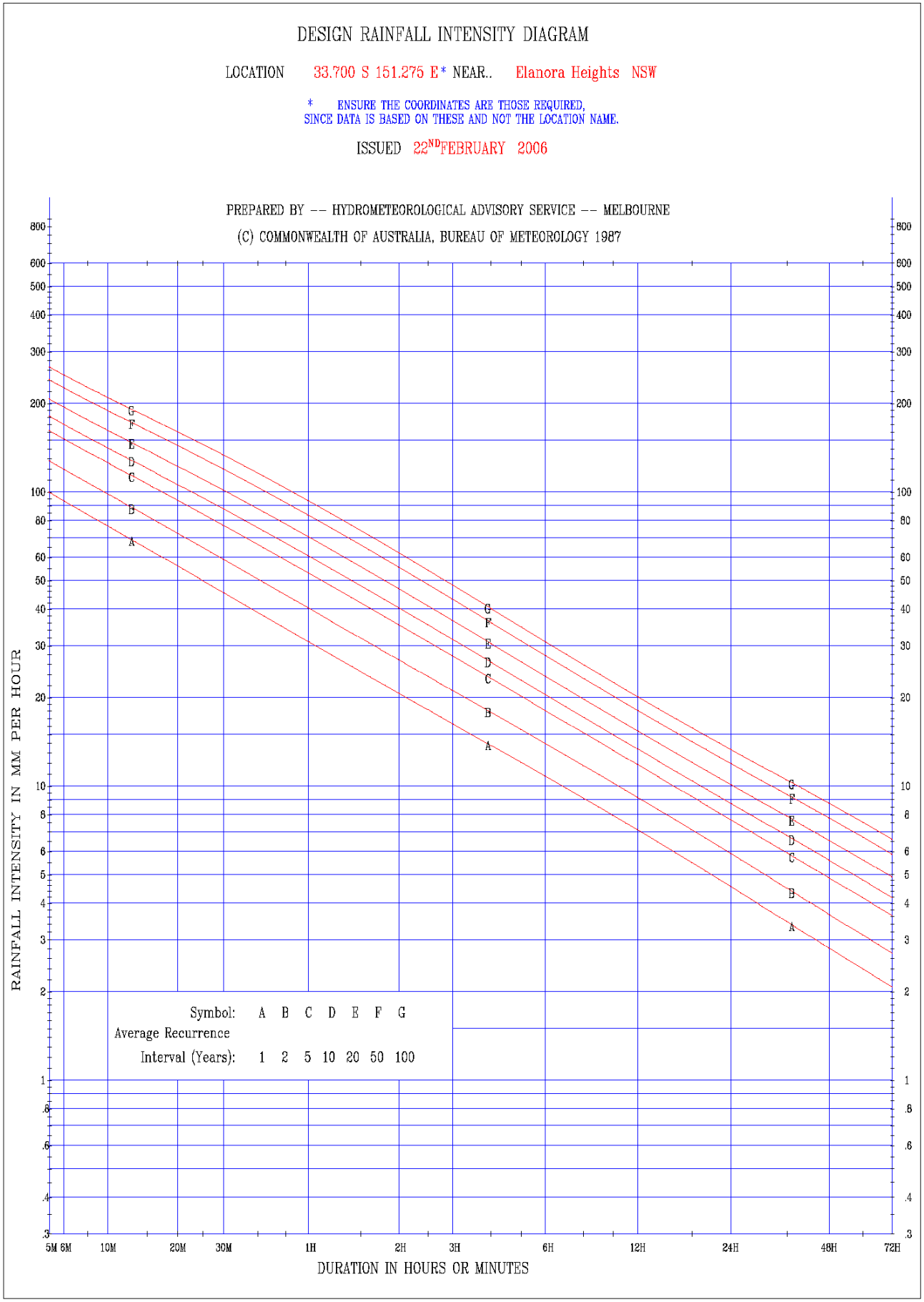


Table 2b
Design Rainfall Intensity Chart for Elanora Heights

LOCATION 33.700 S 151.275 E * NEAR.. Elanora Heights NSW ISSUED 22ND FEBRUARY 2006

PREPARED BY -- HYDROMETEOROLOGICAL ADVISORY SERVICE -- MELBOURNE

* ENSURE THE COORDINATES ARE THOSE REQUIRED SINCE DATA IS BASED ON THESE AND NOT LOCATION NAME.

LIST OF COEFFICIENTS TO EQUATIONS OF THE FORM

$$\ln(i) = a + b*(\ln(T)) + c*(\ln(T))**2 + d*(\ln(T))**3 + e*(\ln(T))**4 + f*(\ln(T))**5 + g*(\ln(T))**6$$

T = TIME IN HOURS AND I = INTENSITY IN MILLIMETRES PER HOUR

RETURN PERIOD (YEARS)	a	b	c	d	e	f	g
1	3.4329	−0.5714	−0.0211	0.00912	−0.001022	−0.0004442	0.0000635
2	3.6938	−0.5694	−0.0247	0.00885	−0.000598	−0.0004100	0.0000459
5	3.9684	−0.5639	−0.0351	0.00841	0.000584	−0.0003779	0.0000098
10	4.1020	−0.5613	−0.0407	0.00826	0.001222	−0.0003675	−0.0000094
20	4.2518	−0.5589	−0.0451	0.00801	0.001722	−0.0003452	−0.0000259
50	4.4209	−0.5565	−0.0499	0.00783	0.002258	−0.0003290	−0.0000425
100	4.5339	−0.5546	−0.0533	0.00771	0.002631	−0.0003253	−0.0000529

RAINFALL INTENSITY IN MM/HR FOR VARIOUS DURATIONS AND RETURN PERIODS

DURATION (HOURS)	RETURN PERIOD 1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS	50 YEARS	100 YEARS
0.083	99.6	127.	162.	181.	207.	240.	266.
0.100	93.3	119.	152.	170.	194.	226.	250.
0.167	76.4	98.2	125.	141.	162.	189.	209.
0.333	55.6	72.1	93.3	106.	122.	143.	160.
0.500	45.4	58.8	76.7	87.3	101.	119.	133.
1.000	31.0	40.2	52.9	60.5	70.2	83.2	93.1
2.000	20.7	26.8	35.3	40.3	46.8	55.4	62.0
3.000	16.3	21.1	27.6	31.4	36.4	43.1	48.1
6.000	10.8	13.9	18.0	20.5	23.6	27.8	31.0
12.000	7.05	9.13	11.8	13.4	15.4	18.1	20.1
24.000	4.54	5.89	7.68	8.74	10.1	11.9	13.3
48.000	2.81	3.66	4.87	5.59	6.53	7.77	8.72
72.000	2.07	2.70	3.62	4.17	4.89	5.84	6.57

Table 3a
Design Rainfall Intensity Diagram for Warriewood Valley

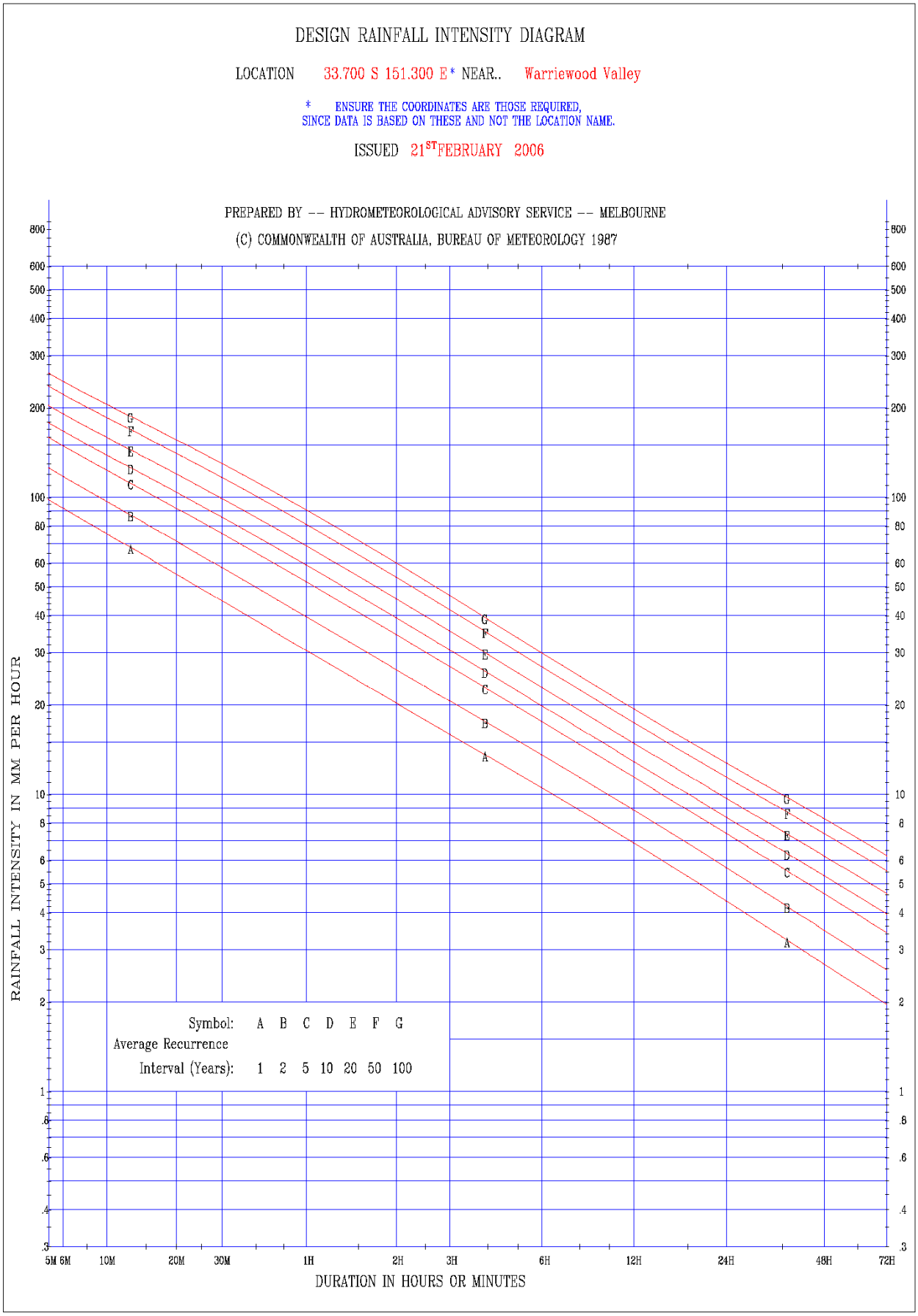


Table 3b
Design Rainfall Intensity Chart for Warriewood Valley

LOCATION 33.700 S 151.300 E * NEAR.. Warriewood Valley ISSUED 21ST FEBRUARY 2006

PREPARED BY -- HYDROMETEOROLOGICAL ADVISORY SERVICE -- MELBOURNE

* ENSURE THE COORDINATES ARE THOSE REQUIRED SINCE DATA IS BASED ON THESE AND NOT LOCATION NAME.

LIST OF COEFFICIENTS TO EQUATIONS OF THE FORM

$$\ln(i) = a + b*(\ln(T)) + c*(\ln(T))^{**}2 + d*(\ln(T))^{**}3 + e*(\ln(T))^{**}4 + f*(\ln(T))^{**}5 + g*(\ln(T))^{**}6$$

T = TIME IN HOURS AND I = INTENSITY IN MILLIMETRES PER HOUR

RETURN PERIOD (YEARS)	a	b	c	d	e	f	g
1	3.4168	-0.5747	-0.0227	0.00914	-0.000952	-0.0004537	0.0000627
2	3.6767	-0.5733	-0.0263	0.00922	-0.000540	-0.0004653	0.0000528
5	3.9471	-0.5684	-0.0354	0.00895	0.000462	-0.0004461	0.0000225
10	4.0778	-0.5660	-0.0402	0.00876	0.001033	-0.0004243	0.0000043
20	4.2261	-0.5635	-0.0441	0.00853	0.001478	-0.0004063	-0.0000093
50	4.3930	-0.5610	-0.0484	0.00826	0.001974	-0.0003829	-0.0000265
100	4.5043	-0.5591	-0.0515	0.00802	0.002345	-0.0003589	-0.0000402

RAINFALL INTENSITY IN MM/HR FOR VARIOUS DURATIONS AND RETURN PERIODS

DURATION (HOURS)	RETURN PERIOD 1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS	50 YEARS	100 YEARS
0.083	98.1	126.	159.	178.	204.	237.	262.
0.100	91.8	118.	149.	167.	191.	222.	246.
0.167	75.3	96.6	123.	139.	159.	185.	205.
0.333	55.0	71.0	91.7	104.	120.	140.	156.
0.500	44.7	57.9	75.3	85.5	98.8	116.	130.
1.000	30.5	39.5	51.8	59.0	68.5	80.9	90.4
2.000	20.3	26.3	34.4	39.2	45.5	53.7	60.0
3.000	15.9	20.6	26.9	30.6	35.4	41.7	46.6
6.000	10.5	13.5	17.5	19.8	22.9	26.9	30.0
12.000	6.85	8.83	11.4	12.9	14.9	17.5	19.4
24.000	4.37	5.66	7.38	8.39	9.71	11.4	12.8
48.000	2.68	3.49	4.63	5.31	6.20	7.37	8.28
72.000	1.96	2.56	3.42	3.94	4.62	5.51	6.20

Table 4a
Design Rainfall Intensity Diagram for Mona Vale

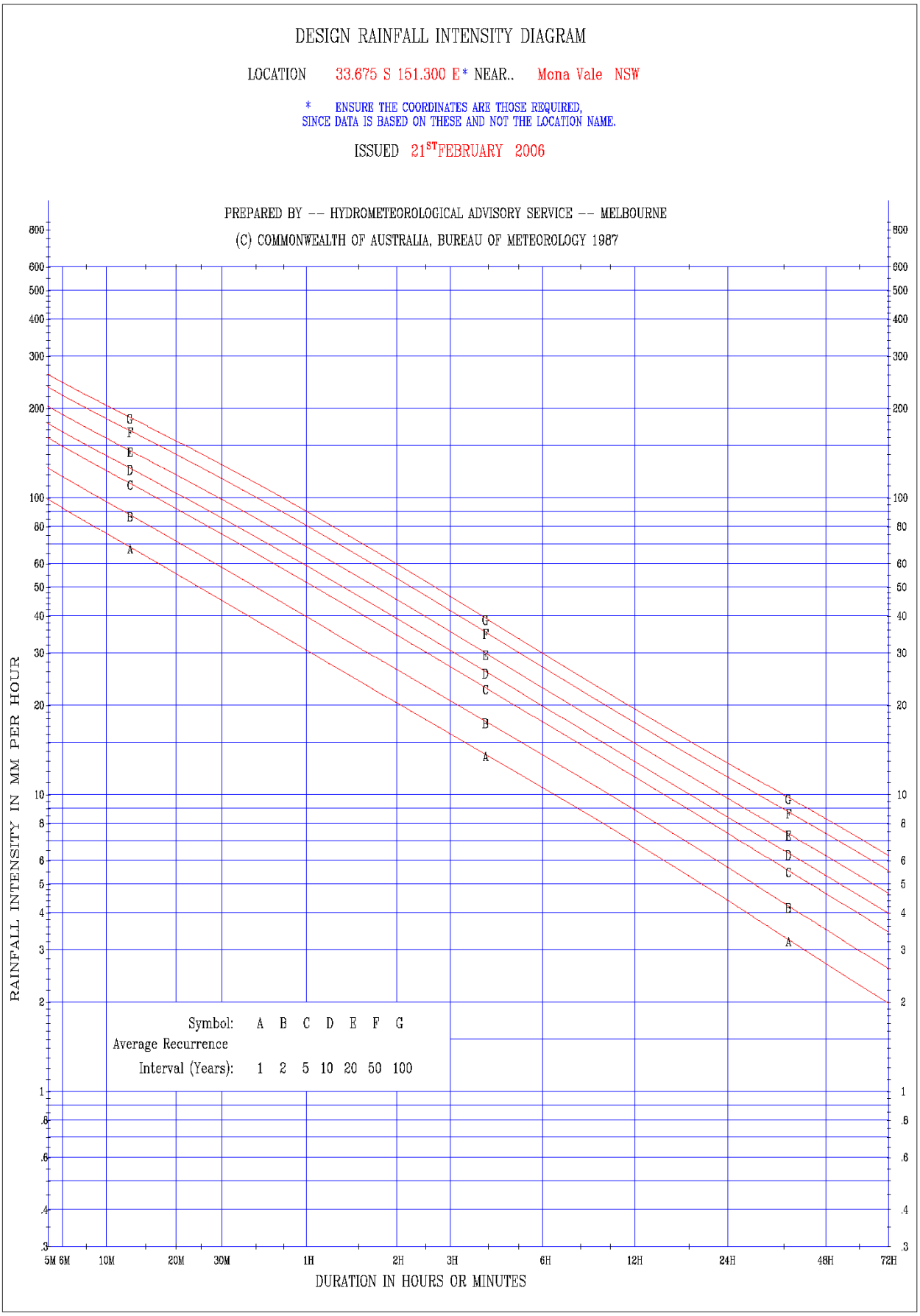


Table 4b
Design Rainfall Intensity Chart for Mona Vale

LOCATION 33.675 S 151.300 E * NEAR.. Mona Vale NSW ISSUED 21ST FEBRUARY 2006

PREPARED BY -- HYDROMETEOROLOGICAL ADVISORY SERVICE -- MELBOURNE
(C) COMMONWEALTH OF AUSTRALIA, BUREAU OF METEOROLOGY 1987

* ENSURE THE COORDINATES ARE THOSE REQUIRED SINCE DATA IS BASED ON THESE AND NOT LOCATION NAME.

LIST OF COEFFICIENTS TO EQUATIONS OF THE FORM

$$\ln(i) = a + b*(\ln(T)) + c*(\ln(T))**2 + d*(\ln(T))**3 + e*(\ln(T))**4 + f*(\ln(T))**5 + g*(\ln(T))**6$$

T = TIME IN HOURS AND I = INTENSITY IN MILLIMETRES PER HOUR

RETURN PERIOD (YEARS)	a	b	c	d	e	f	g
1	3.4208	-0.5755	-0.0231	0.00935	-0.000899	-0.0004718	0.0000636
2	3.6797	-0.5737	-0.0267	0.00942	-0.000506	-0.0004855	0.0000554
5	3.9463	-0.5679	-0.0348	0.00879	0.000436	-0.0004250	0.0000209
10	4.0754	-0.5651	-0.0394	0.00853	0.000981	-0.0003977	0.0000022
20	4.2223	-0.5623	-0.0432	0.00814	0.001446	-0.0003622	-0.0000180
50	4.3878	-0.5600	-0.0473	0.00814	0.001909	-0.0003666	-0.0000277
100	4.4981	-0.5582	-0.0499	0.00794	0.002193	-0.0003447	-0.0000384

RAINFALL INTENSITY IN MM/HR FOR VARIOUS DURATIONS AND RETURN PERIODS

	RETURN PERIOD						
DURATION (HOURS)	1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS	50 YEARS	100 YEARS
0.083	98.5	126.	159.	178.	203.	236.	261.
0.100	92.2	118.	149.	167.	191.	221.	245.
0.167	75.6	96.9	123.	138.	158.	185.	204.
0.333	55.3	71.2	91.6	103.	119.	140.	155.
0.500	44.9	58.1	75.2	85.3	98.4	116.	129.
1.000	30.6	39.6	51.7	58.9	68.2	80.5	89.8
2.000	20.4	26.4	34.4	39.2	45.4	53.5	59.8
3.000	16.0	20.7	26.9	30.5	35.3	41.6	46.4
6.000	10.5	13.6	17.6	19.8	22.9	26.9	29.9
12.000	6.86	8.86	11.4	12.9	14.9	17.5	19.4
24.000	4.39	5.68	7.39	8.40	9.72	11.5	12.8
48.000	2.70	3.51	4.64	5.33	6.22	7.39	8.28
72.000	1.95	2.58	3.44	3.96	4.63	5.52	6.20

Table 5a
Design Rainfall Intensity Diagram for Avalon

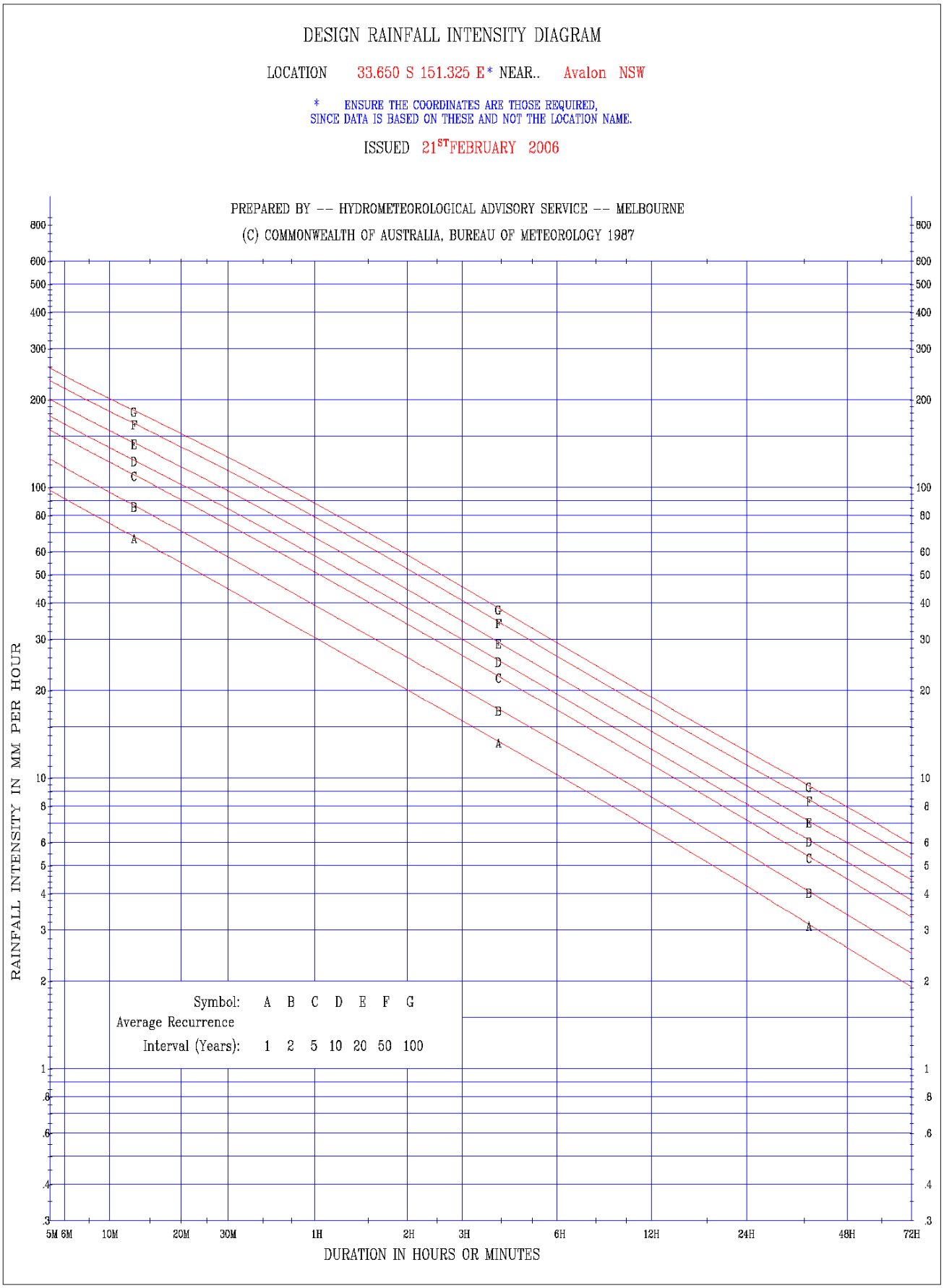


Table 5b
Design Rainfall Intensity Chart for Avalon

LOCATION 33.650 S 151.325 E * NEAR.. Avalon NSW ISSUED 21ST FEBRUARY 2006

PREPARED BY -- HYDROMETEOROLOGICAL ADVISORY SERVICE -- MELBOURNE

* ENSURE THE COORDINATES ARE THOSE REQUIRED SINCE DATA IS BASED ON THESE AND NOT LOCATION NAME.

LIST OF COEFFICIENTS TO EQUATIONS OF THE FORM

$$\ln(i) = a + b*(\ln(T)) + c*(\ln(T))**2 + d*(\ln(T))**3 + e*(\ln(T))**4 + f*(\ln(T))**5 + g*(\ln(T))**6$$

T = TIME IN HOURS AND I = INTENSITY IN MILLIMETRES PER HOUR

RETURN PERIOD (YEARS)	a	b	c	d	e	f	g
1	3.4124	-0.5803	-0.0271	0.00915	-0.000464	-0.0004433	0.0000469
2	3.6686	-0.5779	-0.0296	0.00915	-0.000187	-0.0004576	0.0000422
5	3.9322	-0.5720	-0.0367	0.00875	0.000637	-0.0004202	0.0000142
10	4.0595	-0.5691	-0.0400	0.00882	0.000967	-0.0004359	0.0000085
20	4.2050	-0.5666	-0.0431	0.00869	0.001313	-0.0004245	-0.0000024
50	4.3685	-0.5635	-0.0464	0.00838	0.001717	-0.0003953	-0.0000181
100	4.4776	-0.5615	-0.0486	0.00832	0.001953	-0.0003948	-0.0000241

RAINFALL INTENSITY IN MM/HR FOR VARIOUS DURATIONS AND RETURN PERIODS

	RETURN PERIOD						
DURATION (HOURS)	1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS	50 YEARS	100 YEARS
0.083	97.7	125.	158.	176.	201.	233.	258.
0.100	91.5	117.	146.	165.	189.	219.	242.
0.167	75.0	96.0	122.	137.	157.	182.	202.
0.333	54.9	70.5	90.6	102.	118.	137.	153.
0.500	44.6	57.5	74.3	84.1	97.9	114.	127.
1.000	30.3	39.2	51.0	57.9	67.0	78.9	88.0
2.000	20.1	26.0	33.8	38.4	44.5	52.4	58.5
3.000	15.7	20.3	26.3	29.9	34.6	40.7	45.4
6.000	10.2	13.2	17.1	19.4	22.4	26.3	29.2
12.000	6.65	8.58	11.1	12.6	14.5	17.0	18.9
24.000	4.24	5.49	7.16	8.13	9.41	11.1	12.4
48.000	2.61	3.39	4.49	5.13	5.96	7.09	7.95
72.000	1.91	2.49	3.31	3.80	4.44	5.28	5.93

Table 6a
Design Rainfall Intensity Diagram for Mackeral Beach

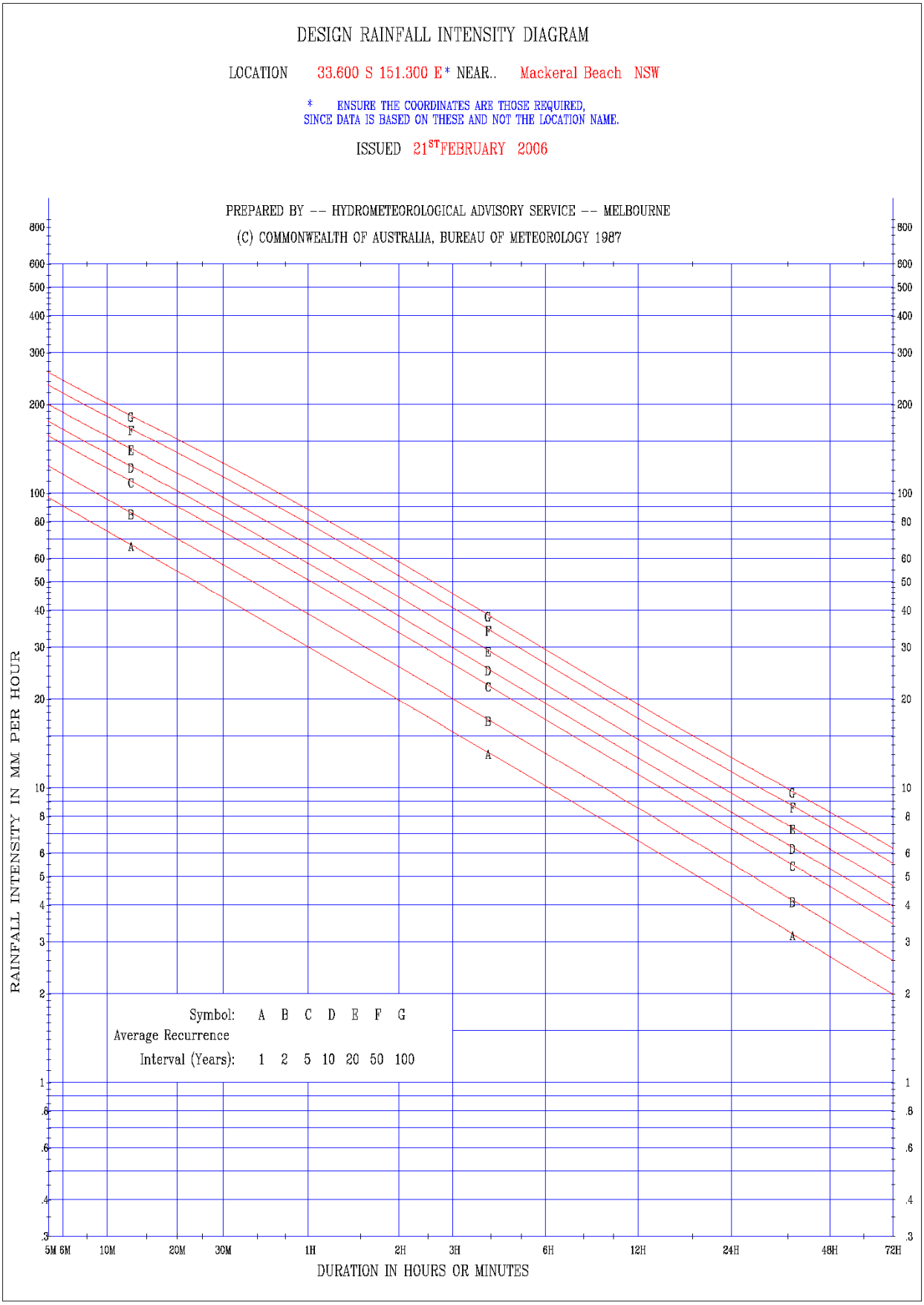


Table 6b
Design Rainfall Intensity Chart for Mackeral Beach

LOCATION 33.600 S 151.300 E * NEAR.. Mackeral Beach NSW ISSUED 21ST FEBRUARY 2006

PREPARED BY -- HYDROMETEOROLOGICAL ADVISORY SERVICE -- MELBOURNE

* ENSURE THE COORDINATES ARE THOSE REQUIRED SINCE DATA IS BASED ON THESE AND NOT LOCATION NAME.

LIST OF COEFFICIENTS TO EQUATIONS OF THE FORM

$$\ln(i) = a + b*(\ln(T)) + c*(\ln(T))**2 + d*(\ln(T))**3 + e*(\ln(T))**4 + f*(\ln(T))**5 + g*(\ln(T))**6$$

T = TIME IN HOURS AND I = INTENSITY IN MILLIMETRES PER HOUR

RETURN PERIOD (YEARS)	a	b	c	d	e	f	g
1	3.4013	-0.5804	-0.0282	0.00874	-0.000096	-0.0003644	0.0000247
2	3.6593	-0.5771	-0.0307	0.00837	0.000219	-0.0003327	0.0000110
5	3.9254	-0.5704	-0.0364	0.00821	0.000832	-0.0003286	-0.0000056
10	4.0540	-0.5664	-0.0396	0.00796	0.001206	-0.0003136	-0.0000179
20	4.2003	-0.5637	-0.0423	0.00796	0.001495	-0.0003178	-0.0000248
50	4.3651	-0.5601	-0.0450	0.00776	0.001794	-0.0003047	-0.0000342
100	4.4751	-0.5583	-0.0467	0.00791	0.001948	-0.0003231	-0.0000350

RAINFALL INTENSITY IN MM/HR FOR VARIOUS DURATIONS AND RETURN PERIODS

	RETURN PERIOD						
DURATION (HOURS)	1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS	50 YEARS	100 YEARS
0.083	96.7	124.	157.	175.	200.	233.	257.
0.100	90.5	116.	147.	164.	188.	218.	241.
0.167	74.2	95.1	121.	136.	156.	182.	201.
0.333	54.3	69.6	89.9	102.	117.	137.	152.
0.500	44.1	56.9	73.8	83.5	96.4	113.	126.
1.000	30.0	38.8	50.7	57.6	66.7	78.7	87.8
2.000	19.9	25.7	33.6	38.3	44.4	52.4	58.5
3.000	15.5	20.1	26.2	29.8	34.5	40.8	45.5
6.000	10.1	13.1	17.0	19.4	22.4	26.4	29.5
12.000	6.60	8.53	11.1	12.6	14.6	17.2	19.2
24.000	4.26	5.53	7.25	8.27	9.60	11.3	12.7
48.000	2.67	3.48	4.62	5.30	6.19	7.35	8.25
72.000	1.98	2.58	3.44	3.96	4.64	5.52	6.21

Table 7 - Design Temporal Patterns: Percentages Per Period for Pittwater Land Government Area (Zone 1)

ZONE 1	10 MINUTES DURATION IN 2 PERIODS OF 5 MINUTES																								
PERIOD	1	2																							
ARI ≤ 30 YEARS	57	43																							
ARI > 30 YEARS	54	46																							
ZONE 1	15 MINUTES DURATION IN 3 PERIODS OF 5 MINUTES																								
PERIOD	1	2	3																						
ARI ≤ 30 YEARS	32	50	18																						
ARI > 30 YEARS	33	47	20																						
ZONE 1	20 MINUTES DURATION IN 4 PERIODS OF 5 MINUTES																								
PERIOD	1	2	3	4																					
ARI ≤ 30 YEARS	19	43	30	8																					
ARI > 30 YEARS	20	40	30	10																					
ZONE 1	25 MINUTES DURATION IN 5 PERIODS OF 5 MINUTES																								
PERIOD	1	2	3	4	5																				
ARI ≤ 30 YEARS	17	28	39	9	7																				
ARI > 30 YEARS	18	26	35	11	10																				
ZONE 1	30 MINUTES DURATION IN 6 PERIODS OF 5 MINUTES																								
PERIOD	1	2	3	4	5	6																			
ARI ≤ 30 YEARS	16	25	33	9	11	6																			
ARI > 30 YEARS	16	24	30	10	12	8																			
ZONE 1	45 MINUTES DURATION IN 9 PERIODS OF 5 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9																
ARI ≤ 30 YEARS	4.8	14.2	24.7	18.3	9.5	11.6	7.5	6.1	3.3																
ARI > 30 YEARS	5.3	13.9	23.3	17.7	9.8	11.7	7.9	6.5	3.9																
ZONE 1	1 HOURS DURATION IN 12 PERIODS OF 5 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12													
ARI ≤ 30 YEARS	3.9	7	16.8	12	23.2	10.1	8.9	5.7	4.8	3.1	2.6	1.9													
ARI > 30 YEARS	4.3	7.3	16.1	11.6	21.7	10	9	6	5.2	3.5	3	2.3													
ZONE 1	1.5 HOURS DURATION IN 18 PERIODS OF 5 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18							
ARI ≤ 30 YEARS	3.2	5.9	14.6	8.2	10.4	21	5.4	5.3	4.4	3.1	4.3	3.4	2.1	2.4	2.2	1.3	1.5	1.3							
ARI > 30 YEARS	3.5	5.9	13.9	8	10	19.5	5.5	5.4	4.5	3.5	4.5	3.6	2.4	2.6	2.6	1.6	1.5	1.5							
ZONE 1	2 HOURS DURATION IN 24 PERIODS OF 5 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
ARI ≤ 30 YEARS	2.2	5.3	3.1	4.9	9.6	5.2	18	12.4	5.6	3.1	3.3	4.2	4.3	2.1	2.2	3.4	1.9	1.2	1	2.3	0.9	1.3	1.1	1.4	
ARI > 30 YEARS	2.4	5.2	3.3	4.9	9.1	5.2	16.7	11.9	5.3	3.3	3.4	4.3	4.3	2.4	2.4	3.4	2.4	1.2	1.2	2.5	1.2	1.3	1.3	1.4	
ZONE 1	3 HOURS DURATION IN 12 PERIODS OF 15 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12													
ARI ≤ 30 YEARS	5.3	17.6	25.1	8.7	12.1	7.6	5.5	6.4	4.3	3.5	2.4	1.5													
ARI > 30 YEARS	5.7	16.8	23.4	8.7	11.8	7.8	5.8	6.7	4.8	3.8	2.8	1.9													
ZONE 1	4.5 HOURS DURATION IN 18 PERIODS OF 15 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18							
ARI ≤ 30 YEARS	1.5	5.3	10.2	7.8	19.1	13.6	4.5	3.1	6.8	5.5	4.3	3.4	3.6	2.5	3.5	2.4	1.5	1.4							
ARI > 30 YEARS	1.6	5.4	9.8	7.6	17.8	12.9	4.7	3.4	6.8	5.6	4.5	3.7	3.8	2.7	3.8	2.7	1.6	1.6							
ZONE 1	6 HOURS DURATION IN 12 PERIODS OF 30 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12													
ARI ≤ 30 YEARS	3.6	7.8	11.4	25	16	8.2	6.7	6.7	4.7	5.7	2.7	1.5													
ARI > 30 YEARS	4.1	8	11	23.3	15.3	8.1	7	7	5.1	6.1	3.1	1.9													
ZONE 1	9 HOURS DURATION IN 18 PERIODS OF 30 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18							
ARI ≤ 30 YEARS	2.2	6.2	4.1	4.3	3.1	10.9	2.5	4.5	7.6	18.9	13.8	6.5	5.3	3.2	2.1	2.4	1.1	1.3							
ARI > 30 YEARS	2.4	6.3	4.4	4.5	3.4	10.5	2.8	4.7	7.4	17.6	13.1	6.5	5.4	3.5	2.4	2.5	1.3	1.3							
ZONE 1	12 HOURS DURATION IN 24 PERIODS OF 30 MINUTES																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
ARI ≤ 30 YEARS	1.4	4.4	3.3	1.5	0.5	2.4	2.3	4.6	3.5	2.3	3.4	7.1	9.6	17	3.3	0.6	4.8	11.9	6.1	5	1.4	2.5	0.6	0.5	
ARI > 30 YEARS	1.6	4.5	3.5	1.6	0.6	2.6	2.6	4.7	3.6	2.6	3.6	7	9.2	15.8	3.5	0.6	4.8	11.3	6	4.9	1.6	2.7	0.6	0.5	
ZONE 1	18 HOURS DURATION IN 18 PERIODS OF 1 HOUR																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18							
ARI ≤ 30 YEARS	1.4	3	2.2	4.1	6.3	6.2	19.8	5.9	13.6	8.2	10.4	5.2	4.3	2.3	3.2	1.4	1.2	1.3							
ARI > 30 YEARS	1.5	3.4	2.4	4.4	6.3	6.3	18.4	6	12.9	8	10	5.4	4.5	2.5	3.5	1.5	1.5	1.5							
ZONE 1	24 HOURS DURATION IN 24 PERIODS OF 1 HOUR																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
ARI ≤ 30 YEARS	0.6	1.3	1.5	2.3	4.2	1.4	2.3	3.2	3.4	6.7	9.2	17	11.5	3.2	4.3	4.6	6.9	5.6	2.3	3.3	2.2	1.3	1.2	0.5	
ARI > 30 YEARS	0.6	1.5	1.5	2.5	4.4	1.5	2.5	3.4	3.5	6.6	8.7	15.8	10.9	3.4	4.4	4.6	6.7	5.6	2.5	3.5	2.5	1.4	1.5	0.5	
ZONE 1	30 HOURS DURATION IN 15 PERIODS OF 2 HOURS																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15										
ARI ≤ 30 YEARS	1	2.8	4.2	7	3.8	16.2	7.9	10.1	24	13.1	4.9	2.1	1.9	0.9	0.1										
ARI > 30 YEARS	1.3	3.3	4.3	7.2	4.3	15.3	8.1	9.9	22.4	12.6	5.2	2.3	2.3	1.3	0.2										
ZONE 1	36 HOURS DURATION IN 18 PERIODS OF 2 HOURS																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18							
ARI ≤ 30 YEARS	0.1	1.1	2.2	3.2	6.1	4.9	7.6	9.6	22.9	15.8	11.7	4.1	4.3	3.1	1.1	0.9	1.2	0.1							
ARI > 30 YEARS	0.2	1.3	2.5	3.5	6.2	5.1	7.6	9.4	21.3	15	11.2	4.5	4.5	3.5	1.3	1.3	1.4	0.2							
ZONE 1	48 HOURS DURATION IN 24 PERIODS OF 2 HOURS																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
ARI ≤ 30 YEARS	2.3	3.4	2.3	4.5	3.4	6.6	10.3	2.9	13.7	20.9	7.9	4.4	5.6	1.4	1.5	2.5	1.4	0.7	1.3	1.5	0.3	0.4	0.5	0.3	
ARI > 30 YEARS	2.6	3.6	2.6	4.6	3.6	6.6	9.9	3.1	13	19.4	7.7	4.6	5.7	1.6	1.7	2.7	1.6	0.6	1.6	1.6	0.4	0.4	0.4	0.4	
ZONE 1	72 HOURS DURATION IN 18 PERIODS OF 4 HOURS																								
PERIOD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18							
ARI ≤ 30 YEARS	2.4	3.1	5.8	3.5	26.6	7.8	13.2	4.6	9.8	0.2	1.4	0.3	18.2	1.3	0.4	0.4	0.5	0.5							
ARI > 30 YEARS	2.7	3.4	6	3.7	24.8	7.9	12.8	4.8	9.9	0.2	1.6	0.2	17.5	1.7	0.7	0.7	0.7	0.7							

PITTWATER COUNCIL

Appendix 12

Newport Village Commercial Centre Masterplan

Prepared by HBO+EMTB Urban and Landscape Design

NEWPORT VILLAGE COMMERCIAL CENTRE MASTERPLAN

prepared by
HBO + EMTB URBAN AND LANDSCAPE DESIGN
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August 2007

Disclaimer

The Newport Village Commercial Centre Masterplan study has been commissioned by Pittwater Council for the purpose of providing expert assistance to Council in determining appropriate planning controls for the study area.

The recommendations and findings made by the consultants have not been adopted or endorsed by Council in any way.

Any recommendations relating to DCP planning controls made within this study will not be taken into account in the assessment of any proposed development (beyond issues considered to be in the public interest) until considered by Council.

While care has been taken to ensure the accuracy of the information presented in this report, Pittwater Council does not warrant the information is complete. Viewers must exercise their own skill and discretion.

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Adopted: 15 December 2014
In Force From: 20 December 2014

EXECUTIVE SUMMARY

This Masterplan was commissioned from HBO+EMTB by Pittwater Council in late 2006, in response to Council's desire to revitalise the Newport Village Commercial Centre. The focus of the study is on the commercial core, along Barrenjoey Road and including the side streets, and also considers the existing and likely future character of Foamcrest Avenue. Also as part of the masterplan study, the linkages between the commercial centre and the oceanfront areas were investigated to identify strategies for strengthening the relationship between the village, the beach and the community centre.

The Masterplan was developed through analysis, community consultation, development of design principles (with stakeholder and community representatives), preparation of built form and public domain proposals, and recommendations for changes to development controls in Pittwater DCP 21. Throughout the process, Council has presented the consultant recommendations, together with community responses, on its website. This has enabled the project to progress, stage by stage, in an open and transparent manner.

The main challenges for Newport are traffic on Barrenjoey Road that creates a barrier between the two sides of the village, flooding, and a loss of both quantity and diversity of commercial, retail and service uses over time. Recent development and development applications have also highlighted inconsistencies in the existing planning controls and difficulties in delivering high quality, high amenity built form outcomes for the centre. Overall, the community felt strongly that Newport lacks a distinctive and attractive identity – but also that there are many positives to build on.

The process was strongly grounded in community and stakeholder engagement. The Masterplan is an integrated vision document for Newport Village Commercial Centre, encompassing both the private and public domain. It provides an urban design framework that aims to enhance the amenity and design quality of the centre, and to support social, economic and cultural activities.

These core principles are:

Economic principles

- Revitalise Newport Village Commercial Centre
- Build on the existing strengths of the village
- Increase the mix and diversity of uses
- Increase visibility of the commercial centre from the beachfront to support visitor / tourism activities
- Provide sufficient parking to accommodate village users

Social and cultural principles

- Activate and enliven streets and public spaces to improve safety and security, and the perception of safety and security
- Create a village 'hub' for Newport where people can gather and interact
- Improve the experience of arriving and being in Newport
- Link public open spaces to create a legible and accessible pedestrian network
- Create clear and inviting connections to community facilities and to public transport
- Encourage walking and cycling
- Foster understanding of Newport's history, geography and community

Environmental principles

- Improve connections between the village and the beach
- "Green" Barrenjoey Road with street trees
- Provide sheltered, pleasant public spaces
- Optimise commercial and residential amenity
- Represent Newport as a leader in environmental sustainability

Character principles

- Design the public domain (footpaths, arcades and plazas) at a 'human' scale that supports the village character
- Reinforce the relaxed character created by varied building setbacks, heights, facades and roof forms
- Design buildings to respond to the climate, topography and setting
- Protect and share views to ocean and hills

There are four interrelated strands to the Newport Village Masterplan: traffic and pedestrian movement, parking, streetscape improvements, and built form. The Masterplan makes recommendations for design controls and guidelines, and for public domain treatment, that link to these strands. Below are selected, and summarised, recommendations, which are described in greater detail in Section 5 following.

Built form

- Encourage variety in built form rather than flat, boxy buildings, enable high quality and high amenity living and working spaces, and support Newport's relaxed informal character, by:
  - Requiring buildings to break down their bulk and scale through upper level and side setbacks, and roof design
  - Promoting environmentally responsive buildings with high quality indoor and outdoor spaces
  - Maintaining the Barrenjoey Road front setback and increasing the Foamcrest Avenue front setback
  - Allowing a mix of 1,2 and 3 storey building heights, responding to location and topography
  - Reducing the maximum street frontage height to two storeys

Streetscape improvements

- Create a 'Newport' identity and extended public domain by:
  - Widening footpaths on Barrenjoey Road (and integrating with front building setbacks)
  - Creating a strong, feature element of Norfolk Island pines down the central median of Barrenjoey Road
  - Creating pleasant, shady pedestrian zones with street tree planting
  - Encouraging a small public plaza on Robertson Road

Traffic and pedestrian movement:

- Slow traffic and increase pedestrian safety and connectivity by:
  - Widening footpaths on Barrenjoey Road to create bays for buses and for short term parking; and at crossing points and key intersections to narrow the carriageway and promote safe pedestrian crossing.
  - Retaining and enhancing the arcade and laneway network
  - Creating new signalised crossing and pedestrian refuges
  - Making Bramley Avenue one-way towards Barrenjoey Road.
  - Prohibiting right turns at the Barrenjoey Road/Robertson Road/Bramley Avenue intersection.
  - Keeping Robertson Road and Coles Parade as one-way streets.

Parking

- Provide adequate parking to serve workers, residents and visitors, without compromising streetscape character and the pedestrian environment, by:
  - Separating vehicle and pedestrian movements in the Bramley Avenue parking area
  - Continuing to provide an off road public car parking function accessed from Foamcrest Avenue
  - Making public spaces short-stay in Barrenjoey Road, limiting long-stay parking to the beachfront car park.

Accompanying the recommendations in Section 5 is a table that identifies the clauses in DCP 21 affected by the Masterplan and that may need reconsideration in the light of this study. The table proposes where changes may be made, and what those changes are, to deliver the proposed Masterplan outcomes.

1.1 Brief

Pittwater Council engaged HBO+EMTB Urban and Landscape Design to prepare a masterplan for the Newport Village Commercial Centre. While some controls for private development and public streets and spaces existed, there was no integrated plan for Newport. The purpose of the masterplan is therefore to develop a vision and urban design framework for the public and private domain. Its focus is on a high amenity and high quality environment to support social, economic and cultural activities and to contribute positively to Newport's future.

1.2 Location

Newport Village is part of Pittwater Council's Local Government Area, at the north of Sydney's northern beaches. The LGA covers 125 square kilometres and features diverse topography and landscape character. Newport shares some important characteristics with other parts of Pittwater: a sweeping beach with rugged headlands and sandstone sea cliffs set against a backdrop of heavily treed hills. There are large areas of bushland (including two national parks), reserves and coastal foreshores, and areas of wetland and rainforest. This "living environment" is central to Pittwater's identity and constitutes Council's vision statement.

Newport Village is some 45 minutes north of Sydney's CBD and has access both to the ocean and to the southern arm of Broken Bay. There is a sweeping descent towards the main commercial strip when approaching from the larger centre of Mona Vale to the south. The commercial centre is on the eastern side of the peninsula and mostly set back from the beach. The centre straddles Barrenjoey Road, which is the main route connecting the northernmost settlements to areas south. The village occupies part of the former Farrell's Lagoon area.

1.3 History

Kuring-gai Chase National Park covers part of the Guringai people's traditional lands which extended from Broken Bay in the north to Sydney Harbour in the south. Two clans of the Guringai occupied the area which is now the national park: the Garrigal people, who lived around West Head, and the Terramerragal, who lived in the Turramurra area. Within six weeks of the arrival of the British First Fleet in Sydney, in March 1788, Governor Phillip explored Broken Bay by water. At this time he named "the finest piece of water I ever saw... which I honoured with the name Pitt Water." Phillip camped at Resolute Beach, and commented on the friendliness of the Aboriginal people. However, when he returned a year later, all except those too sick with smallpox fled from him. By 1790, over half of the Guringai nation had been wiped out by smallpox.

Some of the earliest European settlers farmed in this area; by 1823 the first farm was established adjacent to the ocean. The area came to be called Newport from about 1880. A wharf and the Newport Hotel were built, and land was subdivided for sale. Day trips to Newport began to be offered, either by coach from Manly or by steamer from Sydney, refreshment being provided at the hotel. In 1881 the royal Princes, Albert and George, came overland from Manly and then went aboard at Newport to travel down the Hawkesbury River. As road transport improved and beach holidays became popular so Newport expanded, particularly on the ocean side. In the 1920s and 30s it was still largely a holiday location and many houses were empty for much of the year.

Since the 1950s the area has become a residential suburb of Sydney.

(Pittwater Council / Pittwater Library Service / National Parks of NSW websites)

Figure 1.1 Location plans

1.4 Study Area

The study area is generally bounded by Coles Parade to the north, the edge of the Lands Department landholdings and stormwater channel to the southeast and Foamcrest and Seaview Avenues to the west, extending to include the lot on the south-western corner of Bardo Road and Barrenjoey Road. The village centre retains a main street character, with a mix of retail and commercial uses, and some shoptop housing above the ground floor. The role of Barrenjoey Road as a main route and the increasing volumes and speed of traffic over time have led to a perceived separation between the west and east sides of the village.

The focus of the study is on the commercial core, along Barrenjoey Road and including the side streets, and also considers the existing and likely future character of Foamcrest Avenue. Also as part of the masterplan study, the linkages between the commercial centre and the oceanfront areas were investigated to identify strategies for strengthening the relationship between the village and the beach.

Figure 1.2 Study area

2.1 Topography and Setting

Newport Village is at the base of the Barrenjoey peninsula. The street pattern of the suburb responds to the topography, with curvilinear streets winding around and up the steep hills between the two water bodies, and a more regular loose grid pattern on flatter and low lying ground. Newport Village is nestled at the base of the hills which slope down to the south west and which provide a dramatic backdrop when approaching the centre from the south. Combined with the headlands to Newport Beach and the Bushranger Hill to the south, the surrounding hills create a unique setting that gives a strong sense of place.

Within Newport Village the land rises along Seaview Avenue, and slopes down from Foamcrest Avenue to Barrenjoey Road. Between Barrenjoey Road and the recreation areas edging the beach there is a small drop in level, facilitating open and generous views towards the ocean. Land is generally flat to the southeast (Ross Street and the Boulevarde)

Figure 2.1 Topography & setting

Adopted: 15 December 2014
In Force From: 20 December 2014

2.2 Views and Vistas

The following photographs record the current character of streets, public spaces, landscape and built form within the study area. They highlight the following issues:

- poor approach experience from the south (photo 1)
- heritage Norfolk Island Pines dominate the skyline, both on approach from the north (photo 42) and from the main street
- vacant sites in the village centre are notable gaps in the streetscape (photos 15-16, 31), as is the fire-affected former gallery / framer (photo 13)
- 'rear of house' appearance to the Bramley Ave car park - generally service functions, unattractive to look at and not taking advantage of outlook (photo 28)
- walk up flats block views to the foreshore open space - and dominate the view from the beach (photo 33)
- the 'green' setting - both in terms of streetscape and the hilly backdrop - softens and unifies the disparate architecture (photos 30, 35,46)
- the Foamcrest Avenue car park provides both 'breathing space' and mature tree canopy that buffers the residential from the commercial area (photo 48)
- Coles Parade lacks activity and is not benefiting from its direct visual relationship with the beach area (photo 39)

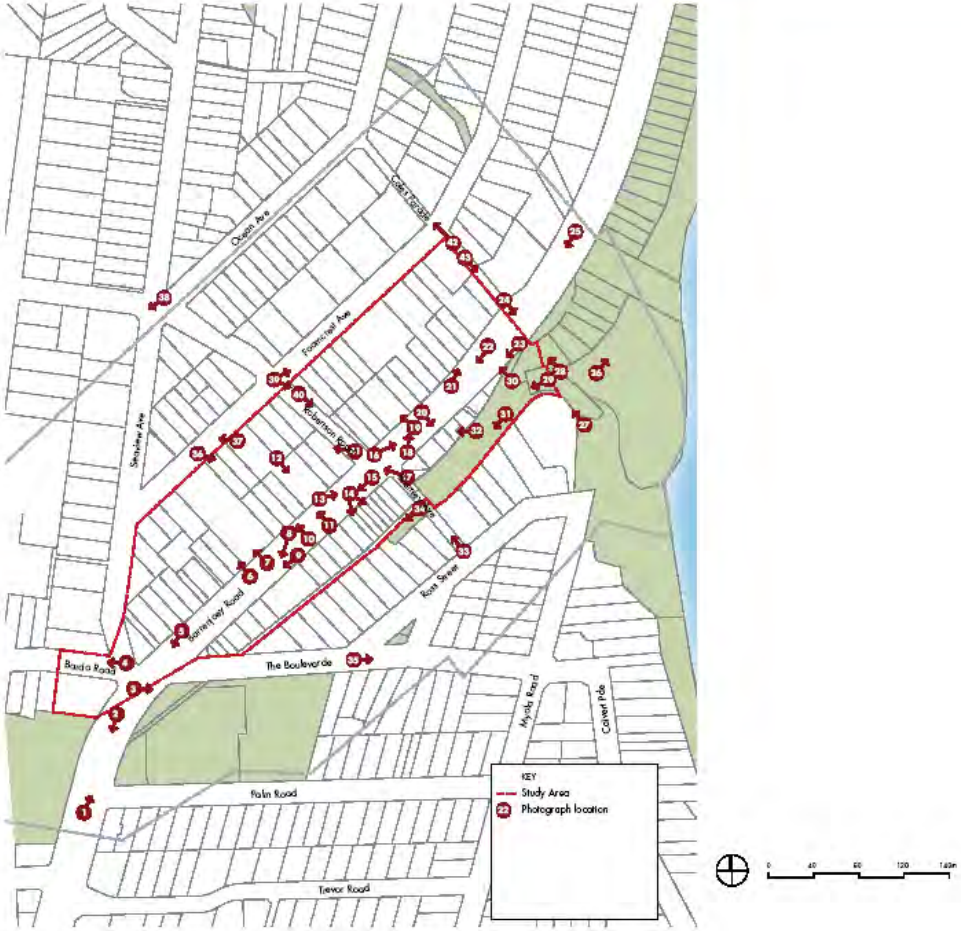

Figure 2.2 Views and vistas

Adopted: 15 December 2014
In Force From: 20 December 2014

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Analysis


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HARDWARE
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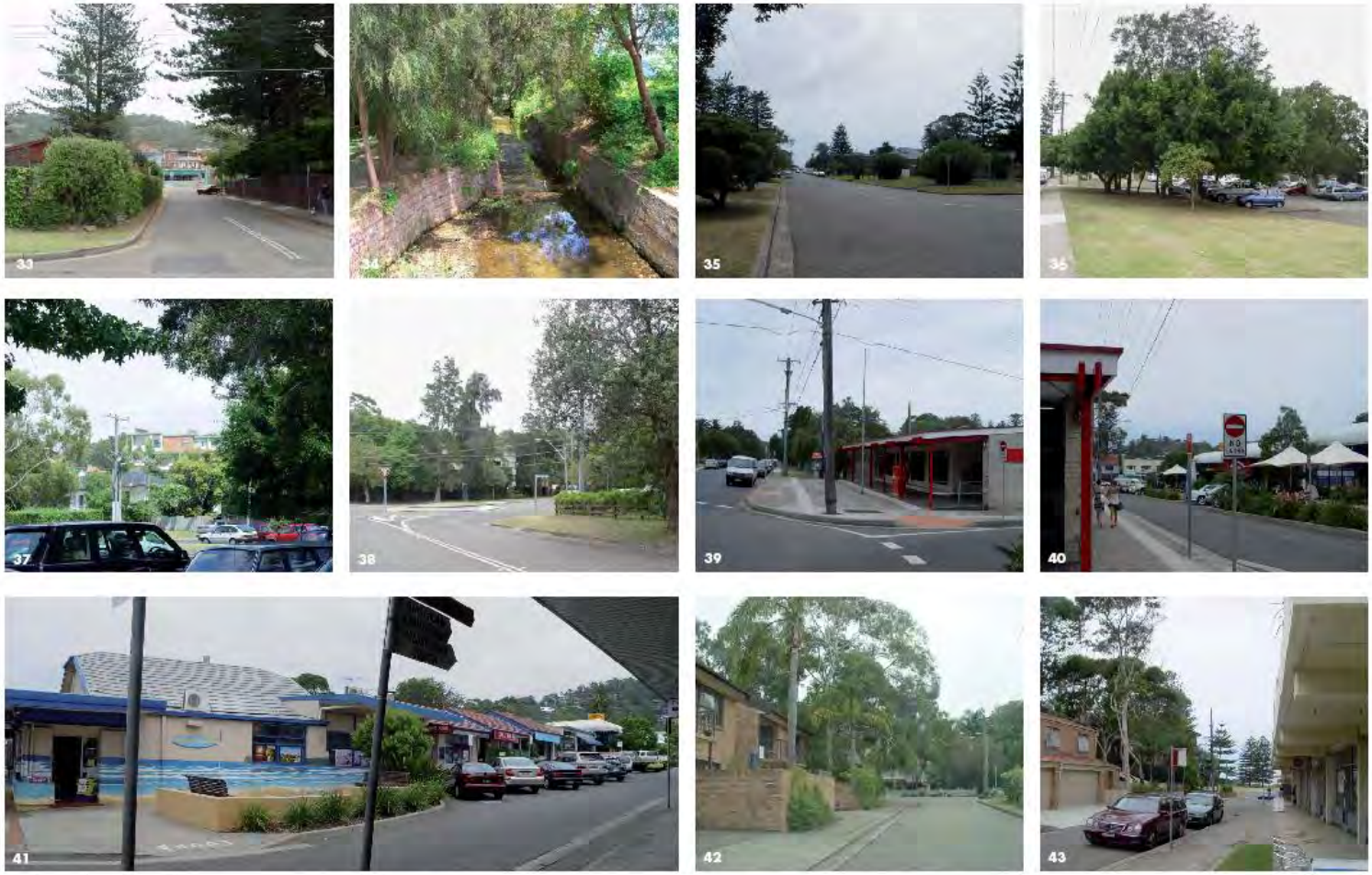
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2.3 Flooding

Newport has a history of severe flash flooding. Flash floods usually result from intense storms dropping large amounts of rain within a brief period. Flash floods occur with little or no warning and can reach full peak in only a few minutes. Flooding poses a severe hazard to the residents living close to creeks and drains. Flash flood events have occurred in March 1977, November 1984, October 1987, April 1988, February 1990, February 1992, April 1997, April 1998 and August 1998. Of these the 1977, 1987 and 1988 events resulted in above floor flooding and caused severe damage in the lower reaches of the catchment.

Areas most at risk from flooding are the commercial area along Barrenjoey Road, and the residential areas of Ross Street and the Boulevarde. Properties that adjoin the main flowpath in Howell Close, Seaview Avenue, Neptune Road, Ismona Avenue, Ocean Avenue, Foamcrest Avenue, Barrenjoey Road and Robertson Road are also affected by flooding. In a 1% Annual Exceedance Probability (AEP) flood, properties in Ross Street and The Boulevarde together with shops in Barrenjoey Road, and the Bramley Avenue carpark would experience water depths in excess of 1m. A flood of this size has one chance in 100 of occurring in any given year.

from the current SES 'Floodsafe' leaflet for Newport

The flooding issues facing Newport Village Commercial Centre are the most significant of all the contextual issues driving the future urban form, and hence the character, of the village. The requirement that the ground floor of new commercial development be 500mm above the 1 in 100 year flood level means that almost all properties are affected. Affected properties will need to raise the ground level of their shops or businesses from 400mm to 1.2 metres above the existing footpath level.

The flood affectation is a considerable constraint for businesses wishing to redevelop and in some cases it is likely that renovation rather than demolition and rebuilding will be a preferred option. For new development, there is an inherent tension between the need to build above the footpath level, and the need to make the connection from the footpath into the ground floor as clear, inviting and accessible as possible.

Within the study area, the areas most affected by flooding are the southern part of Barrenjoey Road and the area between Bramley Road and the beach access on the eastern side of the road.

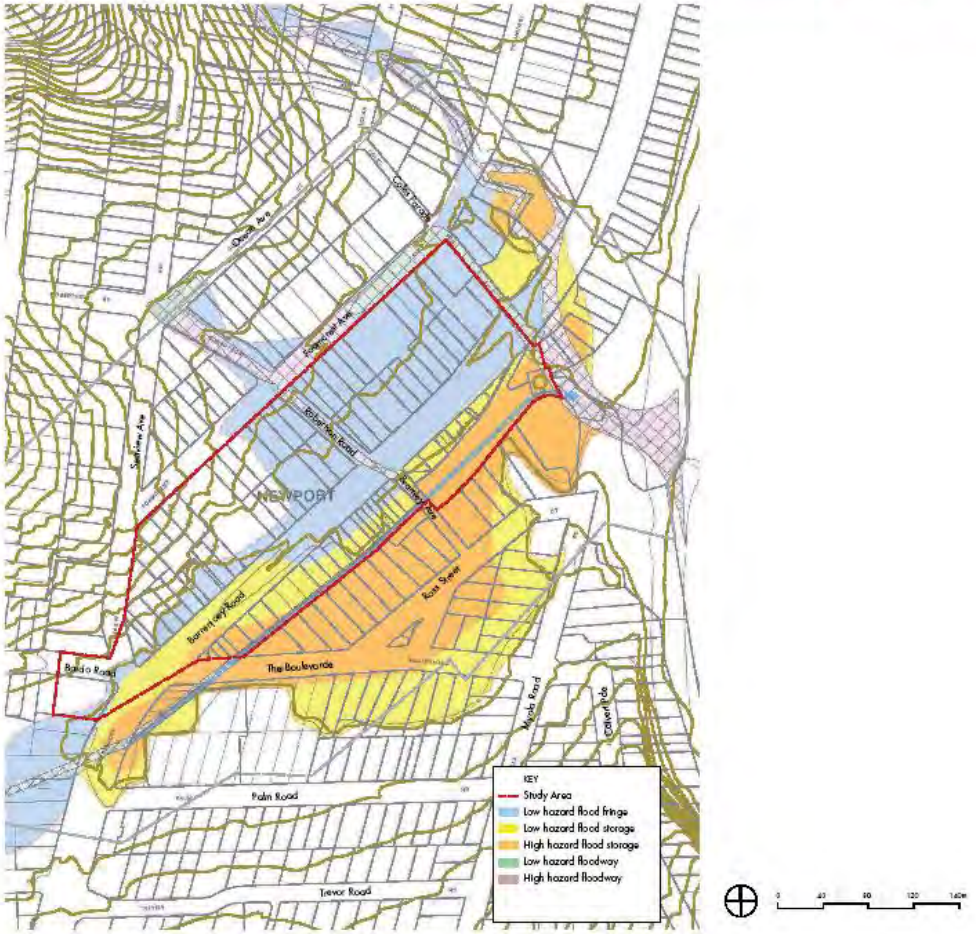

Figure 2.3 Flooding

Adopted: 15 December 2014
In Force From: 20 December 2014

2.4 Zoning and Land Uses

With the exception of the Council-owned car parking areas on Foamcrest Avenue (zoned special uses) and the Crown land behind Bramley Avenue (zoned open space), all of the properties within the study area are zoned General Business 3a). The zoning permits residential uses, so long as these are attached to shops or commercial premises. It also permits, without consent, the erection, alteration or rebuilding of commercial premises and shops with no more than 2000 square metres and 1500 square metres gross floor area respectively.

Multi-unit housing is characteristic of the area adjacent to the commercial core. The original subdivision pattern has been modified through amalgamation to provide wide enough lots for townhouses and flats. Notwithstanding the same zoning for Barrenjoey Road and for Foamcrest Avenue, Foamcrest Avenue has a predominantly residential character including flat buildings, two well-presented townhouse complexes and some older detached houses. Further, while the two sides of Foamcrest Avenue are zoned differently, they have a similar character. On the western side of the road, for example, are several 3 storey walkups (refer Diagram 2.6 following) of a similar age and style to some on the east. Residential flat buildings would not be permitted under the current 2b zoning. Just north of the study area, on Barrenjoey Road, the zoning is 2a but again, the predominant land use character is of larger, bulky flat buildings (3-4 storeys).

Immediately east of the study area, between the commercial core and the beachfront, is an enclave of detached houses with the exception of two large flat buildings on the edge of the foreshore open space. This area, zoned 2a, features mostly older single storey houses with some recent renovations to two storeys (see Diagram 2.6).

There is an approved DA for a service station on the eastern side of Barrenjoey Road, where a previous service station stood. This approval is seen by the community as a constraint to the development of an integrated 'main street' character. There is strong community support for a supermarket to supplement the existing retail. A small supermarket has been proposed for the vacant land near Coles Parade.

Council has recently put out a brief for Expressions of Interest for the Council-owned land separated by a large consolidated parcel that extends from Foamcrest to Barrenjoey Road. Council has indicated that it will consider rezoning the Special Uses sites to include appropriate commercial and retail uses. The rezoning, and the sale of Council land, is dependent on Council being satisfied that proposals put forward will achieve a net benefit for Newport and will contribute to the sustainability and viability of the Commercial Centre.

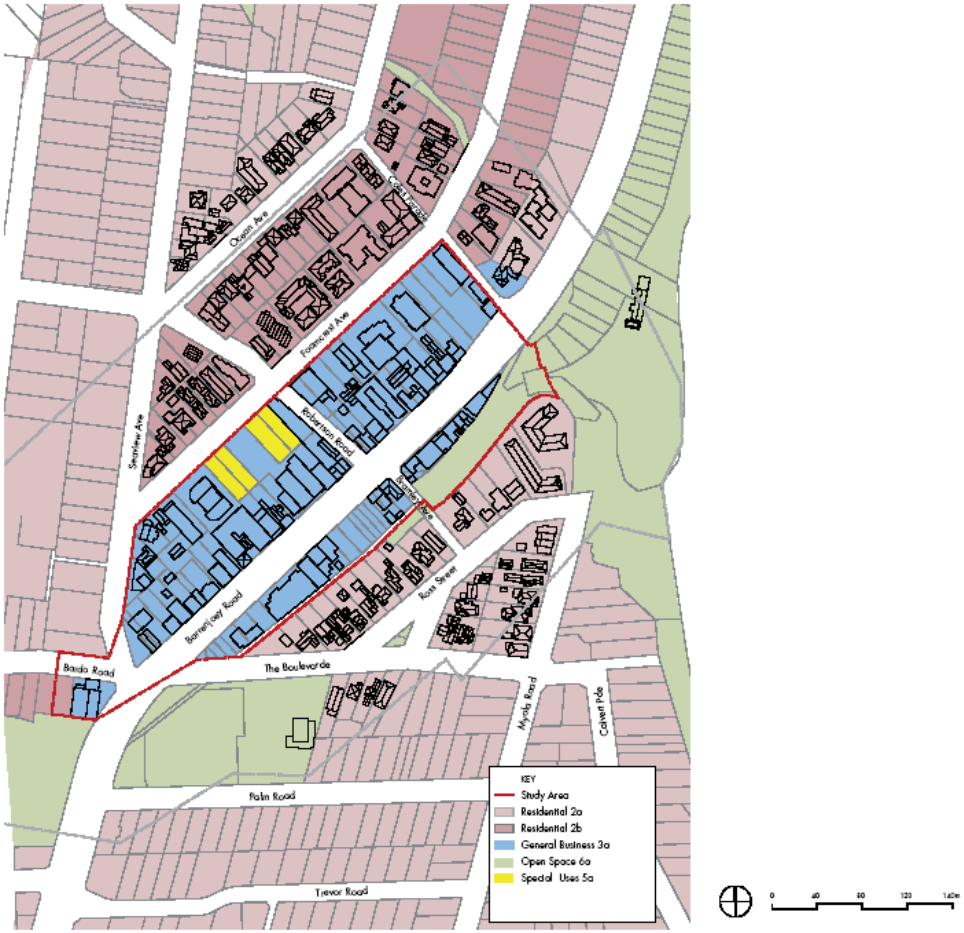

Figure 2.4 Zoning and land uses

Adopted: 15 December 2014
In Force From: 20 December 2014

2.5 Urban Form

Newport Village is notable for a variety of building types and scales. The built form diagram shows the existing building footprints and reveals the large 'gaps' in the structure of the village where there are vacant sites. It also shows that some of the older building stock, including arcades, almost wholly covers the block. More recent buildings observe a 3.5 metre setback from the front boundary, while older ones are built up to the footpath edge. There are four arcades:

1 off Barrenjoey Road, wholly open but terminating
2 within buildings, connecting Robertson Road and Barrenjoey Road
3 connecting Barrenjoey Road to the atgrade car park and thence to Foamcrest Avenue
4 on the east side of Barrenjoey Road, more of an internal corridor access to a number of office suites, terminating within the building
5 connecting Barrenjoey Road to the atgrade car park and thence to Foamcrest Avenue, with steps to handle the change of level to the car park (ie. not a fully accessible connection).

While there are areas of continuous strip retail frontages generally with awnings, these are interrupted by a number of breaks between buildings, where side setbacks allow glimpses deep into the block. These breaks, together with the arcades and the varied setbacks, create a loose, 'in and out' pattern along the edge of the street, which contrasts with the more strongly defined urban character of larger town centres.

Within the village centre there is a wide mix of building massing and scale, period and style, and condition. Buildings on Barrenjoey Road are of a commercial type and include some shop top housing, professional suites and 'sheds' (for example on the bottle shop and service station sites). On Foamcrest Avenue, walk up flat buildings predominate. The range of heights (from 1 to 3 storeys) and the meandering quality of the public domain interface along Barrenjoey Road contribute to the relaxed character of the place.

There are few buildings of high design quality in Newport. Most are functional and some are ageing. While there is some charm in the variety of style, materials and rooflines that has developed over time, there is also an opportunity to introduce built form that can better reflect the desired character as well as respond sensitively to the environment.

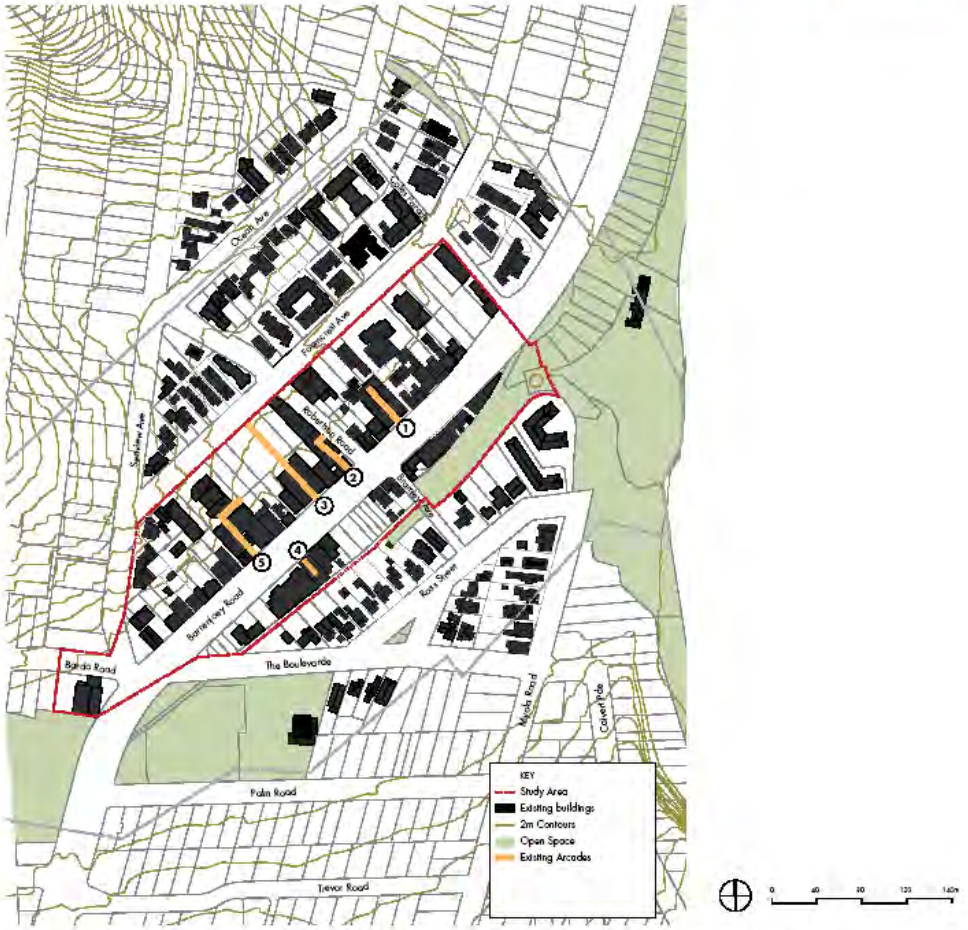

Figure 2.5 Built form

Adopted: 15 December 2014
In Force From: 20 December 2014

2.6 Building Heights

Buildings within the study area range from 1–4 storeys. The scale is generally low, and the variety of heights and roof forms creates interest on the skyline. Three (3) storey buildings at the southern end of Foamcrest Avenue are visually prominent on approach from Barrenjoey Road (from the south) because of their elevation. There is an existing height limit of 8.0 metres above the flood planning level, which allows for a generous 2 storeys, but uncomfortably mean proportions if 3 storeys is compressed into the envelope.

The two through-building arcades that link Barrenjoey Road to the Foamcrest Avenue car park and Robertson Road respectively, and the Surfside Arcade, are all housed within single storey buildings (arcades numbers 1, 3 and 4 on Figure 2.5 Built Form)..

Outside the study area, facing buildings on Foamcrest Avenue are a mix of 1 storey (older housing stock), 2 storey (recent townhouse development) and 3 storey (older walk up flat buildings). The houses on Ross Street are 1-2 storeys and the character here is of single detached rather than multi-unit housing. The two large flat buildings on Ross Street fronting the foreshore are obtrusive both in terms of their large footprints and their 4 storey height (3 residential storeys over 1 level of car parking).

Figure 2.6 Building heights

Adopted: 15 December 2014
In Force From: 20 December 2014

2.7 Awnings

The built form analysis together with this study of existing awnings demonstrates that there is no consistency along the main street in terms of the interface between the public domain (the street and footpath) and the private domain (the shopfronts). Some buildings are set out along the front boundary and have awnings overhanging the footpath. Some are set back behind the front boundary and have awnings that extend to or only slightly over the boundary, leaving the original footpath area uncovered while other buildings have no or minimal awnings. There is a comparatively recent mixed use development on the southern side of Barrenjoey Road with a colonnaded frontage, although the colonnade is within the property boundary, there is not a 'natural' or inviting path of travel for the casual passer-by.

Older buildings have generous ground floor ceiling heights and awnings in the range 3.3 - 3.6 metres above the footpaths. The more recent colonnaded building has a minimal ground floor ceiling height and appears proportionally squat on the street; the low ceiling over the retail and commercial entries is also somewhat oppressive, further discouraging pedestrian traffic. The low ceiling heights appear to be a consequence of squeezing three storeys within the current DCP building height limit.

The southernmost entry to the centre is the weakest in terms of built form defining the street (all buildings are set back and the service station uses are car oriented rather than pedestrian oriented). This suggests that if these uses remain, other opportunities for establishing that these sites are the 'beginning' of the Newport experience could be sought, through more active and engaging uses, and through built form that overlooks and addresses the public domain. .

There are opportunities to improve the pedestrian amenity with additional awnings, and to visually extend the public domain by making setback areas appear to be part of the footpath, for example with paving treatment.

This colonnaded ground floor is not a good precedent for the village centre, it mitigates against the feeling of an open, inviting shopfront that is part of the public domain. It appears to discourage rather than encourage pedestrian movement next to the commercial entries.

Figure 2.7 Awnings and colonnades

2.8 Open Spaces and Landscape Character

Norfolk pines dominate the skyline at the northern end of the village. These cultural plantings are of great significance to an appreciation of Newport's history and development, as well as to an appreciation of its seaside character. The residential streets around the centre have intermittent street tree planting, but a green character due to the mature planting in the private domain - front and rear gardens. It is apparent where more recent development covers more of the block than earlier housing, that canopy has been lost. Along Barrenjoey Road are scattered Cocos Palms that contribute little to the streetscape.

The steeply sloping topography has influenced the landscape pattern. Single houses set out along green hillsides create the visual character of the established residential areas. While the scale of buildings on the hills remains low, it is the trees that dominate.

The open spaces in and around the village centre differ considerably. They include:

1. the 'leftover' green space and car parking areas off Bramley Avenue
2. the Council car park area which has some attractive mature trees that soften the space
3. the children's playground
4. informal grassed open areas behind the beach with Norfolk Island Pines
5. beach and sand dunes
6. formal bowling and croquet greens
7. sportsground
8. stormwater channel.

There are many open spaces around the study area, but their 'useability' for people working and shopping in the centre is compromised by their distance from the shops, and the separation of Barrenjoey Road. The southernmost arcade (9.1 on Barrenjoey Road is the most inviting public space along the street, and has seating for passersby in the shade of a large tree.

Figure 2.8 Open space and landscape character

Adopted: 15 December 2014
In Force From: 20 December 2014

2.9 Vehicle Movement and Parking

Barrenjoey Road is the major north-south route between the tip of the Barrenjoey peninsula and the centres to the south. It is in RTA ownership. The main road is heavily trafficked at peak hours and anecdotal evidence from community and stakeholders is that traffic volumes and speed make crossing difficult, creating a barrier between the two sides of Newport Village, and also between the west and the beachfront areas. Seaview Avenue and Bardo Road provide access to the main north-south route for people on the Pittwater side of the peninsula. This is the major intersection, as well as the southern entry to the village, but its importance is not currently reflected in the quality of the built form or the public domain. The long downhill approach on Barrenjoey Road from the south could be enhanced to create an entry experience that creates a sense of expectation before arriving at this particular point.

Robertson Road is one-way off Barrenjoey Road. The narrowing of the carriageway helps to create a more pedestrian feel, but cars still dominate the space, with much of the frontage on the SW side taken up by angle parking.

Car parking areas are generous and at grade. Within the centre they are more 'leftover' than they are 'designed' spaces; the Bramley Avenue parking area in particular is a very difficult site, constrained by flooding issues, the Barrenjoey Road buildings built to the rear boundary, and the lack of street frontage from development for other uses. The Foamcrest Avenue parking area is linked to the main street via two arcades. Vehicles enter from the direction both of Robertson Road and Seaview Avenue. Both car parks are well used by shoppers with some longer stays, and the Bramley Avenue car park is used by visitors to the beach.

Figure 2.9 Vehicle movement and parking

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2.10 Pedestrian Movement

Pedestrians move through Newport in a variety of ways. The footpaths are not continuous: there are footpaths on both sides of the retail / commercial streets, but typically there are none, or on one side only, on older residential streets. There are two connections from the Foamcrest Avenue car park through to Barrenjoey Road: one direct and one indirect. There is also a connection linking Robertson Road with Barrenjoey Road, through the centre of an older building and with specialist shops tucked into the interior; it is not immediately apparent that this is, in fact, a through connection, giving the space a hidden or 'secret' quality. This particular link achieves good amenity because of natural light penetration through (obscure) windows facing Robertson Road. The Surfside Arcade, which terminates, is used only by people accessing the predominantly health and wellbeing related services within it. Through access to Robertson Road, linking with the rear of this arcade along the mid-block property line, would provide an additional pedestrian link but would only be possible with wholistic redevelopment of a number of sites.

There are two signalised crossings of Barrenjoey Road, one at the southern end of the village and one between Robertson Road and Coles Parade. Pedestrians also cross the road at other points, using the narrow median to wait for traffic to clear. There appears to be a strong 'pedestrian desire line' from the Robertson Road intersection to Bramley Avenue. It is assumed that this desire line is linked to the car park.

Robertson Road has a pedestrian focus due to the narrowing of the carriageway to provide extended pavement for seating areas associated with the cafe / dining strip. There is also more daytime activity around this intersection in general, with the southern part of the village centre appearing less used. Community input suggests that there is good patronage of the restaurants to the south in the evenings, enlivening this area.

Access to the beach is from the northern end of the village, via a footpath through the grassed open space area. The path leads to the Surf Club, which is an 'attractor' in the sense that it generates pedestrian activity as people come and go regularly. There are other informal paths running along the beachfront, and sand paths through the dunes from openings in the coastal vegetation. The movement lanes within the Bramley Avenue car park are used as a shared way, creating potential vehicle-pedestrian conflicts.

Figure 2.10 Pedestrian movement

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2.11 Land Ownership

Land ownership patterns offer both constraints and opportunities. Lots in strata title, and recently developed lots, are less likely to change in the short or even the medium term. Isolated lots, particularly those with frontage only to Barrenjoey Road, are severely constrained because of the lack of access and also because of the difficulty of accommodating parking within relatively small footprints. Lots that are amalgamated offer greater potential for efficient building envelopes and also for rationalised underground parking. The council-owned parcels on Foamcrest Avenue are separated by a large lot in private ownership and effectively prevents their orderly development. The Crown Reserve lands comprise the Bramley Avenue car park, a small area of grassed open space and the stormwater channel. Lots backing onto this land have no public access or rights of way to the rear and are also constrained from being accessed from Barrenjoey Road.

The site to the north of the village centre that has become known as the supermarket site has been vacant for some time and is currently under construction. The vacant site in the middle of the village has a recently approved DA for a new petrol station and convenience store.

Pittwater Council has recently called for Expressions of Interest for the Council sites on Foamcrest Avenue. Council is seeking to (at least) retain the quantum of public car parking spaces and, through this development opportunity, to "provide an economic and employment boost to the Newport Commercial Centre and provide a net community benefit to the Pittwater community". Council is foreshadowing that uses may include retail, commercial office space and Council office accommodation and that, consequently, they would be prepared to consider rezoning their land holdings from 'Special Uses'. Consideration of neighbour impacts, sustainability principles, and the potential for vehicular access from Foamcrest Avenue for adjoining sites, are also important issues in the EOI brief.

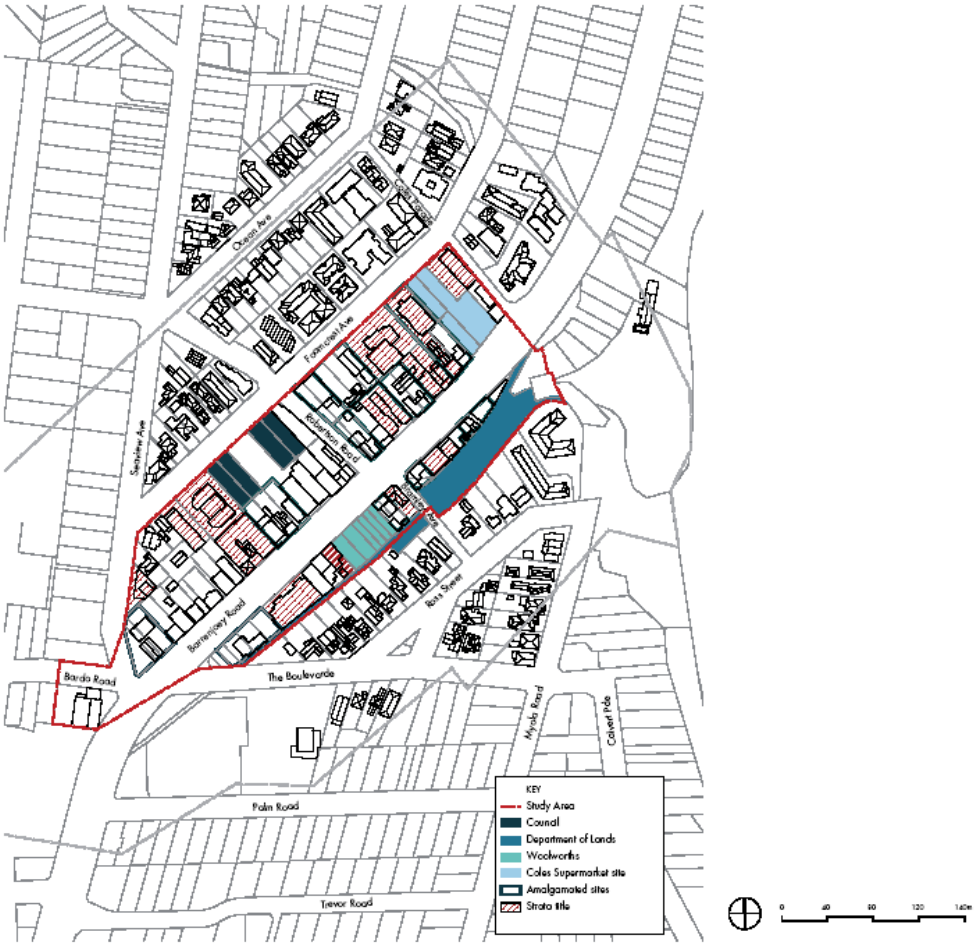

Figure 2.11 Land ownership

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2.12 Stakeholder Consultation

As part of the process to prepare a masterplan for Newport Village, two consultation activities were undertaken as part of the 'visioning' stage of the project. First, a survey sent to landowners within the Newport Village Commercial Centre, adjoining residential landowners, relevant government departments and agencies, community groups and interested people. The survey was also posted on Council's website to enable the survey to be completed online. Second, a community workshop took place at Newport Primary School on Wednesday March 8 from 7.00 – 8.30pm.

Across both of these activities there was a high level of participation, and considerable thought put into the responses and comments received. Those people who wrote or attended were articulate and often passionate about both the present situation in Newport and its likely future. Many important issues were identified and valuable ideas were shared.

1 WEBSITE SURVEY

The website survey asked the following questions:

- What do you like most about Newport?
- What do you like least about Newport?
- What does Newport need and where should such needs be located?
- What are the challenges facing Newport now and in the future?
- Do you have any other comments regarding Newport and/or the Newport Village masterplan survey?

These questions were also included in the agenda for the stakeholder workshop for consistency.

RECORDING OF RESPONSES

41 people responded to the survey. Below is a summary of the survey responses. In general where a number of people made the same point, that point is only noted once but with an indication of how many people felt similarly about the particular issue.

What do you like most about Newport?

- By far the most popular 'like' is the village atmosphere, mentioned by 30 people. 17 people identified the beachside location and lifestyle. The comparative lack of development (compared to Dee Why and Mona Vale), lack of overcrowding, convenient location, and boutique retail as well as cafes and restaurants, were also favourably mentioned.

What do you like least about Newport?

- Traffic-related problems lead the 'dislikes' (21 people) closely followed by the lack of a supermarket (14 people). There was a perception from 6 people that the shopping centre is dying, supported by 9 comments bemoaning the recent closure of shops. There was some concern about the appearance of the village and the maintenance of its facilities; this was liked to concerns about graffiti and vandalism (6 people). 6 people also felt that there is a lack of 'ambience' resulting from uninspiring architecture and shopfront appearance.

What does Newport need and where should such needs be located?

- 22 people want a supermarket. The next most popular 'need' (12 people) is for new developments to be "appealing to the eye". Other identified needs were spread relatively evenly across the respondents and tended to have between 2 and 5 people noting them. They include facilities for young people, a mix of stores, improved streetscape and public spaces, better visual quality (including landscaping), mitigation of visual impact of infrastructure and more landscaping. The need for better pedestrian connections was identified in comments about crossing roads as well as accessing shops from car parking and surrounding areas. Traffic calming / management was mentioned by 11 people.

What are the challenges facing Newport now and in the future?

- Fairly equally divided (8,9,10 comments respectively) were the challenges of stopping overdevelopment, dealing with traffic congestion and parking needs, and providing opportunities and "the right environment" for businesses to return. The centre's relevance, level of patronage, retail mix and variety of products and services were touched on by 13 people; this is strongly linked to the desire already noted to encourage and support businesses in Newport. In total therefore, 23 people see the sustainability of the commercial area as a key challenge.

2 STAKEHOLDER WORKSHOP

The workshop agenda was as follows:

7.00 INTRODUCTION
(Mark Ferguson, General Manager, Pittwater Council

7.10 PRESENTATION OF COMMUNITY FEEDBACK
(Lynne Hancock, HBO+EMTB)

7.15 WORKSHOP DISCUSSION OF ISSUES

- In groups, discuss what you see as the major issues affecting the centre. Some of these issues are: land uses, traffic and parking, pedestrian connections, safety and security, heritage, landscape, building type and scale. You may have others!
- Workshop participants should consider the following questions:
  - What do you like most about Newport?
  - What do you like least about Newport?
  - What does Newport need – and where?
  - What are the challenges or impediments to achieving improvements?
- The facilitator will record the discussion.
- If you want to fill in an individual survey form (on the back of the agenda) and hand it in to us, you are very welcome to do so. You can decide if you want to answer all the questions or only the ones that are of most interest to you.

7.55 DESIRED FUTURE CHARACTER

- In groups, discuss what you would like the commercial centre to be in the future. This can take the form of a 'vision statement' which sums up the character of the centre, for example "In 20 years' time Newport will be/have..."
- Please record your own vision statement. Only one statement per person per post-it note!
- Please have the group facilitator stick all the vision statements on a large sheet of paper
- We will collect the statements and record them all

8.25 CONCLUSION AND THANKS

RECORDING OF RESPONSES

- In groups

  Over 60 people attended the meeting. Six groups (a total of 58 people) were formed, each facilitated by Council staff member or consultant. People were asked to identify themselves as business owners, land owners, residents or employees (some of these categories overlap). There were:

  11 Business owners
  33 Land owners
  53 Residents
  2 Employees.

  Each groups worked at its own pace and some covered the key issues more than the desired future character. Different groups had different emphases, but there were many concerns and hopes in common. Below is a broad summary of the workshop outcomes.

- As individuals

  The back of the agenda was designed as an additional survey form, for people who were unable to attend the whole session or who wanted to supply their own written response rather than (or as well as) taking part in a group discussion. These forms were handed in to Council staff and were also included in the assessment of issues and desired future character. 29 forms were received.

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Key issues

All groups identified traffic (volume and speed) and the commercial focus (either the retail mix and/or the need for a supermarket). Pedestrian access across Barrenjoey Road, including issues of convenience and safety, was also noted. Some people were concerned about potential overdevelopment while others identified that streamlining the development process would assist revitalisation. Important for some was the lack of activities and spaces for young people. Perhaps most important of all was the desire to maintain and enhance a 'village' or 'community' character, which was perceived by some to have been diminished over time. The comments below include a review of the individual as well as group responses.

Likes and dislikes

Land uses

The shopping village, the restaurants and cafes, and the mix of services were liked. Gaps in those services were also noted, as was the need to encourage more people to shop in the centre. In particular, a lack of community uses and open spaces was commented on. An arts or cultural focus was one suggestion of something missing that could enliven Newport. Relating to built form, there was a feeling in some groups that boutique retail / smaller shops were preferred to 'mega' businesses with large floor plates.

Built form

There was considerable debate about a sustainable and attractive built form that would be suitable for Newport. Many people expressed a desire to retain the current scale of building, while some were happy to see a height increase so long as this was tied to improved amenity in the form of open space. High rise was definitely not preferred. One group commented that part of the village charm was the existing mix of building heights. Some groups went into more detail about detailed design, and there was praise for a renovation of an existing 3 storey building on Barrenjoey Road, of St Michael's Church as integral to the village character, of the need to step back the top level of buildings to reduce their apparent scale, and generally of a need for improved design quality. Materials were also discussed, with natural materials and finishes including sandstone and timber mentioned as suitable for Newport. Elements that were disliked included rooftop communication devices, building signage creating visual clutter, run-down shopfronts, and the current paving.

Trees and Landscaping

Opinions were mixed about species for the village. In general indigenous rather than exotic species (especially palms) were preferred; planter boxes appeared to be somewhat unpopular; and Barrenjoey Road would benefit from increased street tree planting.

Traffic and parking

This was of great importance to many people, particularly in terms of traffic speed. Slowing traffic down as it passed through Newport was seen as critical to linking the two sides of Barrenjoey Road and creating better and safer pedestrian connections between the shops, and from the western side to the beach. There were suggestions for controls that would limit parking times on the main street, to both encourage the use of longer stay parking at the rear of the shopping strip, and to ensure that there was enough movement in and out of parking spaces on Barrenjoey Road to support drivers stopping rather than continuing through. There was seen to be a need to consider vehicle access to the rear of properties. Some discussion about the roles of Coles Parade and Robertson Road arose from a perception that areas favouring pedestrians had more appeal than those that are heavily trafficked.

Pedestrian safety and amenity

The main 'dislike' is the current lack of crossing opportunities on Barrenjoey Road, and the perceived danger to pedestrians when they do cross. Foamcrest Avenue and Robertson Road were also mentioned as needing safe places to cross. Different groups had different views about the width of the pavements (some thought they worked well, others thought they should be wider). One group and some individuals noted that there should be continuous and fully accessible footpaths to important facilities like the pool.

Access to the beach

This was seen by all groups as needing improvement, both in terms of the visibility of the beach and the physical connections to it for both vehicles and pedestrians. The beach is not currently operating as a focal point for Newport – it is not obvious that Newport is next to the sea. One group liked the glimpses / views through to the beach from the centre. Accessways or thoroughfares were seen as having the potential to contribute to the vibrancy of the village – they are not seen as doing this at all now.

Arcades and seating spaces

Many people felt that there was significant room for improvement in the form and quality of Newport's arcades. 'Blind' or dead end arcades specifically received negative comment from four of the groups. They were seen as lacking amenity and attractiveness. Graffiti was also seen to be a problem arising from lack of use of these spaces. While more seating was desired, it was not seen to be suitable in these spaces. More seating – connected with more public spaces in which to sit – was also mentioned as desirable.

Other issues

Most of these comments relate to the existing visual character of the village. Particular dislikes include vacant land, telecommunications infrastructure, garbage bins on the main road and in arcades, the lack of public toilets, a dearth of useable open spaces, and the lack of use of Newport's great asset – the beach.

Needs and challenges

Many positive suggestions were made in this part of the workshop. They cover land uses, built form, social and cultural activities, and the open space and pedestrian network. Some suggestions also cover the ongoing process of encouraging the desired masterplan outcomes.

The main challenges are similar to the issues identified: traffic, flooding, retaining a sustainable mix of uses, providing incentives for high quality development, creating a 'heart' for the village, enhancing the vibrancy and useability of the 'main street' along a busy main traffic road. The needs included:

- Locate and develop a plaza or pocket park to provide a central focus for the village
- Provide more facilities for young people (eg skateboard ramp, bowling alley)
- Encourage a small supermarket
- Provide a community centre / library
- Create incentives for landlords / developers / business owners
- Upgrade links between the commercial centre and the beach
- Enhance the Surf Life Saving Club with a wider mix of uses
- Enhance the beach promenade experience – for example beautify the area with a boardwalk
- More efficient use of the beachside car park
- Prohibit a service station use in the centre of the village

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Analysis

Towards a vision for Newport

Many inspiring individual vision statements were recorded (in text and drawings). The overall 'tone' of the comments is summarised by this one: "Newport village should be a place that can be the centre of our lives". Below is a sample – there are many more we could have chosen. All of the statements contribute towards an overall vision statement and design strategies for Newport Village Commercial Centre.

[In 20 years' time, Newport will be…]

… a unique village with a relationship to the beach and plateau behind, that has a good mix of businesses to provide for local residents and tourists, pedestrian connectivity, and opportunities for al fresco dining.

… pedestrian friendly with multiple linkages to facilities, and have a village atmosphere reflecting the beachside character, facilities for social interaction for all ages, and central commercial activity to attract people to the centre.

… a place to stop, shop, eat, linger and enjoy.

… a vibrant village where citizens can shop locally, feel safe and feel proud of a caring community.

… a family orientated community minded village with links from north to south and east to west, which will make it easier for all people to shop eat and enjoy this wonderful natural environment

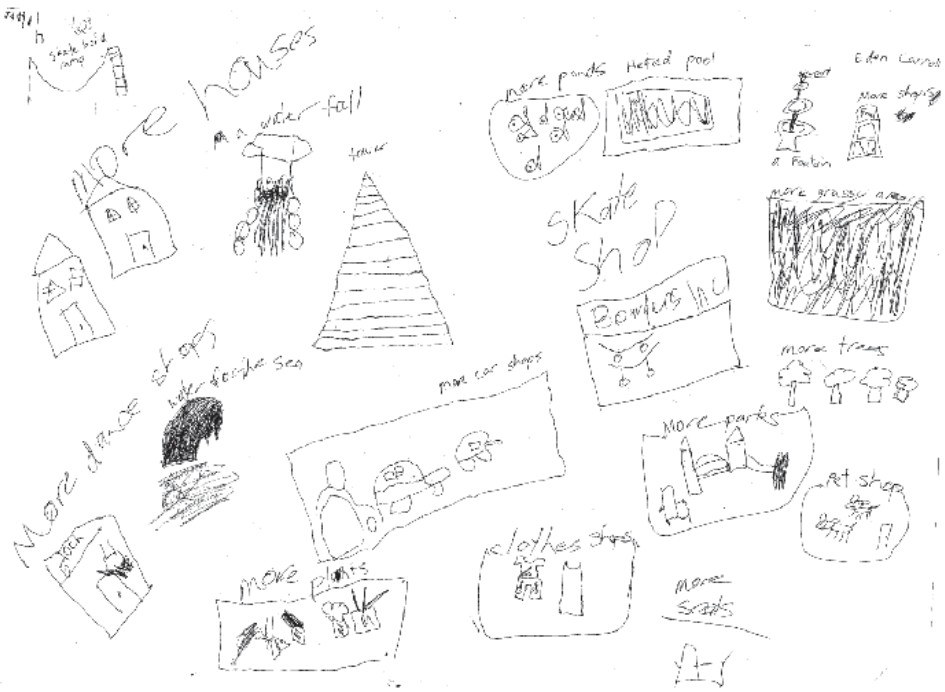
… thriving and unique, with a real village feel to the centre and more beach access.

… a compact, well planned village … linking east and west

… a place with a beautiful board walk from headland to pool with seats along the walk, interesting shops with easy access from beach area to community centre, vibrant supermarket, residents step out for night dinning and day time coffee shops

… somewhere where I will know all my community and enjoy wandering to the beach and informing visitors and locals about our history. Waving to those in buildings above. For visitors to say they love Newport style. A sea side village to love walking around, sitting and chatting, know what's going on in the future and past. A promenade from oval to beach at night and the place to be – a cultural experience for all that visit with sandy feet.

Our youngest participants provided these beautiful drawings of the sorts of things they would like to see in Newport in the future.



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3.1 Constraints and Opportunities

Delivering on the vision requires careful consideration of the issues particular to Newport Village: its strengths and weaknesses, opportunities and constraints. These issues have a significant impact on the future built form – where it is located, how buildings relate to the street, the bulk and mass of buildings, where there are openings between and through buildings to connect the pedestrian network, and how vehicles access sites and parking. They also have an impact on the public domain – on the location of pathways, pedestrian crossings, connections to the beach and the proposed community centre, and on proposals for landscape elements, lighting and signage.

The principal constraints and weaknesses are:

- Flooding – the ground floor of new development on Barrenjoey Road will be raised to between 400mm and 1.2 metres above existing street level (depending on location), because of having to build 500mm above the 1:100 year flood level. This is a constraint both on active frontages and on accessibility.
- Ownership patterns –
  - lots in strata ownership are unlikely to develop in the short/medium term
  - single lots are inefficient in terms of the capacity for on-site, underground car parking, and to achieve necessary building separation for residential amenity
  - the separation of the Council-owned parcels by a large lot in different ownership reduces the potential for orderly development of those sites
- Through traffic on Barrenjoey Road – the RTA requirement to maintain two through lanes and one parking lane in each direction limits capacity to extend the public domain, narrow the street and slow traffic
- Poor visual and physical connectivity
  - between the commercial centre and the beach, and
  - between the commercial centre and the proposed community centre
- Lack of 'full service' commercial and retail uses in the village, in particular the lack of a supermarket which could anchor the commercial centre
- Through site links and arcades that are either dead ends, not overlooked, or where the wayfinding is poor, have safety and security issues and are not contributing positively to the connectivity of the pedestrian network
- Barrenjoey Road is a barrier to pedestrian movement and divides the village centre down the middle
- Inactive edges and inappropriate uses at prominent corners / entry locations to the village
- Mixed – sometimes poor – quality built form, typically 'boxy' in appearance, contributing to the lack of distinct identity for the place
- Businesses to the south-west and north-east along Barrenjoey Road are under-utilised
- There is a need to maintain the quantum of public parking spaces currently provided on the Foamcrest Avenue site
- Vehicle and service access to properties on Barrenjoey Road is constrained by:
  - RTA prohibition on vehicle entries off Barrenjoey Road if access from another street is possible
  - Lack of rear lane access combined with narrow lots on the east side
  - Inability of lots backing on to the Bramley Avenue car park to secure access rights across Crown Land

The principal opportunities and strengths are:

- Extend planting of the heritage Norfolk Pines: to consolidate them as an identifier for Newport and to draw the eye along the length of the commercial centre towards the beachfront areas; to unify both sides of Barrenjoey Road as a strong vertical element at the 'apex'; and to do so while still allowing visual links between both sides of the road, due to the pines' vertical habit and proposed generous spacings.
- Reinforce Robertson Road as a vibrant pedestrian hub
- Extend the accessible public domain on Robertson Road by creating a generous useable space with seating and shade, that can support the ground floor retail uses (especially cafe / dining) and is also welcoming and attractive to the general public.
- Consolidate lots in single ownership to create developable parcels
- Create active frontages to both sides of Robertson Road, to the important corner site adjacent to the beachfront open space, and to the eastern corner of Barrenjoey Road and The Boulevarde, to help draw pedestrians to important 'attractors': the beachfront and promenade; the village square; and the community centre
- Develop the path network along the waterfront and foreshore open space areas, connecting pedestrian and cycling paths with key locations in the village
- Retain the existing pattern of arcades to maintain the informality of the pedestrian network, creating more linkages, and providing for accessible entry to ground floors raised above the 1:100 year flood level
- Relocate one pedestrian crossing and create a new crossing to make three signalised crossings on Barrenjoey Road, spaced at the ends and towards the centre of the commercial strip
- Reduce traffic speed through the village with a combination of management methods and by physically and visually narrowing the carriageway
- Rationalise vehicle movement and parking arrangements on the Bramley Avenue car park to improve functionality and pedestrian safety
- There is potential to link the centre more strongly with the beach through improved pathways as well as with visual cues
- The street setback of 3.5 metres effectively extends the public domain and provides opportunities for retail / cafe uses to spill out onto and enliven the footpaths
- Encourage best practice ecologically sensitive design that responds to Newport's climate and setting, and that sets the direction for place-sensitive, responsive architecture.
- Encourage high quality design of the public domain and of front setbacks in the private domain to reinforce 'Newport style' and a sense of place
- Reveal and express the area topography with built form that enhances views to the sea and the hills, and that enables view sharing
- There is an opportunity to strengthen appreciation of the history and geography of the place through interpretive signage, walking trails, information boards and street banners.

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3.2 Core Principles

Over-arching masterplan principles have been developed, and have evolved during the study, that will support the vision for Newport Village and underpin its desired future character. The basis for these core principles was established in the earliest stages of the project, as part of the masterplan brief prepared for the Project Control Group by Council. The core principles encompass economic, social and cultural, environmental and design issues, to assure that the masterplan can contribute to a sustainable outcome for Newport.

Economic principles

- Revitalise Newport Village Centre
- Build on the existing strengths of the village
- Increase the mix and diversity of uses
- Increase visibility of the commercial centre from the beachfront to support visitor / tourism activities
- Provide sufficient parking to accommodate village users

Social and cultural principles

- Activate and enliven streets and public spaces to improve safety and security, and the perception of safety and security
- Create a village 'hub' for Newport where people can gather and interact
- Improve the experience of arriving and being in Newport
- Link public open spaces to create a legible and accessible pedestrian network
- Create clear and inviting connections to community facilities and to public transport
- Encourage walking and cycling
- Foster understanding of Newport's history, geography and community

Environmental principles

- Improve connections between the village and the beach
- "Green" Barrenjoey Road with street trees
- Provide sheltered, pleasant public spaces
- Optimise commercial and residential amenity
- Represent Newport as a leader in environmental sustainability

Character principles

- Design the public domain (footpaths, arcades and plazas) at a 'human' scale that supports the village character
- Reinforce the relaxed character created by varied building setbacks, heights, facades and roof forms
- Design buildings to respond to the climate, topography and setting
- Protect and share views to ocean and hills

3.3 Concept Development Process

Once the core principles were established, they set the direction for the development of options for the public and private domain. Preliminary concepts for the arrangement of open spaces, pedestrian network and building massing were developed in the form of diagrams and text, and presented for discussion and review by a self-nominated group of community representatives and Council staff. This group of people formed a focus group. Two workshops were held as the design principles and urban design concepts were developed. At each meeting the consultants presented a powerpoint illustrating the proposals and recommendations to date, for discussion and review. The powerpoint presentations, together with comments and suggestions arising from the workshops were summarised and posted on Council's website. The group met the second time when the preliminary ideas had been further investigated, changed or refined, and provided comment to the Consultants. Both sets of comments are attached in the Appendix. The proposals that were developed into the draft Masterplan are below.

3.3.1 First focus group

There was recognition that the urban structure of Newport is well established and there are limited opportunities for significant changes. This stage focussed on establishing the key guiding design principles, and investigating the potential guidelines, actions and projects that could support the principles. The table below is what the consultants prepared for discussion by the focus group.

PRELIMINARY PROPOSALS	RATIONALE
Provide a small urban park/plaza on Robertson Road	• to create a village 'heart', edged by active uses • to consolidate the existing pedestrian focus on Robertson Road, effectively creating more frontage • to take advantage of the northern orientation for sun access • to create a haven from the main road but still located in the centre of the village, close to the proposed signalised crossing to the beach
Retain the urban pattern of arcades on the west side of Barrenjoey Road	• to support the existing / desired informal streetscape quality • to allow access into shops and to residential component of mixed use buildings (considering the flood conditions)
Create a new north-south shared access through the middle of the block between Barrenjoey Road and Foamcrest Avenue	• to connect the new park/plaza with the existing arcade at 335 Barrenjoey Road and the adjacent public car park within the residential flat building • to allow vehicle access to the rear of commercial properties • to provide a potential additional frontage to ground floor commercial uses on Foamcrest Avenue • to create a generous, green corridor that enhances the open space network • to connect with arcades / pedestrian links from Barrenjoey Road • to provide alternative access to the residential component of buildings on Barrenjoey Road
Consider the potential for a building on the site of the Bramley Avenue car park, with car parking at ground level and could have other uses above	• to investigate whether there are alternative uses for the site • to formalise a public rear lane serving the Barrenjoey Road properties
Maintain the 3.5 metre setback from the west side of Barrenjoey Road, and on the east side south of Bramley Avenue. Ensure that changes in level to manage flood liability are handled behind the building line	• To effectively extend the public domain, maintaining a generous and accessible paved area that can support outdoor dining and other active uses • To provide horizontal (as well as vertical) separation for any residential component of the buildings from the traffic impacts on Barrenjoey Road • To reduce the level change needed within properties by allowing a gentle slope up to the building line (without compromising accessibility of the footpath and front setback)

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PRELIMINARY PROPOSALS	RATIONALE
Enable building heights of 3 storeys on Barrenjoey Road, setting back the top storey to maintain a 2 storey street wall height datum	• To enable people to live as well as work in Newport Village • To support the viability / development potential of new building, including providing underground parking • To intensify the mix and diversity of the centre while maintaining a pedestrian scale to the street

There was broad support for the principles and considerable discussion about how to achieve them, in particular the potential for and desirability of a civic plaza. Whatever form this might take, there was consensus that Newport would benefit from a "heart" or focus for the community, and that a location in the middle of the village, for example on Robertson Road, would be appropriate. Strong support for maintaining and enhancing the pedestrian network, and if it could be connected with existing and any new public spaces, was recorded. The recurrent concern about the lack of character and lack of a sense of destination found expression in the desire for a "draw" in the form of a use like a cinema or supermarket together with services, well designed retail, shops, etc.

There were mixed views about the desirability of underground parking but also a recognition that this was in part a management issue and was preferable to parking above ground in structures. There was also a mixed response to the proposed built form, with concerns expressed about the impact of 3 storeys. It was agreed that this could be acceptable with careful control of the building massing, especially generous setbacks at the upper level, and that 3 storeys may not be appropriate everywhere within the commercial centre.

An important outcome of this first meeting was agreement that the Bramley Avenue car park should remain open space (ie not having any structures on it). Its current use i.e. parking, is very important in retaining the function of the village centre.

In response to flood constraints, there was general appreciation of the limitations on design of footpaths and shopfronts that the flood level creates, and of the suggested design solutions to allow for easy and inviting entry to retail premises, and to keep a direct relationship between shops and the footpaths.

3.3.2 Second focus group

The consultants gave a powerpoint presentation recapping the previous discussion with the focus group, and identifying how the preliminary proposals had changed or been developed further following that meeting. The proposals were more concrete and the discussion more specific than the first focus group meeting, leading to the draft masterplan recommendations subsequently put to the wider community at the public meeting on June 21 2007.

Summary outcomes of this workshop were:

People were very positive about the proposed streetscape upgrade, including median planting of large scale trees. While different species were discussed, the majority view was that Norfolk Island Pines were "very Newport" and would contribute to a unique village identity. The need for improved informational and event signage was seen as a public domain enhancement that could and should be integrated with new planting, median and pavement treatments.

As before, there were mixed responses to the idea of a new public space on Robertson Road. There was, however, general agreement that it was important to maintain the liveliness and pedestrian activity on Robertson Road, and that streetscape improvements to extend and enhance the public domain were desirable, whether as a 'set back' space in front of buildings, a generous opening /entry to any through-link or mid block arcade, or as a generous widened footpath.

It was noted that there are community concerns about the volume of traffic on Foamcrest Avenue at the moment, and concerns about its increasing in the future. At the same time, it was felt that the quantum of public car parking on Foamcrest Avenue should be maintained, perhaps consolidated and better utilised. Following on from the earlier focus group discussion, while there was still some uneasiness about underground parking, it was seen as acceptable to have one level underground of public parking, preferably with some natural light and ventilation (ie. a component of sub-basement parking).

Recognition of the poor urban and amenity outcomes resulting from the current building height controls led to a recommendation from the group that future controls and guidelines should promote high quality buildings with a variety of roof forms and building modulation, to avoid a bland and boxy appearance to the centre. Environmentally sensitive design, including climate responsive architecture, should be encouraged.

3.4 Urban Design Principles

The urban design principles include both the public and private domain, and build on the opportunities to enhance Newport's character, structure and urban form.

3.4.1 Land Uses

Objective: Create a sustainable village commercial centre serving the Newport and Barrenjoey Peninsula community

Principles:

i. Allow a range of opportunities for retail, commercial, community and residential uses in appropriate locations
ii. Ensure that land uses support the vision for the desired future character of Newport Village, including appropriate and accessible community facilities
iii. On Barrenjoey Road:
   a. provide for active ground floor uses, in particular retail uses
   b. encourage commercial uses above ground level
   c. enable residential uses above ground level
iv. Encourage café and dining uses on side streets and fronting pocket parks or urban plazas, to optimise amenity for outdoor dining
v. Maintain the existing low scale of neighbouring residential areas
vi. Provide adequate local open space to support local business people and people who use the centre for shopping and services
vii. Provide small scale retail and leisure uses adjoining the foreshore, parks and urban plaza areas, including cafes with outdoor dining
viii. Encourage consolidation of lots to provide for efficient underground parking and to optimise development yield and high quality urban design outcomes
ix. Design mixed use buildings whose envelopes are adaptable to either commercial or residential uses on the levels above ground

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Principles

3.4.2 Role and Identity

Objective: Draw on Newport's unique character to celebrate and enhance its image

Principles:

i. Promote Barrenjoey Road as a lively and active main street
ii. Maintain the pedestrian focus of Robertson Road
iii. Increase the visibility and accessibility of the Village for a wider range of users
iv. Retain and enhance views from within the Village to the surrounding hills and the beachfront areas
v. Increase appreciation of the cultural plantings of Norfolk Island Pines
vi. Optimise the strategic location at the northern entry with high quality built form integrated with public domain treatments that visually and physically link Barrenjoey Road to the beachfront areas
vii. Enhance the southern entry with large scale landscape planting in the median of Barrenjoey Road between Queens Parade and The Boulevarde / Bardo Road
viii. Retain and enhance key elements of the urban structure: existing street, lane and arcade pattern, established trees, pocket parks and reserves
ix. Encourage public domain treatments that reflect the unique character of Newport, including the provision of public artworks
x. Require future built form that is appropriate to the desired future character of the place

3.4.3 Pedestrian & Cycle Network

Objective: Enhance and extend the opportunities for pedestrians and cyclists to move safely and comfortably within the public domain

Principles:

i. Link public open spaces with the existing street network and with an interconnected pedestrian and bicycle network
ii. Create opportunities for casual overlooking and activity around the edges of open space, to promote perceptions of safety and security
iii. Reduce vehicle speeds through and around the commercial centre to support a pedestrian and bicycle friendly environment; and manage traffic speeds in quiet residential areas
vi. Enhance existing pedestrian routes and link them with foreshore, open space and residential areas, with commercial, retail and recreational activities and with public transport nodes
vii. Create opportunities for cycling along the foreshore and connecting safely with the street network
viii. Create clear and legible pedestrian connections from Foamcrest Avenue to Barrenjoey Road, and mid-block to Robertson Road, ensuring that connections are generous and open, with direct and clear lines of sight and opportunities for casual surveillance
ix. Continue to require setbacks to the west side of Barrenjoey Road to extend the public domain and support outdoor uses related to retail and restaurant frontages
x. Minimise the potential for conflicts between vehicles, pedestrians and cyclists through the location of street crossings, parking access and building entries, and the design of rear lanes, footpaths, bicycle lanes and shared ways

3.4.4 Traffic and Parking

Objective: Balance traffic flow and parking requirements with the need to promote a pedestrian and bicycle friendly environment

Principles:

i. Implement the streetscape masterplan including the following key elements:
   a. Signalised pedestrian crossings at Coles Parade, Robertson Road and The Boulevarde to increase opportunities to cross Barrenjoey Road and to accustom traffic to having to slow and stop through the centre
   b. Provision of two lanes of through traffic, a parking lane and a bicycle lane in each direction
   c. Time limited parking on Barrenjoey Road to promote perception that spaces turn over, thus supporting more people to stop and use the retail and commercial services rather than drive through the village
   d. Planting of the median with signature Norfolk Island Pines to visually reduce the scale of the road and in doing so assist in slowing traffic; and planting of the footpath with smaller street trees (tuckeroos) to reinforce the pedestrian scale
   e. Kerb extensions to increase pavement widths and reduce carriageway widths at crossing points and on corners
   f. Improved vehicle circulation through the Bramley Avenue car park, with Bramley Avenue to Barrenjoey Road becoming one way
ii. Locate vehicle access to on-site parking on rear lanes and side streets. Minimise footpath crossings (eg driveways, service entries) on Barrenjoey Road
iii. Locate parking for new development underground.
iv. Maintain the quantum of public parking spaces within Newport Village Commercial Centre

3.4.5 Public Areas

Objective: Create a lively and active network of streets and public open spaces with high amenity, safety and security

Principles:

i. Connect with the range of opportunities for recreation and relaxation on offer adjacent to the commercial core, including the Bowling Club, children's play area, proposed community centre, cultural activities, churches and beachfront promenade.

ii. Use large street tree planting (Norfolk Island Pines) in the median to 'green' Barrenjoey Road, to visually reduce the width of the road and the scale of built form

iii. Provide a new 'village square' within the commercial centre, located for optimum amenity and accessibility, linked with and the focus of the pedestrian network

iv. Formalise the small open area west of Bramley Avenue as a pocket park

v. Design public open spaces to be contiguous with streets and footpaths to ensure they are visible and overlooked

vi. Encourage landscaping and mature tree planting in the private domain on Foamcrest Avenue and Seaview Street, to provide green spaces and tree canopy to supplement public domain planting

vii. Provide continuous awnings for weather protection and to enable outdoor dining

3.4.6 Urban Form

Objective: Provide sensitive, high quality and integrated urban, landscape and architectural design

Principles:

i. Create an inviting and relaxed character for Barrenjoey Road, with shopfronts that open to the footpath, awnings for weather protection and to reinforce a pedestrian scale

ii. Design built form to define and enhance the spatial quality of streets and open spaces by aligning buildings with them

iii. Scale and locate built form to protect and enhance views from or towards important natural features, in particular street vistas towards the western hills, views through and over buildings towards the headlands and ocean, and views of the Norfolk Island Pines from within the village

iv. Optimise the strategic location at the northern entry with high quality built form integrated with public domain treatments that visually and physically link Barrenjoey Road to the beachfront areas

v. Protect the character, amenity and outlook of neighbouring residential areas by making appropriate transitions in scale from the commercial centre

vi. Optimise sun access to streets, and public open spaces by carefully locating and massing built form

vii. Encourage high quality landscape design of public spaces, the interface between public spaces and private development, and within new development

viii. On large lots, and where lots are consolidated, ensure that the scale, massing and proportions of new development reflect the original smaller lot subdivision and are sensitive to the desired village character

ix. Encourage high quality, environmentally responsive contemporary design, in particular whose outlook, building layout, design for passive solar and natural ventilation, and use of materials responds to Newport's microclimate, to the site orientation and views, and to the building's relationship to the street and its neighbours.

3.4.7 Views and Landmarks

Objective: Enhance vistas and street views that reveal the topography, relationship between the village centre and the beach, and important natural elements

Principles:

i. Retain the cultural importance and landmark quality of the Norfolk Island Pines, including those on private land (Bramley Avenue)

ii. Protect and enhance important street views within the centre:
- north west up Coles Parade towards the hills from the beachfront area, and across Barrenjoey Road
- south east down Coles Parade towards the main beach access across Barrenjoey Road
- north west up Robertson Road towards the hills
- north along Barrenjoey Road towards the Norfolk Island Pines opposite Coles Parade and fronting the Surf Life Saving Club
- the framed view along Barrenjoey Road with retail / commercial buildings edging the street and identifying the village centre
- south from elevated streets (Seaview Parade, Foamcrest Avenue) towards the high point of Bushrangers Hill above Bungan Beach

iii. Use street tree planting to line and reinforce view corridors

iv. Use median planting of Norfolk Island Pines as place markers for the main street, visible above buildings from within the centre and from a distance

v. Align openings between buildings to protect or create new view opportunities from the west side of Barrenjoey Road towards the east, to promote visual (and where possible physical) connections with the foreshore and beachfront

vi. Protect views across open spaces and promote view sharing

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3.5 Desired Future Character

The desired character statement in DCP 21 as it specifically relates to Newport Commercial Centre is limited to a reference to "seaside-village character" which is not defined. The phrase is not at issue, but there were different interpretations of what "seaside village" means. For some people it meant retaining a low scale; for others it meant a relaxed, comfortable public domain; and for others, it meant variety and transparency in the built form.

The urban design principles above are intended to support and promote the series of propositions in the Vision Statement following. The Vision Statement is a summary of the key community and stakeholder proposals and is at the heart of the masterplan recommendations. It is translated to a series of statements that sum up the desired character as follows:

Newport's coastal setting is what contributes most to its distinctive character. Responsive, energy efficient buildings will support and enhance this relaxed, beachfront character and its outdoor lifestyle, contributing to a unique sense of place. Contemporary design solutions will respond to Newport's climate and setting, including providing shade and shelter to streets and entries, generous private outdoor spaces, openings that capture ocean breezes, and shade elements.

- *Diversity rather than uniformity of building type and style is a desirable part of the existing character and is encouraged to continue. Strategies to achieve this include modulating buildings in both the vertical and horizontal plane, and enabling a variety of fenestration, awning treatments and roof forms. This diversity, including the mix of new and remodelled buildings, will be unified by the streetscape and public domain treatments.*
- *At the topmost level of buildings, setbacks to front, sides and rear will break down the overall scale of the street , support view sharing, and will also provide useable roof terraces and garden areas. Views from the upper slope down and across the roofscape will be significantly improved by thoughtful roof design. The permeability of the centre will be further improved by both protecting and creating views through and between buildings.*
- *Building orientation, internal layouts, the location and design of balcony and courtyard areas, should all optimise people's ability to use and enjoy the spaces.*
- *The architectural character will be expressed strongly through the design of facades, including shading and screening devices, lightness and transparency of materials, and elements that promote natural ventilation.*
- *Shop fronts will be largely transparent, with large openings, connecting directly with the footpath areas, to contribute to a sense of permeability.*
- *Building users will benefit from terraces, balconies and openings with an pleasant outlook, while the space benefits from passive surveillance and from being attractively edged.*

The desired future character will include an increased diversity and range of retail, commercial and community activities for the Newport community. Barrenjoey Road and Robertson Road will be consolidated as the primary retail streets, and the role of Robertson Road as an activity hub for the village will be enhanced. Further development of shop top housing will enliven the village, particularly at nights and weekends, and increase the retail customer base.

Newport Village will have increased patronage from visitors as well as local residents, due to:

- *a range of small scale commercial, professional and residential uses on Seaview Parade, Foamcrest Avenue and the western portion of Coles Parade, distinct from the primary retail 'main street' focus on Barrenjoey Road and Robertson Road*
- *retention and enhancement of the clusters of cafe/dining uses on Barrenjoey Road and Robertson Road*
- *active land uses on highly visible sites at the northern and southern ends of the commercial centre, with a high degree of interaction with the public domain*
- *the retention and enhancement of special character sites and uses that contribute to Newport's identity including beachfront areas, the openness of the Bramley Avenue car park, the church and the community facilities at the southern end of the village*
- *consolidation of the community focus of the Bowling Club / Croquet Club site with new, diverse community and recreational uses.*

4.1 A Vision for Newport

Newport Village will be the centre of the Newport community. It will be:

- A place for connecting with community – with a pace that's relaxed and welcoming
- A place to stop, linger and enjoy – where you know you're by the sea
- A place with everything: home, work, shopping, art and culture, recreation, relaxation – lively during the day, safe and comfortable at night.
- A place for walking and talking, sitting and chatting.
- A place for sandy feet – and fine dining!

Figure 4.1 A vision for Newport

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4.2 Open Space

The open space strategy builds on the positives that Newport already has: its proximity to the beach, the multiple informal pedestrian connections between Barrenjoey Road and the surrounding streets and open spaces, and the embryonic or potential gathering places in the village. The core principle, to create a village hub to foster interaction and contribute to a sense of identity for Newport, is seen as important to the long term sustainability and economic viability of the commercial centre.

The open space network comprises both 'soft' and 'hard' spaces. It includes footpaths and arcades, plazas, pathways and promenades, and both structured and unstructured park and recreation areas.

A number of strategies are proposed to link Newport's open spaces into a connected network.

1. The existing open space network will be enhanced by extending the public domain on Barrenjoey Road with widened footpaths EXCEPT for the land backing onto the Bramley Avenue parking area (east side of Barrenjoey Road north of Bramley Avenue)
2. Improve the functionality and flexibility of Robertson Road by creating a linear public space in front of the shops, that can be used for spill out uses as well as for sitting, meeting people and watching the life on the street. This space could be strengthened with a small civic plaza, edged with active ground floor uses, and located to benefit from northern orientation. Locating a small plaza on or adjacent to Robertson Road would reinforce its role as the central east-west axis in the village
3. Retain and enhance the key pedestrian through-site connections, in particular the mid-block route through the existing Foamcrest car park, and the connecting links to Barrenjoey Road. This route should be extended to Robertson Road. Two potential new connections could link with Foamcrest Avenue, one springing from the mid-block link in the southern block and another through the church site, should its buildings be reconfigured. These routes could be open to the sky or within a building or a combination of both. They should be lined with active uses, accessed directly off the route and visible from it through clear openings or extensive areas of glazing. NOTE that the position of these links is indicative. Their exact location will depend on site amalgamation and development.
4. The beachfront area should be a relaxed and welcoming place. There are opportunities to introduce new pathways for pedestrians and cyclists, connecting back to the street and footpath network.
5. A dedicated pedestrian path through the Bramley Avenue car park will separate vehicles and people, improving pedestrian safety and encouraging movement to the beachfront area.

Figure 4.2 Open space

Adopted: 15 December 2014
In Force From: 20 December 2014

4.3 Vehicle Movement and Public Parking

Vehicle circulation will be changed within the Newport Village Centre to reduce potential conflicts with pedestrians and to rationalise turning movements and access arrangements to side streets. Amalgamation of lots is required to ensure that efficient underground car parking can be provided for new development. The provision of car parking on small isolated lots is difficult and inefficient, because of the amount of space required for ramp, aisles, turning places and the like on very small lots fronting Barrenjoey Road, on site parking may be unachievable (see also Section 5.2 Amalgamation)

1. Bramley Avenue will become one-way towards Barrenjoey. All right turns will be prohibited at the Barrenjoey Road/Robertson Road/ Bramley Avenue intersection. Robertson Road and Coles Parade remain one-way streets.
2. The Bramley Avenue car park will be reconfigured to separate vehicle and pedestrian movements.
3. Foamcrest Avenue will continue to provide an off road public car parking function. Existing and additional car parking will be accommodated in a consolidated and integrated parking solution that is not visible from Foamcrest Avenue.
4. Manage all parking in a way that supports the efficient utilisation of spaces and the economic viability of the Village Centre. Public spaces will generally be short-stay immediately adjacent to retail and commercial uses to support turnover and the perception of parking availability (thus encouraging patronage of those uses). Long-stay parking will be limited to the beachfront car park.
5. Widen footpaths on Barrenjoey Road to create bays for buses and for short term parking; and at crossing points and key intersections to narrow the carriageway and promote safe pedestrian crossing. Allow for two travel lanes in each direction.
6. Retain the atgrade car park next to the Surf Club for long stay parking associated with beach and ocean activities
7. Vehicle access to properties is generally not permitted from Barrenjoey Road. Where there is potential to amalgamate lots, provide for future access to and integration with underground car parking areas, to consolidate entry points on Foamcrest Avenue and to minimise disruption to the pedestrian-focussed main street.

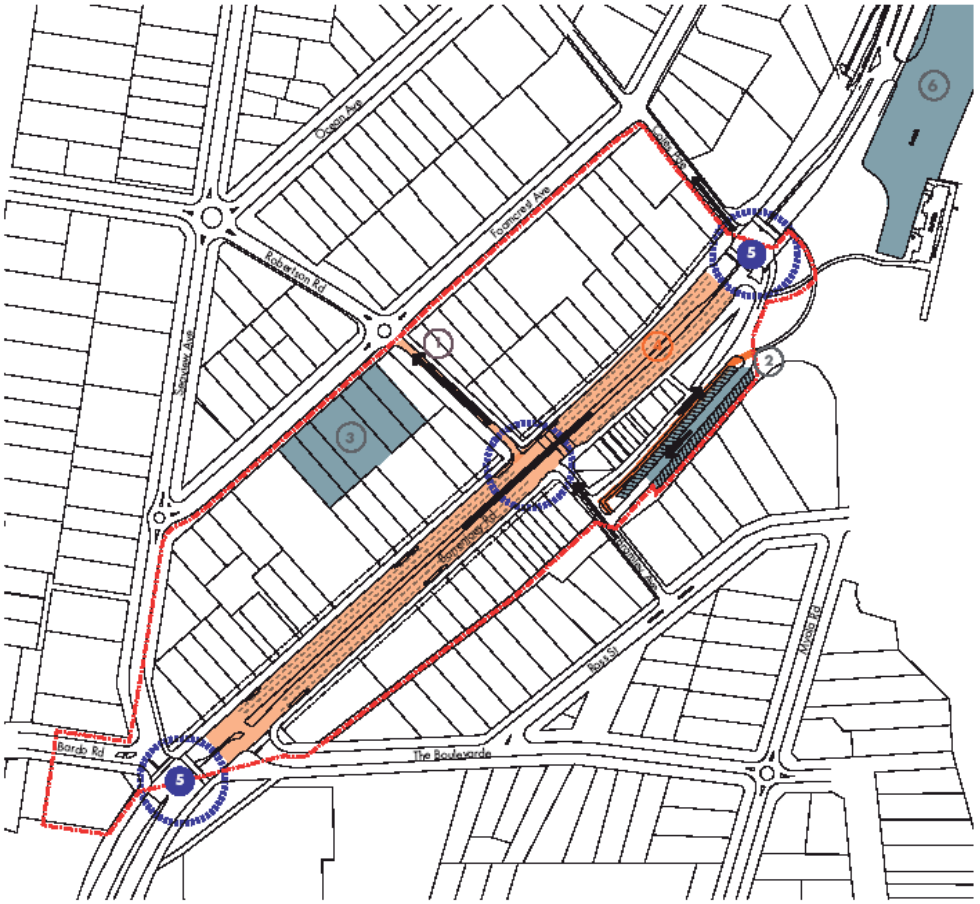

Figure 4.3 Vehicle movement and public parking

Adopted: 15 December 2014
In Force From: 20 December 2014

4.4 Vehicular Access and Underground Parking

Parking for new development will generally be in basement car parks. The diagram shows a typical desired amalgamation pattern, with the potential to link basement areas to create one or more large, efficient underground car parks that can serve a number of lots. Right of way access is required through some sites. If sites are developed over time, this does not necessarily constrain underground parking, as basements can be linked where their floor levels can be aligned.

Some properties will continue to need access from Barrenjoey Road, due to existing development that constrains or isolates them.

It is noted that many of the existing smaller developments within the village have no on-site parking, at least for customers. It is recommended that new developments on small lots, particularly those only accessible from Barrenjoey Road, be permitted to satisfy their parking requirements off site through alternative mechanisms. Alternatively, for those small lots, council may consider a waiver of on-site parking requirements. This masterplan accordingly recommends that for lots less than 18 metres wide whose only street frontage is to Barrenjoey Road, no on-site parking be required. Furthermore, for smaller developments with fewer than 10 car parking spaces, the requirement for a car wash bay is recommended to be waived.

The masterplan recommends that the constrained sites adjacent to the Bramley Avenue car park be granted right of way in order to allow vehicle access from the rear. This is vital for the development of these sites.

The diagram shows that entries to parking areas can be consolidated with amalgamation, reducing the number of footpath crossings required and the associated impacts on the streetscape.

Figure 4.4 Vehicular access and underground parking

Adopted: 15 December 2014
In Force From: 20 December 2014

4.5 Pedestrian and Cycle Network

The main pedestrian routes are along streets. Barrenjoey Road remains the spine of Newport Village and pedestrian movement from north to south is likely to increase with the introduction of a new community hub on The Boulevarde. The main cycling route is along Barrenjoey Road. There are opportunities to increase cycling opportunities, especially on the south-eastern side in residential streets, linking through to the beach, to the west at Queens Parade or Gladstone Street (potential safe school routes) and from the beach car park. Provision of secure bike parking facilities that can be incorporated into existing or proposed street furniture is essential.

The retention of arcades, and the extension of the arcade network to provide extra through-site linkages to Barrenjoey Road, are important strategies for reinforcing the existing character. Arcades, plaza areas and trafficable spaces fronting shops supplement the primary footpaths and add variety and interest to the pedestrian experience. Arcades that function as part of the pedestrian network should be publicly accessible day and night.

1. Enhance east-west pedestrian movement with additional, well positioned signalised crossings. Provide a pedestrian refuge in the median mid-block south of Robertson Road. Do not install pedestrian barrier fencing in medians.
2. Retain and enhance the key pedestrian through-site connections, in particular the mid-block route through the existing Foamcrest car park, and the connecting links to Barrenjoey Road, by extending it to Robertson Road. Consider introducing a new connection alongside Nos. 11-15 Foamcrest Avenue to link with the mid-block route.
3. Rationalise pedestrian movement through at grade car parking areas to avoid conflicts with vehicles, through the introduction of pedestrian paths. Create and/or complete footpaths within the centre, in particular on the north side of The Boulevarde to enable access to the Bowling Club / community centre site.
4. Introduce additional paths linking the commercial core with the beachfront areas; although outside the study area, also consider linking these paths into a north-south dedicated pedestrian and cycle route along the beachfront, connected to the Surf Club and to Ross Street / Myola Road.
5. At the corner of Barrenjoey Road and The Boulevarde there are open views and an informal connection to the Bowling Club. Future development should maintain this openness as far as possible, to 'turn the corner' towards the future Community Centre and link it into the pedestrian network.
6. Widen footpaths both to visually extend the public domain and to reduce vehicle dominance on Barrenjoey Road. At corners, reduce the crossing distance for pedestrians and the potential for conflicts with turning vehicles.
7. Design Barrenjoey Road lane layout to accommodate onroad cycle lane in both directions

Figure 4.5 Pedestrian and cycle network

Adopted: 15 December 2014
In Force From: 20 December 2014

4.6 Land Uses

Mixed uses including retail, commercial, community and residential uses are appropriate for the village centre. The strategy includes retaining the focus on Barrenjoey Road and Robertson Road as the main retail streets. Foamcrest Avenue is not suitable for retail uses for two reasons: it interfaces with a residential area and it should not compete with the intensity of use on the main shopping street and side streets. Ground floor uses on Foamcrest could include commercial uses in the form of professional suites, and a higher proportion of residential use in mixed use buildings would not be out of place east of Robertson Road beyond the church.

1. Encourage the continuation of clusters of cafe / dining uses, and extend this to include the northern tip of the commercial centre (in place of the existing bottle shop) to enliven the interface between village centre and beachfront.
2. Sites with special character and local significance should be retained and protected (such as the church and the open space character of the Bramley Avenue car park)
3. Introduce new community uses on the former croquet club site to reinvigorate this site and provide a strong anchor at the southern end of the village, improving the visibility and potential patronage of businesses on the SE side of Barrenjoey Road.
4. Consider the 'car park precinct' including the Council-owned sites on Foamcrest Avenue as an aggregated site (or possibly 2 or 3 integrated sites), to rationalise land uses, optimise efficiencies and deliver high amenity, high quality built form. Integrate the sites fronting Robertson Road with the planning of this 'precinct' to ensure that no lots remain isolated and unable to be developed.
5. All pedestrian routes through the village centre will be edged and overlooked by active uses. Ground floor frontages that open directly to the public domain are required to Barrenjoey Road, Robertson Road, Coles Parade and to arcades and plaza areas.
6. Require highly visible 'entry sites' at the north and south ends of the commercial centre to have uses with a high degree of 'useability' to promote pedestrian activity and interaction between the public and private domain at different times of the day and night. Buildings must be of very high design quality. Buildings should 'turn the corner' to direct views towards community and recreational facilities, notably the beachfront areas, the bowling club and the proposed community centre.
7. Promote small scale commercial uses, eg. professional suites, together with residential uses, on Foamcrest Avenue. Discourage retail uses in this location in order to retain the 'main street' focus on Barrenjoey Road and its side streets.

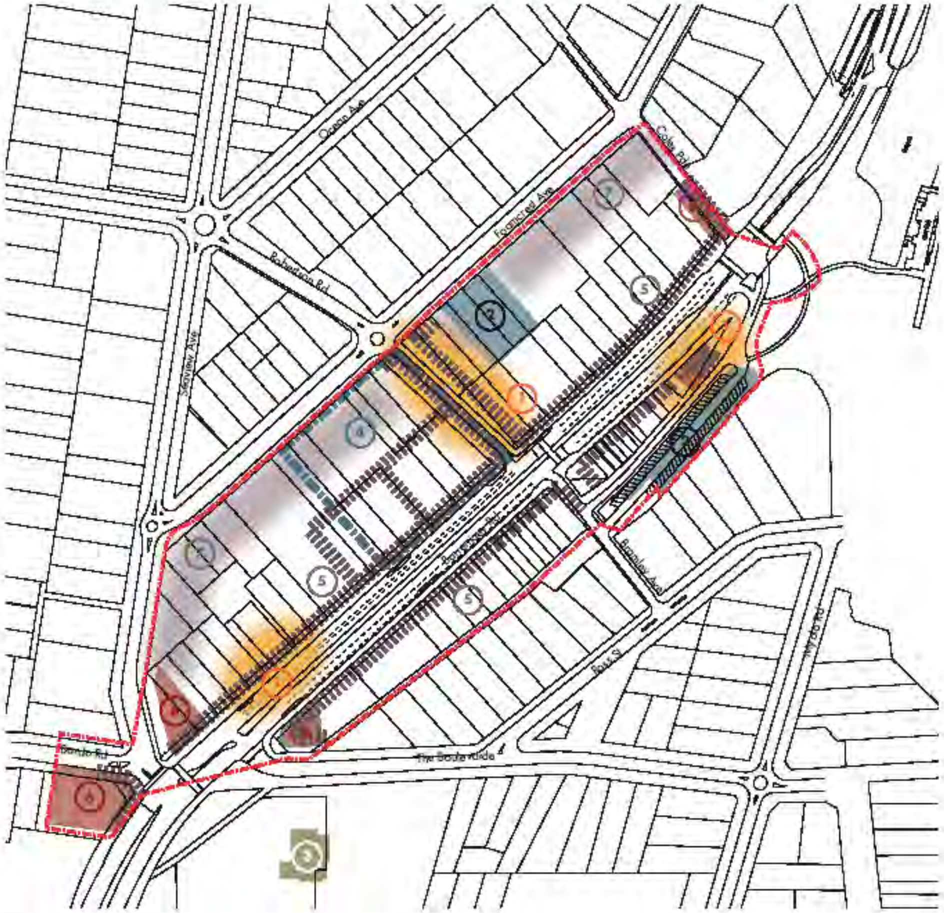

Figure 4.6 Land uses

4.7 Public Domain Character

Public domain strategies are intended to improve the useability, amenity, and design quality of the public domain, thus contributing to well used streets, arcades, plazas and park areas and enhancing the visability of commercial enterprises. Public spaces that are well used and well overlooked create a stronger sense of safety and security for people. The interface between buildings and streets and public spaces should enhance both the public and private domain, and helps give the streetscape character that will be recognisably 'Newport'.

4.7.1 Streets

- Concentrate activities along main pedestrian routes to encourage pedestrian activity
- Make buildings and spaces 'human scale'
- Improve the amenity of the public domain by:
  - using lighting and signage to create clear legible routes that connect areas of interest
  - ensuring that pedestrian paths and spaces are well lit and benefit from passive surveillance
  - providing shade and shelter to the footpath and to any gathering spaces like the proposed small plaza
- Provide a consistent suite of street furniture that unifies the appearance of the streetscape
- Integrate public art that contributes to Newport's distinctive identity through the design of the public domain
- Use signage, banners and public art to 'announce' the arrival points to Newport Village and mark places of interest, for example viewpoints, the Surf Club and along the beachfront promenade.

Figure 4.7.1.1 Barrenjoey Road looking north towards the beach

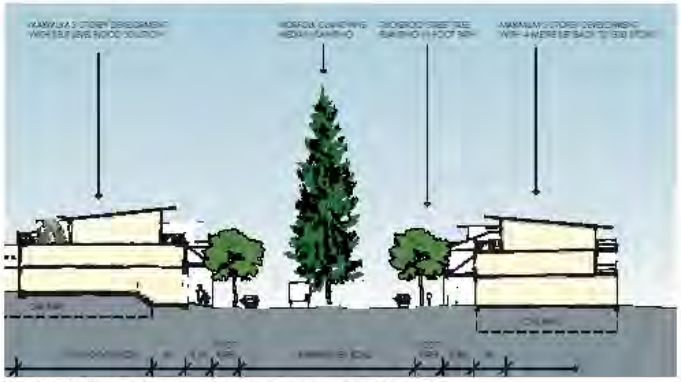

Figure 4.7.1.2 Section through Barrenjoey Road between Seaview Avenue and Robertson Road

Adopted: 15 December 2014
In Force From: 20 December 2014

Figure 4.7.1.3 Barrenjoey Road northern entry, looking south.
A new view of building of high design quality with active uses on the existing bottle shop site is critical to upgrading this entry.

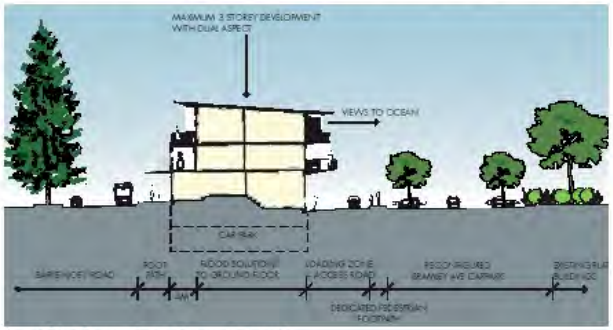

Figure 4.7.1.4 Barrenjoey Road northern entry, looking north

Inviting shopfronts, contemporary design & high quality finishes are encouraged on Barrenjoey Road

4.7.1 Streets (continued)

- Design Robertson Road to be able to be closed off to vehicle traffic for special events (for example street markets) that open the whole street and associated public plaza to pedestrians.

Figure 4.7.1.5 Robertson Road looking east (downhill)

- Design the streetscape of Foamcrest Avenue to reflect its role as a mixed use street rather than a primary retail street, with enhanced street tree planting, generous street setbacks with significant landscaping in front of the building line, and building proportions, entries and roof treatments that are appropriate for either a residential or a commercial use.

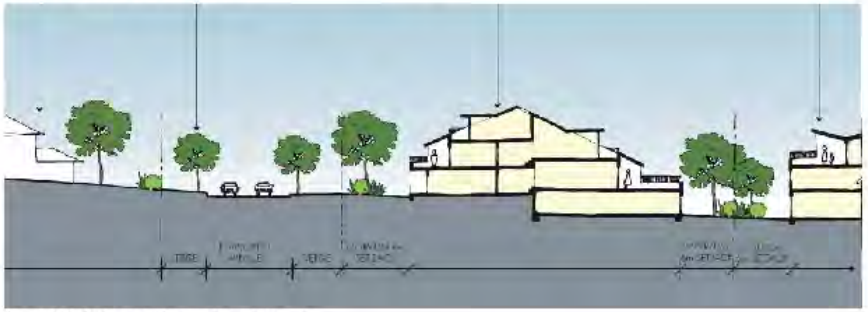

Figure 4.7.1.6 Southern part of Foamcrest Avenue, looking north

Adopted: 15 December 2014
In Force From: 20 December 2014

4.7.2 Plazas

- Design simple, uncluttered spaces that are intimate in scale and add to the ambience and the amenity of the village. These could be in the form of small squares combined with arcade entries or linear spaces associated with footpath widening and enlarged front setbacks. The largest of these spaces is to be located on the south side of Robertson Road.
- Connect plazas to the footpath and arcade network (see section diagram under 4.7.3).
- Edge plazas with active retail uses, and with cafe / dining uses that extend the hours of patronage of these spaces

4.7.3 Arcades

- Design arcades to be wide and high enough for comfortable use. Arcades should be as high and have as much natural light as possible, either being open to the sky or with transparent roofs.
- Design the entries to arcades as 'positive' spaces that are inviting and well integrated with footpath and any plaza area
- Maximise the transparency of arcades by wrapping shop windows around into the entry, providing full glazing to shops or other active uses along the arcade and allowing light from the shops to spill into the space.

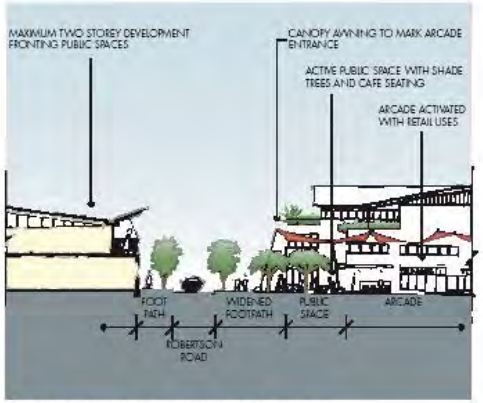

Figure 4.7.3.1 Section through arcade adjacent to Robertson Road

Adopted: 15 December 2014
In Force From: 20 December 2014

4.7.4 Pedestrian Paths

- Link pedestrian paths from the village centre to the beach and foreshore open space network
- Design pedestrian paths to be fully accessible, with places to sit and rest, and enjoy views to the hills and ocean
- Introduce signage and public artwork to describe and interpret Newport's history and culture
- Consider developing a continuous foreshore promenade linking, at the least, the Surf Club with the Swimming Pool, providing fully public access along the waterfront
- Develop a comprehensive Landscape Plan for the foreshore open space areas

4.7.5 Public Domain Elements

- Treat Barrenjoey Road with special elements at the north and south entries to the village, incorporating flagpole clusters, feature sandstone and feature planting
- Strengthen the village 'heart' at Robertson Road in two ways:
  - on Barrenjoey Road, with elements such as flagpole clusters, by opening up the median planting to maintain and enhance east-west views, and with public art
  - on Robertson Road, introduce a raised pedestrian threshold (traffic calming measure), feature tree & shrub planting and shade structures.
- Provide bollards to delineate public space; provide removable bollards to trafficable routes that can double as pedestrian only areas for special events (eg. market days), in particular on Robertson Road
- At the northern end of the commercial centre where the footpath is widened, incorporate paving, seating, tree planting and shade structures to allow for community activity.
- Retain the existing paving to footpaths, extending it into the front setback of any new development up to the front building line. Ensure that the pedestrian routes through Newport Village (including the Bramley Avenue parking area) are connected within an integrated whole, by using the same paving treatment
- Provide pedestrian-scale lighting to pedestrian paths and open spaces
- Design the median with a simple, 'clean' appearance to minimise visual clutter and visually link the two sides of Barrenjoey Road
- Select a simple, robust and well integrated suite of street furniture with low maintenance requirements for example natural timber and stainless steel
- Introduce new information and directional signage in keeping with Pittwater Council's selected branding
- Develop a walking route with interpretive signage that includes the village commercial centre and the beachfront areas, to encourage walking and to communicate part of Newport's history, geography and culture. Key nodes for interpretive signs are at the village entry points (for example in widened footpath areas), the entry to the foreshore open space from Barrenjoey Road, and associated with the Surf Club.
- Provide bicycle racks, especially at neighbourhood nodes, to support non-vehicular modes of transport and encourage cycling.

Paving – footpaths and front setbacks on Barrenjoey Road

Median – decomposed granite

Seats and benches

Bins

Bollards

Bicycle racks

Adopted: 15 December 2014
In Force From: 20 December 2014

Shade umbrellas for public places

light poles

Cluster of flag poles: south and north entry, and central node median treatment

Shadecloth over arcades (indicative)

light poles

Indicative opportunities for information and interpretive signage

Adopted: 15 December 2014
In Force From: 20 December 2014

4.8 Landscape Character

Barrenjoey Road

- Plant Norfolk Island Pines (Araucaria heterophylla) down the centre median, between The Boulevarde and Coles Parade, to draw the eye along the road to the existing heritage trees clustered at the foreshore. The pines are a marker for Newport, celebrating its history and character, and giving a distinctive identity to the main shopping street. They will be much taller than the buildings and will dominate the skyline both from within the village and when seen from a distance. Their open habit means that, well spaced, views across Barrenjoey Road can be maintained, visually linking the two sides of the village together.
- The recommended spacing for the Norfolk Island Pines is 14 metres to allow for clear visual connection between both sides of Barrenjoey Road and to minimise the visual effect of a 'wall' when viewed obliquely. It is considered that less than 14 metre spacings could create a barrier effect both at lower levels and, when the pines are viewed from streets and buildings elevated above Barrenjoey Road, the spread of their branches would obscure important panoramic views towards the sea and surrounding hills.
- At the edges of the street, in the footpath zone, plant tuckeroos (Cupaniopsis anacardioides) to moderate the scale of the pines, provide shade and a pleasant environment at a pedestrian scale. A semi-formal arrangement of the tuckeroos, perhaps underplanted with native grasses, could better support the relaxed character desired for the pedestrian zone than regular row planting.
- The existing Cocos palms (Syagrus romanzoffiana) along Barrenjoey Road are classified as weeds and will be removed.
- In the future, give consideration to extending the planting of pines further south past the major intersection with Bardo Road, to announce the approach to Newport from the south and also to assist in screening the agglomeration of buildings on Seaview Avenue that currently dominate that view.

Foamcrest Avenue

- Supplement the 'green' character given by extensively planted front gardens by completing existing partial rows of street trees to create consistency to the street. Suggested species are: Tulipwood (Harpullia pendula), Beach bird's eye (Alectryon coriaceus), Hairy bird's eye (Alectryon tomentosus), and Paperbark (melaleuca quinquinervia) and suitable for coastal rain forest..

Robertson Road

- Plant medium sized deciduous trees within widened footpaths and/or small plaza areas to contribute to a pleasant pedestrian environment and support the use of these spaces, ensuring that in winter these spaces receive as much sunlight as possible. Locate trees near public seating where possible. At arcade entries, spacing of trees can be widened or interrupted to help orient the viewer. Suggested is Crepe Myrtle (Lagerstromeia indica "natchez")

Bromley Avenue car park

- Plant small to medium trees interspersed with parking bays, to soften the hard stand areas. Plant trees near the dedicated pedestrian path to provide shade and orientation.

Figure 4.8 Landscape character

Adopted: 15 December 2014
In Force From: 20 December 2014

4.8 Landscape Character (cont.)

Beachfront areas

A landscape plan is recommended to be undertaken for the extensive open spaces along the foreshore, particularly where there are visual and physical connections to the commercial centre, and opportunities to draw people through the centre to the beach.

Barrenjoey Road: pavement planting – Tuckeroo (Cupaniopsis anacardioides)

Barrenjoey Road: median planting – Norfolk Island Pines

Barrenjoey Road: artist's perspective

Robertson Road – Crepe Myrtle (Lagerstromeia indica)

Local streets: Australian coastal rainforest trees:–
Tulipwood (Harpullia pendula)
Beach bird's eye (Alectryon coriaceus)
Hairy bird's eye (Alectryon tomentosus)
Paperbark (Melaleuca quinquinervia)

4.9 Built Form

The built form strategy is to establish a scale and height to Newport Village that is appropriate to its desired future character supports the public domain strategy, delivers high amenity buildings, and gives a finer grain than the existing statutory controls. New buildings should 'fit' with their setting and with the role of Newport as a thriving commercial centre for the Barrenjoey peninsula.

- Design buildings to a maximum height of three storeys, with a two storey street wall height to reduce their apparent scale and to break up the building massing. Refer also to Section 5.6.1 Building Height for discussion and recommendations for overall maximum height in metres, and Section 5.6.2 Setbacks for recommendations on modulating the building to break down the building massing
- Where topography and flooding impacts would mean that a 3 storey building would result in potential overshadowing or excessive bulk and scale in the streetscape and within important view corridors, restrict overall height to 2 storeys. Refer also to Section 5.6.1 Building Height
- Spaces between buildings at the topmost level are required to promote view sharing and to give openness to the streetscape. The maximum length of the topmost portion of a 3 storey building is 24 metres, with full breaks between them of minimum 6 metres
- Step buildings with the topography to allow glimpses to water and surrounding hills. Mid-block landscaping remains an important way of breaking down building mass when seen from a distance, and is strongly encouraged, particularly at the rear of Foamcrest Avenue lots.
- Provide building envelopes of appropriate depths to support high amenity living and working environments, with cross-ventilation and good daylight access. See Section 5.6.3 Building Depth and Separation
- Retain and enhance the variety of building profiles and roof forms within the Village Centre, that contribute to its informal character. See Section 5.6.4 Roof Forms
- Use the fine grain of existing narrow-fronted retail shops as a pattern for future development, even where lots are amalgamated and developed as one development. Modulate larger buildings to create smaller bays, avoiding the 'boxy' appearance given by large flat planes on the exterior.
- See Section 5.6.5 Design for Flooding for proposed design solutions for retail buildings where there is a need to raise the ground floor above the Flood Planning Level.

Figure 4.9.1 Built form

Adopted: 15 December 2014
In Force From: 20 December 2014

4.9 Built Form (continued)

3D modelling was undertaken to test the built form proposals. The diagrams on this page do not show buildings, but building zones or envelopes within which different individual buildings can occur. They are indicative, insofar as the masterplan cannot predict exactly where (for example) breaks in buildings might happen; nor is it a plan to force development. Some lots may change and some may stay the same. Indeed, it is extremely unlikely that all lots currently occupied by older and/or less dense buildings will be redeveloped over the life of this plan. How the exciting built form changes will depend on the intention of the land owners, the extent of any lot amalgamation, the role council plays and also on the architectural design.

The diagrams are included here to show the process. In particular, the sloping topography was an important consideration in determining building heights and setbacks. These envelopes were tested for shadows, in summer, at the equinox and at mid-winter to ensure that buildings and public spaces would receive adequate daylight and sunlight in winter. This resulted in the recommendation to limit the height of any new building fronting the proposed plaza on Robertson Road to 2 storeys - so that the public space will receive sunlight in winter. The 3D modelling also drove the recommendation to restrict the height of buildings on Seaview Avenue and part of Foamcrest Avenue, as it demonstrated how the steeply rising land made 3 storey buildings in this location appear disproportionately large and bulky, detracting from the visual quality of the approach to Newport from the south.

For more detail, including images of appropriate precedents that show how the built form which might be realised within these envelopes, refer to section 5.7 Architectural Character.

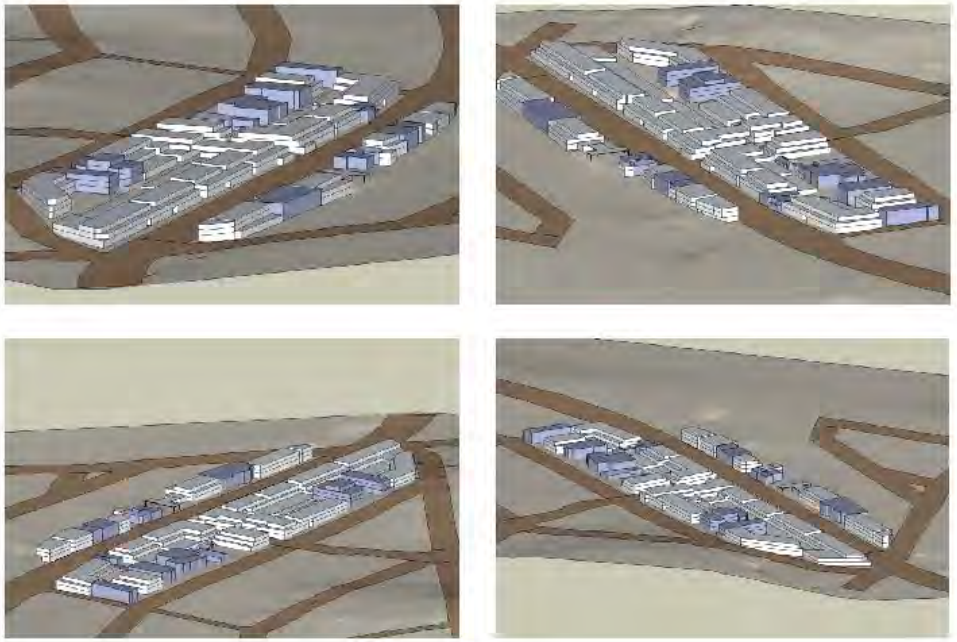

Figure 4.9.2 Indicative 3D modelling showing building zones/envelopes

5.1 Introduction

The purpose of a Development Control Plan is to provide background, objectives, controls and design guidelines to achieve desirable and sustainable development outcomes. It has a particular role in 'fleshing out' the statutory controls in the Local Environmental Plan in a way that takes account of the unique character of the area, and that seeks to generate the desired future character. State Government plans in the form of Regional Environmental Plans (REPs) and State Environmental Planning Policies (SEPPs) establish overarching provisions that must be complied with.

It is important to note that State Environmental Planning Policy 65 (SEPP 65) for residential flat building, including the Residential Flat Building Design Codes, currently applies to residential development within the study area, whether flat development of 3 storeys or the residential component of 3 storey mixed use development. SEPP 65 has statutory weight over development controls in local government DCPs. The recommendations in this masterplan are consistent with the SEPP 65 objectives, better design practice recommendations, and rules of thumb for residential flat development.

Other documents considered in the preparation of this Masterplan were DCP 30 Pittwater Flood Risk Management, which was a key document in developing built form strategies for flood-affected sites, and DCP 15 Heritage Conservation Listing of Trees under PLEP 1993, which gives the Norfolk Island Pines heritage significance.

Pittwater DCP 21 currently applies to the study area. It contains both generic controls and place-specific controls, including for Newport and Newport Village.

Together with the recommendations in this section, the masterplan strategies and diagrams in the preceding section are intended to be incorporated into future planning documents in the form of controls and guidelines for Newport Village Commercial Centre. It is also envisaged that the Urban Design Principles set out in Section 3.4 can translate to DCP objectives for the study area.

The recommendations on the following pages are framed as outcomes and controls, consistent with the terminology of DCP 21. They are intended to encourage a range of design responses that are appropriate to Newport rather than be prescriptive (or proscriptive) . Some of the recommendations (for example building depth and separation) may also be applied to other localities. A brief explanation is sometimes included to introduce the outcomes and controls. This introductory text is included with the recommendations where the consultants wish to clarify, give relevant background information, or reinforce the relationship between the design principles in Section 4 and the recommended controls.

Concluding Section 5 is a table that sets out the current controls with recommended changes and additions arising from the masterplan study process.

5.2 Subdivision and Amalgamation

Outcomes

- Enable new development with optimal lot size and proportion for high amenity, flexible building envelopes, and efficient parking layout
- Enhance street and arcade character
- Maintain existing views
- Maintain residential amenity
- Maintain and enhance the pattern of arcades and through-site links
- Avoid a situation where lots are isolated and unable to be developed to their full potential
- Minimise driveways crossings and optimise access

Controls

- Design new development on larger lots to respond to the existing urban grain and small scale subdivision pattern of Newport
- Require integrated development of the "car park precinct" to ensure that these lots can be developed in accordance with the masterplan vision for a vibrant village hub
- NOTE that the diagram shows an indicative amalgamation pattern that would enable the built form pattern (including arcades and upper level building breaks) as shown in Section 4.8 Built Form. Other amalgamation patterns may be possible and resultant built form would be subject to the height and setback requirements recommended.

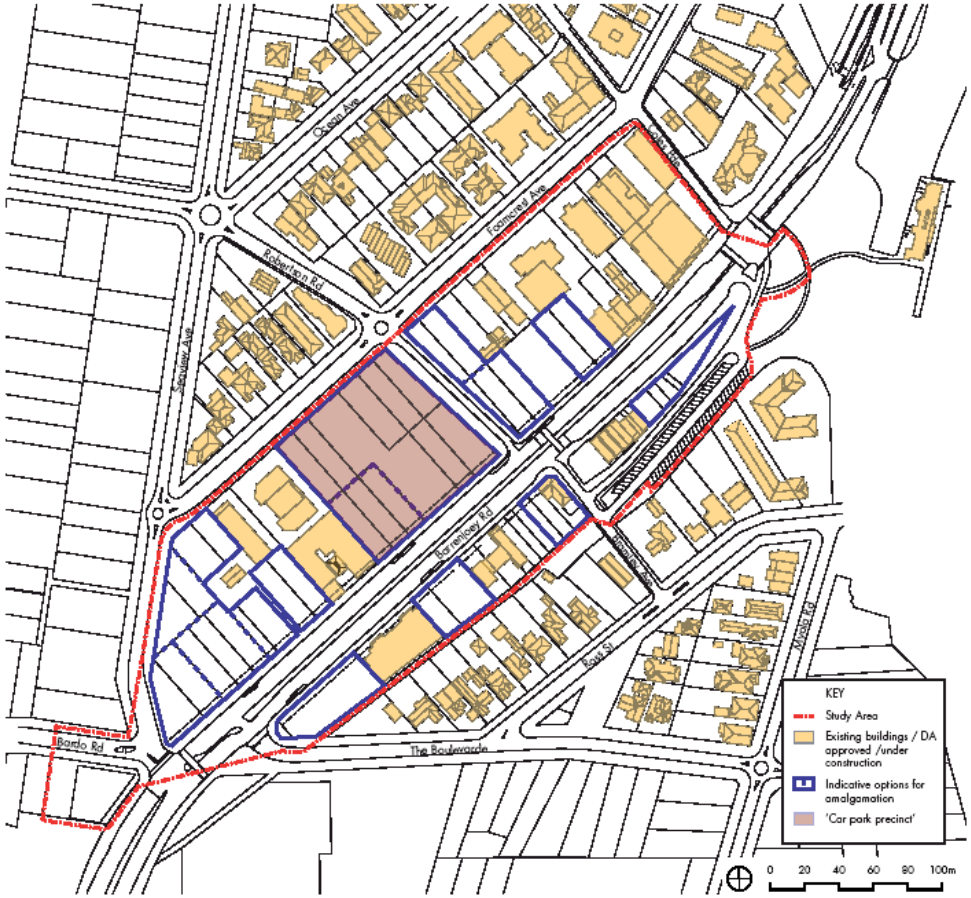

Figure 5.2 Subdivision and amalgamation

5.3 Design of Mixed Use Developments

Outcomes

- Integrate retail, commercial and community uses with residential uses
- Provide high amenity for business users, residents and for other users
- Ensure that commercial and retail premises are fully accessible and well serviced
- Promote the safety and security of communal and private areas of the development
- Ensure that any new building positively contributes to the streetscape
- Promote building envelopes and floor to ceiling heights that enable flexibility and future changes of use

Controls

- Design buildings with:
  - flexible layouts to enable a variety of uses and tenancies, and whose use can change over time
  - floor to ceiling heights for ground floor retail uses of minimum 3.3 metres. (Note that for flood affected buildings this is to be measured from the raised floor level flood planning level)
  - first and second floor ceiling heights of minimum 2.7 metres
  - building depths above ground level in the range 15 – 21 metres (including balconies). Refer to Section 5.6.3 Building Depth and Separation
- Avoid the use of blank walls at ground level
- Clearly distinguish commercial entries from residential entries; ensure that any residential entries off Barrenjoey Road and Robertson Road are secondary to retail and commercial entries and arcades
- Achieve acoustic privacy by separating uses where possible, ensuring that loading bays, garbage disposal and other service areas are buffered from residential areas and openings, and by careful location of noise-generating services

5.4 Street Address

Street address is related to the interface between the public and private domain. This can vary to a large extent, depending both on the built form (height, setbacks, width of buildings, articulation of facades etc), and the public domain treatment (footpaths, lighting, street furniture). The front of the building – its openings, entries, awnings – create the first and probably the strongest impression on people walking on the footpath and those driving past in vehicles. This presentation to the street is therefore very important and can support an attractive and inviting commercial centre. There are particular issues for Newport in terms of the need to handle flooding constraints and at the same time to maintain the openness and directness of the relationship between the shop and the footpath.

5.4.1 Active frontages

Outcomes

- Enable active street frontages by allowing for a variety of openings and relationships between the shop and the street
- Ensure that upper level commercial and residential uses and their entries do not detract from the retail streetscape, while still providing clear and secure address
- Provide clear and easy access for all pedestrians
- Ensure that shopfronts and openings in the front facade relate in scale and proportion to the overall building massing and height
- Ensure that arcades and through site links are safe, inviting and fully accessible
- Optimise pedestrian amenity by providing weather protection
- Contribute to a sense of safety and security on footpaths, and in arcades and through site links
- Enhance community safety by increasing activity in the public domain after hours and at weekends

Controls

- Design buildings with active uses fronting streets, and with openings overlooking streets and public spaces (refer to Diagram 4.6)
- Prohibit internalised uses and/or uses that do not activate and engage the street on key entry sites to the commercial centre Design building fronts and entries to be clearly visible from the street
- Provide awnings to the full width of the lot at ground floor on Barrenjoey Road and Robertson Road (including to the proposed public plaza to a minimum depth of 2 metres), and over entries to buildings on Seaview Parade, Foamcrest Avenue, Coles Parade and Bramley Avenue.
- Step awnings with the topography
- Transparent awnings are encouraged (so long as they are glass with solar control, not perspex or other material that transmits heat) to contribute to a sense of openness
- Wrap shop fronts around corners into side streets to increase the area of active frontage (refer to Diagram 4.6)
- Require shopfronts at arcade entries to 'turn the corner' into the arcade, with transparent, preferably full height windows, to a minimum distance of 6 metres from the front building line.
- For cafe/dining uses, provide openable window areas in association with seating overlooking the street

5.4.2 Arcades

Outcomes

- Extend the public domain with a well connected system of arcades linked into the street and footpath network
- Facilitate pedestrian movement to the main shopping strip and to the Robertson Road neighbourhood hub
- Provide high amenity in terms of weather protection, lighting and signage
- Contribute to a sense of safety and security in the public domain
- Extend the retail activity zone, enabling more and a greater diversity of retail and commercial uses
- Support existing through site links, desire lines and views between east and west

Controls

- In the "car park precinct", link east-west arcades with a northside arcade connecting to Robertson Road
- Ensure that arcades do not terminate
- Design arcades with clear lines of sight, minimising recesses or corners that provide opportunities for concealment resulting in possible unsavoury behaviour
- Edge the ground level of all arcades with active uses, increasing the likely use of the arcade, while providing for spill lighting and casual overlooking.
- Make arcades fully accessible and fully public 24 hours a day, open to the sky or otherwise allowing daylight access

Adopted: 15 December 2014
In Force From: 20 December 2014

5.4.3 Building entries

Outcomes

- Maintain the direct and comfortable relationship that currently exists on the main street shopping strip between the footpath and the shop or business
- Ensure that non-retail uses and their entries do not dominate the retail streetscape
- Create an inviting and attractive identity for the building

Controls

- Provide retail entries no more than 10 metres apart
- Where there are arcades, utilise them to provide separate, safe and secure access to non-retail uses (e.g. commercial or residential uses on the floor above) rather than locating those access points on the main building frontage
- Design all retail entries to be fully accessible
- Provide awnings over all building entries (where they are not already to be provided to the primary retail streets)

5.5 Building Massing

5.5.1 Height

The existing control gives only a maximum height risking an additional floor being squeezed in beneath the limit. The recommendation is for the height control to be expressed both in storeys and in metres overall – that is, to the height of the building above ground level.

Overall height in metres is the predominant control. It has a greater visual impact than height in storeys in terms of the building's overall bulk. However, height in storeys is relevant to the coherence and character of the streetscape. As noted by many through the consultation process, the lack of a storeys control has given rise to 'squashed' buildings where three storeys have been compressed into a height that was not envisaged for them.

The height in storeys control is related to the minimum floor to ceiling height guidelines in Section 5.3 Design of mixed use development: that is, minimum 3.3 metres for the ground floor and 2.7 metres for the floor(s) above. Translating this to floor to floor heights gives an overall minimum for the habitable part of the building of 9.6 metres (including structure). The overall height in metres control is then set to allow for a variety of roof forms, but not to allow for additional floor space within the roof.

Outcomes

- Reinforce the role of Newport commercial centre as the village centre for the local community and an attractor for residents of the Barrenjoey peninsula
- Enable a diverse and vibrant mix of uses that can contribute to the sustainability of the commercial centre
- Reinforce the main street character of Barrenjoey Road
- Encourage built form on Robertson Road that can support its desired future role as the 'centre' or focus of the village
- In combination with set back controls, minimise potential overshadowing or excessive bulk and scale in the streetscape and within important view corridors
- Ensure that buildings can achieve high amenity for their occupants, particularly in terms of optimal floor to ceiling heights
- Respond to the 1:100 year flood level and its impact on the streetscape due to the flood planning level requirements
- Respond to the sloping topography, to existing views and the potential for sharing views
- Minimise building bulk on the street frontage and when viewed from within the commercial centre

Controls

- The maximum height for the commercial centre varies from one to three storeys.
  - For one-storey buildings, limit the overall height in metres to 7 metres
  - For two storey buildings, limit the overall height in metres to 8.5 metres.
  - For three storey buildings, limit the overall height in metres to 11.5 metres.

The following further street frontage height restrictions apply, to modulate building form and minimise bulk:

- On Barrenjoey Road, limit the street frontage height to 2 storeys, with a maximum height above the flood planning level of 7 metres to the top of the structure (equivalent to the floor level of the floor above). Above this, a balustrade is permitted to the top level so long as the balustrade is at least 50% transparent.
- On Barrenjoey Road, limit the height at the 4 metre setback (to the topmost storey) to 10.5 metres above the flood planning level, with the roof form being contained within a height plane of 15 degrees, to a maximum overall height of 11.5 metres

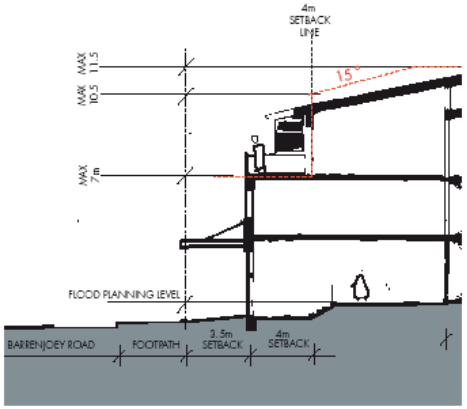

Figure 5.5.1 Barrenjoey Road height and setback controls in relation to flood planning level

Adopted: 15 December 2014
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- On Foamcrest Avenue, permit a maximum 2 storeys and 8.5 metres above ground OR the flood planning level, whichever applies, on the street frontage, in the following locations:
  - Seaview Avenue
  - nos. 5-7 Foamcrest Avenue
  - nos. 35-55 Foamcrest Avenue.

  Buildings in these locations may be three storeys and 10.5 metres maximum at the rear of these sloping sites
- On the north east side of Robertson Road, restrict overall height to 2 storeys and 8.5 metres above the flood planning level in the centre of the block opposite the proposed public plaza for the full depth of the lots as shown, to enable sun access to the plaza
- Restrict the overall height of the front half of no. 335 Barrenjoey Road to 1 storey and 7 metres to maintain the existing single-storey scale
- Refer to the height map and to the sectional drawings below.

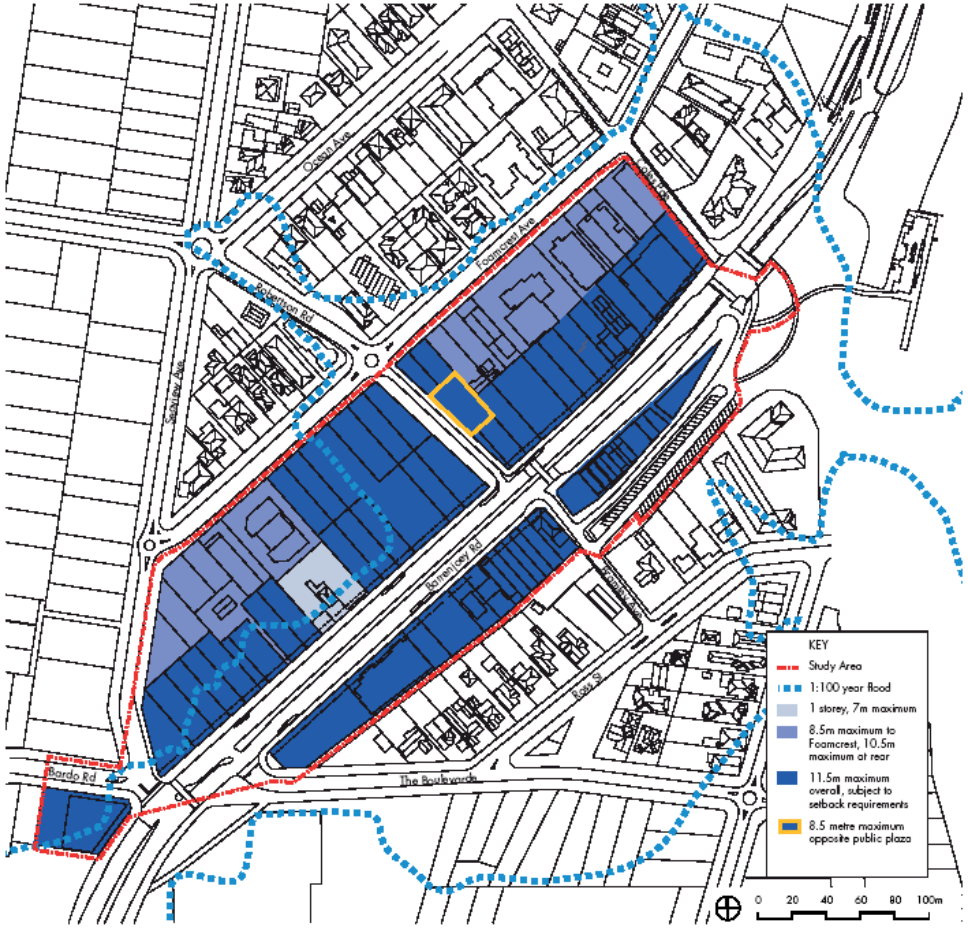

Figure 5.5.2 Height

Adopted: 15 December 2014
In Force From: 20 December 2014

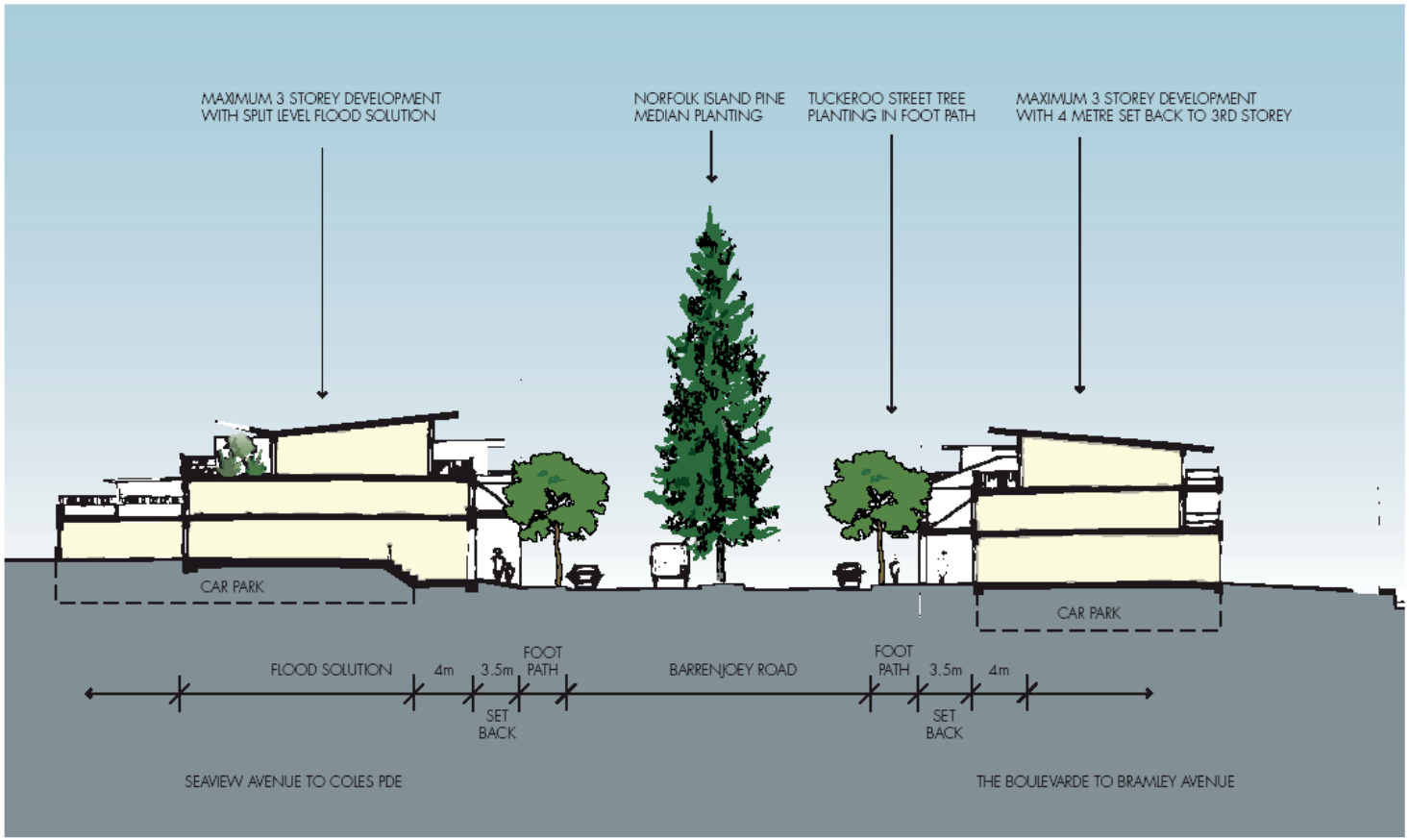

Figure 5.5.3 Barrenjoey Road storeys and setback controls

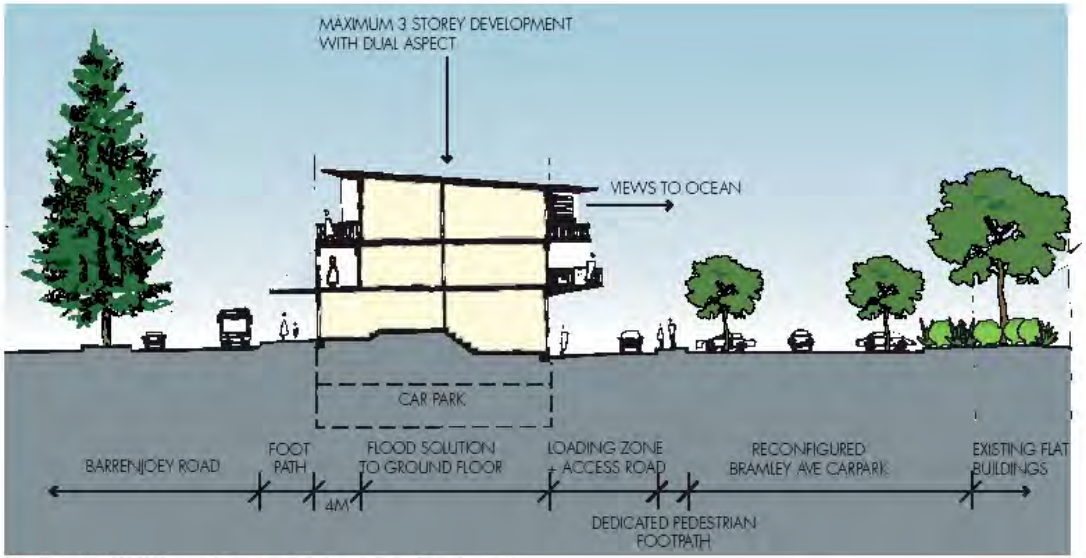

Figure 5.5.4 Nos. 358–386 Barrenjoey Road storeys and setback controls (north of Bramley Avenue only)

Adopted: 15 December 2014
In Force From: 20 December 2014

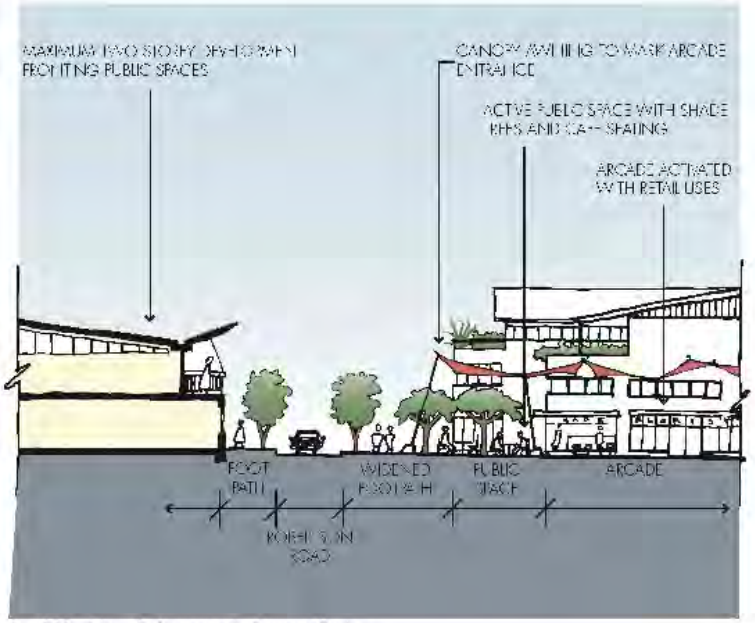

Figure 5.5.5 Robertson Road: storeys on north side opposite public plaza

Adopted: 15 December 2014
In Force From: 20 December 2014

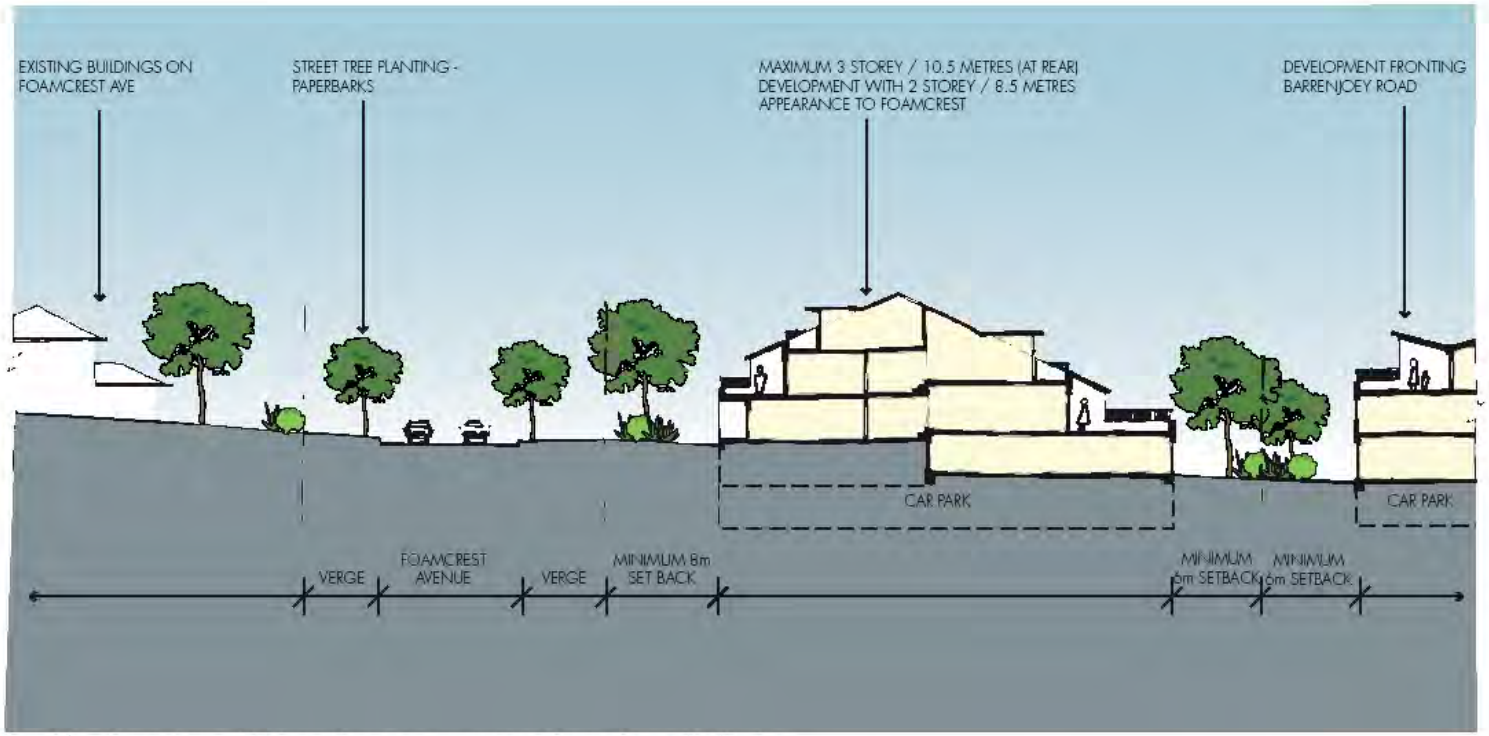

Figure 5.5.6 Foamcrest Avenue excluding the car park precinct: two storey appearance to Foamcrest; 3 storeys achievable at the rear

5.5.2 Setbacks (front, side, upper level)

Outcomes

- Support the relaxed character of Newport Village, with a variety of built form and a sense of openness within the streetscape and on the skyline
- Extend and enhance the public domain, particularly the Barrenjoey Road and Robertson Road footpath network
- Allow for retail and dining uses on Barrenjoey Road to spill out to the exterior of the shopfront, utilising and activating the extended footpath
- Maintain a two storey street wall height
- Built form is characteristically 'broken down' into smaller components, with breaks between buildings, particularly on the 3rd level
- Protect and enhance opportunities for view sharing
- Provide adequate residential amenity in the form of access to daylight and natural ventilation, and generous balcony areas for private outdoor space
- Ensure that sites and developable, and that 'workable', efficient building layouts are achievable
- Enable a new public plaza on Robertson Road
- Enable and encourage high quality development on the northernmost site adjacent to the beachfront path network, to create an attractive and inviting entry to Newport Village that can visually integrate the main street with the beachfront open space
- Allow for potential courtyard spaces, balconies and above ground open space for both commercial and residential development, to allow for indoor / outdoor living and working for building users and residents, to encourage communal activity in workplaces, and to allow for additional outdoor dining areas.
- Ensure that commercial and residential uses backing on to each other allow for adequate building separation for visual and acoustic privacy for all occupants and building users.

Controls

Front setbacks

- New development on Barrenjoey Road is to set back the front building line 3.5 metres from the front boundary EXCEPT for nos. 358–386 Barrenjoey Road, (east side of Barrenjoey Road, north of Bramley Avenue) which have a zero front setback requirement (see below)

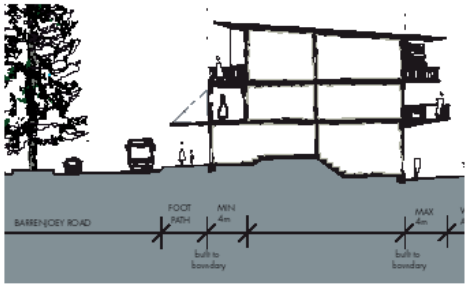

Figure 5.5.7 Barrenjoey Road: zero front setback.

- The front setback on Foamcrest Avenue is to increase to 8 metres to provide a generous landscaped setting for the buildings. Consideration may be given to a reduced setback, to 5 metres, at the corner with Robertson Road, to a maximum distance of 10 metres from the corner
- Design the 3.5 metre front setback to be at the same level as and integrate with the footpath (in particular with the use of paving material) to visually extend the public domain

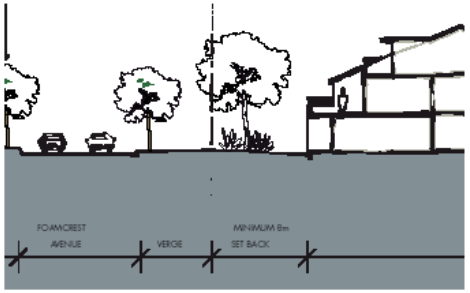

Figure 5.5.8 Foamcrest Avenue: 8m setback

- On the south side of Robertson Road, provide a small public plaza formed by a widened setback in the centre of the street, with a minimum depth of 6 metres at its narrowest point. The distance along Robertson Road from each corner boundary where zero setback is allowed is a maximum 30 metres. The minimum dimension of the length of the widened setback in the centre of Robertson Road is 30 metres.

Side setbacks

- No side setbacks are required for ground or 1st floor
- Spaces between buildings at the topmost (3rd) level are required to promote view sharing and to give openness to the streetscape. A minimum 3 metre side setback is required.
- In addition, the maximum length of the topmost floor of a 3 storey building is 24 metres, with side setbacks of minimum 6 metres width (Refer to Diagram 4.8). This is in accordance with SEPP 65 building separation standards for non-habitable rooms. Where habitable rooms and their balconies are located at the side boundary, side setbacks for adjoining properties will be determined in accordance with the appropriate building separation. Refer 5.6.3 below.
- Buildings at ground level are to be built to boundary except where arcades or through site links are introduced.
- Where arcades are provided, design the entry and the arcade itself to a minimum 6 metre width and generous height.

Upper level setbacks

- Ground and first floor buildings on Barrenjoey Road are to be built to the 3.5 metre front setback building line. Ground and first floor buildings on Robertson Road are to be built to the front boundary except where a setback from the public plaza is required. The topmost (3rd) level is to be set back a minimum of 4 metres from the front facade of the lower floors.

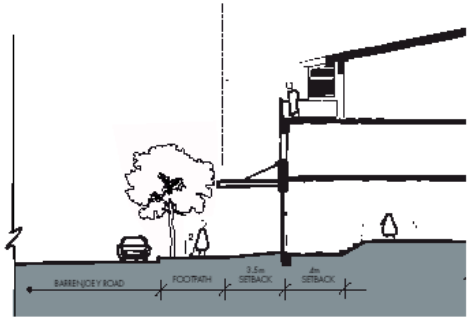

Figure 5.5.9 Barrenjoey Road: Ground and first floor building 3.5m setback building line

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In Force From: 20 December 2014

- All buildings edging the Robertson Road plaza have a maximum 2 storey height at their front building line to the plaza, with the topmost (3rd) level set back a minimum of 3 metres from the front facade of the lower floors, to reinforce an intimate pedestrian scale.
- The upper levels of the building at the northern village entry (Bottle Shop site) may extend over the Bramley Avenue car park, to a maximum 4 metres, to encourage dual aspect buildings oriented towards the ocean and the street. This can only be achieved where there is minimum height from car park ground level to the overhang of 5.5 metres (to enable vehicle movement) and with the consent of the land owner.

Rear setbacks

Require rear setbacks as follows:

- Sites on the eastern side Barrenjoey Road, north of Bramley Avenue and backing onto the car parking area – zero
- Sites on the eastern side of Barrenjoey Road, south of Bramley Avenue and backing onto the stormwater drain – 3 metres
- Sites in the remainder of the study area – 6 metres
  - except where there is through-block consolidation, in which case the rear setback condition no longer applies
  - the 6 metre setback does not include shade structures, screens etc but refers to the face of the building (the plane of the building facade)

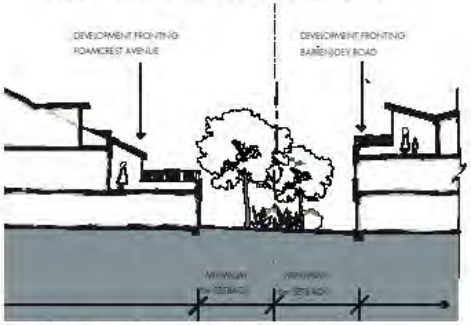

Figure 5.5.10 Barrenjoey Road and Foamcrest Avenue: Rear setbacks

5.5.4 Roof form

Roofs 'complete' a building in terms of its composition and architectural expression. They are not only seen from the street, but often obliquely along the street and from above. Large unbroken areas of roof can make a building appear bulkier than it is, whereas articulating or breaking down the roof massing can minimise its apparent bulk. Newport roofs should respond to its views, topography, climate and character. North facing sloping roofs also allow for the initial or future installation of solar panels.

Outcomes

- Ensure that new development contributes positively to the streetscape
- Enable contemporary architectural interpretation of the desirable elements that characterise the area
- Add interest and variety to the skyline
- Optimise views over and through buildings, particularly towards the ocean and the hills
- Provide natural light and ventilation to the interiors of buildings
- Ensure that roof fixtures do not detract from appreciation of views and of significant built and natural features

Controls

- Use skillion, low pitched, folded, curved or 'floating' roof forms
- 'Green' roofs that provide landscaped area and are designed for rainwater collection and reuse are strongly encouraged
- Pitched roofs are not permitted on Barrenjoey Road or Robertson Road. They may be used on Foamcrest Avenue where the existing neighbouring context is primarily residential
- Large areas of roofs are discouraged (as are large areas of building on the topmost level); articulate roofs to create a multi-planar, varied roofscape.
- The images below are indicative of roof forms and character that is encouraged for Newport.

Figure 5.4.1 Roofs should be varied in form to add interest to the skyline while allowing for view sharing

A range of roof forms suitable for Newport is illustrated.

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5.5.3 Building depth and separation

Outcomes

- Scale new development to reflect the desired future character with spaces between buildings
- Provide visual and acoustic privacy
- Promote high amenity living and working environments with sun access and natural ventilation
- Provide dual aspect apartments and commercial offices
- Ensure that isolated lots can develop

Controls

- Refer to the building massing diagram at 5.6.1.
- Design buildings to the following maximum depths (front to rear building line):
  - ground floor - no maximum, building depth is given by rear setback requirements
  - first floor - max 18 metres glassline to glassline, maximum 24 metre including articulation zone (balconies)
  - second floor - max 14 metres glassline to glassline, maximum 20 metre including articulation zone (balconies)
- For parallel ranges of buildings, observe the following minimum separation distances, ensuring that distance is measured to the edge of balconies not to the face of the building behind (as below)::

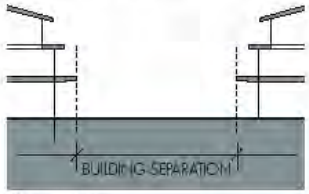


Figure 5.5.3 Building separation

  - 12 metres between habitable rooms and the edge of balconies
  - 9 metres between habitable rooms and the edge of their balconies and non-habitable rooms
  - 6 metres between non-habitable rooms
- Spaces between buildings at the topmost level are required (to promote view sharing and to give openness to the streetscape). The maximum length (ie. the dimension parallel to Barrenjoey Road and Foamcrest Avenue) of the topmost portion of a 3 storey building is 24 metres, with full breaks between them of minimum 6 metres

5.5.5 Design for flooding

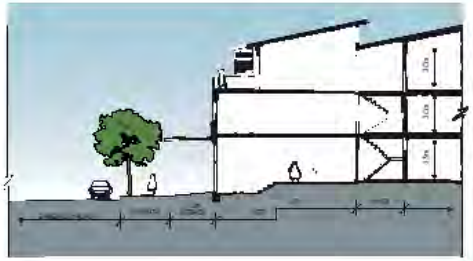
Outcomes

- Maintain clear and direct access to all retail premises from the footpath, to optimise the relationship between the building and street, to support the main street character and the economic sustainability of the shops
- Promote high quality design solutions to flooding constraints
- Enable useable ground floor levels within flood-prone lots
- Ensure that arcades and upper level entries are safe, secure and accessible

Controls

- Refer to the diagrams below.
- Design the ground floor of flood-prone buildings with two levels: one level directly related to the footpath and front setback, and accessed from it without steps; and one level within the premises above the Flood Planning Level. Design solutions include:
  - stepping or ramping up within the shop
  - where the shop is adjacent to an arcade, provide a second entry to the upper level of the premises accessed from the ramped arcade.

A possible design solution to handle the requirement to raise the floor level in flood prone areas



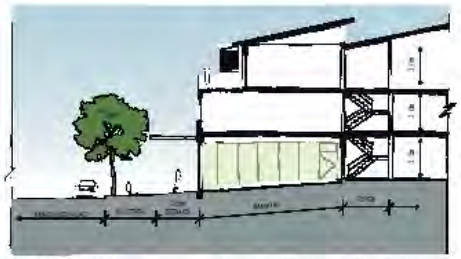


Figure 5.5.5 Flood solutions: the ground floor has two levels; the upper level can be accessed from within the shop (above) or from a ramped entry (below)

5.6 Architectural Character

5.6.1 ESD / responsive design

Outcomes

- Realise the vision for Newport as a place whose public and private areas reflect its relaxed, inviting beachfront character
- Respond to the setting, climate, topography and views, so that the architecture reflects 'Newport style'
- Minimise the consumption of non-renewable energy, from materials selection, site planning, building layout, through to the selection of appliances
- Promote and support sustainability and renewable energy initiatives
- Promote water and stormwater efficiency

Controls

- Site and design buildings to balance the need for active, lively streetscapes with the need to benefit from orientation, views and breezes
- Discourage the use of mechanical cooling in favour of natural ventilation
- Provide solar panels and / or provide or plan for future photovoltaic panels through careful roof design
- Promote the use of stormwater and grey water use through capture and reuse of rainwater and / or innovative roof design

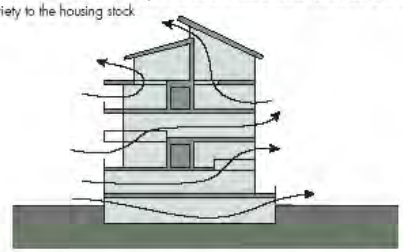
5.6.2 Daylighting, solar access and ventilation

Outcomes

- Provide daylight access to all habitable rooms and to communal and private open spaces. Skylights are permitted only as a secondary source of light, not the primary source of light to habitable rooms.
- Enable all habitable rooms to have direct access to fresh air
- Provide natural ventilation to non-habitable rooms, particularly bathrooms, where possible
- Reduce energy consumption by minimising the use of mechanical ventilation particularly air conditioning
- For residential development:
  - Encourage dual aspect apartments for cross ventilation and optimal sun access
  - Ensure that most living areas and private open spaces receive generous amounts of winter sun

Controls

- Optimise northern and eastern aspects in apartment layout as far as possible
- Provide communal open space with sunlight access for a minimum 2 hours a day in mid-winter
- Ensure that living rooms and private open spaces for a minimum of 70% of apartments in any residential development (including townhouses, mixed use and apartment buildings) receive a minimum of three hours direct sunlight between 9.00 and 3.00 in mid-winter
- Minimise the number of internal rooms that receive no direct sunlight or natural ventilation; require applicants to demonstrate how energy efficiency and amenity are addressed
- Prohibit the use of lightwells
- Avoid excessive building depths in line with the Building Massing diagram.
- Consider design solutions including corner apartments, double height apartments, and crossover apartments to facilitate cross ventilation and add variety to the housing stock



5.6.3 Facades

Outcomes

- Respond to Newport's particular setting and character: to views, orientation, land use and the need for privacy
- Support best-practice environmental design, supporting natural ventilation, and providing sun access in winter and shading devices and screens in summer
- Reduce the apparent bulk and scale of buildings by modulating the building form and breaking down facade proportions horizontally and vertically
- Achieve a clear and direct relationship between the building and the street, with openings to the public domain that allow for casual surveillance (overlooking) and contribute to the perception of security and safety
- Integrate the facade design within the overall building form and design (ie. avoid 'stuck on' elements)

Vertical and horizontal shading devices enliven facades while responding to climate and seasons

5.6.3 Facades (continued)

Controls

- Avoid large expanses of flat, blank facades
- Locate and size windows and openings appropriately for the building orientation and outlook
- Design facades to both contribute positively to the streetscape and to protect the amenity of building users, for example with verandahs, balconies, pergolas, sun shading devices, awnings over windows, entry awnings, blade walls, recesses and moveable shutters.
- Provide horizontal shading devices to north-facing openings, and vertical shading devices (preferably moveable) to west-facing openings




A combination of materials helps break down the visual bulk of buildings

5.6.4 Materials

Outcomes

- Enhance the desired character: relaxed, inviting, beachside
- Minimise the use of materials with high embodied energy
- Respond to the forms and colours of the natural surroundings
- Design robust, durable buildings with low maintenance requirements
- Enable lighter colours particularly for roofs where they improve the thermal performance of the roof system




Lightweight materials including timber, steel and glass are preferred over heavy structures.

5.6.4 Materials (continued)

Controls

- Select colours that are generally recessive and soft: browns, greys, greens, and grey. White is not permitted apart from trims.
- Bright colours and highly reflective materials are discouraged except as highlight items
- Mid and light grey may be used for roofs, framing elements (columns, handrails) and for no more than a 20% portion of the wall area ONLY where the finish is uncoated metal. Painted surfaces must be mid-tone or darker
- Lightweight materials are preferred; heavy materials (stone, brick, concrete) may be used for the base of buildings but a solid, monolithic appearance is discouraged.





Sustainable materials and natural finishes are encouraged

5.7 Amenity

5.7.1 Views

Outcome

- Ensure that views are shared equitably between dwellings and business premises
- Protect and enhance views from public places, particularly framed views down streets towards the ocean
- Protect views between buildings towards the sea, hills and sky
- Balance the provision of views with the need for privacy for dwellings and private open space
- Enhance the approach and entry experience to Newport Village
- Support the neighbourhood focus at Robertson Road
- Protect views towards the village centre and the surrounding hills, to contribute to the attractive 'green' character

Controls

- Align the entries to arcades with breaks in buildings, as far as possible, to optimise views and a sense of openness in the village centre.
- Limit the height and bulk of buildings in visually prominent locations (refer Section 5.5.Building massing), and break up building mass to step buildings with the topography on sloping sites.
- Provide side setbacks to the topmost level of buildings in accordance with the principles and guidelines in Section 5.5.2
- Require proposed new development to model, in 3D, the built form to determine the optimum arrangement of the building bulk on the site

Side setbacks, floating roofs and transparency in buildings 'lighten' the building and enable views

5.7.2 Privacy

Privacy refers to privacy between private spaces, and between private and public spaces. Design for privacy should consider adjacent buildings, site configuration, topography, views, outlook, ventilation and sun access, as well as the efficient functioning of indoor and outdoor spaces.

Outcomes

- Minimise direct overlooking of main office or living room windows and private open spaces, while maximising outlook and views
- Minimise noise within a building and from outside sources to offices and habitable rooms, as well as to communal and private open space

Controls

- Design buildings with adequate building separation within the site and from neighbours to minimise opportunities for direct overlooking and acoustic impacts (see Section 5.6.3 Building Depth and Separation)
- Offset façade openings from existing openings in adjacent development to minimise direct overlooking of rooms and private open spaces
- Provide dual aspect commercial or residential uses with openings to the front (street) and the rear.
- For ground floor retail / commercial uses, provide appropriate rear setbacks to adjacent residential uses, and design building layout to avoid overlooking of private spaces
- Use design elements such as landscaping, screening, offset windows, recessed balconies, louvres, planter boxes, pergolas or shading devices to increase visual privacy.
- Locate and design all noise generating equipment such as mechanical plant rooms, mechanical equipment, air conditioning units, mechanical ventilation from car parks, driveway entry shutters, garbage collection areas or similar to protect the acoustic privacy of workers, residents and neighbours.

5.7.3 Open space

Outcomes

- Provide a consolidated area of useful, accessible private and/or communal open space for dwellings
- Promote landscaping that contributes to the 'green' mid block character and provides for soft landscaping and deep soil planting
- Enable stormwater infiltration
- Provide a pleasant outlook for building users

Controls

- Provide a consolidated communal open space area for residential developments as follows:
  - 15% of the site area with a minimum dimension in one direction of 6 metres
- Provide private open space at ground level with a maximum 1 in 20 gradient that is directly accessible from the dwelling
- Provide private open space at upper levels (for shoptop housing) in the form of balconies and terraces, with a minimum area of 10m^2 and a minimum dimension in one direction of 2.4 metres

Adopted: 15 December 2014
In Force From: 20 December 2014

5.7.4 Safety and security

Design can contribute to the safety and security of residents, workers, shoppers and visitors and their property. The principles of Crime Prevention Through Environmental Design (CPTED) provide the basis for designing, managing and manipulating the environment to reduce opportunities for crime.

Elements such as lighting, access and egress controls, siting of buildings and spaces, opportunities for natural observation, frequency of use of public open space, attractiveness and maintenance of places both contribute to safer places and importantly to people's perception of safety, encouraging greater use of those places that in turn enhances their safety and security.

Outcomes

- Site and design buildings and spaces contribute to the actual and perceived personal and property safety of residents, workers, shoppers and visitors and to decrease the opportunities for committing crime in an area
- Contribute to lively, busy and active streets, parks, plazas, arcades and other public places
- Increase the perception of safety in public open space, including streets, arcades, shopping centres, car parks, and open spaces
- Maximise opportunities for passive surveillance (overlooking) of public spaces
- Minimise opportunities for concealment

Controls

- Orient buildings towards the street, so that building frontages and entries overlook and are clearly visible from the street and provide a sense of address and visual interest.
- Avoid blank walls addressing streets and arcades and any public plazas or other open spaces
- Clearly design buildings and spaces, and the entries to buildings, to delineate public from private space to provide a clear sense of ownership, minimise ambiguity and discourage illegitimate use, for example through the use of symbolic or actual barriers, such as changes in level, low fences, landscaping, lighting and signage
- Avoid building recesses, alcoves or dense landscaping in places where concealment is possible
- Design and place lighting to ensure visibility of streets, public places and entrances and car parking areas, while not intruding on the amenity of residents
- Design and place public facilities such as toilets to maximise opportunities for casual surveillance
- Place services such as Automatic Teller Machines (ATMs) and public telephones in highly visible locations to be accessible and well lit at night
- Solid roller shutters are not permitted as security devices on shop fronts (windows and doors). Open grille security devices may be used on shop fronts if such devices are necessary but should be unobtrusive and sympathetic to the character of the building and the streetscape, with minimum transparency of 65% to provide light spill to the pavement and create a sense of openness to the street

5.8 Proposed Amendments to DCP21 (DRAFT)

General notes:

- The only form of housing permitted in Newport Commercial Centre is Shop-top Housing – [all other forms of residential development are prohibited under Pittwater LEP 1993, prohibited development in Zone No. 3[a]; LEP p. 45, Clause 21O. [1) and (2)]. Shop-top Housing is defined as "*a dwelling, group building or residential flat building in a business zone attached to and integrated with premises used for a non-residential purpose that is permitted in the relevant business zone*". Therefore, all references to residential development in the "Proposed Change" column of this table are to Shop-top Housing.

Clause No.	Clause Name	Current Provision	Proposed Change *(Unless noted otherwise, change applies to Newport Village only)*
B6 ACCESS AND PARKING			
A410	Newport Locality Desired character	Future development within the Newport Commercial Centre will reflect the seaside-village character of the retail strip	Refer to the Masterplan (section 3.5 above) for description of the desired future character for Newport Village commercial centre, including of "seaside village character"
B6.6	Off-Street Vehicle Parking Requirements - All Developments other than up to 2 dwellings	(1) On-site parking required for Residential Development and Business Development, irrespective of lot size	(1) For lots with vehicular access solely from Barrenjoey Road and width of street frontage less than 18m, no parking on-site required. (If not part of an amalgamation, such lot may not be improvable because of the difficulty or impossibility of providing vehicle access and/or below ground parking. Small retail facilities are a positive feature of Newport village and the possibility of retaining and improving these should be supported.)

Clause No.	Clause Name	Current Provision	Proposed Change *(Unless noted otherwise, change applies to Newport Village only)*
C1 DESIGN CRITERIA FOR RESIDENTIAL DEVELOPMENT			
C1.1	Landscaping	(1) Landscaping at front to screen 50% of building (applies to all streets)	(1) Landscaping only required in front setback area along Foamcrest Avenue. Deep soil zone (fully permeable) required on Foamcrest Avenue along full frontage of lot for minimum of 6.0 metres from street boundary, except for driveway crossings
		(2) For shop-top housing, provide minimum landscaped area equal to greater of 20% of lot area or 35sqm per dwelling	(2) For lots fronting Foamcrest Avenue only, provide minimum landscaped area equal to 15% of lot area. No requirement for lots fronting Barrenjoey Road only. For lots extending from Barrenjoey Road through to Foamcrest Avenue, no requirement for Barrenjoey Road portion, meet above standard for Foamcrest Avenue portion and use existing midblock cadastral line to define two portions
		(3) For multi unit and shop-top housing: if 3 or more dwellings, provide seating and communal children's play area; "above ground garden" required for each (every) dwelling	(3) Delete requirements. (Unlikely to be able to create communal children's play area in sensible and useful location with shop top housing.)
C1.4	Solar Access	Limit number of single aspect dwellings with southerly (SW-SE) aspect to 10% of total number of dwellings	Increase limit to 20%. (Given site constraints - commercial zone – and orientation of lots, reasonable quantum of shop top housing unlikely to be achievable with 10% limit, even with skylights to top floor units with southerly aspect.)
C1.5	Visual Privacy	Controls are derived from Amcord, which is intended primarily to apply to low density residential development. They are overly restrictive for medium density housing.	Exempt shop-top housing from DCP controls. The privacy provisions of SEPP 65 provide adequate standards. Building separation standards called up in the Residential Flat Design Code (Building Separation, p. 28) are included in Section 5.5.3 above.
C1.7	Private Open Space	No minimum area given for balconies	Suggest adding minimum 10m2 to the requirement for 2.4m minimum dimension for private open space for shoptop housing and multi-unit development, to ensure that balconies are a useable size
C1.18	Car/Vehicle/ Boat Wash Bays	All shop-top and multi-unit housing developments must provide a car wash bay	Car wash bay only required for developments with more than 10 units

Adopted: 15 December 2014
In Force From: 20 December 2014

Development Controls

Clause No.	Clause Name	Current Provision	Proposed Change *(Unless noted otherwise, change applies to Newport Village only)*
C2 DESIGN CRITERIA FOR BUSINESS DEVELOPMENT			
C2.1	Landscaping	(1) "Landscape elements both hard and soft should dominate the built form" (2) For shop-top housing, provide minimum landscaped area equal to greater of 20% of lot area or 35sqm per dwelling	(1) Delete – inappropriate requirement for retail centre (2) For lots fronting Foamcrest Avenue only, provide minimum landscaped area equal to 15% of lot area. No requirement for lots fronting Barrenjoey Road only. For lots extending from Barrenjoey Road through to Foamcrest Avenue, no requirement for Barrenjoey Road portion, meet above standard for Foamcrest Avenue portion and use existing midblock cadastral line to define two portions
C2.2	Safety and Security	No reference to security devices on shopfronts	Add control that prohibits solid roller shutters and requires security grilles to be minimum transparency of 65% to provide light spill to pavements and create a sense of openness to the street
C2.3	Awnings	Awnings may not be constructed of glass	Permit glass awnings where the glass is treated to reduce solar and heat transmission
C2.12	Protection of Residential Amenity	Privacy controls are derived from Amcord, which is intended primarily to apply to low density residential development. They are overly restrictive for Newport Village, where commercial (business) developments and medium density housing are permitted.	Exempt business development from the DCP privacy controls. Where such development adjoins existing or potential residential development, ensure that the proposed business development complies, or is compatible, with the applicable privacy standards in SEPP65 (refer Residential Flat Design Code, Building Separation p. 28 and Section 5.5.3 of this document above)

Clause No.	Clause Name	Current Provision	Proposed Change *(Unless noted otherwise, change applies to Newport Village only)*
D10 NEWPORT LOCALITY			
D10.1	Character as Viewed from a Public Place	No prohibition against parking at or above grade	All on-site parking structures must be below finished ground level at the street boundary
D10.2	Character – Newport Commercial Centre	(1) Controls in relation to gateways, corner sites, end of vista sites, long facades, ramps, road reserve (2) Pedestrian links through sites to be maintained "wherever possible" (3) No prohibition on light wells	(1) All controls to be deleted except for the control in relation to the adopted masterplan: they are superseded by the masterplan guidelines (2) Delete and replace with: arcades/through block connections to be provided In accordance with Masterplan for Newport Centre (3) Prohibit light wells, using the following definition: A "lightwell is an open or covered courtyard with <u>all three</u> of the following characteristics: (a) it has one or more habitable rooms opening onto it; and (b) it is enclosed in plan on at least 3 sides by either: built form; or built form and a side boundary; and (c) any dimension from habitable room/balcony to habitable room/balcony is less than 12.0m or from habitable room/balcony to non-habitable room/solid wall is less than 9.0m.
D10.4	Building Colours, Materials and Construction	Colours are restricted, but "Limited use of corporate colours may be permitted within Business zoned land"	For the retail component of any development only, allow more flexibility in the use of colour

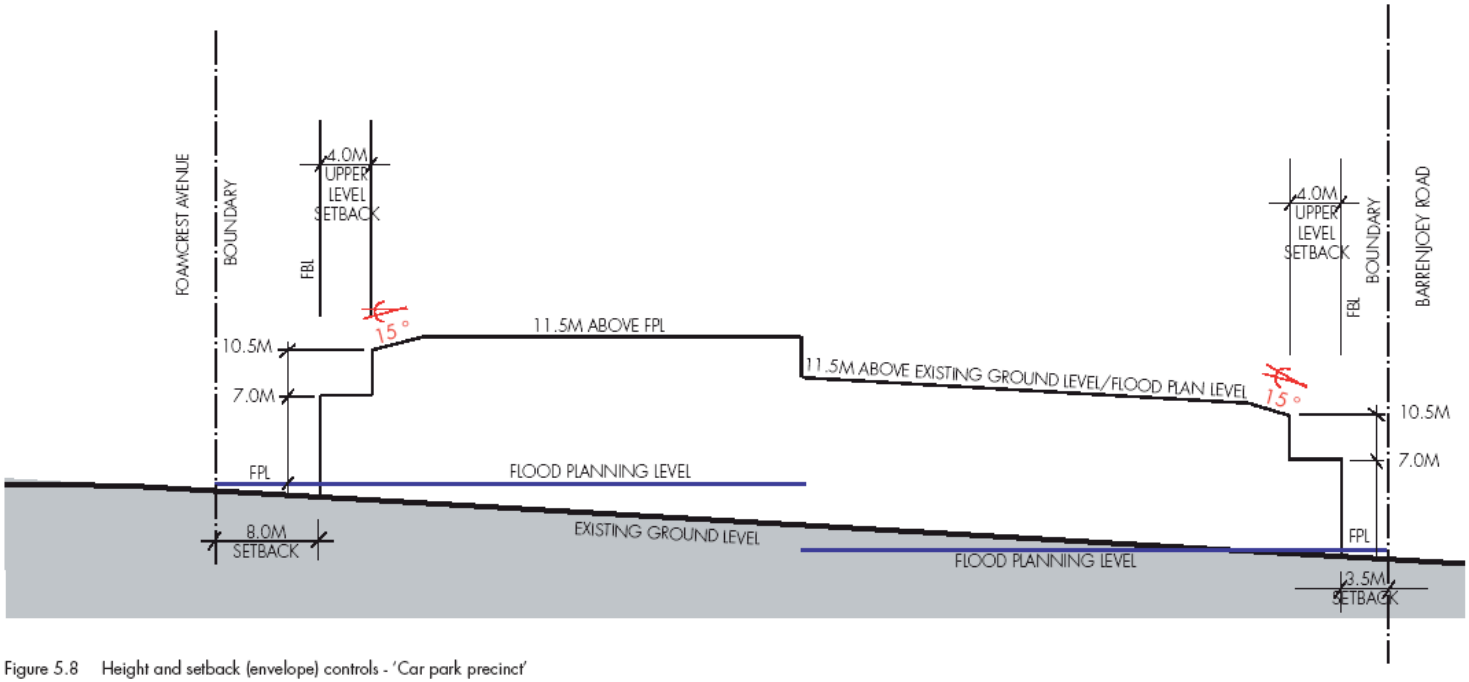


Figure 5.8 Height and setback (envelope) controls - 'Car park precinct'

Development Controls

Clause No.	Clause Name	Current Provision	Proposed Change *(Unless noted otherwise, change applies to Newport Village only)*
D10.5	Height	Maximum height is 8.5 metres above natural ground level, or 8.0 metres above Flood Planning Level	Maximum building height is 3 storeys and 11.5 metres above either natural ground level or FPL, whichever is greater. *(Limits development to 3 storeys and allows some flexibility in roof form.)* Maximum permitted building height between Front Building Line and third level setback is 7.0m above either natural ground level or FPL, whichever is greater. Balustrades may extend up to 1.0m above this limit if at least 50% transparent and roof overhangs/eaves/ may project into the third level setback zone up to 1.0m if solid, 2.5m if transparent Maximum permitted building height for third level at front setback (minimum 4.0m behind Front Building Line) is 10.5m above either natural ground level or FPL, whichever is greater. As shown in the accompanying illustration, a height plane sloping at an angle of 15 degrees to horizontal limits building height between this 10.5m point and the overall height limit of 11.5m On Foamcrest Avenue, for lots within the car park precinct only (nos. 17 - 29), overall maximum building height limit of 11.5m is set at the Front Building Line. On the remainder of Foamcrest Avenue, maximum building height of 8.5 metres is set at FBL, with overall maximum at rear of 10.5 metres above natural ground level. *(Because land falls away from Foamcrest, this allows a little more height at the rear of these lots, without any adverse street impacts.)* On Seaview Avenue, and the east side of Robertson Road opposite the public plaza, maximum building height is 2 storeys and 8.5 metres above either natural ground level or FPL, whichever is greater.
D 10.6	Front Building Line	(1) Minimum front setback on Barrenjoey Road is 3.5 metres. (2) Minimum front setback on Foamcrest and Seaview Avenues is 6.5 metres. Variation permitted where certain "circumstances" apply. (3) No front setback required on Robertson Road (4) No upper level front setbacks required	(1) No front setback requirement on the east side of Barrenjoey Road north of Bramley Avenue (2) Increase minimum front setback on Foamcrest and Seaview Avenues to 8.0 metres. Eliminate following "circumstances" as grounds for variation: • Considering established building lines • Degree of cut and fill (3) On the south side of Robertson Road, 6.0m front setback required in centre of block, starting 30m from Barrenjoey Road and Foamcrest Ave. (4) On all street frontages, third (topmost) level is to be set back minimum 4.0m from Front Building Line. Roof overhangs/eaves may project into the third level setback zone up to 1.0m if solid, 2.5m if transparent

Clause No.	Clause Name	Current Provision	Proposed Change *(Unless noted otherwise, change applies to Newport Village only)*
D 10.7	Side and Rear Building Line	(1) For sites adjoining land zoned Residential or Open Space, minimum 3.0 metres setback to both side and rear boundaries (2)+(3) For sites adjoining land zoned other than Residential or Open Space, no side or rear setback required	(1) Delete reference to rear setback *(now covered below)* (2) Side setback: for 3rd storey, minimum 3.0 metre side setback required *(all lots)* (3) Rear setback: • For lots east of Barrenjoey Road and north of Bramley avenue: none • For lots east of Barrenjoey Road and south of Bramley avenue: 3.0m minimum • For lots west of Barrenjoey Road: 6.0m minimum (Consolidated lots that have a frontage to both Barrenjoey Road and Foamcrest Avenue have no rear boundary, and therefore no rear setback requirement. If a lot is consolidated such that part of the lot runs the full width of the block and part adjoins the rear of an adjacent lot, the minimum 6.0m rear setback requirement applies to the rear boundary portion only.)
D10.15	Character of the Public Domain – Newport Commercial Centre	(1) This control applies to *"Specified Residential Development"* as follows: Dwelling house (new) Dwelling house (alterations and additions) Attached dual occupancy Detached dual occupancy Multi-unit housing Shop-top housing (residential portion only) (2) Controls refer to "Master Plan for Public Domain – Newport"	(1) Delete all residential development types except Shop-top housing (residential portion only) – all of the other types are not permitted in the 3(a) zone (LEP PART II ZONE NO. 3(a) Clause 3 [p.22], PART III DIVISION 3B Clause 21O. (2)) (2) Change to exact name of masterplan report: "Masterplan for the Newport Centre" (as used in Clause D10.2, p. D,189)

COMMUNITY CONSULTATION MARCH 8 2007

WORKSHOP GROUP OUTCOMES

GROUP 1

How many people are there in your workshop?								10
How Many...	Business owners	0	Land Owners	5	Residents	10	Employees	1

PART A: KEY ISSUES

1. Issues

- Solar access
- Traffic – safety
- Vibrant village – occupancy
- Amenity
- Caltex site redevelopment (pedestrian safety)
- Sense of community

2. Likes and Dislikes

Land Uses:

- Like Restaurants & cafes,
- Like arcades (for breezes)
- Not enough public open spaces
- Even mix not achieved
- Don't like shop top housing
- Not enough shop top
- No supermarket
- No aquatic centre

Built form

- Like building height & building envelope of 8.5 metres
- Like lighter structures – less use of concrete, more use of timber
- Don't like shop top units – too dense
- Don't like shop top housing meeting boundary on first floor
- Don't like signs on building facades
- Don't like appearance of buildings/architecture
- Don't like current pavement

Trees and Landscaping

- Dislike palms
- Dislike planter boxes – can't open car doors

Traffic and Parking

- Parking is good - adequate
- Speed. Traffic needs to be slowed down
- Dislike that there is not east/west access
- Width of median strip – too narrow and dangerous for prams
- No clear directional signs into parking areas.

Pedestrian Safety and Amenity

- Width of footpaths is good
- Median strip is too narrow – safety issue for pedestrians
- Current pedestrian crossing – should be more refuges

Access to Beach

- The current beach access needs a turning lane
- No crossing from Colas Pde to beach

Arcade and Seating Spaces

- Like to be able to walk from car park on Foamcrest Avenue – keep the access
- Dislike the blind arcade
- Dislike the appearance of arcade/amenity

Other Issues / dislikes

- Forest of telecommunication infrastructure
- Vacant building sites
- That there are no facilities for teenagers to socialise in Newport

3. Needs and Challenges

- Supermarket – needs to be located centrally
- Traffic – centre lanes of roads narrower
- Plan – wider lanes closer to parking lanes (to slow traffic)
- To be able to compete with Mona Vale and Avalon – need a supermarket to achieve that
- Medical centre
- Newport needs a continuous car park – on Foamcrest Avenue
- A unique sense of community
- Style manual for urban design

Wish List

1. Supermarket
2. Traffic/pedestrian friendly
3. pedestrian access/landscaping

PART B: DESIRED FUTURE CHARACTER

Individual Vision Statements

- More of a village than a main highway ribbon development
- In twenty years time I would like to think Newport would be a cosmopolitan suburb with diverse business, cafe society with residence in CBD, also more public use of beach area
- A thriving local neighbourhood centre servicing the needs of local residents and visitors
- In twenty years Newport will have a special village feel and be pedestrian friendly with sun streaming into the shopping centre
- A village that is neither Mona Vale or Avalon but takes the best of both these villages and makes a unique village of Newport
- In twenty years time I would like to have a sense of community. The shopping centre to have a natural environmental linked to both the beach and the plateau behind and with a good mix of business to provide for local residents (and tourists)
- In twenty years I would like to see Newport maintaining much of its current unspoiled village feel but function as a vibrant centre for shopper local and visitors – a beach intro with a great alfresco dining
- In twenty years – Pedestrian safety, slow through traffic, no service station in village centre, building heights low enough to allow sight of local beach

Group Vision Statement

[In 20 years' time, Newport will be...]

A unique village with a relationship to the beach and plateau behind, that has a good mix of businesses to provide for local residents and tourists, pedestrian connectivity, and opportunities for al fresco dining.

GROUP 2

How many people are there in your workshop?								10
How Many...	Business owners	2	Land Owners	7	Residents	10	Employees	1

PART A: KEY ISSUES

1. Issues

- Lack of supermarket
- Traffic/speed through centre
- Mobility through centre/pedestrians crossing road
- Newport Arms Impact
- Bardo / Seaview / Foamcrest intersection
- Lack of open space/in centre
- No Public Toilets
- Bikes/skate boards on paths
- Safety of elderly
- Scooter parker
- Uneven footpaths
- Ugly/non consistent pavers
- Ugly phone antennas on buildings
- Haphazard development on the east side
- Nothing to entertain children

2. Likes and Dislikes

Land Uses:

- Like village atmosphere
- No attractor (eg council library, public building)
- Need community centre
- Dislike that there is no master plan to have better/bigger development

Built form

- Like beachy appearance
- Dislike ad hoc buildings/poor shops, and ugly buildings

Trees and Landscaping

- Like not having trees down centre (sight line)
- Would like trees down the street

Traffic and Parking

- Access across road to beach [is difficult]
- Like that Robertson Road is open to traffic
- No loading zones
- Lack of use of beach parking

Pedestrian Safety and Amenity

- Slope – X fall of median dangerous to pedestrians
- Too big distance between crossing
- Inadequate provision for pedestrians to cross Main Road
- Unsafe at Robertson Rd for pedestrians
- No pedestrian crossings at Colas or Foamcrest

Access to Beach

- Poor access from shops

Arcade and Seating Spaces

- Dislike closed arcades as they are dead areas

Other Issues

- Would like open areas for people to use and socialise, eg noodle bar
- No toilets for public
- Newport is isolated, does not have a community feel
- No activities for children/youth (facilities)

3. Needs and Challenges

- Community centre/library etc.
- Master plan for development
- Improved pedestrian facilities
- Open spaces for socialising in centre
- Need to improve access to beach
- Need for town square
- Skate board facility and other children/youth facilities
- Angle parking
- RTA regulations
- To encourage people back to the centre
- Appropriate mix of businesses
- Providing adequate parking
- Speed of through traffic

Wish List

1. Improved pedestrian facilities
2. Community/social centre/youth facilities
3. Master plan

PART B: DESIRED FUTURE CHARACTER

Individual Vision Statements

- In twenty years time I would like Newport to have a community feel, to provide basic services for these to be accessible
- In Twenty years time I would like Newport to be a caring nurturing society for the people and the environment
- In twenty years time Newport should retain a simple, community oriented and welcoming atmosphere and not become over developed and commercialised
- In twenty years time Newport Village centre will be a thriving, locally based centre which reflects the beach side ambience
- In twenty years time I would like people to find Newport has retained the seaside village character that has drawn millions to appreciate what careful planning community consultation can achieve.
- I would like to see Newport as a people friendly place with compatible buildings for business and residences
- In twenty years time I would like Newport to retain its low/medium buildings. Be modern with a master plan that gave it a unity of feel and efficient complimentary use of space
- I would like Newport in 20 years time to resemble a seaside village with an excellent rich mix of sympathetic architecture with a user friendly traffic flow regime
- In twenty years time I would like harmonious buildings, not too high, with a pleasant relaxed atmosphere and slow traffic
- In twenty years time I would like Newport to be a hustle and bustle of people moving (on foot) through shopping, open space and green space interacting. A low line eclectic mix of light weight building structures mixed with recycled timbers et al.

Group Vision Statement

[In 20 years' time, Newport will...]

- Be pedestrian friendly with multiple linkages to facilities
- Have a village atmosphere reflecting the beachside character
- Emphasise facilities for social interaction for all ages
- Have central commercial activity to attract people to the centre.

Adopted: 15 December 2014
In Force From: 20 December 2014

GROUP 3

How many people are there in your workshop?								
How Many...	Business owners	2	Land Owners	7	Residents	6	Employees	

PART A: KEY ISSUES

1. Issue

- Traffic
- Bromley Lane – tankers and heavy trucks use small streets – impacts on pedestrian safety
- Potential overdevelopment
- Street crossings
- Flooding
- Amalgamation won't work [to get better design] unless there's a carrot for developers

2. Likes and Dislikes

Land Uses:

- Village atmosphere very much liked
- Liked 'laid back' character
- Residential uses okay
- Good mix of services
- Not enough people stopping to shop
- A service station in the centre of the village would be undesirable
- Like the post office and 2 churches clustered near Robertson Road

Built form

- Liked current scale of built form
- Like to keep current height restrictions
- Like to enable 3 storey development
- Renovation of 364 (?) Barranjoey Road liked, seen as good design
- St Michaels Church – a good example of a building with a 'village' look

Trees and Landscaping

- Liked natural environment and setting – tree, plants, beach and sea

Traffic and Parking

- Traffic speeds through Newport, mostly in northerly direction but also going south

Pedestrian Safety and Amenity

- Robertson Road is liked, with its pedestrian focus

Access to Beach

- What's missing from Newport is any access to the beach

Arcade and Seating Spaces

- Graffiti in arcades is disliked, dead ends (no through access) also disliked
- Spaces are not designed for young people

3. Needs and Challenges

- MONEY! The biggest challenge is to fund improvements
- Need public toilets
- Potential for Robertson Road to be more like a mall, without traffic (Note – this was a contentious issue with some people agreeing and some disagreeing)
- Open space for sitting, including spaces for young people
- Retain and enhance trees, including in the existing car park off Foamcrest
- Lights to cross the street at reasonable intervals
- Need speed cameras
- A mix of uses, including a supermarket
- Better incentives for businesses and landlords
- A "heart" somewhere that's the centre of the village / a place for pedestrians
- Better design – stepping back upper levels of buildings
- Creative well designed renovations of existing buildings
- Open space areas use car park area
- Skateboard ramp or bowling alley – something for the kids to do

Wish List

1. Village atmosphere
2. Needs to be more vibrant, busier
3. Small businesses (not mega centres)

PART B: DESIRED FUTURE CHARACTER

Individual Vision Statements

- A vibrant village where citizens can shop locally, feel safe and feel proud of a caring community. This is part of the "village" phenomena we treasure our parks, low density and community connection.
- More open space with more tree planting on main road
- Attractive – vibrant shopping precinct full of variety of shops and businesses a full range of banks, doctors, accountants and other specialty services. A place to stop, shop, eat, linger and enjoy. Development of good design and lots of trees
- General atmosphere, sense of being
- A variety of small shops with some shop top living height limit of 8.5 metres. Design reflecting the natural character of the area eg beach – natural landscaping using Robinson Rd – have some shops facing inwards eg cafes. Building should blend with the natural environment and a supermarket
- To be visually attractive shopping culture inviting both through to offices to shop and visitors to come to a range of specialty shops. This will require visible shops timed parking (say 2 hrs) with longer timed parking at the back
- In twenty years I would like to think that my children and their children will enjoy the village feel with parks for play and recreation – trees and retain the area for young families.

All the group endorsed all the above statements.

Adopted: 15 December 2014
In Force From: 20 December 2014

GROUP 4

How many people are there in your workshop?								11
How Many...	Business owners	2	Land Owners	3	Residents	10	Employees	

PART A: KEY ISSUES

1. Issues

- Need to slow traffic
- More trees – buffer for noise and pollution
- Get village feeling back
- Civic areas used for car parking
- Need a place for quiet coffee
- Better use of civic spaces
- Get the road right, than the periphery
- Don't have 2 lanes
- Need 40kph speed limit within 500m of bends anyway, and single lane round-a-bouts and single lane of traffic

2. Likes and Dislikes

Land Uses:

- Keep it metropolitan, low key, green, pretty, attractive to residents and visitors including other locals eg from Palm Beach
- No higher buildings like DY, Delmege Building
- Important to keep character where people still say hello
- Need supermarket
- Retail and commercial are okay, with residential needs

Built form

- Increased density could make Newport more vibrant
- Seaside character in buildings – textures, light weight materials, corrugated iron, timber, breeze through / look through buildings
- Varied heights are picturesque and liked – don't make new buildings all the same
- Don't want high rises

Trees and Landscaping

- Use stormwater drain as link
- Weathervanes on commercial building, water play along walkways
- Would like angled parking like on Robertson Road, on Barrenjoey road at Newport
- Bramley lane could become a piazza

Traffic and Parking

- Slow northbound traffic at the Avenue, stop freeway 'feed'
- Need trees, not palms in Barrenjoey Road
- Porter Reserve quarry needs to be used

Pedestrian Safety and Amenity

- Need to be able to cross safely from east to west
- Safer crossings for children
- Would like continuous footpaths for kids on bikes and pedestrians especially east – west to link
- Need access to pool via walking, not through the beach – old people can't walk on sand
- Need connections for vehicles
- Round-a-bouts would slow traffic and enable people to cross in vehicles and on foot safely

Access to Beach

- Safe access for pedestrians at northern end
- Like that Newport is next to sea
- Like the vistas through Newport centre
- Thoroughfare can be vibrant, have energy – need to build on it
- Currently not pleasant to walk through the length of Newport

Arcades and Seating Spaces

- Underground car park with a village green on top at Foamcrest on council land
- Promenade – better connections
- Arcade scenario doesn't work for retailers, people don't go up arcades, they are dark or don't lead anywhere, a village green at Foamcrest , not a dead end

Other Issues

- Everyone need to look at what's best for Newport, not just what is best for one or two
- Outdoor art or community centre with stone benches, bring art shows and link to centre, link with businesses
- Don't like the graffiti – worsening
- Turn shops around to bring place alive
- Build on art and music community bring into Newport as part of restaurant culture

3. Needs and Challenges

- Car park at beach is huge
- Boardwalk to pool
- Need skateboard ramps (one for littles, one for older children)
- New buildings should have CCTV to dissuade vandals
- Vital mix use centre
- Should be great to promenade from restaurants to beach at night
- Beach is under-utilised – need to make Newport Beach work
- Commerciality in SLSC – upgrade, link retail centre to beach – better lighting, with restaurants or cafe at SLSC are the centres, like to stay in area
- Compare with Noosa – great connection to beach needed through to Rec centre – boardwalk along beach car park to be able to see ocean more from east

Wish List

1. Slow traffic – to one lane each way through Newport
2. Use beach better – create a boardwalk – better pedestrian access through village
3. Better civic spaces
4. Work with developers, not [through] confrontation to resolve issues – better guidelines for developers

PART B: DESIRED FUTURE CHARACTER

Individual Vision Statements

- Newport in 20 years time I hope will have a village feel with safe accesses to beach. Traffic will have to slow down as the travel through. Round-a-bouts in stead of traffic lights. More trees and greenway down the centre of street
- I would like to think that Newport village remained a village but with more use made of our wonderful beach and swimming pool. A general clean up of Barrenjoey Road Newport with lots of trees and garden
- In 20 years time I would like to see Newport as a vibrant, small centre with residents provided with convenient type of "piazzas" to ensure life to the centre and there's minimal vandalism and graffiti and petty crime. Sufficient mix of retail to ensure residents don't need to leave Newport for basic necessities.
- I would like to be able to know all my community and enjoy wandering to the beach and informing visitors and locals about our history. Waving to those in buildings above. For visitors to say they love Newport style. A sea side village to love walking around, sitting and chatting, know what's going on in the future and past promenade from oval to beach at night and the place to be a cultural experience for all that visit with sandy feet.
- Newport village should be a place that can be of the centre of our lives.

We need to be able to walk safely, dine, be entertained, swim, shop, play sport or just hang out in the village - a pleasant place to be. Discourage car use. We need civic spaces, better pedestrian links, utilise our great beach, good landscaping, varied building types and forms. A wide range of uses (as appropriate) should be encouraged. All facilities should be able to be accessed by pedestrians. Finally we need to draw on Newport's natural beauty and existing potential

- Newport in 20 years time: a cohesive village in looks and feel, a family friendly place for all ages drawn there by its beauty, safety and access for all in its open spaces and safe though fares
- Beautiful board walk from headland to pool with seats along the walk, interesting shops with easy access from beach area to community centre, vibrant supermarket, residents step out for night dinning and day time coffee shops
- Newport to be a suburb that as a resident I can be proud to say that I live here and are envied. My children will be safe at night. A cultural environment with all service required for beach side community
- My vision is the "wow" factor. To be able to great residence and visitors alike. To have a community that is linked in every way, a community that is both pleasing to the eye and functional
- In 20 years I want Newport to be a safe, pleasant village with better shops, food eating facilities and more activities for my grand children to use. I would like to see more footpaths in key streets such as Anyola Road for the aged people to use
- In 20 years time I would like Newport to be a family orientated community minded village with links from North to South and east to west access which will make it easier for all people to shop eat and enjoy this wonderful natural environment. More areas for parking off the main road and specialty shops.

GROUP 5

How many people are there in your workshop?								11
How Many...	Business owners	5	Land Owners	10	Residents	10	Employees	

PART A: KEY ISSUES

1. Issues

- Place to be
- Low rise
- Blends in with environment
- Beach upgrade/boardwalk sheltered
- Variety in shopping experience
- Streamline development process
- Modulation in height and shops + 2 levels
- Slow traffic down
- Improved pedestrian access across Barranjoey Road
- Return to beach

2. Likes and Dislikes

Land Uses:

- Like shopping village
- Like mixed shop top
- Like arcades
- Like rear parking – arcade access
- Like artistic
- Like centre looks away from beach, should relate to beach
- Like boardwalk to swimming pool and to sit
- Like toilet in shopping centres
- Dislike covered drains

Built form

- Like terraced facades
- Like raised height limit
- Like atmosphere
- Like 1 extra 1m to allow for height
- Like talk in terms no. stories not height
- Like to develop a character (colours, style, beach theme, community image)
- Like sandstone finishes

Trees and Landscaping

- Sandstone beds
- Low maintenance
- Street trees modern (eg Waratah St)
- Pavers – open for pavement, names in pavement
- Barranjoey Rd on hill – tree in middle
- No planter boxes

Traffic and Parking

- Slow traffic down
- Maximum parking on strip (no restrictions)
- Rear parking more than 2 hours

Pedestrian Safety and Amenity

- Join up pedestrian routes reserve to shop to Bilgola
- Access to ovals, no focus for access
- 3 pedestrian crossings (signalled)
- Walk Newport wharf to Bilgola

Access to Beach

- Right hand turn to beach
- Pedestrian access to beach and pool
- Focus of centre towards beach
- Beach is focal point

Arcade and Seating Spaces

- Notice board at beach re. shops in centre
- Protect beach area
- Not favour major arcade
- On strip seats along strip

Other Issues

- More shaded seating area on grass area at beach
- Fixing up the surf club
- Restaurants at surf club and nice toilets
- Garbage bins 6 more in main strip and at beach
- Mechanical repairs in Newport
- Traffic access issue at Robertson Rd should be east bound Porters reserve parking
- Issue pedestrian tunnel proposal to access beach car park in winter
- development of village centre; Robertson Rd & Coles Pde

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3. **Needs and Challenges**

- Issue of youth at night
- Youth facilities
- Park and ride where people want to park (none-easters etc)
- Small local market

PART B: Desired Future Character

- "Beach" character
- Low rise – 3 storey (shop + 2 residential)
- Village atmosphere

Group Vision Statement

In 20 years' time, Newport will be...

Newport Beach village. I and my family will be able to visit and view paving bricks. The community will shop back in Newport, and the village will have more day time retail.

GROUP 6

How many people are there in your workshop?								8
How Many...	Business owners	0	Land Owners	1	Residents	7	Employees	0

PART A KEY ISSUES

1. **Issues**

- Traffic (issue of 3 lanes into one)
- Crossings east-west
- Look at large commercial area (ie Foamcrest/ shop top)
- Retail mix
- Central one lane through

2. **Likes and Dislikes**

Land Uses:

- NA

Built form

- Possibly go higher but need open space / park to compensate
- Merit assessment [should be] based on height versus setbacks

Trees and Landscaping

- Use of stone etc [liked]
- Trees are liked
- Pavements are perfect
- Needs to be cleaned
- Seating is needed

Traffic and Parking

- Far too fast along Barrenjoey Road
- Need to look at back streets and movement along these at speed
- Reversal of either Robertson Road / Coles Rde
- Need for broader traffic calming
- Use of one way streets
- Access to rear of business

Pedestrian Safety and Amenity

- Need wider pavements for people

Access to Beach

- Need to totally upgrade access from beach (big car park to centre)

Arcade and Seating Spaces

- Need more seats/seating spaces

Other Issues

- Need outside attractions ie. markets
- Local beach/ local park – use them
- Worlds biggest car park – use it
- Need supermarket
- Lift height and density as trade-off for increased open space
- Economics of centre need people and development
- Light/shade – building modulation
- East-west topography

3. **Needs and Challenges**

- Major vehicles, parking/ movement
- Incoming residences
- Commercial development sympathetic to residential
- Flooding to lower levels of buildings
- Reduce bureaucracy (eg flood studies) for simple retail development – will increase commercial activity
- Issue of ticker box compliance with application rather than true assessment
- Public Transport

Wish List

1. That we get on with it
2. Better/proper DCP/LEP
3. Less bureaucracy
4. Better rites for residents/businesses

PART B: DESIRED FUTURE CHARACTER

- Clever/sensitive architecture
- Tunnel under Newport to Avalon
- Pedestrian amenity

No vision statements

Newport Village Commercial Centre Masterplan

March 2007

Email survey responses - Total of 41 responses

1. *What do you like about Newport?*

Beachside location and lifestyle - Raised in most submissions	17
Village atmosphere (friendly and caring)	30
Parks	2
Easy access to offstreet parking	3
Not overcrowded	3
Low rise development - Not overdeveloped like Dee Why and Mona Vale	5
Shops (that are not chain stores), restaurants and cafes	7
Surf and Rugby clubs	2
Convenient location	2
Proximity to Mona Vale Hospital	1
Cosmopolitan lifestyle	1
Mainly good, well adjusted people (?)	1

2. *What do you least like about Newport?*

Lack of village atmosphere or due to six lane road running through centre that creates excessive noise, fumes and dangerous traffic conditions	4
Traffic problems on Barrenjoey Road - including insufficient or poor placed crossing options and speeding cars and motorbikes (some using Newport as a drag venue)	17
To many units and medium density developments	1
Lack of a supermarket and hardware	14
Over development	5
Trees being removed (and impact of removal to wildlife)	1
Nothing	1
Lack of inspirational architectural ambience (especially shopfronts)	6
The dying village shopping centre	6
The recent closure of shops (including the bookshop, hardware and furniture)	9
Young hooligans vandalising at weekends	2
Bird droppings on the rest seats and	2
Dirty footpaths	2
Crime (including graffiti attacks which are increasing)	4
Poor shopping opportunities	1
Little outdoor dining facilities	1
Covered walks	1
Empty lots of land on main road	3
Lack of accommodation in centre	1
Congestion caused by parked cars on both sides of street	2
Proliferation of unsightly telecommunications infrastructure on the rooftop of the TAB	1

3. *What Does Newport need and where should such needs be located?*

Slow the traffic flow and widen footpaths	6
A return to the old beachside appeal of the Northern Beaches (not overdeveloped like Dee Why and Mona Vale)	2
A supermarket (one requested the old supermarket site and another stated it should be a mini supermarket) - Nearly all submissions requested a supermarket and a few state it should be centrally located	22
Tree should be kept in Council car park	1
New developments be appealing to the eye	12
A retirement village	1
Facilities to entertain children and teenagers	4
More tourist parking	2
A bucolic, rustic emotion towards a village experience (?)	1
The community centre as planned	4
A mix of stores (plenty of coffee shops, cafes, restaurants and a bookshop)	5
The return of the Art Gallery	1
A centrally located police station	2
Police patrols on Friday and Saturday nights	1
Bird eradication at bus and rest areas (issues with droppings)	1
A library	1
More seat and picnic tables in beach area	1
Improved streetscape - Including an upgrading of pavements and more plants	3
A pedestrian crossing at Corner of Robertson and Barrenjoey Road	2
A cinema	1
Better public transport	2
Underground parking	2
A larger variation of products and services provided in the centre	1
Increase in shop top accommodation to help support businesses	1
The visual impact of telecommunications infrastructure in Newport to be mitigated in the future	4
Car parking	3
A good traffic plan	5
Walking access to shops is maintained from existing car parking areas	1
Rearrange the traffic flow from the foot of Newport Hill to Bardo Road to where the road narrows to two lanes at Coles Parade (similar to arrangement to Old Barrenjoey Road at Avalon where one lane is provided to traffic in each direction , decorative planting and parking on either side).	3
Speed bumps, a speed camera or other traffic calming devices be installed to discourage irresponsible drivers from speeding through Newport.	2
Need to have more landscaping in the centre	4
A pedestrian bridge	2
Alcohol free zones	1

4. *What Challenges do you see facing Newport now and in the future?*

Stopping overdevelopment	8
Flooding when rain returns	1
Traffic congestion and parking facilities	9
Keeping Newport low key and exclusive	2
Ensuring that Newport in not irrelevant due to the already well developed aspects of Avalon and Mona Vale	6
The resurrection of community spirit	3
Maintenance and care of the beach and Pittwater waterways.	1
Flood control	1
Providing opportunities and the right environment for businesses to return	10
Providing the right balance of shops	1
Stopping crimes such as vandalism, graffiti and attempted breakins	2
Achieving a reasonable variation of products and services provided in the centre	4
Increasing the number of people using the centre	2

5. *Do you have any other comments regarding Newport and/or Newport Village Masterplan Survey?*

The masterplan process should not be used to find additional sites for medium density housing on the northern beaches	3
Do not overdevelop Newport	2
The masterplan needs to be completed before it is too late	1
The newly planned community centre should be able to present theatrical productions	1
Thankfully that Newport is finally getting some attention	1
The day care and tennis courts should proceed as funds become available	1
Council should pay for the painting of murals	1
Stop markets from being held in nearby suburbs as local businesses lose sales	1

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FOCUS GROUPS

Focus group 1 – outcomes

Pedestrian Movement

- Another pedestrian connection was suggested, from Barrenjoey Road through to Foamcrest Avenue between Robertson Road and Coles Parade.
- Formalise a link through the current service station site on eastern side of Barrenjoey Road to Newport Recreation Club (in conjunction with redevelopment of the corner site).
- General support for shared way/rear access to businesses adjoining Bramley Road car park. Surveillance and safety are key issues and require careful design of the public domain plus appropriate uses and building edge conditions to the space
- General support for widened footpaths, footpath bilsters at corners, median refuges and the location of the proposed signalised crossings

Vehicular Movement

- Suggestion that traffic in Ocean Avenue and Foamcrest Avenue be made one way; this comment was made in relation to the perceived traffic impacts on Foamcrest Avenue, with three roads flowing in but only one road out.
- There was discussion about the provision of a rear lane servicing Barrenjoey Road properties, to take the traffic pressure off Foamcrest Avenue
- There were mixed views about underground parking; management is an important issue. The flat building on Barrenjoey Road that includes some public parking is problematic in not providing separate, secure parking for building residents.

Open space network and new public space

- Stakeholders identified that a major issue of Newport is its current lack of character and lack of sense of destination – needing a "draw" in the form of a use like a cinema or supermarket together with services, well designed retail, shops, etc.
- There was broad agreement in the meeting for the idea of a "heart" for Newport supported by a public / civic space on Robertson Road, with some provisos:
  - The existing cafes work well and people did not want to lose the pedestrian focus and the low scale character
  - Ownership issues would need to be resolved
  - Surrounding uses would need to be active and buildings attractive
  - A high quality design for the public domain is required
- It was noted that some residents canvassed about the public space did not feel it would contribute much to Newport as Robertson Road is already working well
- Questions were asked about the use of the public square and its edge conditions – these were seen to be important to develop as ideas for the next workshop
- General support for the mid block green corridor/access from the proposed public square, linking with the existing arcade at 335 Barrenjoey Road and with future pedestrian connections
- A suggestion was made for a plaza/trees/sculpture at the north end of Barrenjoey Rd & Coles Pde, to create a "gateway identity" – this could be in conjunction with the footpath widening that is part of the endorsed streetscape masterplan.

Building heights and massing

- There was a mixed response to the proposed 3 storey and overall height controls, with a discussion of whether a 3rd storey is required in Newport in order to encourage redevelopment. This was not resolved. It was noted that not all buildings would necessarily go to the 3 storeys but that an increase from the current 8.5 to a 9.6 metre height control would mean that the proportions would work better for 3 storeys than at the moment
- Newtown was discussed as an example of a suburb where 2 and 3 storey buildings have been successfully integrated into streetscape
- It was agreed that example building sections would be provided at the next workshop to illustrate the proposal
- There were concerns raised about the potential for a building on the Dept of Lands site (Bramley Avenue car park). It was noted that a car park in that location is crucial to the functioning of Newport and that there is a strong preference for maintaining it in its present form where it contributes to the open space network and the 'breathing space' that this provides to the village centre.
- Council's Project Leader, Floodplain Management contributed to the discussion of the severe flooding constraints affecting Barrenjoey Road. There was general appreciation of the limitations on design of footpaths and shopfronts that the flood level creates, and of the suggested approach to optimise both accessibility and a direct relationship between shopfronts and the footpath (to invite entry)
- The existing 3.5 metre required setback from the front boundary was generally supported in the light of RTA ownership of Barrenjoey Road and the identified constraint on narrowing the carriageway.

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Focus group 2 – outcomes

The consultant presentation began by recapping the previous discussion with the focus group, and identifying how the urban design principles and concept design proposals had changed or been developed further following that meeting. The urban design principles were supported: what people feel is important as the next step is determining how to achieve them.

Streetscape issues

- Of the options for landscape treatment of Beresfield Road, the Norfolk pine planting of the median was preferred and seen as "very Newport"; something that was "like a new hairdo and could give an instant lift"; something that could create an identity for the centre.
- There was a positive response to continuing the planting south and up the hill to strengthen the approach / entry experience, but there are cost constraints on this because of the need to replace kerbs.
- Suggestions from the group included poles / banners at the ends of the village to reinforce that this is a threshold to Pittwater – banners could double as public art / event announcements.
- There needs to be continuity between the median and the pavements – the consultant recommendation is for the same paving treatment and for keeping the visual connection – ie. Don't clutter up the median with unnecessary ground treatment
- There was strong interest in the use of feature lighting for the trees. To support this and to minimise visual clutter, it was suggested that double branch street lights be placed down the median in between the trees. This would both keep the pavement edges clear, and could also be used to light the trees from the side.
- It was agreed that the median trees would link the main road to the beachfront area. However, it was also felt – and this is supported by the consultants – that a landscape plan for these areas outside the village centre 'proper' would benefit the overall Newport experience.

Plaza / Robertson Road / arcades

- As before, there were mixed responses to the idea of a new public space on Robertson Road. While some people were positive about the potential benefits to the street and to the businesses that could open onto the space, others were concerned about the amenity of the space.
- There was general agreement that it was important to maintain the liveliness and pedestrian activity on Robertson Road, and that streetscape improvements to extend and enhance the public domain were desirable, whether as a 'set back' space in front of buildings, a generous opening /entry to any through-link or mid block arcade, or as a generous widened footpath.
- The last of the powerpoint images of arcades shows fabric 'sails' between buildings on different sides of a laneway, at the topmost level. This image sparked a discussion of the kinds of elements the group thought would be appropriate to Newport's character and climate (ie. Shade sails, canvas awnings). They were thought to be suitable as 'markers' and also for seating and pavement areas.

Bramley Avenue car park

- There was recognition of the difficulty faced by businesses wanting to redevelop their properties and unable to do so because they cannot gain access to the rear. It was generally felt that an easement or accessway should be formalised for these properties.

Traffic and Parking generally

- There are community concerns about the volume of traffic on Foamcrest Avenue at the moment, and that this will increase with new development.
- Generally it was felt that the quantum of public car parking on Foamcrest Avenue should be maintained, perhaps consolidated and better utilised. While there was some uneasiness about underground parking, it was seen as acceptable to have one level underground of public parking (ie. No lower than that for the public component of any mixed car park); and it was seen as preferable to allow some natural light and ventilation, for example by having sub-basement parking.
- Parking at or above ground is not seen as a desirable outcome.

Built form

- As before, there was agreement that the current control is unsatisfactory in allowing 3 storeys with very low floor to ceiling heights – a poor urban and amenity outcome. There was also agreement that these kinds of built outcomes were not envisaged when the controls were set.
- A preferred approach for setting height limits was to set a maximum height limit (above flood planning level) to the underside of the topmost ceiling. This would ensure that the ceiling heights would be adequate, and also allow for some roof expression, thus avoiding the flat-roofed, boxy forms of some recent development.
- The proposal to require setbacks for the top floor, also to reduce the building bulk, was accepted.
- There was considerable discussion about the materials and finishes, as well as the bulk and height, of buildings. Images shown of responsive buildings that used a range of materials, including lightweight materials, and that had some transparency, were well received. It was proposed by the consultants that the masterplan should contain a number of photographs of buildings that provided useful examples and precedents for Newport.

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PUBLIC MEETING JUNE 21 2007

Royal Motor Yacht Club, Newport – 21 June 2007 at 7pm

MEETING OUTCOMES SUMMARY

A meeting for the Newport Masterplan was held on 21 June 2007 at the Royal Motor Yacht Club at 7pm. Over 90 people attended the meeting including Councillors, Council's urban design consultants HBO+EMTB, community groups, local residents, interested individuals and Council staff.

The evening began with a welcome and a brief introduction by the Mayor. The consultants gave a brief overview of the study to date and presented elements of the draft masterplan. The key elements included proposals for the future form and character of both the buildings and streetscape of the village centre.

The presentation was followed by a question and answer session, and time was allocated to look over the presentation material and to fill in a feedback form. Comments made during the question and answer session and on feedback forms, will be considered before the draft masterplan report is prepared for exhibition.

The presentations were well received, and a lively question and answer session followed. Many positive comments were received by Council staff and the consultants, both during and following the formal part of the proceedings. The questions asked generally concerned technical issues – that is, there were concerns about how the ideas might be implemented and what the impacts would be – or they were questions seeking further information or clarification. Explanations were generally well received. No substantive issues about the proposed built form or traffic movement were noted.

The issue of traffic and parking on Foamcrest Avenue has been a concern to those residents for some time and there is a perception that it will be exacerbated by any new development. It is important to note that the masterplan does not propose any increase in density or through traffic over and above what is possible under the current controls. Nevertheless, it is also important that traffic management and the requirement for new development to manage parking within the development are dealt with in the masterplan report.

The recommendation that elicited the most debate is the recommendation for planting Norfolk pines down the median of Barrenjoey Road through the commercial centre. The issue was not about planting the median – that was supported – but about the particular species recommended. A number of people spoke strongly against the proposal; many people also expressed their support through comment and applause for the proposal. The feedback forms also reflect this; however, most of the concerns are technical and expressed in the form of questions – eg. "will the pines….". – which we believe are addressed below. Where people proposed alternative species these are listed.

During the question and answer session, comments were made on the following issues:

Bramley Avenue Carpark: Safety, security, flooding and access issues in the Bramley Road parking area were discussed. It was mentioned that abandoned cars have been set alight in the carpark and that the safety and security of users of the parking area should be reviewed. The severe flooding restrictions on the site were also acknowledged. It was further noted that properties that backed on to the parking area at the rear had legal access issues due to the parking area being in the ownership of the Department of Lands.

Activity Area: The need for an activity area in Newport for skate board and bike riders was discussed. It was considered that interesting activity areas give young people an interest and keep them active. Providing such areas has resulted in less illegal activities being undertaken by young people in other areas.

Mark Eriksson, Council's Principal Landscape Architect, discussed a proposed plan of management for Newport Beach that included a proposed cafe and skate facility at the northern end of the beach. He noted that there was resident opposition for the skate park when the plan of management was exhibited. Mark also mentioned that there were no funds for a skate park in Newport. Mark further mentioned that Kitchener Park in Mona Vale has an existing activity area and that this park can attract state funding as a regional park.

Norfolk Island Pines: A lot of discussion was held in relation to the proposed Norfolk Island Pines for the median strip through Newport. The following comments were made:

- The possibility of tree limbs hitting tall trucks.
- The root system will raise the road structure.
- Norfolk Island Pines are too sparse.
- The majority of members at the last meeting of the Newport Residents Association were against the proposed planting for Norfolk Island Pines.
- Patterson Pine would be a better alternative.
- Council will need to provide cleaning around the Norfolk Island Pines at least 3 days per week (going on the experience of other local governments with such trees).
- The pines will not integrate well into the Newport streetscape.
- The pines will divide Newport in half down Barrenjoey Road.
- The main characteristics/specifications of a tree for the median strip should be established first and then a tree chosen. Basic specifications should include that it is evergreen, the maximum span identified and maximum height determined. It was suggested that a matrix be used to reach a decision on the choice of tree for the medium strip.
- The pines will bring an atmosphere to the village.
- The pines will link the village to the existing heritage listed Norfolk Island Pines near the beach.
- The pines will be attractive if appropriately maintained.
- The pines will draw up both sides of Barrenjoey Road into an apex in the middle positively unifying both sides of the village.

The following responses to issues raised in relation Norfolk Island Pines was provided by Mark Eriksson:

- Council will source trees for planting that would be 6-8 metres high with a clearance of 3 to 4 metres to the spread of limbs.
- The undercanopy of the Norfolk Island Pines at the height proposed to be sourced would need to be modified to allow tall vehicles to pass in first few years following initial planting.
- The undercanopy will not present a problem to vehicles in years to come.
- It is expected that some vehicles will hit the undercanopy during the first few years. However, it is noted that the branches are not brittle.
- Council will provide clearing of the road as necessary.

Connectivity of pedestrian pathways: Comments were made that people drive around Newport from one place to another rather than walking because Newport currently provides an unpleasant pedestrian experience. It was stated that pedestrian connectivity and access should be encouraged to promote a sense of community and safety. It was also commented that connections to the beach over sand dunes should be provided with multiple surface choices to suit all visitors (including some hard surfaces for prams, wheelchairs, etc).

Lynne Hancock, Council's Urban Design Consultant from HBO+EMTB, responded by stating that Barrenjoey Road is the main pedestrian environment within Newport and that connections in and out of arcades on Barrenjoey Road are recommended to be encourage as part of the masterplan. This is being proposed to promote and improve the existing pedestrian connectivity within the centre. It was noted that Newport Beach was not part of the study area for the Newport Masterplan, however some recommendations in the masterplan report will be made to in relation to improving the pedestrian links between the beach and the study area of the Newport Village Centre.

Condition of Foamcrest Avenue: Concerns were raised in relation to the current condition of Foamcrest Avenue. It was mentioned that there is a pot hole in the road that appears to be getting bigger. Concerns in relation to the road deteriorating further as a result of more development in Newport and the proposed Traffic Calming Concept Plan were also discussed.

James Payne, Council's Manager of Urban Infrastructure, stated that staff will look into the condition of the road including the pot hole. James also mentioned that the roads in Pittwater had a grading system for repair and that other roads within Pittwater have a higher priority under that grading system than Foamcrest Avenue.

Coles supermarket trucks: Comments were made in relation to the negative impact that trucks associated with the new Coles supermarket development will have on existing traffic in Foamcrest Avenue. It was also commented that the

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Impact of trucks in Foamcrest Avenue associated with the Coles development will be no different to the impact that the trucks of the previous supermarket in Newport. It was further commented that the conditions of consent in relation to the Coles supermarket should be considered whilst considering traffic issues for Newport and the preparation of the masterplan.

Bike traffic: Concerns were raised about bikes sharing the pedestrian footpaths in Barrenjoey Road.

Caroline Kades, Council's Principal Strategic Planner, stated that the proposed parking lane either side of Barrenjoey Road will be wider to facilitate the passage of bikes through Newport.

RTA approval of proposal in Barrenjoey Road: It was asked whether the draft Traffic Calming Concept Plan had received RTA approval.

James Payne stated that the RTA had agreed in principal to the draft traffic calming concept plan. It was noted that earlier schemes were rejected by the RTA and a consultant was employed by Council to resolve the RTA's issues. The detailed design still requires the RTA's final sign off.

Height Controls: Comments were made that the proposal in the Masterplan for 3 stories was not acceptable as it will not enable new development to integrate well into the existing character of Newport. It was suggested that Council should try other means of improving Newport before 3 stories is recommended.

Geoff Baker, from HBO+EMTB, stated that a 3 storey height control is needed to encourage and facilitate changes. Redevelopment would not be economically feasible without a third storey.

Lynne Hancock noted that 3 stories are currently achievable under the existing height controls but do not enable developments to be designed in accordance to State Environmental Planning Policy 65 - Design Quality of Residential Flat Development (SEPP 65). SEPP 65 requires that developments be designed to provide an acceptable standard of amenity.

The Mayor also noted that without a three storey height limit there may be no economic incentive to redevelop. The Mayor further noted that some poor developments in Newport were approved in the past because current height controls do not require developments to provide an acceptable standard of amenity for occupants. The Mayor also noted the importance of new developments complying with SEPP 65.

Presentation by consultants: Comments were made that the presentation lacked detail. It was suggested that solutions were needed and that the presentation seemed to be full of art and pictures. It was also suggested that the challenge for the masterplan was to get real improvements for Newport, not just cosmetic changes.

Need for Masterplan: Comment was made that in order to ensure quality future development in Newport, the masterplan needs to be in place before the property market improves.

Council owned car parks and parking in Newport: The following comments were made in relation to Council's land in Newport and parking:

- Questions were asked about geotechnical surveys that have been undertaken on Council's land in Newport.
- Concern was expressed about what proposals Council may have for the land and why such proposals were not being made public.
- Questions were asked as to why Council's car parks and the plaza that was included in the concept options prepared as part of the masterplan process were not included in the draft masterplan.
- Parking and traffic issues in Newport will soon become similar to the problems that are being faced in Mona Vale, ie not enough parking and congestion on the streets.
- The Neptune Street park and ride was not being used as it should be and that bus commuters were parking in the Bramley Avenue car park all day. This is reducing the number of spaces available for other users.
- Increasing the possibility of residential redevelopment in Newport through a 3 storey height limit will exacerbate parking problems in Newport.

The Mayor responded to the questions by stating that probity was in place and that investigations are currently being undertaken to determine what could be done with Council's land to the benefit of the community in Newport. The Mayor mentioned that private meetings had been had with adjoining land owners to discuss the possible redevelopment and integration of Council's land with adjoining sites. These meetings have been necessary as part of investigations for the best use of Council's land.

The Mayor also discussed the recent Council resolution of 18 June 2007 that called for expressions of interest (EOI) for the development of the land and adjoining sites. If the land between the two Council sites was separately developed, Council would end up with two small sites that would not yield many parking spaces. Vehicle manoeuvring and turning areas would take up a lot of the space on both sites. The redevelopment of the sites separately would also not benefit the community as much as a redevelopment that spanned the two sites and adjoining land. It was also considered that the EOI would enable the market to determine the best use of the land. The Mayor further stated that Council was investigating what was underneath Council's land through geotechnical surveys to determine what building costs there may be on the site if Council decides to redevelop.

Chris Hunt, Council's Director of Urban and Environmental Assets, stated that the EOI will ensure the best possible outcome for Newport in terms of the provision and connectivity of parking within Newport. It is considered that the redevelopment of the site could be a driving force behind the revitalisation of the whole of the Newport Village Centre.

Geoff Baker stated that new residential development is required to provide on site parking to cater the parking demand of residents and that this is already a requirement of Council's under Pittwater 21 Development Control Plan (DCP).

Paul Davies, Council's Principal Engineer, stated that it is not intended for the availability of on street parking to increase or decrease in Barrenjoey Road under the proposed traffic calming concept plan. However, there may be a small reduction when the RTA approves the final detail design for construction. He noted that overall, parking will increase in numbers as new development proceeds in accordance to the DCP.

4th Masterplan: Comment was made that this is the 4th Masterplan that has been prepared for Newport and that it is the best so far.

Pedestrian link from Newport Wharf to Newport Village: It was suggested that Council should be improving the pedestrian link from Newport Wharf shops to Newport Village through Newport Park and relevant streets.

Caroline Kades commented that it was not part of the brief for the Newport Masterplan. However, the linkage has been raised previously and Council is aware of the desire line and can be looked into as a separate issue.

FEEDBACK FOLLOWING THE MEETING

Some 25 responses were received following the community meeting. There was broad support for the principles and key directions proposed in the draft masterplan. Notably, there was a strong desire to move forward and revitalise Newport, with a recognition that there is a unique opportunity at the moment to consider the traffic and parking, landscaping and the built form all together. One person who has lived and worked in Newport for 30 years noted that "I am very keen to see anything done for Newport"

There were a number of enthusiastic general responses – "There were a number of enthusiastic general responses –

- "Wow! If you do half of what you propose I'll be really happy"
- "the overall design plan, I feel, would benefit Newport"
- "Streetscape plans are a positive move"
- "I thought the overall plan for Newport was excellent"
- "We felt the draft Masterplan presented to be an excellent proposal, directly addressing the desires previously identified by residents"

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ISSUE	COMMENT	RESPONSE
MASTERPLAN PROCESS	Comment that the draft masterplan appeared not to consider relevant approved DAs	Relevant recent DAs were reviewed as part of the masterplanning work and where they are approved or under construction the footprints are shown in the building massing plan. The impact of these DAs on adjoining lots, and the potential development of those lots, was a necessary consideration. The presentation included specific and comprehensive proposals for controlling future development, including heights, setbacks, building depth and separation.
	Recommendation that the consultants meet with the Newport Residents' Association for a further discussion/workshop	The masterplan process has involved two full public meetings and two focus group meetings. The two focus group meetings had representation from the Residents' Association and issues raised were considered and incorporated into the draft recommendations. The Residents' Association is also represented on the project control group. The process has seen the Newport Residents' Association fully involved throughout.
	Concern about translating the vision statement to reality – how developers might fulfil the concept	The masterplan together with the DCP recommendations to be included in the masterplan report, together provide a comprehensive suite of guidelines and controls for consideration for inclusion in Council's consolidated LEP/DCP. The intention is that future development is consistent with the bulk and scale recommendations, as well as the more detailed built form guidelines for architectural character. That being said, the role of the masterplan is essentially a vision document and neither it nor the planning controls can guarantee high quality development – but they can provide the tools to encourage it and to help Council discourage poor development.
WORKSHOP CONSULTATION PROCESS	A comment that the information given could have been in more concise form, and could have been supplemented by an explanation of the role of stakeholders (Council, developers, State Government etc) and a proposed timetable. It was also considered that the question time was too lengthy and there was too much emphasis on the tree issue at the expense of other issues.	Noted: timetable for the streetscape and traffic works can be developed once the masterplan has been exhibited and following endorsement by Council. There is no timetable for changing the built form of Newport as this will depend on individual owners.
PARKING	Concern that lack of parking will have a negative impact on potential shoppers – people will not shop in Newport but will pass through.	The masterplan proposes to retain existing parking 'hubs' and requires that the quantum of public spaces is maintained or improved. It recognises that the Foamcrest parking area is unlikely to remain in its current form but provides a framework for continuing to provide parking underground or within buildings that can serve the Newport shoppers. It also shows how sites can be amalgamated to make efficient, 'workable' parking basements that can optimise parking supply. The overall number of parking spaces throughout the centre will increase as developments proceed and will be adequate to cater for normal demand. The time-limited spaces on the main street are particularly important, as spaces with a high turnover contribute to the perception that spaces will be available and not 'taken' all day.
	Concern that future development will exacerbate the existing lack of parking on Foamcrest	Any new development will be required to provide adequate parking to service that development onsite, including for workers, residents and visitors.
	There was support for encouraging use of the park and ride area and discouraging the use of the Bramley Ave car park for this purpose	Agreed and this point will be noted in the masterplan report. The proposed upgrade of the entrance off Barrenjoey Road support will support this.
	Were the consultants briefed on the EoI process and were solutions to the parking issue considered?	A number of possible scenarios were developed for Council's parking sites and the adjoining properties. The consultants are aware of Council's EoI and were involved in discussions with Council prior to its issue. The intention is that the controls being proposed encompass any development, including responses to the EoI.
	Comment that the issue of car parking and traffic movement within the centre cannot simply be dealt with by Council's existing parking policies – with the example of the lack of parking in Mona Vale creating problems as development occurred	The masterplanning process builds on considerable work undertaken by Council regarding traffic movement and parking provision, resulting in recommendations for site amalgamations and underground parking to ensure that, as at present, all new developments will be required to provide parking on site. Council's EoI for the car parking sites on Foamcrest Avenue has as a primary goal the provision of an adequate supply of public parking for Newport. The masterplan supports this. With regard to developments approved outside the masterplan area, such developments approved under old controls (and by a different council) are not relevant if those controls are different to the Current DCP 21 and to any proposed changes to it. The consultants had no brief to study Mona Vale but to work with Council on the particular issues facing Newport.

ISSUE	COMMENT	RESPONSE
VEHICLE MOVEMENT	Concern that the one-way streets away from Barranjoey Road (Coles Parade and Robertson Road) are taking prospective shoppers away from the shopping strip. A sketch was provided that showed a suggestion to make Robertson Road one-way towards, not away from, Barranjoey Road.	Streets are now one-way in these directions and will be retained to facilitate easy access to car parking in Foamcrest Avenue to encourage customers to stop; they also provide circulation around the centre to intersections where drivers can safely turn either left or right onto Barranjoey Road. If these were one-way streets towards Barranjoey Road, there would be two different risks: one would be that the southern part of Foamcrest Avenue would be more heavily trafficked by vehicles approaching the village from Seaview and Foamcrest, rather than turning off Barranjoey Road; and the other would be that people driving into the village and looking to park would have already passed the Seaview intersection and would then have to keep going through the village because they would have no access to the side streets and the parking on Foamcrest.
	Foamcrest used "as a drag race track" at night	Inappropriate traffic speed and driver behaviour is a problem in many streets of Pittwater when traffic volumes are low; this is a management / policing issue, not related to the masterplan proposals.
PEDESTRIAN MOVEMENT	Very positive about the new crossing at the northern end of the village	Noted
	One person was keen to develop the proposals for pedestrian pathways to and through the foreshore and beachfront area, including to the pool, and was supportive of "keeping the pathway linkage ideas even though it is outside this masterplan". This person also noted that it is important to use elements like a boardwalk, seating and BBQ areas in the beach parkland to tie the shops to the beach.	Noted and this will be included in the masterplan report
	Concern that there was insufficient consideration of alternative pedestrian thoroughfares other than Barranjoey Road.	For Barranjoey Road, there is no feasible alternative to using the enhanced footpaths for pedestrian circulation. What was said in response to a question about connecting from the beach to the community centre was that Barranjoey Road will (and should) remain the primary pedestrian route between those two points. No other safe, viable route is available. Roberton Road will be the other strong pedestrian focus. The masterplan strongly recommends a series of arcades and pedestrian links on the west side of Barranjoey Road, connecting Foamcrest Avenue and Barranjoey Road, and also to Robertson Road.
CYCLE MOVEMENT	One person felt that a cycle track would "create more trouble than it is worth"	The principle of enhancing recreational cycling and connections for cyclists between the beach areas and the centres is an important one in the draft Masterplan. There can be conflicts between pedestrians and cyclists but it is felt that careful design of pathways can create a safe and high quality environment for both user groups.
LAND USES	Dissatisfaction with the approval of a Woolworths discount petrol station in the middle of the village, and with the proposal that the current Caltex site at the southern end may be redeveloped to a different use.	The consultants are aware that the Woolworths petrol station is approved, despite some community opposition. The approval is therefore a matter for consideration in determining future uses and built form in Newport. The consultant view is simply that if the Caltex site becomes available, a use other than a petrol station would be preferable, particularly given the site's prominence. It is not considered that two petrol stations within the village centre is an optimal outcome.
BUILT FORM	Of the five people who commented on the built form proposals, four supported the 3 storey scale, feeling that it supported the need to 'move ahead' while maintaining the beach village atmosphere. One person cited previous studies and the current DCP's 8.5 metre height restriction as remaining a preferred outcome.	In some respects the current DCP controls are not working, as attested to by a number of Land and Environment Court cases. Currently the numerical height limit is somewhere between 2 and 3 stories and in that sense is not workable. This is why the Masterplan includes not only height controls, but actually proposes an integrated suite of development controls, where the current DCP is deficient.
OPEN SPACE	One respondent urged consideration of a skate park towards the southern part of the beach car park and close to the retail core	A plan of management was completed 12 months ago for Newport Beach, containing a proposal to form a steering committee to investigate the potential for a skate park towards the northern end of the beach car park. This discussion is therefore ongoing.
PUBLIC DOMAIN	One person identified a need for improved amenity in the form of seats, bus shelters, places where wheelchair users catching public transport could wait	These are all very important components of a comfortable and attractive public domain. The streetscape masterplan proposes locating seats near bus stops and at other places along Barranjoey Road. The widened footpaths will provide ample space for wheelchair users. There is already a bus shelter at the southern end of the village outside the service station. A bus shelter is proposed for the northern bus stop adjacent the supermarket site (under construction). Within the centre of the village weather protection will be given by awnings.
	Two people raised the issue of the need for a public toilet	Noted. Ideally, public toilets would be co-located with civic or community uses, preferably with the development of the public plaza and adjoining uses, and importantly would need to be within a building to have some perceived 'ownership'. Stand alone toilet buildings are more difficult to manage and maintain, and not generally positive additions to the streetscape. The masterplan can include the provision of public amenities as a principle but cannot determine their exact location.
	Current and ongoing maintenance of streets and spaces, including regular rubbish removal, was noted by one person	Noted. This is a management issue: certainly regular maintenance, rubbish removal and the immediate removal of graffiti are important contributors to a high quality public domain, and can serve to discourage anti-social behaviour

ISSUE	COMMENT	RESPONSE
	Comment that the quality of the median is important and that a standard RTA barrier fence would be an undesirable outcome	Noted and agreed – it is important to maintain an openness / visual connection between both sides of Bamanjoey Road, and to reduce visual clutter. The proposed median design does not include a barrier fence
TREES (general)	Will central median planting make it more difficult for pedestrians to cross Bamanjoey Road? Two people were concerned that median trees would make it harder for drivers to see pedestrians who were crossing Bamanjoey Road informally (ie,. not on the signalised crossings)	No – there will be a generous (widened) median that means people can cross half way, pause and then continue. However, this does not mean that crossing informally is encouraged. It is likely that any median planting will obscure pedestrians from drivers' view, if the pedestrian is within the line of the tree trunks. To this extent it will be harder for drivers to see them. Drivers will probably also not be expecting to see them. It is emphasised that pedestrians should use the signalised crossings, which have been located to 'fit' better with desire lines across Bamanjoey Road. These crossings are the appropriate and safe option for pedestrians.
	Will trees be subject to damage from cockatoos?	All trees will be prone to bird interaction. Whilst cockatoos may from time to time impact upon the trees it is not recognised as a significant threat to growth given the extensive number of healthy pines located in Newport Beach Reserve (Bert Payne Park).
	Will trees in the centre of the road slow traffic?	It is considered that they will, for the following reasons: • Halving the apparent width of the road, where now there is an expanse of concrete, will create a sense of a smaller scale road; the carriageway will seem to be halved. With that sense of a reduction in scale there is a likely associated reduction in speed. Note that as well as tree planting down the centre there will be street trees at the edge of the road that further narrow the field of vision and change the scale of the road. • The tree planting in conjunction with the three signalised crossings is important, as it will create a new expectation in drivers that they will have to slow or stop through Newport. • The proposed 50km/h speed limit is a regulatory tool that will support the 'design' tool of the trees.
	A suggestion to combine street tree planting with undergrounding power lines on Foamcrest Avenue	Noted. This will be included in the masterplan report as a recommendation.
	Concern about potential impacts on road safety	Any tree selected will require follow up maintenance in relation to leaf litter, ongoing pruning and horticultural maintenance.
TREES (species)	The following very supportive comments were received: • "the centre planting of Norfolk pines is inspirational" • "love the trees and Bamanjoey Road design" • "the Norfolk pines would look wonderful" • "We think [the avenue of Pines] would look fabulous" • "when completed it will look stunning and magnificent" • "Norfolk Pines would be splendid in reinforcing the seaside character of Newport village" (subject to their not overshadowing the western footpath)	
TREES (species)	One person thought the pines were "too big, too wide, massive root system"	The response addresses two kinds of issues: the visual/cultural, and the technical. First, the visual/cultural issue – do the trees appear to be too big and wide? The trees were selected precisely because of their size and to enhance the very important heritage grouping of pines at the beach. Norfolk Island Pines were chosen as the scale of such trees will be in context of the setting i.e., a six lane arterial road surrounded by residential/business buildings up to 8.5 metres in height. Smaller scale trees will be visually lost in this context. Their scale is seen as important and necessary to make an impact on through traffic and to create a visual marker that is 'distinctly Newport'. Through the focus group workshops another large tree – a fig – was suggested but this was seen to be too wide. In contrast, Norfolk Island Pines have a relatively open canopy allowing light to penetrate through the trees, as well as a slender vertical form,. A more traditional canopy tree such as Figs would reduce sunlight to a greater degree than the proposed Pines. The pines will not block one side of the road off from the other, so long as they are spaced appropriately. On the technical side, what emerged from the public meeting were concerns about the tree branches intruding into the traffic lane, about the roots extending under the road and interfering with the road surface, and about falling needles creating mess and potential hazard. Root systems of any tree are potentially a problem as is buttressing the base of the tree. Council has allowed approximately 12m3 per tree to accommodate root growth. The scale of the road construction will generally restrict the impact of tree roots on the surrounding pavement. Norfolk Island Pines are able to be extensively under pruned over time to allow passage of vehicles under the tree. This is not the case with more traditional full canopy trees.
	Three people suggested alternative species: cabbage palms (Livistonia Australis); Waterhousia Floribunda, Casuarinas	It is not considered that these trees would have the desired visual impact on the main road, nor that they have any special association with Newport

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PITTWATER COUNCIL

Appendix 13

Careel Bay Masterplan

Careel Bay Masterplan

V3.0 - March 16th 2009

1. Possible aquatic reserve identified along lot boundary (subject to Fisheries approval) Stokes Point to boundary of 953 / 955 Barrenjoey Road.

Aquatic reserves are individually tailored to protect biodiversity, important habitat, nursery areas and protected species, and research and education.

Proposed 'sanctuary' in eastern area where activities are more restricted and 'refuge' areas in western area where activities are less restricted.

2. Seagrass boundaries and 50 metre buffer identified from The Ecology Lab for eastern area and from aerial photos for area from marina to Stokes Point.

- 50 metre buffer required by Department of Primary Industries (Fisheries).
- Zone boundaries within the bay be reviewed to align with Seagrass boundaries.

Note: The 50 metre buffer area and alignment of the zone boundaries with seagrass boundaries, is aimed at reducing the impacts of activities in Careel Bay on seagrasses (including the dynamic edge where the new growth expands and retracts to achieve the outcome of conserving seagrass beds in Careel Bay).

3. Moorings in seagrass - subject to NSW Maritime approval To be removed and relocated out of seagrass, or seagrass-friendly moorings to be used.

4. Further discussion with the Careel Bay Community to be undertaken to include additional environmental safeguards in Pittwater 21 Development Control Plan in relation to permissible waterfront structures.

5. Continued advocacy for the management of the spread of Caulerpa Taxifolia. Caulerpa has spread from southern area of the bay along the western side of Careel Bay to Stokes Point in just four years.

6. Public wharf.

7. George Street Masterplan.

8. Marina.
Environmental impacts of the marina should be reduced, buildings upgraded and boating services to be maintained. Development should be constrained within the existing lease area with no adverse impacts on seagrass or caulerpa.

9. Saltmarsh Restoration.

10. Plan of Management Careel Bay Playing Fields and Hitchcock Park and Plan of Management for Careel Bay Wetlands.

Measures to restrict human and animal access to protect birds and other species within the bay to be considered in the next review of the Careel Bay Wetlands Plan of Management.

11. Conserve migratory birds' habitats.

12. Mangroves Conservation.

13. Unleashed dog area to be maintained.

14. Intertidal area (mud flats) - Wading birds habitat.
Maintain as high priority migratory bird habitat along water's edge.

15. Aboriginal Midden.

16. Foreshore Rehabilitation.
Including removal of weeds, stabilisation of the foreshore, planting of saltmarsh hindmarsh and re-establishment of low growing native vegetation.

17. The Careel Bay Wetlands to be nominated for inclusion in the Directory of Important Wetlands in Australia.

18. Open navigation channel to be maintained, plus access to public wharf and foreshore.

19. Potential for a boat ramp at Careel Bay to be investigated.

ELANORA HEIGHTS VILLAGE CENTRE MASTER PLAN

JULY 2012

GMU

Adopted : 15 December 2014
In Force From: 20 December 2014

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Date: July 2012

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1. Introduction

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1.1. EXECUTIVE SUMMARY

GM Urban Design and Architecture (GMU) has been engaged by Pittwater Council to prepare a master plan for Elanora Heights Village Centre. Elanora Heights Village Centre is located between the intersection of Powder Works Road and Kalang Road to the north and the intersection of St Andrews Gate and Kalang Road to the south and it is located in the Pittwater Local Government Area. The purpose of this master plan is to establish a clear vision and urban design framework for the village based on Council's and the community's desired future character balanced with best practice urban design principles.

The study area is an existing low scale village centre. It is comprised predominantly of low-density neighbourhood shops, a community centre and two public open spaces, Allington and Kywong Reserves. The existing zones within the study area are Residential 2(a), General business 3(a), Special uses 5(a) and Existing recreation 6(a). The current maximum height control is 8.5m.

The design process

In developing the framework and master plan, GMU has conducted analysis of the area in order to understand the key issues and opportunities for the village centre. The analysis included documenting the existing context, built form, streetscape character, existing connections, landscape character, local views and vistas. This in turn has informed a number of design strategies for the village centre that have been tested with the community during a consultation event held on the 12th October 2011, and attended by 91 community members.

The input received from the community consultation provided direction to Council and GMU and allowed the team to understand the community's concerns and preferences in terms of the desired future character and preferred urban design outcomes.

From the analysis and community consultation, GMU and Council developed two master plan options. These options formed the basis of the draft Master Plan Options Report which was exhibited by Council from 24 December 2011 to 17 February 2012.

A total of 31 submissions were received by Council in response to the exhibition of the Master Plan Options Report. Council and GMU have reviewed these submissions and have developed a preferred master plan for Elanora Heights Village Centre supported by a landscape master plan and site specific design principles and built form controls. This preferred master plan is broadly based on Option 2, which is discussed in sub-chapter 2.4 and it included the extension of the commercial zone to the bend in Kalang Road to the south. In response to the community's input, minor changes to Option 2 have been added as part of the preferred master plan, such as:

- The commercial zone has been extended to also include the single residential lot adjacent to the community centre;
- The details for the relocation of the roundabout have been refined; and
- The design of the public domain improvements has been developed further.

Elanora Heights Village Centre Master Plan

The Elanora Heights Village Centre Master Plan includes the design guidelines for both the public and the private domain. The guidelines for the public domain design are described in Chapter 4 of this report and they are referred to as the Landscape Master Plan. The private domain guidelines are described in Chapter 5 of this report and are presented as development controls that will apply to new development in the village centre.

Both sets of controls for the private and public domain should be read in combination when planning to redevelop a parcel of land within the Elanora Heights Village Centre.

In general, the main changes to the existing village centre provided as part of the Elanora Heights Village Centre Master Plan include the following:

- Extension of the commercial zone to include 3 sites on the south-west corner of St Andrews Gate and Kalang Road and one site south of the existing commercial zone on the eastern side of Kalang Road;
- Introduction of a median strip along Kalang Road which will ensure safer vehicular movement in the centre and provide additional area for tree planting;
- Additional height for the commercial zone built form of up to 3 storeys equivalent to 11.0m with a setback to the rear and articulation zone above ground level;
- Greater connectivity to Kywong Reserve; and
- Built form controls applicable to new private development in the village centre.

Chapter 4 describing the Landscape Master Plan includes the following:

- Public domain and landscape character;
- Movement network;
- Parking and servicing;
- Examples of street furniture; and
- Recommended planting species.

The Landscape Master Plan is designed to be delivered in two stages. Stage 1 includes adjustments and refinements to the landscape of the existing extent of the village centre. Stage 2 provides a design for the future extent of the village centre including the sites to the southwestern side of Kalang Road and St Andrews Gate intersection. The new features within the Landscape Master Plan also include the following:

- New Village Square;
- Removal of the existing roundabout on St Andrews Gate and Kalang Road and new roundabout at the bend in the southern side of Kalang Road, which will bring better connection of the southern and northern side of the village centre;
- Change of the bus stop location to the southern side of St Andrews Gate next to the new Town Square;
- New paving and lighting to the footpaths with 3.5m extension due to the required setback;
- Street trees along the footpath and a median with trees, that will allow for appropriate visibility from one side of the street to the other; and
- Allocated area for public toilets near the town square.

The private domain controls described in Chapter 5 refer to the amendments to the LEP as well as the DCP for the Pittwater LGA. The changes to the LEP and DCP include:

- Amendments to the zoning and shop top housing maps of the Pittwater Local Environmental Plan 1993,
- A new section in Part A of the Pittwater 21 DCP as proposed in sub-chapter 5.2.1, which provides the vision or the Desired Character of Elanora Heights Village Centre.
- Five new sub-sections in Part D, Section D5 of the Pittwater 21 DCP as described in chapter 5.2.2. Each of the sections provide specific controls for the village centre including the controls for:
  - Built Form,
  - Architectural Character,
  - Landscape Character,
  - Amenity, and
  - Vehicular Access.
- Amendments in Part D of the Pittwater 21 DCP to titles of sub-sections D5.1, D5.3 – D5.8, D5.11 and D5.13 to exclude the Elanora Heights Village Centre area from these controls and amendments to the Advisory Notes, as described on page 32 in sub-chapter 5.2.2.
- Amendments to Part B and C of the Pittwater 21 DCP described on page 49 in sub-chapter 5.2.3, of this report.

The amendments to the controls together with the Landscape Master Plan principles form a comprehensive master plan for Elanora Heights Village Centre and should be read in combination prior to the submission of a development application for the Village Centre.

An illustration of the full extent of the master plan is shown on the opposite page.

Elanora Heights Village Centre Master Plan.

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1.2. BRIEF

GMU was engaged by Pittwater Council to prepare a master plan and design controls to encourage revitalisation of the Elanora Heights Village Centre. The purpose of the brief is for Council to achieve an integrated plan for the village and appropriate outcomes for any future development.

The purpose of the master plan was to establish a clear vision and urban design framework for the village which includes landscape and public domain outcomes, massing, built form, character, set-backs and height based on the community and Council's desired future character for the village.

1.3. LOCATION

The Elanora Heights Village Centre is a neighbourhood centre located at the intersection of Powder Works Road and Kalang Road in the Pittwater Local Government Area (LGA).

The Metropolitan Strategy 2036, identifies Elanora Heights Village Centre as a small village with a 400m walking catchment radius. The classification for small village under the strategy consists of a small strip of shops and surrounding residential area within a 5 to 10 minute walk and has the potential to contain between 2,100 and 5,500 dwellings.

The village centre is located within 3 km of Mona Vale Town Centre to the north east, 1.5 km of Warriewood Square to the east and within 2.5 km of Waterloo Street in Narrabeen to the south east.

Location of Elanora Heights in the NSW Metropolitan Strategy.

Location of Elanora Heights in relation to Sydney CBD.

1.4. STUDY AREA

Elanora Heights Village Centre contains neighbourhood shops, a community/youth centre and recreational facilities including squash courts and two reserves. Elanora Country Club and the Golf Course are located approximately 300m to the west of the village centre. Elanora Heights Primary School is located to the south of the locality at the intersection of Elanora and Anana Roads.

According to Pittwater 21 Development Control Plan, the locality is predominantly a low-density residential area, with low scale detached dwellings built on 700-950 square metre allotments (some smaller blocks may exist) along plateaus and slopes.

The topography around the village centre varies, the centre itself is relatively flat with a shallow gradient sloping from west to east. Kalang Road ascends towards the centre from the south. Elanora Heights to the west of the village center is steeper with vistas over the village and exhibits large rock formations and steeper slopes.

The village centre is located in proximity to several park lands and reserves, which includes Kywong Reserve to the south west, Allington Reserve to the south east, Epworth Park and Irrawong Reserve to the north.

The area which has been considered for this master plan is the land currently zoned General Business 3(a), Special Uses 5(a), and Existing Recreation 6(a) as well as the residential areas immediately adjacent to the village centre.

Study area and existing zoning.

Bird's eye view of Elanora Heights Village Centre. (Courtesy Near Map).

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2.1. ANALYSIS SUMMARY

The preferred master plan has been developed through a comprehensive design and community consultation process. GMU and Council have:

- Undertaken an analysis of the study area and surrounding context;
- Reviewed approved development applications within and proximate to the village centre;
- Reviewed the existing LEP and DCP controls and desired future character for the village; and
- Undertaken discussions with Council officers on issues of traffic, landscape and ecology, planning and community issues.

GMU and Council have developed design strategies and draft master plan options for the village to test with the community through a consultation process including a community workshop in October 2011 and exhibition of the draft master plan options in December 2011.

To supplement the draft master plan options Council has also undertaken a traffic study to test the suggested amendments to the street design and road network proposed within the different master plan solutions.

GMU and Council have reviewed and considered the submissions received in response to the exhibition and reviewed the market and economic advice provided by the Hill PDA Report dated December 8, 2011. This has informed the development of the draft preferred master plan option contained within this report.

This section of the report summarises the key findings and outcomes from the above steps that have informed the design concept and direction of the preferred master plan. These steps start with the analysis of the area. A more comprehensive discussion of the analysis is contained in Appendix A.

GMU undertook a detailed analysis of the existing village centre and surrounding area to understand the functionality and existing character of the Village Centre. Detailed consideration of the analysis is located at Appendix B to this report. The key findings of that analysis are as follows:

Zoning and Controls

- The existing village centre is zoned 3(a) General Business with the surrounding area including the extension of Kalang Road zoned 2(a) Residential.
- The business zoning extends only one side of Kalang Road to the south with residential to the other side. This creates zone interface issues and an uneven main street with businesses to the southern portion of the village centre showing potentially less activity than the northern portion;
- The community uses to the south are also effectively isolated form the village centre;
- The main street for the village centre is Kalang Road which contains the retail and commercial uses for the centre;
- The current height control results in 2-3 storey development due to the topography but there are no controls to achieve built form transition; and
- Previously approved development applications will dictate setbacks and street level treatments to both sides of Kalang Road to the north.

Built Form

- The built form character is low scale 1-3 storey development with much of the existing building stock out-dated and of poor architectural quality;
- New development being constructed is changing the character and streetscape of the village but is also creating some awkward outcomes in terms of connectivity and architectural quality to the street;
- The village centre contains a number of strata residential and commercial properties that will potentially limit development opportunities for the centre in the medium to long term;
- The village centre has a 'fine grain' or narrow shop front character which could be eroded by poorly considered amalgamations;
- There is no consistency in the verge depth and treatment to both sides of Kalang Road; and
- Footpaths are discontinuous and there is a lack of crossing points for the main street.

Existing zoning - excerpt from LEP map.

Existing development condition and heights diagram.

Edge condition diagram.

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Connectivity

- Powder Works Road provides a major connection to the village and corner lots create the address or gateway to the village centre;
- Kalang Road is also a major connection to and through the village with bus and heavy vehicle use impacting on pedestrian safety in the village centre;
- St Andrews Gate is a lower order street that provides the transition to the residential neighbourhood around the village centre;
- Vehicle use of the roundabouts creates safety issues for pedestrians; and
- The existing parking arrangements create safety issues due to vehicle manoeuvring.

Landscape Character

- The open space areas of Kywong Reserve and Allington Reserve currently have poor connectivity and visual presence to the main street. Some residents are not aware of the existence of Kywong Reserve in particular;
- Allington Reserve has a positive interface with the community centre;
- Topography falls from west to east and creates interface and scale issues for residential lots east along St Andrews Gate where development occurs to the Kalang Road lots;
- There is a poor and fragmented landscape character to Kalang Road with no consistent landscape strategy or public domain design strategy evident;
- Kywong Reserve is used as an informal link from the village centre. Its topography makes a formal connection challenging as does its role as a stormwater flow path; and
- Retention and protection of the existing tree canopy.

Local views and vistas

- Views within the village are localised vistas down Kalang Road and St Andrews Gate. There are some water views available from St Andrews Gate over the existing development but they do not form a strong element in the visual character; and
- There is no clear sense of arrival to the village centre.

Movement network and car parking diagram.

Existing landscape condition diagram.

Views and vistas diagram.

2.2. OPPORTUNITIES

The analysis of the village lead GMU and Council to identify the following key opportunities for the village centre. These opportunities include creating:

- A sense of place for Elanora Village through encouraging higher quality architectural solutions, emphasis on the 'fine grain' lot subdivision or continuous narrow frontage lot pattern and introducing a consistent high quality public domain and landscape strategy to the village;
- Greater regeneration of the existing building stock, through consideration of height and built form controls to achieve a better interface between the buildings and the street and a higher quality level of design that captures the coastal character of the village;
- An improved pedestrian experience through public domain improvements, safer crossing environment for Kalang Road, lower speed environment via a shareway character to the northern part of Kalang Road and more appropriate locations for bus stops, continuous and attractive footpaths and verges, opportunities for seating and outdoor eating, shade through landscape improvements and activation of the public domain consistently by built form;
- Improved visual connection from Kywong Reserve to the village centre and for the community centre and Allington Reserve to Kalang Road and the village centre;
- A sense of arrival and recognition of the village centre through landscape and built form to Powder Works Road and Kalang Road;
- A transition in built form from the village centre to the adjacent residential areas to reduce apparent bulk;
- Whenever future redevelopment and amalgamation allows, maintain and introduce opportunities for rear vehicular access to commercial lots to minimise driveway crossings along Kalang Road;
- Streetscape improvements to 'green' the street and also limit dangerous vehicle movements from on street car parking; and
- Opportunities for greater shopping choice through some increase in residential catchment in the village centre and new retail outlets.

Detailed consideration of the identified opportunities is located on Appendix B to this report.

Elanora Heights Village Centre opportunities diagram.

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2.3. DESIGN STRATEGIES SUMMARY

The analysis and opportunities were discussed by GMU and Council and a number of design strategies were developed and presented to the community at the consultation workshop. These strategies in summary included:

Uses Strategies

Three ideas were presented that ranged from retaining the existing use profile of the village, extending the business use profile to the south along Kalang Road to the entry to Kywong Reserve and 2 lots up St Andrews Gate and finally introducing medium density residential zoning to the southern portion of Kalang Road and along part of St Andrews Gate shortening the existing main street and concentrating retail activity to one block.

Uses strategies presented at the workshop

Built Form Strategies

Three ideas were canvassed including maintaining current building heights, adding an additional storey up to 4 storey across the village centre to encourage faster regeneration of built form and providing 3 storeys across the village centre with only an additional storey to be considered at entry points into the village centre to give emphasis to arrival at the centre.

Built form strategies presented at the workshop

Landscape and Public Domain Strategies

Again three ideas were considered with the community ranging from creation of a boulevard with landscape central median, wider footpaths and improved pedestrian links, introducing a shareway to the northern portion of the village centre with no central median but wider footpaths and finally creation of a central 'public' space within the northern portion of the street with shareway character and parallel parking.

Landscape and public domain strategies presented at the workshop

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The workshop also included suggested statements for the vision or desired future character statement for the village. Detailed consideration of the design strategies presented to the workshop is located at Appendix A to this report.

Conclusions

From the consultation the preferred directions identified by the community were:

- Retain the existing use profile or extend business uses toward the south on both sides of Kalang Road;
- Maintain current building heights with landscape emphasis to entry points and 3 storeys to be allowed south of St Andrews Gate for both sides of the street; and
- Creation of a boulevard with landscaped verges and central median and improved links or creation of a shareway character and wider footpaths.

The project team tested these strategies with the preferred approach being:

- Testing of the extent of commercial uses to the south through 2 master plan approaches;
- Adoption of 3 storeys as the maximum building height with setback requirements to achieve transition to other uses but allowing a 3 storey streetscape scale to Kalang Road;
- Adoption of a landscaped central median retaining 90 degree car parking, widening verges wherever possible, extending the commercial streetscape to the south testing different design solutions and roundabout locations to encourage lower vehicle speeds and providing more crossing opportunities;
- General improvement to the landscape and built form character throughout the village centre;
- Improved connection to the Community Centre through increased setbacks along the property located at 51 Kalang Road; and
- Explore the potential for linkages to and through Kywong Reserve.

Detailed consideration of the design strategies tested with the community is located at Appendix A to this report.

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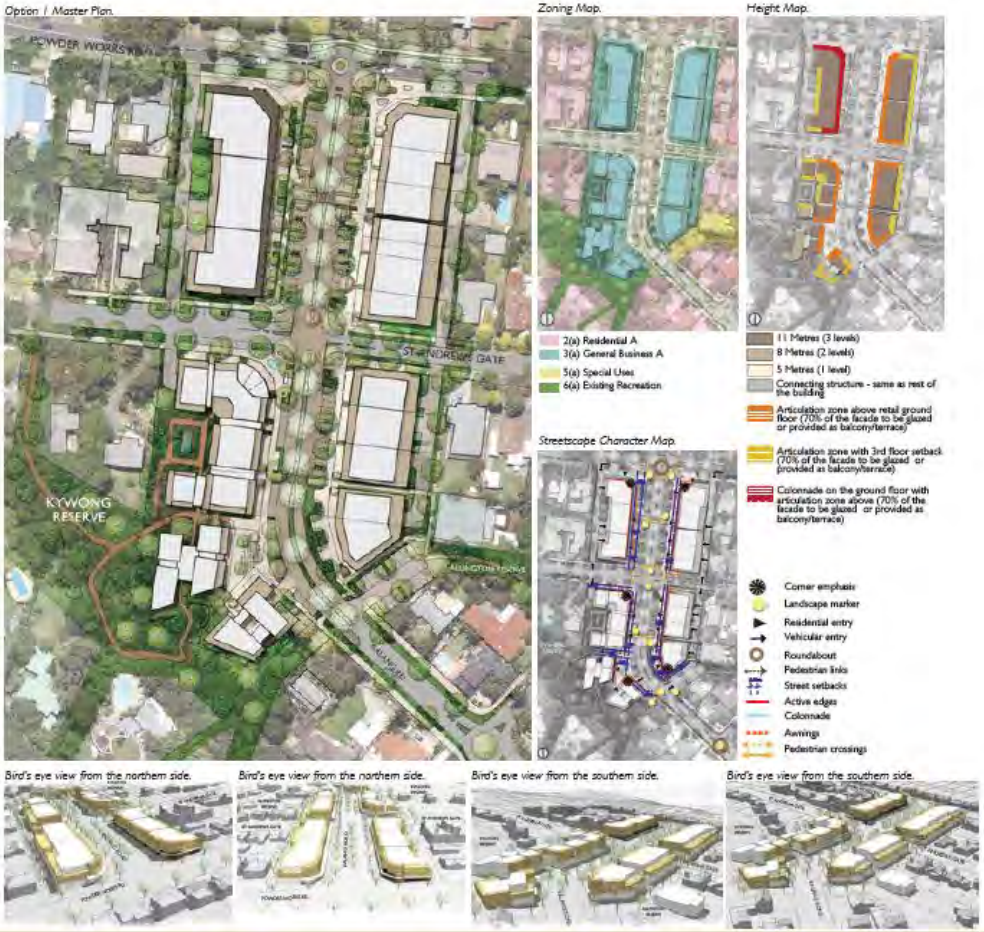
2.4. PREFERRED MASTER PLAN OPTIONS

The preferred strategies were developed by GMU and Council into 2 draft master plan options for exhibition. The primary difference between the two master plan options is the extent of the mixed use zone to the south as there was strong community support for a 3 storey built form and landscape median approach for built form and landscape strategy. Both a master plan layout and 3D indicative representation of the allowable building envelope and transition zones formed part of the master plan options for exhibition. A vision statement developed from the community input and key design principles for each option were also provided.

Option 1 Master plan

The Option 1 Master plan in summary included:

- Extension of the mixed use zone to the southern boundary of Kywong Reserve and the community centre car park;
- Built form emphasis through architecture and landscape only to the intersection of Powder Works Road and Kalang Road and to the approach along Kalang Road from the south;
- Building heights of maximum 11m and 3 storeys with top storey setback or articulation depending on the interface and location;
- Upgrades to Kalang Road introducing a central median, retaining 90 degree parking and providing additional on street car parking to the southern block of the village;
- Upgrading the verges to both sides of the road and requiring a street level treatment through built form that respects and integrates the approved Development Applications;
- Traffic calming and improved pedestrian amenity through paving textures, additional crossing points and coordinated landscape along Kalang Road;
- Improved visual connection to Kywong Reserve and the community centre;
- Termination of the vista down Kalang Road at the southern end with built form and a new public space with visual connection to Kywong Reserve from this space; and
- Relocation of the St Andrews Gate roundabout to the intersection of Allington Crescent and Kalang Road.



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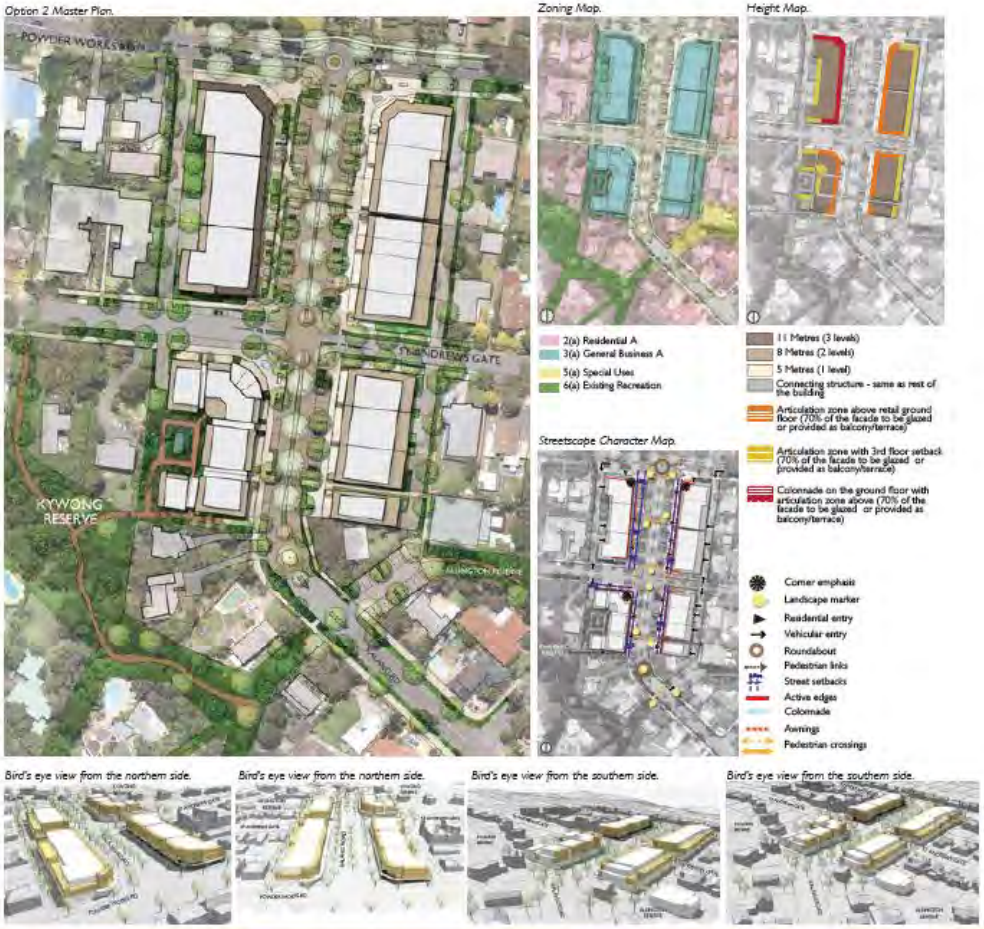
Option 2 Master plan

The Option 2 Master plan in summary included:

- Extension of the mixed use zone only to the bend in Kalang Road for the southern boundary block;
- Built form emphasis through architecture and landscape only to the intersection of Powder Works Road and Kalang Road and to the approach along Kalang Road from the south;
- Building heights of maximum 11m and 3 storeys with top storey setback or articulation depending on the interface and location;
- Upgrades to Kalang Road introducing a central median, retaining 90 degree parking and providing additional on street car parking to the southern block of the village;
- Upgrading the verges to both sides of the road and requiring a street level treatment through built form that respects and integrates the approved Development Applications;
- Traffic calming and improved pedestrian amenity through paving textures, additional crossing points and coordinated landscape along Kalang Road;
- Improved visual connection to Kywong Reserve and the community centre;
- Termination of the vista down Kalang Road at the southern end with a landscaped roundabout and a potential future connection to Kywong Reserve at this southern extent of the commercial zone; and
- Relocation of the St Andrews Gate roundabout to the bend in Kalang Road.

Both draft master plan options were exhibited by Council between 24 December 2011 and 17 February, 2012 for comment by the local community. Detailed consideration of the two draft master plan options is located at Appendix B to this report.



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3.1. COMMUNITY CONSULTATION WORKSHOP AND SURVEY

A community consultation workshop was held with community members to test the analysis and design strategies for Elanora heights Village Centre on the 12th October, 2011. A detailed consideration of the comments and outcomes from this consultation event is provided at Appendix A within this report. The event was well attending with 91 community members at the workshop. Council staff also surveyed community members in the village centre on Saturday 22 October, 2011.

The community provided input into the design strategies discussed earlier in this report and various suggested vision statements that might encapsulate the character of the village Centre currently and how the community would like to see the village centre over time. The results of both the consultation event and the survey have informed the design strategies, suggested vision and draft exhibited master plans.

The main results from the workshop were as follows:

- Preference to either retain the existing use profile or extend business uses toward the south on both sides of Kalang Road;
- Building scale and height was to maintain current building heights with landscape emphasis to entry points and have 3 storeys to be allowed south of St Andrews Gate for both sides of the street;
- There were two preferred directions for the public domain upgrades that included the creation of a boulevard with landscaped verges and central median and improved links or creation of a shareway character and wider footpaths; and
- The preferred vision statements were:

"Elanora Heights is a small village with great sense of community, making it one of the great places to live in the northern beaches."

"Local residents enjoy an easy going lifestyle while shopping, dining and socializing in the lively village centre where shops and cafes spill onto the footpaths offering great choices for "breaky" or a good cup of coffee on the weekends."

"Elanora Heights is a relaxed, easy going place that has adapted gracefully over time with its improved public domain, tree lined main street and renewed built form with colourful facades and high quality architecture. "

"The community hall and its adjacent open space with tall trees, shade canopies and playground space are ideal facilities for the locals to meet and attend community events day and night."

"Lush planting and shading devices along generous footpaths give plenty of shade to pedestrians who enjoy window shopping and strolling along widened and well landscaped verges."

Community consultation workshop.

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3.2. EXHIBITION OF THE DRAFT MASTER PLAN OPTIONS REPORT

From the community consultation workshop and survey the project team developed two draft master plan options to test further with the community through a public exhibition process. The report was exhibited by Council between 24 December 2011 and 17 February 2012. Where submissions were received from residents hat raised issues associated with traffic, those residents were specifically contacted on receipt of the traffic report and invited to make additional comments. This submission period terminated on 6 March 2012.

A detailed consideration of the submissions received and issues raised to both the Draft Master Plan Options Report and the Traffic Report are provided in Appendix C to this report. In summary the outcomes of the exhibition and submissions were 31 submissions received from the community, where the recurrent themes in the submissions were related to the following:

General Issues:

1. EXTENSION OF THE COMMERCIAL ZONE

12 submissions in total

Of the 12 submissions dealing with this point, there was more support for Option 2 with the lesser extent of commercial zoning.

2. CHARACTER OF THE PLACE

3 submissions in total

Concern about retaining the existing 'character of the village'

3. COMMUNITY CENTRE

3 submissions in total

Support for redevelopment of the community centre and greater visual connection from Kalang Road.

4. KYWONG RESERVE

10 submissions in total

Concern that any new development should not encroach into the reserve, support for greater visual connection to improve awareness of the reserve. Concern about the impact of any development on the habitat and wildlife of the reserve.

Traffic Issues:

5. ROUNDABOUTS

5 submissions in total

Equal support for the roundabout at Allington Crescent or the bend with some submissions advocating retention of its current position.

6. PARKING ON KALANG ROAD

7 submissions in total

Submissions concerned about no reduction to the number of existing parking spaces, 1 about access to the footpath from parked cars and congestion in the village centre.

7. MEDIAN ON KALANG ROAD

4 submissions in total

Mentioned by 4 submissions regarding ensuring safe maneuvering if median is introduced.

8. REAR LANEWAYS

2 submissions in total

Laneways already exist and are already blocked in some places. Submission suggests property acquisition to widen laneways to improve ease of use.

9. TRAFFIC IMPACTS ON SURROUNDING STREETS

2 submissions in total

Concern about any potential traffic increase on St Andrews Gate and other local streets.

10. PEDESTRIAN CROSSINGS / CALMING DEVICES

4 submissions in total

Submissions preferred clearly defined pedestrian crossings in at least 3 locations.

11. BUS STOP LOCATION

6 submissions in total

Concern about the bus stop creating danger if relocated and advocating more public transport for the area generally.

12. KALANG ROAD CHARACTER

4 submissions in total

Support a shareway with low speed environment, new village square but located at the intersection of St Andrews Gate and Kalang Road and wider footpaths.

Landscape / Public Domain Issues:

13. PUBLIC SEATING

1 submission in total

Concern in regards to the design of any seating pods.

14. PUBLIC TOILETS

1 submission in total

Advocating the need for public toilets within the village centre.

15. TREES/PLANTING

3 submissions in total

Low planting only to allow views from vehicles when maneuvering, retention of existing Angophoras and restrict planting to indigenous species only for the village centre.

Built Form Issues:

16. HEIGHT OF BUILDINGS

9 submissions in total

Preference for 2 storeys only or 3 storeys with setback to 3rd level.

17. CHARACTER OF ARCHITECTURE

3 submissions in total

Concern over new units in the village centre.

18. ZONING

4 submissions in total

Concern about whether there is demand for new retail space, but also support for more cafes and shops in other submissions.

19. ESD (Ecologically Sustainable Development)

2 submissions in total

Suggestion from the community to address sustainability in the new controls for Elanora Heights Village Centre, including measures to encourage green roofs, installation of solar panels for private and public domain and rainwater harvesting.

The project team and GMU have considered the content and direction of the submissions for the Draft Master Plan Options Report and Traffic Report. A number of community suggestions have been incorporated into the preferred draft master plan.

The project team's response to the issues and ideas raised are as follows:

- Preferred master plan to be based on Option 2 Master Plan, but with the single residential lot between the existing commercial zone and the community centre car park to be included in the commercial zone to improve connection to the community centre and avoid an isolated lot. This will provide better address to the village centre without requiring a mid block link through a future development site further to the north and is more likely to be realised in the medium term;
- The character of the village centre will capture its role as a small village centre with 3 storeys still delivering a low scale pedestrian friendly environment;
- The access to the community centre will remain at the southern end of the village but redevelopment of the adjacent residential lot will require setbacks

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to retain existing landscape to the street and provide a better view line to the carpark and community centre. Redevelopment will also be required to activate the lot frontage to the car park;

- Kywong Reserve will continue in its current role as informal reserve. Council will review the use of the reserve in the medium term to consider opportunities for informal connections for pedestrians and information boards on flora and fauna as part of a management strategy review. However, the master plan will pursue the opportunity to provide an additional linkage to the reserve through the redevelopment of the existing residential lots to the south west;
- Relocation of the existing roundabout to the intersection of Kalang Road and St Andrews Gate to the bend in Kalang Road. This will provide opportunities to create a southern gateway and connect the two parts of the village centre together visually and for pedestrians. Options for U-turn locations within the main street were not supported by the Traffic Committee due to technical issues and safety;
- Maximising the opportunities for on-street parking by relocating the existing bus stop in Kalang Road in the future to the new southern part of the village. This will also improve pedestrian movement down to the southern portion of the village. Kerb side parking will also be maximised in St Andrews Gate close to the intersection of Kalang Road. New developments in the village centre will provide on-site parking thereby improving the existing parking situation;
- The landscaped median will be adopted as it will allow safer use of the street for pedestrians and stop dangerous maneuvering into on-coming traffic for cars parking and leaving spaces in the street. Tree species will be used that allow underviewing of the canopy for drivers;
- The continued use of the rear laneways will be incorporated with opportunities for laneways to be connected over time supported in the master plan. However, this will be a long term strategy due to existing strata lots that block the lane connection potential currently. Acquisition of adjacent residential lots to allow wider laneways is not considered feasible or achievable even in the long term and has not been adopted;
- New raised pedestrian crossing points will be adopted with one location to the northern portion of Kalang Road and one to the southern portion of the roadway in the future. The proposed narrower carriageway widths created by the median will reduce vehicle speeds and maximise pedestrian safety. Any additional crossing points would not meet traffic criteria requirements and cannot be introduced. It is proposed that the new speed limit for the village centre will be 40km/h;
- The existing bus stop is proposed to be relocated to adjacent to the new village square just south of St Andrews Gate on Kalang Road as suggested in submissions. The relocation of the proposed public space in Option 1 to the intersection of St Andrews Gate and Kalang Road as part of any new development is supported and is now included in the preferred master plan;
- A public toilet has been included in the second stage of the Landscape Master Plan;
- Option 1, at present, has been found not to be viable. However, depending on future changes in the Elaniora Heights Locality, this option may be revisited in the future; and
- Ecologically Sustainable Development (ESD) will be introduced as part of the controls in order to reduce the reliance on fossil fuels, green house gas emissions and the uses of energy and water. These measures will encourage renewable energy initiatives and water sensitive urban design.

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4.1. INTRODUCTION

In addition to the private domain and built form master plan GMU has been requested by Pittwater Council to provide a public domain landscape master plan for Elanora Heights Village Centre.

The Landscape Master Plan represents the overall concept for the area in terms of new planting and public areas, such as village square, public seating and upgrades on the street that would encourage slower and safer traffic, as well as easy access to the village by car, public transport, walking or cycling.

The Landscape Master Plan will be delivered in 2 stages. The first stage will extend from Powder Works Road to St Andrews Gate. The second stage includes changes that will be achieved in part through contributions created through the implementation of this village centre DCP that will also apply to the built form and zoning of the village centre.

Stage 1 includes works up to the existing building lines to each side of Kalang Road including the existing carriageway. The main changes will include:

- Providing a median to the main part of Kalang Road between Powder Works Road and St Andrews Gate;
- Enhanced raised pedestrian crossings with different material treatment at the centre of Kalang Road;
- New street trees along both footpaths, interspersed between parking spaces, and along the new median and crossing;
- Upgrade to footpath paving through selected patterns, colours and materials;
- Introduction of alfresco dining pods along the western verge of Kalang Road;
- Introduction of new painted asphalt for parking areas;
- Introduction of new street lighting, public seating, bins, bike stands and art works; and
- Provision of new landscape marker to mark the entry into the village centre.

Stage 2 extends from St Andrews Gate to the Community Centre including the intersection and existing roundabout. The changes proposed will coordinate with the proposed public domain outcomes in the Built Form Master Plan. The main changes will include:

- Extension of the public domain improvements introduced in Stage 1 to the southern end of the village at the bend in Kalang Road close to the Community Centre;
- Relocation of the roundabout to the southern end of the village to provide gateway entry from the south;
- Replacement of driveway in front of 58 Kalang Road with new on-street parking spaces assuming future redevelopment of the site with access from the rear;
- New village square on the south west corner of the intersection of Kalang Road and St Andrews Gate;
- Relocation of bus shelter north of St Andrews Gate to the new location near the new village square;
- Introduction of new raised pedestrian crossing with different material treatment south of St Andrews Gate; and
- Extension of new street lighting, public seating, bins, bike stands and art works south of St Andrews Gate.

4.2. DESIGN PRINCIPLES

The following are design principles that will apply to the public domain for Elanora Heights Village centre. The principles are:

Public Open Space and Landscape Character

- To ensure a high quality public domain throughout all areas of the village precinct;
- To provide green markers at the arrival points at the village centre through significant landscape and trees;
- To enhance the character of the main shopping area through introduction of a landscaped boulevard with taller trees and understorey species in the central median and smaller trees interspersed with parking on both verges;
- To create opportunities for outdoor dining, planter boxes and seating niches within the verges to both sides of the street;
- To create opportunities for outdoor dining and public seating areas as part of the grade change from the level of the shops to the street along the western verge on Kalang Road north of St Andrews Gate;
- To encourage greater knowledge of Kywong Reserve as a natural habitat of various species and a green open space with passive recreational opportunities; and
- To create an attractive plaza or gathering space at the western verge south if St Andrews Gate as an ideal meeting place at the heart of the village.

Movement Networks

- To enhance activation along the length of the main street from the northern entrance at Powder Works Road to the southern entrance at the Community Centre;
- To promote a pedestrian friendly environment with the introduction of a reduced speed zone, coloured and textured surface treatments and improved pedestrian refuges from the northern entrance at Powder Works Road to the southern gateway at the Community Centre;
- To improve the pedestrian movement, safety and ease of manoeuvrability across level changes from the shop fronts to the edge of the street through public domain improvements along the village street verges;
- To create a footpath network on both sides of Kalang Road that maximises opportunities for outdoor seating, casual interaction, window shopping and ease of strolling up and down the village centre;
- To upgrade the design of pedestrian crossings and refuges at the intersection of Kalang Road and St Andrews Gate to combine the existing northern and southern sections of the precinct into one consolidated shopping strip, as part of stage 2;
- To improve the visibility and connectivity of the existing Community Centre and children's playground to Kalang Road and the rest of the village centre;
- To minimise the impact of public and school buses within the core area of the village centre by relocating the existing bus stop further along Kalang Road south of St Andrews Gate on the western verge, as part of Stage 2;
- To minimise community concern regarding traffic movements within Kalang Road with the introduction of a median north of St Andrews Gate;
- To facilitate the long term upgrade and use of Kywong Reserve by providing more frequent and safer pedestrian links from the village centre to the reserve; and
- To provide safe access to the centre of the village for persons with movement disability, which includes providing ramps and lower kerbs where required.

Parking and Servicing

- To improve the amenity of car parking areas and minimise vehicle-pedestrian conflicts within the village centre;
- To require the provision of basement parking for all new mixed use development along Kalang Road. This will increase parking opportunities in the centre;
- To maintain laneway access to the rear of existing mixed use development to minimise the impact of loading and servicing on the existing centre;
- To ensure that new mixed use development provides vehicle and servicing access in locations that minimise impacts along Kalang Road and to any adjoining residential development;
- To provide parallel parking along the western edge of Kalang Road south of St Andrews Gate and 90 degree parking to all other frontages;
- To improve the appearance and functionality of the surface car park at the Community Centre, as part of stage 2; and
- To provide bicycle facilities i.e. storage racks at several points throughout the centre.

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4.3. LANDSCAPE MASTER PLAN

The Landscape Mater Plan for Elanora Heights Village Centre will be delivered in two Stages as shown on the adjacent diagrams. Stage 1 includes works up to the existing building lines to each side of Kalang Road between Powder Works Road and St Andrews Gate including temporary measures for some of the lots while these redevelop such as the provision of temporary access for the property located at the corner of Powder Works Road and Kalang Road along the western verge.

Stage 2 extends the proposed public domain upgrades south of St Andrews Gate up to the Community Centre including the intersection and existing roundabout as well as providing permanent vehicular access solutions for when properties redevelop over time. It is envisioned that the proposed upgrades as part of Stage 2 will be achieved in part through Council in conjunction with contributions generated by the implementation of the master plan for the village centre. While a number of general upgrades will occur as part of both stages, a few specific upgrades will occur only as part of each stage.

The general upgrades that will happen as part of both Stage 1 and 2 include the introduction of new street trees along both footpaths, interspersed between parking spaces and along the new median and crossing. Option 1 and 2 will also include as well as upgrades to footpaths through selected paving patterns, colours and materials. Both Stages include the introduction of new street lighting, public seating, bins, bike stands and art works. Other general improvements that will occur as part of both stages include the provision of a median to the main street and the introduction of painted asphalt for parking areas.

The main difference between the two Stages is the extension of the improvements to the southern end of the village centre at the bend in Kalang Road close to the Community Centre and the introduction of a new village square and public toilet on the south west corner of the intersection of Kalang Road and St Andrews Gate which will take place as part of Stage 2.

Other main differences between Stage 1 and 2 are the retention of the existing driveway in front of 58 Kalang Road on Stage 1 and the removal of the access driveway from the front assuming future redevelopment of the site with access from the rear and the provision of new on-street parking spaces in place of the driveway as part of the permanent solution for this site provided on Stage 2. Stage 1 also proposes the temporary retention of the existing bus shelter along the western verge of Kalang Road while Stage 2 proposes the relocation of the bus shelter to a new location near the new village square.

The introduction of alfresco dining pods along the western verge of Kalang Road will happen only as part of Stage 1 due to the unique topography and width of the verge along that footpath.

An enlarged version of the Landscaped Master Plan is presented in the following pages. Due to the extended area covered by Stage 2, this is presented in two pages, divided into North (north of St Andrews Gate) and South (south of St Andrews Gate).

Stage 1

Stage 2

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4.4. LANDSCAPE MASTER PLAN - NORTH - STAGE 1

LEGEND - HARDSCAPE + STREET FURNITURE

1. PAINTED ASPHALT
2. MARKER OF ENTRY TO THE VILLAGE - STREET SCULPTURE
3. RAISED PEDESTRIAN CROSSING WITH DIFFERENT TREATMENT
4. GRANITE PAVING WITH PATTERN DIFFERENTIATING PUBLIC FROM PRIVATE AREA, (SAME COLOUR SCHEME)
5. STREET LIGHT
6. PUBLIC SEATING (TIMBER + CONCRETE)
7. RUBBISH BIN
8. ALFRESCO DINING
9. BUS SHELTER (AS EXISTING)
10. BIKE STAND
11. EXISTING DRIVEWAY TO CAR PARK (61 KALANG ROAD)
12. EXISTING BUILT FORM EDGE
13. EXISTING COLONNADE - BUILT FORM EDGE
14. EXISTING ROUNDABOUT

LEGEND - TREE + PLANTING

A. FEATURE TREE 1 - ENTRY TO VILLAGE
B. FEATURE TREE 2 - BETWEEN PARKING
C. MEDIAN PLANTING
D. EXISTING TREE
E. STREET TREE
F. CROSSING FEATURE TREE
G. PLANTING-HEDGE
H. SOFTENING OF THE RETAINING WALL - LANDSCAPE EDGE WITH FEATURE WALL (GREEN OR ART WALL + LIGHTS)

0 5 10 15 20 25m

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4.5. LANDSCAPE MASTER PLAN - NORTH - STAGE 2

LEGEND - HARDSCAPE + STREET FURNITURE

1. PAINTED ASPHALT TO DIFFERENTIATE PARKING AREA
2. MARKER OF ENTRY TO THE VILLAGE - STREET SCULPTURE
3. RAISED PEDESTRIAN CROSSING WITH DIFFERENT COLOUR
4. GRANITE PAVING WITH PATTERN DIFFERENTIATING PUBLIC FROM PRIVATE AREA. (SAME COLOUR SCHEME)
5. STREET LIGHT
6. PUBLIC SEATING (TIMBER + CONCRETE)
7. RUBBISH BIN
8. ALFRESCO DINING
9. NEW PARKING INSTEAD OF BUS STOP (BUS STOP MOVED TO SOUTH)
10. NEW PARKING INSTEAD OF DRIVEWAY (61 KALANG RD)
11. NEW BUILT FORM EDGE - WITH 3.5M SETBACK FOR EXTRA FOOTPATH AREA
12. COLONNADE - BUILT FORM EDGE - TO BE CONTINUED
13. ROUNDABOUT MOVED TO THE SOUTH

LEGEND - TREE + PLANTING

A. FEATURE TREE 1 - ENTRY TO VILLAGE
B. FEATURE TREE 2 - BETWEEN PARKING
C. MEDIAN PLANTING
D. EXISTING TREE
E. STREET TREE
F. CROSSING FEATURE TREE
G. PLANTING-HEDGE

0 5 10 15 20 25m

Adopted : 15 December 2014
In Force From: 20 December 2014

4.6. LANDSCAPE MASTER PLAN - SOUTH - STAGE 2

LEGEND - HARDSCAPE + STREET FURNITURE

1. PAINTED ASPHALT TO DIFFERENTIATE PARKING AREA
2. NEW VILLAGE SQUARE WITH ICONIC SCULPTURE AND SEATING
3. RAISED PEDESTRIAN CROSSING WITH DIFFERENT COLOUR
4. GRANITE PAVING WITH PATTERN DIFFERENTIATING PUBLIC FROM PRIVATE AREA (SAME COLOUR SCHEME)
5. STREET LIGHT
6. PUBLIC SEATING (TIMBER + CONCRETE)
7. RUBBISH BIN
8. BUS SHELTER
9. BIKE STAND
10. NEW BUILT FORM EDGE - WITH 3.5M SETBACK FOR EXTRA FOOTPATH AREA
11. NEW ROUNDABOUT
12. POTENTIAL LOCATION OF PUBLIC TOILET

LEGEND - TREE + PLANTING

A. FEATURE TREE 1 - ENTRY TO VILLAGE
B. FEATURE TREE 2 - BETWEEN PARKING
C. MEDIAN PLANTING
D. EXISTING TREE
E. STREET TREE
F. CROSSING FEATURE TREE
G. PLANTING-HEDGE

0 5 10 15 20 25m

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4.7. PRECEDENT IMAGES - HARDSCAPE

CONCRETE PAVERS - COLOURED CONCRETE BLOCKS FOR STREET AND CAR PARKING AREA







RAISED PEDESTRIAN CROSSING


PEDESTRIAN PAVING - GRANITE BLOCKS IN GREY TONE AND DIFFERENT COLOUR BAND TO DIFFERENTIATE SPECIAL AREAS



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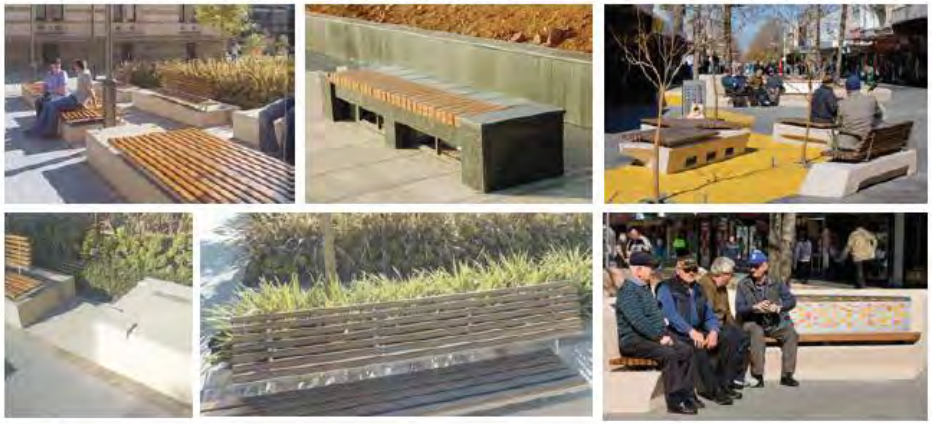
4.8. PRECEDENT IMAGES - LIGHTING + STREET FURNITURE

STREET LIGHT - TRADITIONAL OR MODERN WITH LED SOLAR LIGHT

PUBLIC SEATING - TIMBER AND CONCRETE BENCHES COMBINED WITH SHADING FROM AN UMBRELLA



RUBBISH BIN

Adopted : 15 December 2014
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4.9. PRECEDENT IMAGES - SCULPTURE + STREET FURNITURE

ICONIC SCULPTURE

ALFRESCO DINING

BUS SHELTER

BIKE STAND

PUBLIC TOILET (Stage 2)

Adopted : 15 December 2014
In Force From: 20 December 2014

4.10. PRECEDENT IMAGES - TREES

A. FEATURE TREE 1 - ENTRY TO THE VILLAGE (YELLOW FLOWERS IN SUMMER)

Golden Penda (Xanthostemon chrysanthus)

B. FEATURE TREE 2 - BETWEEN THE CARS (RED CANOPY IN AUTUMN)

Pistacia_chinensis

C. MEDIAN PLANTING - ALLOWING TO SEE THROUGH THE PLANTING

Brushbox (Lophostemon confertus) *Variegated Brushbox*

F. PEDESTRIAN CROSSING FEATURE TREE - (PURPLE IN SUMMER)

Crepe Myrtle (Lagerstroemia indica) *Alstonville (Tibouchina lepidota)*

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4.11.PRECEDENT IMAGES - PLANTING

G. PLANTING HEDGE




H. SOFTENING THE RETAINING WALL - LANDSCAPE EDGE WITH FEATURE WALL (GREEN OR ART WALL + LIGHTS)







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5.1. LEP AMENDMENTS

To implement the Draft Master Plan, it will be necessary to make amendments to insert additions to the existing Local Environmental Plan 1993 (PLEP 1993) and the existing Development Control Plan (Pittwater 21 DCP). The following sections set out the proposed changes and additional requirements that are proposed to be included in the LEP and DCP to implement the proposed master plan.

It is proposed to amend the LEP maps for zoning and shop top housing as shown in the adjacent maps, which are:

- To extend the 3(a) General Business "A" zone south of St Andrews Gate as shown on the map below; and
- Extend the shop top housing zone to south of St Andrews Gate, as shown on the map below to the right.

Amended LEP Zoning Map.

Amended LEP shop top housing Map.

5.2. PITTWATER 21 DCP AMENDMENTS

To implement the Draft Master Plan for the village, it is proposed to insert the following into the existing DCP.

This section is structured to reflect the existing contents and format of the DCP. Therefore, the subsections refer to the relevant points and sections in the existing DCP.

5.2.1. Amendments to part A

The following is to be inserted to Pittwater 21 DCP, Part A - Shaping Development in Pittwater, Section A - 4.5 Elanora Heights Locality.

Desired Character Of Elanora Heights Village Centre

Elanora Heights is a small village centre with great sense of community, making it one of the great places to live in the northern beaches.

Local residents enjoy an easy-going lifestyle while shopping, dining and socializing in the lively village centre shops and cafes open onto the footpaths. The new town square on the western verge, south of St Andrews Gate, offers great choices for "breaky" or a good cup of coffee on the weekends. It offers public art and informal play opportunities for kids, and the favorite sunny spot of both young and senior residents.

Elanora Heights is a relaxed, easy-going place that has adapted gracefully over time with its improved public domain, tree-lined main street and characteristic, low scale, 3-storey built form with colourful facades and high quality architecture.

The architecture reflects the village atmosphere and coastal location. Buildings abut each other along both sides of Kalang Road. Driveways do not interrupt the pedestrian verges. The deep balconies to the upper levels create a play of light and shade on the facades. The use of natural materials enhances the facades and streetscape. The lower scale edges of the buildings to the rear of the properties and St Andrews Gate create a gentle transition to the lower scale houses.

The community centre, its adjacent open space with tall trees, shade canopies and playground space are ideal for the locals to meet and attend community events.

Lush planting and shading devices along generous footpaths give plenty of shade to pedestrians. The landscaped verges have regular seating areas that do not interrupt the flow of pedestrians past the shop fronts.

The extensive street trees give Kalang Road a dappled, leafy character emphasised by the tree planted central median.

The street frontages of the new buildings are active with well designed, fine grain shop fronts and high quality signage under the colonnade on the western verge along Kalang Road or under the awnings along the eastern verge. Together with the landscape master plan and the built form they create a holistic vision and character for the village centre.

The design principles underpinning the desired character for Elanora Heights Village Centre are:

- To enhance and activate the existing character of Kalang Road;
- To create a high quality public domain environment;
- To encourage upgrades to existing properties and shops;
- To ensure development achieves design excellence;
- To create a strong sense of place as a small scale coastal village centre;
- To extend the village centre uses and activity to the southern block on Kalang Road;
- To ensure the whole length of the village centre is active and vibrant with increased visitation to the southern block;
- To ensure the village retains a low scale fine grain character;
- To maximize opportunities for cafes and restaurants;
- To announce arrival at the village centre through architectural and landscape markers;
- To improve visibility of the existing Community Centre and children's playground to Kalang Road and the rest of the village centre; and
- To encourage greater knowledge of Kywong Reserve.

Locality map showing location and boundary of Elanora Heights Village Centre - (To be included in Part A of the DCP).

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5.2.2. Amendments to part D

The following new sections will be added to Part D - Locality Specific Development Controls, Section D5 - Elanora Heights Locality. The outcomes and controls within each of the sections are described on the following pages. The new sections to be added are:

D5 – BUILT FORM (Elanora Heights Village Centre)
- Amalgamation
- Height
- Front Building Line
- Side And Rear Building Line
- Setbacks To Upper Levels
- Separation
- Building Depth
- Ceiling Height

D5 – ARCHITECTURAL CHARACTER (Elanora Heights Village Centre)
- Design Excellence
- Façade Articulation
- Materials
- Colours
- Entries
- Business Identification Signs
- Active Frontages
- Awnings And Colonnades
- Eaves
- Roof Forms
- Fences
- Ecological Sustainable Development Responsive Design (ESD)

D5 – LANDSCAPE CHARACTER (Elanora Heights Village Centre)
- Public Domain
- Landscaping

D5 – AMENITY (Elanora Heights Village Centre)
- Solar Access
- Visual Privacy
- View Sharing
- Private Open Space
- Natural ventilation
- Acoustic Privacy
- Storage

D5 - VEHICULAR ACCESS, PARKING AND SERVICING (Elanora Heights Village Centre)
- Vehicular Access
- Laneway Access and Character
- Off-Street Vehicle Parking Requirements
- Servicing – Waste Management and Recycling

The following sections of Part D5 – Elanora Heights Locality need to be amended as follows. New controls for Elanora Heights Village Centre dealing with these requirements will be provided in new sections to be added to Part D, Section D5 - Elanora Heights Locality listed above. Where Advisory Notes are provided, these need to be added.

D5.1 Character as viewed from a public place (Excluding Elanora Heights Village Centre)

Advisory Notes

For specific controls in relation to Elanora Heights Village Centre, refer to Part D5 – Architectural Character and Part D - Landscape Character of this DCP.

D5.3 Building colours and materials (Excluding Elanora Heights Village Centre)

Advisory Notes

For specific controls in relation to Elanora Heights Village Centre, refer to Part D5 – Architectural Character of this DCP.

D5.4 Height (Excluding Elanora Heights Village Centre)

Advisory Notes

For specific controls in relation to Elanora Heights Village Centre, refer to Part D5 – Built Form of this DCP.

D5.5 Front building line (Excluding Elanora Heights Village Centre)

Advisory Notes

For specific controls in relation to Elanora Heights Village Centre, refer to Part D5 – Built Form of this DCP.

D5.6 Side and rear building line (Excluding Elanora Heights Village Centre)

Advisory Notes

For specific controls in relation to Elanora Heights Village Centre, refer to Part D5 – Built Form of this DCP.

D5.7 Building envelope (Excluding Elanora Heights Village Centre)

Advisory Notes

For specific controls in relation to Elanora Heights Village Centre, refer to Part D5 – Built Form of this DCP.

D5.8 Site coverage – General (Excluding Elanora Heights Village Centre)

D5.11 Fences – General (Excluding Elanora Heights Village Centre)

Advisory Notes

For specific controls in relation to Elanora Heights Village Centre, refer to Part D5 – Architectural Character of this DCP.

D5.13 Construction, Retaining walls, terracing and undercroft areas (Excluding Elanora Heights Village Centre)

Advisory Notes

For specific controls in relation to Elanora Heights Village Centre, refer to Part D5 – Built Form of this DCP.

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D5 – BUILT FORM (ELANORA HEIGHTS VILLAGE CENTRE)

The following chapter will be added to Part D - Locality Specific Development Controls, Section D5 - Elanora Heights Locality. The requirements written below refer only to Elanora Heights Village Centre, which will be excluded from chapters number: *D5.4 - Heights, D5.5 - Front building line, D5.6 - Side and rear building line, D5.7 - Building envelope and D5.13 - Construction, Retaining walls, terracing and undercroft areas* relating to Elanora Heights Locality. Amendments to those chapters have been described on page 32. Elanora Heights Village Centre locality will be also excluded from chapters in Part B of the DCP number: *B2.3 Subdivision - Business zoned land*. Amendments to this chapter have been described on page 49.

AMALGAMATION

Outcomes

- Amalgamation improves economic feasibility for redevelopment to occur, strengthens the village character and allows for reduced requirements for site access and servicing; and
- Avoid isolated sites due to future development patterns.

Controls

- Lots to amalgamate are shown on the Potential Amalgamation Pattern Diagram;
- Amalgamation is to allow single car park and service access from rear laneways for all lots north of St Andrews Gate;
- **The amalgamation pattern is to allow single car park and service access from specific points for lots south of St Andrews Gate along the eastern verge in the event that some of the existing buildings do not redevelop. Relocation of access to the rear is preferred if lots do redevelop; and**
- Alternative amalgamation patterns may be considered by Council only if they enable lots to relocate their vehicle access to the rear of lots wherever possible.

Variation

- Where it can be demonstrated (by way of written confirmation from majority of owners) that adjoining properties are unwilling to participate in redevelopment, single lot redevelopment will be considered.

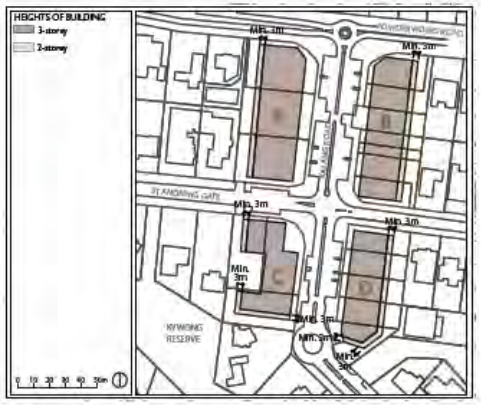
HEIGHT

Outcomes

- To achieve the desired future character of the Elanora Heights Village Centre Locality;
- To ensure development creates a low scale village character;
- To provide transition from medium density in the village centre to lower scale development in the residential zone;
- To achieve a reduction in bulk to adjoining low scale residential areas;
- Equitable preservation of views and vistas to and/or from public/private places;
- To encourage buildings to respond sensitively to natural topography; and
- To achieve a human scale to Kalang Road.

Controls

- The maximum height of a building or structure shall not exceed the heights indicated in the diagram;
- Maximum height is 11m above natural ground level;
- Maximum number of storeys is 3 storeys;
- Buildings are to provide interesting roof forms within the overall height control;
- Maximum height in the transitional areas as per the height diagram is 2 storeys and 8.5m; and
- The minimum setback length of the 2 storey transitional height zone is 3m as per the setback diagram to the right.



FRONT BUILDING LINE

Outcomes

- To achieve a consistent street alignment;
- To ensure retail uses activate the public domain;
- To achieve a strong edge and sense of enclosure to Kalang Road;
- To provide adequate exposure to shop fronts and avoid opportunities for concealment at ground level;
- To improve pedestrian amenity and avoid interruptions in pedestrian flow; and
- To ensure new development responds to, reinforces and sensitively relates to the spatial characteristics of the existing urban environment.

Controls

- The minimum front building line shall be in accordance with the following diagram on the next page;
- Built structures other than external seating areas, retaining wall, garden beds and where unavoidable driveways are not permitted within the front building setback;
- The front building line to the ground floor is to be consistent and to establish a continuous retail street edge and shopfront to Kalang Road;
- The front building line on the western block north of St Andrews Gate to Kalang Road is to be aligned between 6.7m to the southern end of the blocks and 7.2m to the northern end of the block as per the diagram. This setback is to maintain the current building alignment and allow generous landscaped verge and footpath providing transition from street to shop level;

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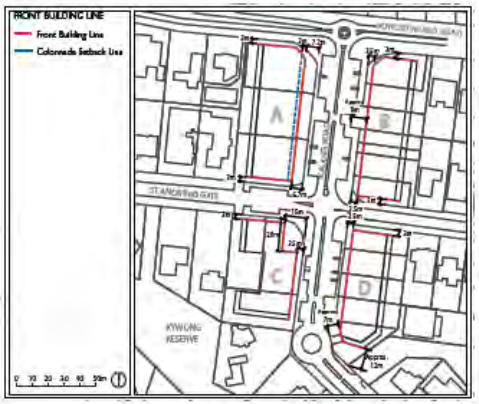
D5 – BUILT FORM (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

- Upper levels fronting the street must be activated in accordance with the Front Building Line Diagram;
- An additional 3m setback is to be provided to create a colonnade for the ground floor of all new development as shown on the diagram; and
- Provide a corner splay with dimension of approximately 12m to the corner of the lot to the north of the community carpark, in Block D, to improve visual connection to the carpark and community centre and to retain existing trees to the street edge.



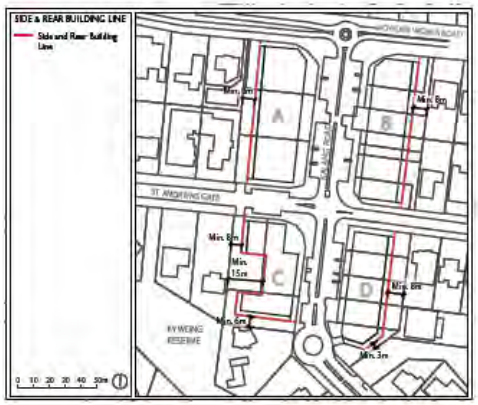
SIDE AND REAR SETBACKS

Outcomes

- The bulk and scale of the built form is minimised at appropriate locations to adjacent low scale residential neighbourhoods;
- Equitable preservation of views and vistas to and/or from public/private places;
- To ensure a reasonable level of privacy, amenity and solar access is provided within the development site and maintained to adjacent properties;
- To ensure a landscaped buffer between commercial and residential zones is established;
- To allow the opportunity for a continuous rear laneway to allow adequate space for access to the rear of retail/commercial properties; and
- To minimise driveway crossings of verges to Kalang Rd.

Controls

- The minimum rear setbacks to buildings and balconies to all blocks is to be 8m. For Block C an additional rear setback of 15m is required for the central portion of the block to allow solar access and communal open space with any development. The minimum side setback to the southern end of block D is to be 3m. The minimum side setback to the southern end of block C is 6m;
- For all other lots the side setback is nil;
- Provide rear setback of minimum of 8m to allow for future continuous laneway and planting strip (as per Section Diagrams and Side and Rear Building Line Diagram); and
- Existing properties that do not provide a compliant setback do not set a precedent for new development.



SETBACKS TO UPPER LEVELS

Outcomes

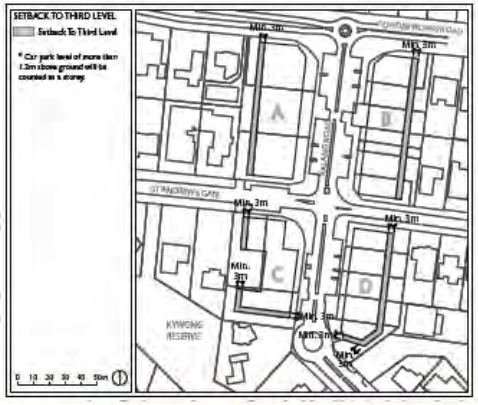
- The bulk and scale of the built form adjacent to adjoining low scale residential properties and to courtyard spaces is minimised;
- To ensure a reasonable level of privacy, amenity and solar access is provided within the development site and maintained to adjoining residential properties; and
- To ensure the built form of new development transitions are in scale to existing development surrounding the village centre.

Controls

- A minimum setback of 3m is to be provided to the third floor of all development to the rear of the lot;
- A minimum setback of 3m is to be provided to the third floor of any development on Block D and to the southern lot;
- An articulated setback to the front building line, as shown in Section Diagram AA and BB is required; and
- A minimum setback of 3m is to be provided to the southern most lot of Block C to maintain reasonable solar access to the adjacent lot.

Variations

- Eaves or shading devices that provide shade in summer and maximise sunlight in winter shall be permitted to extend beyond the required setback to a maximum of 1m.



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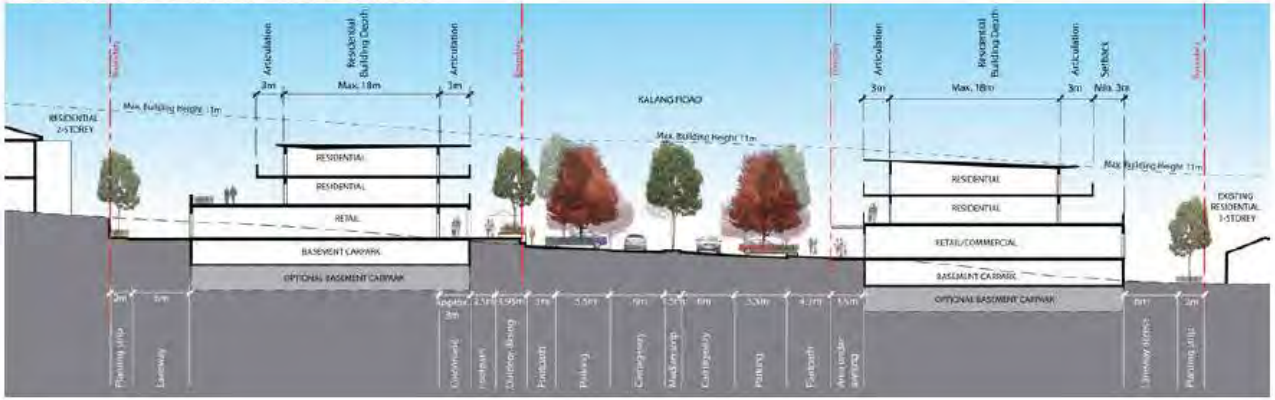
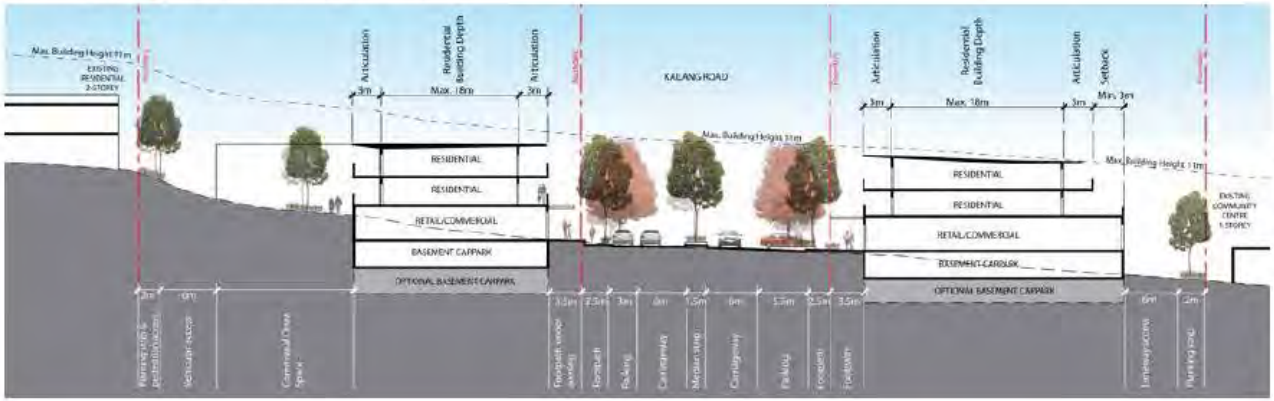
D5 – BUILT FORM (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

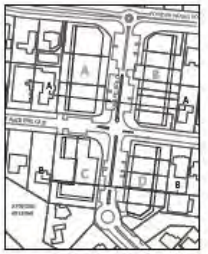
Section A:A through Elanora Heights Village Centre – North (north of St Andrews Gate)



Section B:B through Elanora Heights Village Centre – South (south of St Andrews Gate)



Location of section lines.



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D5 – BUILT FORM (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

SEPARATION

Outcomes

- To maintain reasonable amenity to adjoining properties;
- To minimise bulk and scale of new development to adjoining development.
- To ensure that new development is scaled to support the desired future character of the village centre with appropriate massing and spaces between buildings;
- To allow adequate space for access to rear of retail/commercial properties;
- To ensure adequate landscaped open space and communal area for larger sites; and
- To ensure high levels of amenity to new dwellings that reinforces the 'fine grain' or continuous narrow frontage lot pattern.

Controls

- A minimum of 50% of the required distance are to be provided within the boundary of any development site. This requirement is based on the reasonable expectation that the remaining 50% will be provided on the adjoining property.

The required separation distances between buildings are:

- 12 metres between windows of habitable rooms/balconies;
- 9 metres between windows of habitable/balconies and non-habitable rooms; and
- 6 metres between windows of non-habitable rooms or blank walls.

The above separation distances are to be applied to any residential floor and any adjoining building.

BUILDING DEPTH

Outcomes

- To achieve high levels of solar access and cross ventilation;
- To maximise opportunities for outlook;
- To minimise building bulk to St Andrews Gate and Powder Works Road;
- To ensure reasonable separation to adjoining low scale residential dwellings;
- To encourage design of through apartments; and
- To encourage multiple cores with dual aspect and cross ventilated apartments.

Controls

- The maximum depth of a residential apartment building within the Elanora Heights Village Centre is to be between 10m - 18m excluding balconies;
- Single-aspect apartments should be limited in depth to 8 metres from a window; and
- The dual aspect apartments should not exceed 15m depth with minimum of 4m width to avoid deep narrow apartment layouts.

CEILING HEIGHT

Outcomes

- To provide for well proportioned rooms and appropriate space in the apartments;
- To achieve flexibility for future use; and
- To provide an appropriate level of amenity, natural cross ventilation and solar access in the apartments.

Controls

- The following floor to ceiling dimensions measured from finished floor level to the internal ceiling are required for new developments in Elanora Heights Village Centre:
  - 3.3m minimum for ground floor to provide for retail/commercial use;
  - 2.7m minimum for habitable rooms levels first floor and above;
  - 2.4m minimum for non-habitable rooms; and
  - In two storey units, minimum of 2.4m for upper floor if containing bedrooms and wet areas.

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D5 – ARCHITECTURAL CHARACTER (ELANORA HEIGHTS VILLAGE CENTRE)

The following chapter will be added to Part D - Locality Specific Development Controls, Section D5 - Elanora Heights Locality. The requirements written below refer only to Elanora Heights Village Centre, which will be excluded from chapters number *D5.3 - Building colours and materials* and *D5.11- Fences - General* relating to the Elanora Heights Locality. Amendments to those chapters have been described on page 32. Elanora Heights Village Centre Locality will be also excluded from chapters in Part C of the DCP number: *C1.10* and *C2.7 Building facades, C2.3 Awnings* and *C2.8 Energy and water conservation and C2.11 Business identification signs*. Amendments to these chapters have been described on page 49.

DESIGN EXCELLENCE

Outcomes

- To achieve high quality of architecture, landscape architecture and urban design for Elanora Heights Village Centre;
- Quality buildings that respond to their prominent visual setting; and
- Contemporary village character.

Controls

- Development consent must not be granted unless the consent authority is of the opinion that the proposed development exhibits design excellence;
- In considering whether design excellence has been achieved, the consent authority must have regard to whether:
  - A high standard of architectural design, materials and detailing appropriate to the building type, the village centre character and site location has been achieved;
  - The form and external appearance of the development will improve the visual amenity of the Village; and
  - The bulk, massing, footprint, positioning and modulation of the built form, enhance the village centre character and does not result in adverse impacts to the village or neighbouring residential properties.

FAÇADE ARTICULATION

Outcomes

- Façade design along Kalang Road is to enhance the village character with the use of compatible elements to the existing height, scale, frontage width, configuration of openings as well as colours and materials used; and
- Facades along the main street provide a high quality, contemporary architectural designs that enhances the village centre's unique 'sense of place'.

Controls

- The village character is to be strengthened through the application of compatible ratios of open to solid walls with the rest of the village centre as well as the use of sympathetic fenestrations, horizontal and vertical alignments and the distribution of colours and materials;
- Provide articulation to building facades through the use of balconies, insets, projecting elements (not encroaching into setbacks) and vertical proportions that respond to the original fine grain subdivision pattern;
- Express the base and middle portions of building to create an interesting building form, including an interesting roof profile for the top of the building.
- Facades should not be totally occupied by balconies;
- Side walls are to provide visual interest through articulation, different materials or fenestration where they will be exposed to the public domain in the medium or long term;
- Shop fronts are to respect the existing narrow lot configuration;
- Maximise passive solar control and achieve visual interest through the use of sun shades, louvers, and screens as required by different orientations;
- Elevations and building forms are to be articulated to contribute to the overall visual aesthetics for building facades;
- Side facades are to enhance the visual quality of the village where they will be exposed in short to medium terms;
- The façade design, screening and fenestration should respond to its orientation or aspect; and
- The use of parapets is strongly discouraged.

Character images for Facade articulation.

ROOF FORMS

Outcomes

- Roof forms contribute positively to the streetscape character of the village;
- Roof forms provide a contemporary interpretation of traditional roof forms;
- Roof lines and profiles add to the architectural interest to the village centre roofscape providing an interesting silhouette; and
- Roof forms are to allow the opportunity for view-sharing above the developments on the eastern side of Kalang Road.

Controls

- Preferred roof forms include skillion, low pitched, folded curved or 'floating' roof forms;
- Steeply pitched and flat roofs (other than green roofs) are not permitted along Kalang Road and St Andrews Gate;
- Articulated forms with multi-planar elements are preferred to ensure a varied roofscape;
- When roof profiles are visible at corners and side elevations along St Andrews Gate and Powder Works Road, the roof profile is to be articulated to address the corner and side elevation;
- Roof mounted plant rooms, air conditioning units and other services and equipment shall be integrated within roof structures and architectural elements;
- Roof articulation should be achieved within maximum height and building envelope controls; and
- Green roofs and sky gardens are encouraged.

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D5 – ARCHITECTURAL CHARACTER (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

Character images illustrating Desired Roof forms

Character images illustrating examples of green roofs design.

MATERIALS

Outcomes

- Materials compliment and add to the contemporary village centre character; and
- The use of textures, colours and different materials create visual interest and variation.

Controls

- Maximise use of lightweight elements to respond to the contemporary village character;
- Maximise the use of natural materials to break up large expanses of solid masonry and continuous solid facades;
- Materials are to provide visual interest to all facades;
- Minimise blank and inactive walls;
- Materials and colours for new development are to be selected from the recommended palettes and material samples in order to enhance the village character;
- Innovative and creative architectural materials are encouraged;
- Building materials for corner buildings particularly those terminating views and vistas mark their 'gateway' or 'marker' status;
- Robust high quality materials e.g. stone, tiles, metal and timber cladding and brick are to be used;
- Renovations and fit outs are to use high quality and durable material that complement the rest of the streetscape;
- Minimise large areas of painted render that create long term maintenance issues;
- Use a combination of solid and glass balustrades to balconies; and
- Green walls are encouraged.

Character images illustrating green walls.

Character images illustrating desired materials.

Adopted : 15 December 2014
In Force From: 20 December 2014

D5 – ARCHITECTURAL CHARACTER (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

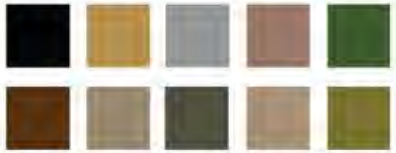
COLOURS

Outcomes

- Building colours and materials compliment and enhance the visual character of the village centre and integrate with the natural landscapes surrounding the village centre; and
- Building colours and materials harmonise with the natural environment.

Controls

- External colours and materials shall be earthy tones as shown below:



- White, light coloured, red or orange roofs and walls are not permitted;
- Limited use of corporate colours may be permitted within Elanora Heights Village Centre;
- Feature colour palette may include the following (maximum 10% of any elevation):

- Finishes are to be of a low reflectivity.

Advisory Notes

- Contact Council to ensure proposed roof colours are satisfactory.

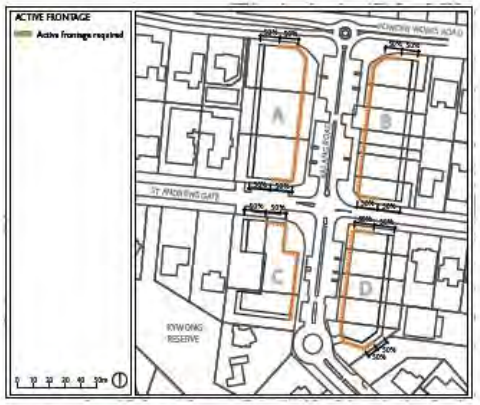
ACTIVE FRONTAGES

Outcomes

- Active and vibrant streetscapes contribute to a lively ground level for the village centre;
- Pedestrian links are safe, active and direct; and
- The community car park edge is activated to encourage connection from the Community Centre to the village centre.

Controls

- Active uses are to be provided to all ground floor uses to Kalang Road, public open spaces and to 50% of the building frontage to St Andrews Gate;
- Active uses include retail/commercial tenancies and building entries leading directly to the street;
- Buildings edging the public domain are to be designed to allow occupants to overlook public places (streets, parking, open space etc) and communal areas to maximise passive surveillance;
- Where provided, public facilities (toilets, telephone, ATMs, etc) are to be located so as to have direct access and to be clearly visible from well-used public spaces;
- Shop fronts should be predominantly glass with bi-folds for cafes/restaurants and should be capable of fully opening to the street;
- Outdoor leased seating spaces attached to the cafes and restaurants are encouraged provided pedestrian circulation is not interrupted;
- Shop fronts and building entries are to be appropriately lit at night;
- Security grills are prohibited to shop fronts;
- All car parking is to be underground and service exits and access are to be minimised or directed to the rear laneways unless where expressly permitted. Please refer to the landscape master plan;
- Blank walls are to be minimised to Kalang Road, the new village square, St Andrews Gate and pedestrian links;
- Building lobbies are to add interest and activation to the streetscape;
- Driveways are to be to be avoided on Kalang Road where possible to minimize the interruption to active frontages; and
- The location of required active frontages for Elanora Heights Village Centre is indicated on the Active Frontage Diagram.



Images illustrating active street frontages.

D5 – ARCHITECTURAL CHARACTER (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

ENTRIES

Outcomes

- Building entry points activate Kalang Road;
- Building entrances are visible from the street, easily identifiable and appropriately lit; and
- Building entries contribute to the streetscape character along Kalang Road.
- Secure, safe and separate entries for different uses are achieved.

Controls

- Where retail/commercial uses and residential dwellings are provided in the same development, separate entries are to be provided for the different uses;
- All entries to retail, commercial or residential uses are to be from Kalang Road or St Andrews Gate;
- Define residential entries in the design of the building with clearly legible architectural features;
- Pedestrian access is to be clearly defined, appropriately lit, visible in the development elevation;
- The street number of the property is to be clearly identifiable;
- Pedestrian access along the footpath shall not be impeded by landscaping, street furniture or other restrictions;
- Lift entries for residential uses should be visible from the street to maximise perceived safety; and
- Post boxes are to be located in a lobby area close to the entry. Corridors to lobby and lift are to be a minimum of 2.5m in width.

BUSINESS IDENTIFICATION SIGNS

Outcomes

- Coordinated signage design for Elanora Village Centre;
- Minimise visual clutter; and
- Prevent unsightly and inappropriate located signage is prevented.

Controls

- Retail signage should be located underneath awnings perpendicular to the facade providing sufficient clearance for pedestrians on the footpath;
- Signage painted or directly placed on the building facade above the awning level is prohibited as it clutters and hides the building facade and/or architectural features;
- Protruding signs above the awning level are also discouraged;
- Illuminated signage above the awning level or in any location is prohibited in the Elanora Heights village centre;
- A signage strategy is required as part of a development application at Council's discretion to indicate the location, size and type of proposed signage;
- High level signs are prohibited on blank side walls;
- Edge of awning signs are prohibited;
- The location where signage is allowed include (please refer to the Signage Diagram below):

Business Identification Signs (Signage) Diagram.

- Top hamper sign (attached to the transom of a doorway or display window of a building) provided that it:
  - shall not extend beyond any building alignment or below the level of the head of the doorway or window within the building upon which it is attached;
  - shall not exceed 600mm in height; and
  - shall not have an advertising area greater than 5sqm.
- Under awning sign (attached to underside of awning) provided that it:
  - shall not exceed 2.5m in length or 0.5m in height;
  - shall have an advertising area not exceeding 1.25sq m each side;
  - shall be erected horizontal to the ground no less than 2.6m above the ground, and at right angles to the building to which the awning is attached;
  - shall not project beyond the awning;
  - shall be securely fixed by metal supports; and
  - shall include no more than one per business.
- Window sign (painted letters stuck onto the inside or outside of a display window) provided that it:
  - Up to 25% of the window surface is covered so as to not obstruct completely the natural light and activation;
  - shall only be permitted on ground floor windows.
- Home occupation/industry and professional consulting rooms (sign associated with) no greater than 0.75 sqm in area provided that:
  - no more than 1 sign shall be erected;
  - the sign is to indicate the name and occupation of the business.
- The following business identifications signs shall not be permitted in Elanora Heights:
  - where erected on or above the roof, canopy, or parapet of a building;
  - where attached to the upperside of an awning;
  - where attached to the wall of a building and projecting more than 300mm from that wall above the awning line;
  - where illuminated at frequent intervals (ie flashing);
  - where capable of movement by source of power or wind;
  - where illuminated (within a residential zone);
  - where incorporates bill/fly posters, bunting and airborne signage, including hot air balloons, blimps, and the like; and
  - where located on motor vehicles and which renders the motor vehicle stationary.

AWNINGS AND COLONNADES

Outcomes

- Awnings provide weather protection for pedestrians and enhance the contemporary village character;
- Awnings are set back to allow uninterrupted street tree growth;
- Awnings are safe and structurally sound; and
- Awnings are visually attractive, of consistent width and height.

Controls

- Continuous awnings should be provided above ground level shops, commercial/retail uses and building entries along all village centre footpaths except for the western verge of the northern block to Kalang Road (where a colonnade is required);
- Awnings to be cantilevered off the main facade; no awnings supported from below by post and beam are permitted (please refer to the Awning Diagram on the next page);
- The underside of awnings should not be less than 3.2m above the footpath;
- Awnings shall be constructed of suitable and durable materials;
- Awnings should be compatible in alignment and height to adjoining awnings;
- The top of awnings should be a maximum depth of 3.5m to ensure they do not conflict with tree canopies;
- No signage is allowed along the awning facia;
- Awnings are to integrate under-awning lighting to create a positive night time experience and improve safety and surveillance;

Adopted : 15 December 2014
In Force From: 20 December 2014

D5 – ARCHITECTURAL CHARACTER (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

- Awnings using glass must be provided with a close white frit to minimise the visual impact of dirt;
- Colonnades to Block A, are required to the Kalang Road frontage;
- Colonnades are to be a minimum of 1-storey in height with a depth of 3m;
- Colonnades are to maximize the open frontage to the street; and
- No bracing, screen or other façade devices are to block the connection from the colonnade to verge.

Awning Diagram.

Character images illustrating desired awning design.

Character images illustrating colonnade.

FENCES

Outcomes

- Fences compliment and improve the visual character of rear laneways; and
- Fences define the boundaries and edges between the mixed uses along Kalang Road and the rest of the residential uses to either side of the centre.

Controls

- Fencing is permitted along the rear boundaries of the mixed use developments to a maximum height of 1.8m. It is to be screened by landscaping within the planting strip along the rear laneways of a minimum dimension of 2m;
- Fencing materials are to be at least 70% solid to provide visual interest and further opportunities for landscaping without restricting casual visual surveillance of rear laneways and the public domain;
- No fencing will be allowed to the front and side boundaries of shops and retail uses off Kalang Road except when ground floor uses include home office occupations along St Andrews Gate;
- Fences with open design are preferred along the edges with Kywong Reserve to facilitate for the passage of wildlife corridors while providing a delineation of the private domain and the public reserve;
- Where fences are constructed as extensions of retaining walls and terracing which are visible from a public place, preference is given to the use of sandstone or sandstone like materials;
- Materials are to be timber, brick, stone or open steel fencing; and
- Lapped timber fencing is prohibited.

Character images illustrating desired fence designs.

EAVES

Please refer to section C1.23 Eaves of this DCP.

Adopted : 15 December 2014
In Force From: 20 December 2014

D5 – ARCHITECTURAL CHARACTER (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

ECOLOGICALLY SUSTAINABLE DEVELOPMENT RESPONSIVE DESIGN (ESD)

Outcomes

- Sustainable development reduces reliance on fossil fuels, green house gas emissions and the uses of energy and water;
- Reduction of the reliance on mechanical heating and cooling;
- Support and promotion of renewable energy initiatives; and
- Support and promotion of water sensitive urban design.

Controls

Building Design

- Development Applications need to be accompanied by a BASIX certificate or equivalent energy efficiency certification for the residential component;
- A Green Star or equivalent energy efficiency certification is encouraged to be submitted with each Development Application for all commercial and retail components;
- Buildings are to be oriented so that solar access is optimised;
- Buildings are to be designed with a combination of passive and active solar energy systems to achieve greater energy efficiency in buildings;
- The direction and strength of prevailing winds is taken into account in the design of buildings to maximise cooling effects during summer and for the provision of appropriate wind protection during winter months;
- Orientation, layout and design of buildings and associated private open space takes into account of any overshadowing of the site by adjacent buildings or structures;
- Reduced summer sun penetration is achieved along the eastern and western elevations along Kalang Road and north facing elevations along Powder Works Road and St Andrews Gate by the use of external solar shading devices, such as awnings, external venetians, balconies, pergolas, eaves and overhangs;
- Building materials used in construction are to be from a sustainable or renewable resource wherever possible;
- Buildings are designed keeping in mind the need to deconstruct or demolish them in the future;
- Buildings are designed to be flexible and robust in their future use providing higher ceiling heights (3.3m) for ground level uses;
- Planning for the sustainable disposal of waste is to be incorporated through the building process;
- Recycled and low embodied energy materials are to be used in the construction of buildings wherever possible;
- Recycling is to be encouraged through the design of the building and communal open spaces;
- Opportunities for edible gardens is provided in any communal open spaces;
- Opportunities for grey and black water reuse are to be maximised throughout the development; and
- Grey water is to be used for the irrigation of public and communal open spaces.

Water Sensitive Design

- Buffer strips and grass swales are integrated along the planting strips to the rear lanes to encourage water filtration;
- Impervious surfaces are reduced along the rear laneways whenever possible;
- Run-off is directed to a treatment point within the development site; and
- Natural drainage lines are to be maintained within Kywong Reserve.

Adopted : 15 December 2014
In Force From: 20 December 2014

D5 – LANDSCAPE CHARACTER (ELANORA HEIGHTS VILLAGE CENTRE)

The following chapter will be added to Part D - Locality Specific Development Controls, Section D5 - Elanora Heights Locality. The requirements written below refer only to Elanora Heights Village Centre, which will be excluded from chapters number: *D5.1 - Character as viewed from a public place*. Amendments to this chapter have been described on page 32. Elanora Heights Village Centre locality will be also excluded from chapters in Part C of the DCP number: *C1.1* and *C2.2 Safety and security, C1.24 and C2.20 Public Road Reserve - Landscaping and Infrastructure*. Amendments to these chapters have been described on page 49.

PUBLIC DOMAIN

Outcomes

- High quality public domain strengthens the village setting of Elanora Heights;
- High quality public domain encourages visitation and offers a high level of amenity;
- The new village square and public domain upgrades within the village centre encourage pedestrian movement particularly along Kalang Road;
- Public open spaces encourage outdoor eating and community use;
- Enhanced village character through public art and public domain furniture as well as through architectural expression;
- Native landscaping is encouraged; and
- Reduced traffic speeds and congestion along Kalang Road.

Controls

- Any public domain upgrades undertaken as part of a new development are to be consistent with Councils Elanora Heights Landscape Master Plan including materials, public domain elements and colours;
- Any footpath areas designated for café or restaurant seating are to be designed to ensure they are functionally able to accommodate a reasonable number of chairs and tables plus circulation space;
- New streets and public spaces are to be landscaped to provide shade in summer and allow solar access in winter;
- Understorey landscape, planters and location of trees are to be integrated along footpaths to ensure easy and safe access to avoid conflict with pedestrian flow and movement past the shopfronts;
- Street and café outdoor furniture is to be high quality and is to contribute to the village character of Elanora Heights;
- Special effects lighting may be used to highlight key landscape design elements, major trees in public spaces and significant buildings in the streetscapes;
- Alterations to the public domain as part of new development are to be prepared by a qualified landscape architect in accordance with the Elanora Heights Landscape Master Plan;
- Street tree planting should be carried out in accordance with Elanora Heights Landscape Master Plan and reinforce view corridors down streets and laneways;
- Street trees interspersed between car parking spaces are to be designed to Council's specification and as indicated in the Elanora Heights Landscape Master Plan;
- Street tree planting and landscaping shall not unreasonably obstruct driver and pedestrian visibility especially across both sides of Kalang Road; and
- High planting beds and landscaped areas to the western verge of Kalang Road north of St Andrews Gate are to be located to ensure they do not impede pedestrian movement or the use of the space for suitable community activities.

Elanora Heights Village Centre Master Plan - (specifications and bigger scale available in Landscape Chapter 4).

New Village Square

- The new village square is to be designed to maximise the use of the space for community activities and is not to be overcrowded with planters, street furniture or signage;
- The new village square is to be landscaped to provide shade in summer and allow solar access in winter;
- The area for the new village square should be located so that a minimum of 50% of the open space area benefits from 3 hours of solar access between 11am and 2pm in mid-winter. This area is to be located adjacent to retail frontages that are appropriate for cafes, restaurants or seating areas within the space; and
- The minimum area of the new village square is to be approximately 300m^2 (+/-10%). For specific dimensions, please refer to Front Building Line diagram on page 34.

Elanora Heights Village Centre public domain characteristics.

Adopted : 15 December 2014
In Force From: 20 December 2014

D5 – LANDSCAPE CHARACTER (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

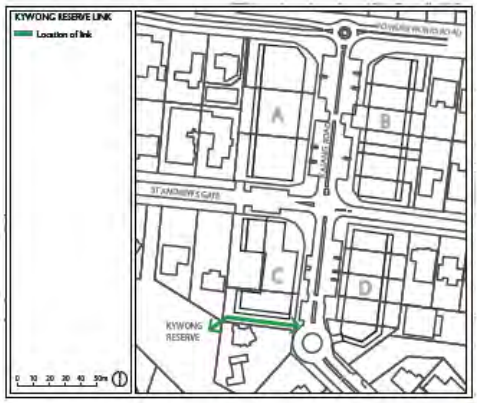
LANDSCAPING

Outcomes

- High quality outlook and adequate amenity levels for residents of shop top housing;
- A built form softened and complemented by landscaping;
- Retention of existing tree planting and introduction of new vegetated areas as public communal open space and buffers to the adjoining residential areas;
- Reduction of visual intrusion from new development to existing dwellings to the east and west of the village centre;
- High quality private open space for each unit and communal areas above ground level; and
- Landscaping results in low watering requirement.

Controls

- All canopy trees, and a majority (more than 50%) of other vegetation, shall be locally native species for the communal open space of the new development south of St Andrews Gate on the western verge of Kalang Road;
- For the Block C located south of St Andrews Gate on the western verge of Kalang Road development shall provide for the reasonable retention and protection of existing significant trees, especially near property boundaries and retention of natural features such as rock outcrops;
- For Block C development shall provide for a communal area for children's play and BBQ area;
- For areas above ground, the following soil depths are required in order to be counted as open space or landscaped areas:
  - 300mm for lawn;
  - 600mm for shrubs; and
  - 1m for trees.
- No planters are allowed at the front building facade (between the front boundary and any built structures) for shop-top housing developments facing Kalang Road;
- Screening to adjacent residential uses shall be provided in the form of a minimum 1m wide planting strip along the edges of the rear laneway/driveways; and
- Noxious and undesirable plants must be removed from the site.
- For Block C the development should provide for the possibility of a public pedestrian connection/link along the southern setback to connect Kalang Road to Kywong Reserve. This link will connect to the Reserve at the intersection of the adjacent property boundaries with 27 St Andrews Gate and 44 Kalang Road.
- The connection from Kalang Road to Kywong Reserve shall be provided as part of the redevelopment of Block C in the form of an informal trail connection for the use of the community to access the Reserve as shown on Kywong Reserve Link Diagram.



Variations

- Where canopy trees are to be retained on a site, planting of additional canopy trees shall be assessed on a merit basis.
- Desired public access to Kywong Reserve from Kalang Road through Block C to be investigated (land swap, land acquisition, Section 94 contribution). If it can be demonstrated (by way of written confirmation from property owners) that adjoining properties are unwilling to participate in creating the public access, private access will be considered.

Communal open space.

Planting strip next to driveways/laneways.

Roof gardens as communal open space areas.

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D5 – AMENITY (ELANORA HEIGHTS VILLAGE CENTRE)

The following chapter will be added to Part D - Locality Specific Development Controls, Section D5 - Elanora Heights Locality. The requirements written below refer only to Elanora Heights Village Centre, which will be excluded from chapters in Part C of the DCP number: *C1.3* and *C2.5 View sharing C1.4 Solar access, C1.5 Visual Privacy, C1.6 Acoustic privacy, C1.7 Private Open Space, C1.15 Storage facilities, C2.12 Protection of residential amenity*, which are relating to the whole area of Pittwater LGA. Amendments to these chapters have been described on page 49.

SOLAR ACCESS

Outcomes

- A reasonable level of solar access is maintained to existing residential properties, unhindered by adjoining development;
- Appropriate solar access is provided to the public domain as well as communal open spaces;
- Maintenance of appropriate level of solar access and visual privacy to residential properties;
- Reduce usage and dependence for artificial lighting; and
- Residential development is sited and designed to maximise solar access during midwinter.

Controls

- The primary private open space for 70% of dwellings in any development is to receive a minimum of 3 hours of sunlight between 9am and 3pm on June 21st;
- Windows to the principal living areas of 70 % of units in any development are to receive a minimum of 3 hours of sunlight between 9am and 3pm on June 21st;
- Windows to the principal living area in adjoining dwelling also should receive a minimum of 3 hours of sunlight between 9am and 3pm on June 21st.;
- Solar collectors for hot water or electricity shall receive at least 4 hours of sunshine between 8.00am and 4.00pm during mid winter; and
- Lightwells are not to be used as a source of light, outlook or ventilation for any habitable rooms or private open space.
- The proposal must demonstrate that access to sunlight is achieved through the application of the Land and Environment Court's planning principle for sunlight.

Advisory Notes:

Visit: The Benevolent Society v Waverley Council [2010] NSWLEC 1082 (http://www.lawlink.nsw.gov.au/lawlink/lec/ll_lec.nsf/pages/LEC_planningprinciples)

VISUAL PRIVACY

Outcomes

- Habitable rooms and outdoor living areas of dwellings optimise visual privacy through good design;
- A sense of territory and safety is provided for residents; and
- New development does not compromise unreasonably the privacy of adjoining residential private open space or living areas.

Controls

- New development is to be designed to avoid the direct overlooking of adjoin residential private open space or living rooms;
- Provide separation between balconies, habitable rooms and non-habitable rooms of new and adjoining dwellings in accordance with this DCP to achieve privacy;
- Balconies/terraces should incorporate privacy screens where necessary and should be located at the front or rear of the building;
- Direct views from an upper level dwelling shall be designed to prevent overlooking of more than 50% of the private open space of a lower level dwelling directly below;
- Development must comply with Built Form controls (including Front Building Line, Side And Rear Building Line and Setbacks above ground controls);
- Direct views of private open space or any habitable room window less than 8m from new windows is to be restricted by:
  - a window sill height 1.7m above floor level; or
  - fixed translucent glazing in any part below 1.7m above floor level; or
  - solid translucent screens or perforated panels or trellises which have a maximum of 25% openings, and which are:
    - permanent and fixed;
    - made of durable materials;
    - designed and painted or coloured to blend in with the dwelling; and
    - horizontal, such as 'shelves' to restrict downward viewing.

VIEW SHARING

Outcomes

- A reasonable sharing of views amongst and across dwellings; and
- Development responds architecturally to axial views down Kalang Road.

Controls

- All new development is to be designed to achieve a reasonable sharing of views available from surrounding and nearby properties;
- Where a view may be obstructed, built structures within the setback areas are to maximise visual access through the structure e.g. by the provision of an open structure or transparent building materials;
- Views are not to be obtained at the expense of existing vegetation; and
- Non compliance with development controls that create view loss will not be supported.

ACOUSTIC PRIVACY

Outcomes

- Building location and orientation ameliorate impacts from Powder Works Road;
- Noise is substantially contained within each dwelling and noise from any communal or recreation areas are limited; and
- Noise is not to be offensive as defined by the Protection of the Environment Operations Act 1997, including noise from plant, equipment and communal or recreation areas.

Controls

- Noise-sensitive rooms, such as bedrooms, should be located away from noise sources, including Kalang and Powder Works Roads, parking areas, living areas and retail tenancies where possible;
- Walls and/or ceilings for dwelling shall have a noise transmission rating in accordance with Part F(5) of the Building Code of Australia;
- Noise generating plant, air conditioning units and the like shall not produce noise levels that exceed 5dBA above the background noise when measured from the nearest property boundary; and
- Developments must comply in all respects with the Protection of the Environment Operations Act, 1997, and other relevant legislation.

PRIVATE OPEN SPACE

Outcomes

- Dwellings are provided with a private, usable and well-located area of private open space for the use and enjoyment of the occupants;
- Private open space is integrated with the living areas of dwellings;
- Private open space receives sufficient solar access and privacy; and
- Private open space is appropriate in design and location for a shop top development form.

Controls

- Dwellings are to be designed so that private open space is directly accessible from living areas enabling it to function as an extension of internal living areas;
- For dwellings above ground, private open space is to be provided by balconies;
- For ground floor dwellings private open space is to be provided as a terrace or garden;
- The dimension of private open space should be sufficient so that the area can be usable for recreational purposes with minimum area of 10m2 and a minimum width of 2.4m;
- First floor balconies are prohibited along side boundaries looking into an adjoining residential property;
- The primary orientation of balconies is to be to the streets or rear boundary;
- Balconies are not to be fully recessed into the building form;

Adopted : 15 December 2014
In Force From: 20 December 2014

D5 – AMENITY (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

- Balconies should not form the dominant architectural expression of the building;
- Private open space for new dwellings is not to be positions such that it 'borrows' amenity by overlooking adjoining dwellings;
- Balconies adjacent to rear boundary must be designed to limit overlooking and maintain privacy of adjoining residences;
- Private open space areas are to have good solar orientation (i.e. orientated to the northeast or north-west where possible);
- Private open space areas should include provision of clothes drying facilities, screened from the street and public places; and
- Private open space is to include gas BBQ points and external powerpoints.

NATURAL VENTILATION

Outcomes

- Buildings are designed to maximise natural ventilation.

Controls

- Buildings are to maximise natural ventilation by providing dual aspect apartments and by positioning openings (windows and doors) to prevailing winds to encourage cross ventilation;
- A minimum of 60% of dwellings in a development is to achieve cross ventilation; and
- Innovative technologies to naturally ventilate internal building areas, in particular areas such as bathrooms, laundries and underground carparks are encouraged.

STORAGE

Outcomes

- Provision of convenient storage within the development for household items.

Controls

- In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates:
  - studio apartments $6m^3$;
  - one-bedroom apartments $6m^3$;
  - two-bedroom apartments $8m^3$; and
  - three plus bedroom apartments $10m^3$.
- A minimum of 50% of the overall requirement for storage within individual unit shall be located in the hall or near living areas, under internal stairs or near the entries. A maximum of 50% of the required storage area may be located within storage cages in basement carparks.

D5 - VEHICULAR ACCESS, PARKING AND SERVICING (ELANORA HEIGHTS VILLAGE CENTRE)

The following chapter will be added to Part D - Locality Specific Development Controls, Section D5 - Elanora Heights Locality. The requirements written below refer only to Elanora Heights Village Centre, which will be excluded from chapters number C1.12 and C2.9 Waste and recycling facilities in Part C of the DCP and chapter *B6.2 Access Driveways and Works on the Public Road Reserve - All Development other than Dwelling Houses, Secondary Dwelling and Dual Occupancy* and *B6.6 Off-Street Vehicle Parking Requirements - All Development other than Dwelling Houses, Secondary Dwelling and Dual Occupancy* in Part B of the DCP. Amendments to these chapters have been described on page 49.

VEHICULAR ACCESS

Outcomes

- Developments achieve safe and convenient vehicular access;
- Adverse visual impact of driveways is reduced;
- Pedestrian safety is maximised through the elimination of pedestrian/vehicular conflicts; and
- Maximise the retention of trees and existing vegetation in the road reserve.

Controls

- Access driveways from allotments adjoining Powder Works Road are not permitted;
- Left out exit onto Powder Works Road from the rear laneways will be assessed on merit provided that a proper traffic analysis is provided confirming no major traffic impacts and at the discretion of Council's traffic officers;
- The number of access driveways is to be minimised from Kalang Road except where indicated on the Vehicular Access diagram;
- Access for service vehicles to loading docks are not permitted from Kalang Road except where indicated on the Vehicular Access diagram;
- General requirements for access driveway design including the design of access driveways, pavements, gutter crossings, supporting retaining walls, suspended slabs and related structures located on the public road reserve are as per Council's DCP B6.2 Access Driveways and Works on the Public Road Reserve and Australian Standards Australian Standard - AS 2890.1 - 1993 - Part 1 - Parking Facilities - Off Street Car Parking;
- Clear site lines are to be provided at pedestrian and vehicle crossings;
- Existing vehicular access points along Kalang Road are to be relocated to the rear laneways as part of redevelopment. When only a building renovation is proposed then existing surface car parking is required to meet the following upgrades:
  - Minimum of 20% of the car parking area used primarily for landscaping of native species ;
  - Shade, shelter and amenity;
  - Protection and management of existing trees;
  - Enhancement of the streetscape and internal areas by the provision of canopy trees;
  - Minimum 2m width for landscape islands to break up parking rows;
  - Application of Water Sensitive Urban Design Principles;
  - Safety and amenity of pedestrians and vehicles; and
  - Lighting.
- All access driveways shall be constructed with an impervious pavement and gutter crossing construction in plain concrete;
- Where access driveways are unavoidable to Kalang Road and for driveways to St Andrews Gate small unit pavers are encouraged in dark earthy tones or match adjacent constructed footpaths;
- Driveways are to be recessed into the main façade of the building;
- All access driveways on the low side of Kalang Road are to be designed and constructed such that stormwater drainage is directed away from the access driveway; and
- The cost for access driveways construction and maintenance and adjustment of any utility service is the responsibility of the Applicant.

LANEWAY ACCESS AND CHARACTER

Outcomes

- Improved vehicular access along rear laneways; and
- Improved landscape character along rear laneways.

Controls

- The consolidation of the entry/exit vehicular access point or access driveway is required for commercial/retail and residential uses;
- The location of the driveway is to maximise the retention of trees and native vegetation along rear laneways;
- Laneways are to be buffered by a 2m planting strip to improve landscape character and water filtration;
- For Block C provide at grade pedestrian access to the rear courtyard from St Andrews Gate; and
- Clear sightlines down laneways are to be provided for increased safety and security.

OFF-STREET VEHICLE PARKING REQUIREMENTS

Outcomes

- Elanora Heights Village Centre has adequate parking and service spaces;
- No adverse impacts to the setting and visual quality of Elanora Heights Village Centre is created by car parking; and
- Vehicle movement occurs in a safe and efficient manner.

Controls

- Car parking is to be located within the basement of any new development.;
- The line of the basement car park shall fit generally within the building footprint with considerations given to optimising consolidated areas of deep soil;
- Exposed basement car parking and extensive open ramps are prohibited;
- Potential pedestrian/vehicle conflicts are to be minimised by limiting the width of vehicle access points;
- 'Black holes' are to be avoided in the façade by providing well designed garage security doors to car park entries;
- Return the façade material into the car park entry recess for the extent visible from the street as a minimum to achieve a high quality outcome;
- Security enclosed bicycle storage facilities must be provided within the building for Residential Development at the rate of 1 bicycle rack per 3 dwellings and as per Australian Standards AS 2890.3: Bicycle Parking Facilities;
- Visitor parking spaces are to be easily accessible and clearly marked "Visitor";
- Residential parking areas need to be segregated from the commercial/retail parking areas to ensure safety of residents;
- Provision must be made within the development site for access and parking of all service vehicles, visitor parking and parking for people with disabilities;

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D5 - VEHICULAR ACCESS, PARKING AND SERVICING (ELANORA HEIGHTS VILLAGE CENTRE) - CONTINUED

- For the requirements of parking for people with disabilities please see Council's DCP B6.6 Off-Street Vehicle Parking Requirements; and
- The minimum number of vehicle parking and service spaces to be provided within any new development in Elanora Heights Village Centre is as per Council's DCP B6.6 Off - Street Vehicle Parking Requirements.

SERVICING – WASTE MANAGEMENT AND RECYCLING

Outcomes

- Accessible and convenient waste and recycling facilities integrate with the development; and
- Waste and recycling facilities do not adversely impact upon amenity of the adjoining development or the natural environment.

Controls

- All waste storage and servicing will be carried out within the basement area;
- A waste management plan shall be prepared for green and putrescible waste, garbage, glass, containers and paper;
- Every dwelling will include a waste cupboard or temporary storage area of sufficient size to hold a single day's waste and to enable source separation;
- All waste storage will comply with Council's bin storage facility design specifications as per section c1.12 Waste and Recycling Facilities;
- Garbage collection areas and servicing areas for residential use are within the basement and not visible to the street; and
- Temporary waste holding areas will be provided according to the Temporary Waste Holding Areas diagram.

5.2.3. Amendments to part B and C

Part B - General Controls

The following sections of Part B in Pittwater 21 DCP need to be amended to exclude Elanora Heights Village Centre Locality, these are:

- B2.3 Subdivision - Business Zoned Land:
- B6.2 Access Driveways and Works on the Public Road Reserve - All Development other than Dwelling Houses, Secondary Dwelling and Dual Occupancy:
- B6.6 Off-Street Vehicle Parking Requirements - All Development other than Dwelling Houses, Secondary Dwelling and Dual Occupancy

The following amendments are to be added to the following sections of Part B of the DCP:

B2.3 Subdivision - Business Zoned Land:

Advisory Notes

For specific controls in relation to the subdivision and amalgamation of lots in the Elanora Heights Village Centre, refer to Part D5 – Built Form (Elanora Heights Village Centre) - Amalgamation of this DCP.

B2.6 Dwelling Density and Subdivision - Shop-Top Housing:

Controls

Other than the Avalon Beach Village, Newport Commercial Centre, Mona Vale Commercial Centre *and Elanora Heights Village Centre*- Shop-top housing shall not have a density greater than 1 dwelling per 150 square metres of site area. This applies regardless of the number of bedrooms proposed in each dwelling.

B6.2 Access Driveways and Works on the Public Road Reserve - All Development other than Dwelling Houses, Secondary Dwelling and Dual Occupancy:

Advisory Notes

For specific controls in relation to the Access Driveways and Works on the Public Road Reserve in the Elanora Heights Village Centre, refer to Part D5 – Vehicular Access, Parking and Servicing (Elanora Heights Village Centre) - Vehicular Access of this DCP.

B6.6 Off-Street Vehicle Parking Requirements - All Development other than Dwelling Houses, Secondary Dwelling and Dual Occupancy:

Advisory Notes

For specific controls in relation to Off-Street Vehicle Parking Requirements in the Elanora Heights Village Centre, refer to Part D5 – Vehicular Access, Parking and Servicing (Elanora Heights Village Centre) - Off-Street Vehicle Parking Requirements of this DCP.

Part C - Development Type Controls

The following sections of Part C in Pittwater 21 DCP will need to be amended to exclude Elanora Heights Village Centre Locality, these are:

- C1.1 Landscaping
- C1.3 View Sharing
- C1.4 Solar Access
- C1.5 Visual Privacy
- C1.6 Acoustic Privacy
- C1.7 Private Open Space
- C1.10 Building Facades
- C1.12 Waste and Recycling Facilities
- C1.15 Storage Facilities
- C1.24 Public Road Reserve - Landscaping and Infrastructure
- C2.8 Energy and Water Conservation
- C2.11 Business Identification Signs
- C2.12 Protection of Residential Amenity
- C2.20 Public Road Reserve - Landscaping and Infrastructure

The following amendments are to be added to the following sections of Part C of the DCP:

C1.1 and C2.1 Landscaping

Advisory Notes

For specific controls in relation to the landscaping of lots in the Elanora Heights Village Centre, refer to Part D5 – Landscape Character (Elanora Heights Village Centre) - Landscaping in this DCP.

C1.2 and C2.2 Safety and Security

Variations

For related controls in relation to Safety and Security in the Elanora Heights Village Centre, refer to Part D5 – Architectural Character (Elanora Heights Village Centre) - Active Frontages of this DCP.

C1.3 and C2.5 View Sharing

Advisory Notes

Additional View Sharing controls for Elanora Heights Village Centre are provided in Part D5 of this DCP, refer to Amenity (Elanora Heights Village Centre) - View Sharing.

C1.4 Solar Access

Advisory Notes

For specific controls in relation to the above mentioned controls for the Elanora Heights Village Centre, refer to Part D5 – Amenity (Elanora Heights Village Centre) - Solar Access in this DCP.

C1.5 Visual Privacy

Advisory Notes

For specific controls in relation to the above mentioned controls for the Elanora Heights Village Centre, refer to Part D5 – Amenity (Elanora Heights Village Centre) - Visual Privacy in this DCP.

C1.6 Acoustic Privacy

Advisory Notes

For specific controls in relation to the above mentioned controls for the Elanora Heights Village Centre, refer to Part D5 – Amenity (Elanora Heights Village Centre) - Acoustic Privacy in this DCP.

C1.7 Private Open Space

Advisory Notes

For specific controls in relation to the above mentioned controls for the Elanora Heights Village Centre, refer to Part D5 – Amenity (Elanora Heights Village Centre) - Private Open Space in this DCP.

C1.10 and C2.7 Building Facades

Advisory Notes

For specific controls in relation to the building facades design for the Elanora Heights Village Centre, refer to Part D5 – Architectural Character (Elanora Heights Village Centre) – Façade articulation in this DCP.

C1.12 and C2.9 Waste and Recycling Facilities

Advisory Notes

For specific controls in relation to the Waste and Recycling Facilities for the Elanora Heights Village Centre, refer to Part D5 – Access and Parking (Elanora Heights Village Centre) - Servicing - Waste Management and Recycling in this DCP.

C1.15 Storage Facilities

Advisory Notes

For specific controls in relation to the Storage facilities in Elanora Heights Village Centre, refer to Part D5 – Amenity (Elanora Heights Village Centre) - Storage in this DCP.

C1.24 and C2.20 Public Road Reserve - Landscaping and Infrastructure

Advisory Notes

For specific controls in relation to the Public Road Reserve - Landscaping and Infrastructure in Elanora Heights Village Centre, refer to Part D5 – Landscape Character (Elanora Heights Village Centre) - Landscaping in this DCP.

C2.3 Awnings

Advisory Notes

For specific controls in relation to the awnings in Elanora Heights Village Centre, refer to Part D5 – Architectural Character (Elanora Height Village Centre) - Awnings and Colonnades in this DCP.

C2.8 Energy and Water Conservation

Advisory Notes

For specific controls in relation to the energy and water conservation in Elanora Heights Village Centre, refer to Part D5 – Architectural Character (Elanora Heights Village Centre) - Ecological Sustainable Development Responsive Design in this DCP.

C2.11 Business Identification Signs

Advisory Notes

For specific controls in relation to the energy and water conservation in Elanora Heights Village Centre, refer to Part D5 – Architectural Character (Elanora Heights Village Centre) - Business Identification Signs in this DCP.

C2.12 Protection of Residential Amenity

Advisory Notes

For specific controls in relation to the Protection of Residential Amenity in Elanora Heights Village Centre, refer to Part D5 – Amenity (Elanora Heights Village Centre) in this DCP.

C2.21 Food Premises Design Standards

Variations

Mechanical Ventilators or other air conditioning equipment shall be screened from view from public and private domain to avoid clutter on the side, front and rear walls of development in the Elanora Heights Village Centre.

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In Force From: 20 December 2014

APPENDIX A: COMMUNITY WORKSHOP REPORT - OCTOBER 2011
APPENDIX B: MASTER PLAN OPTIONS REPORT - DECEMBER 2011
APPENDIX C: SUMMARY OF SUBMISSIONS REGARDING MASTER PLAN OPTIONS REPORT - MARCH 2012
APPENDIX D: MARKET ANALYSIS - DECEMBER 2011
APPENDIX E: TRAFFIC REPORT - FEBRUARY 2012
APPENDIX F: SUMMARY OF SUBMISSIONS FROM THE PUBLIC EXHIBITION OF DRAFT ELANORA HEIGHTS MASTER PLAN - JULY 2012

NORTHERN BEACHES
COUNCIL

Appendix 16

Removal of Tree Test

REMOVAL OF TREE TESTS

1. The Unacceptable Risk Test

This is an assessment of whether the tree poses an unacceptable risk that cannot be adequately or appropriately managed by arboricultural treatment, fencing, signage, or other risk management measures. The level of risk is to be assessed and reported by a suitably qualified arborist. Other possible methods to manage the risk other than tree removal are to be considered prior to issuing consent for the removal of a tree.

2. The Diseased Condition Test

This is an assessment of whether the tree is in a diseased condition that cannot be corrected by pruning or other arboricultural treatment. The diseased condition of the tree must be confirmed in a report by a suitably qualified arborist. Options for managing the diseased condition are to be considered prior to issuing consent for the removal of a tree.

3. Remaining Life Expectancy Test

This assessment identifies the remaining life expectancy of the tree. If this is less than 5 years, consent for the removal of the tree subject to replacement planting may be issued. The remaining life expectancy of the trees is to be determined and confirmed in a report by a suitably qualified arborist.

4. Property Damage Test

This is an assessment of whether public or private property is being significantly affected by the presence/location or growth of a tree. Permission for the removal of the tree may be issued if it is shown that removal of the tree is the only option to avoid further conflict, having regard to all other abatement options. Assessment of the damage is to be carried out and reported by a suitably qualified person (e.g. road/civil engineer) in consultation with a suitably qualified arborist.

5. Public Infrastructure Works Test

If a tree is likely to succumb to major injury as a result of public infrastructure work, permission for the removal of the tree may be granted. Other alternatives such as relocation or reconfiguration of the works are to be considered. An assessment of this is to be performed by a suitably qualified person (e.g. infrastructure designer/ public works staff) in consultation with a suitably qualified arborist. A major injury is considered to be an injury that is likely to result in death of the tree, in the tree posing an unacceptable risk, or a reduction in the life expectancy of the tree to less than 5 years.

6. Proposed Driveway Crossings, Private Structures or Works Affecting Public Land Test

Permission for the removal of a tree may be granted where the tree would prevent the installation and function of a proposed driveway crossing, street awning, street balcony, or other private structure. It needs to be demonstrated that:

- the removal of the tree would maximise public benefit,
- that there is no reasonable alternative to removing the tree, and
- the Council is satisfied that the proposal would not have any adverse heritage, pedestrian, streetscape or traffic impacts.

7. Inappropriate tree species growing in unsustainable positions test.

This is an assessment of whether a tree on public or private property is located in an unsuitable position. Permission for the removal of the tree may be issued if it is shown that removal of the tree is the only option to avoid further conflict, damage or a nominated species known to be unsuitable, having regard to all other abatement options.

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Appendix 17

Tree Retention Assessment

TREE RETENTION ASSESSMENT

The purpose of the Tree Retention Assessment is to provide a clear method to assess the contribution of individual trees and groups of trees to amenity and the natural and built environments. Through doing so, a balance between the economic imperatives of land development and the preservation of natural features can be achieved.

Step 1. Assess the Sustainability of the tree.

The tree or group of trees are to be categorised into the following groups:
Greater than 40 years
from 15 to 40 years
from 5 to 15 years
less than 5 years
Dead or hazardous

Figure 1 demonstrates how a tree's sustainability is to be determined.

Step 2. Identifying landscape significance
This step involves allocating each tree to be removed or retained, a Landscape Significance rating. This is to be obtained through the categories and identifiers contained within Table 1 ahead. This rating is to then be contrasted against the Sustainability rating of the tree as shown in Figure 2 ahead, resulting in a retention value of each tree.

Step 3. Categorise each tree on its Retention value
Through the use of Figure 2 and the Landscape significance rating and tree sustainability rating, each tree to be removed or impacted upon by development is to be allocated a Retention Value.

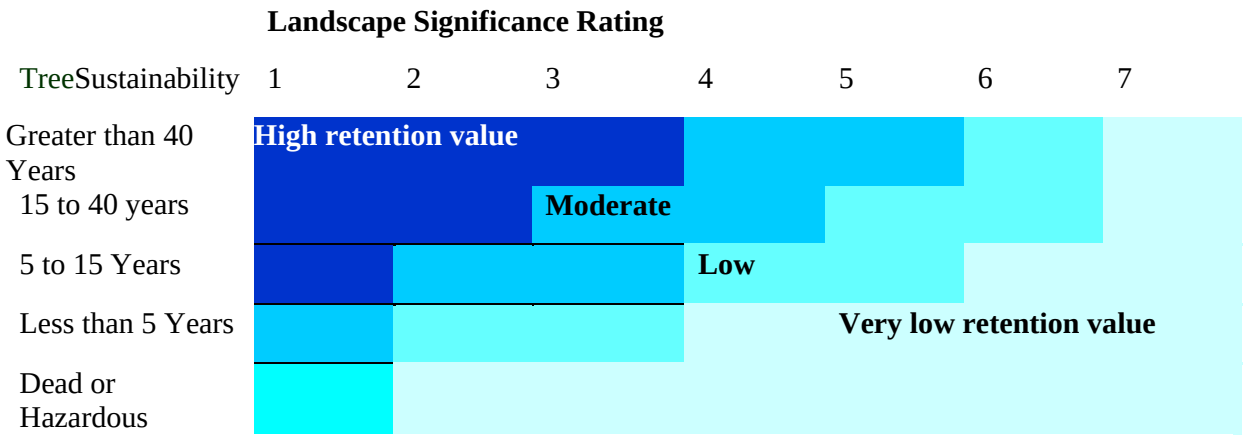


Table 1: *Landscape Significance*

1. Significant

The tree is listed as a Heritage Item within the WLEP 2009 with a local, state or national significance; or
The tree forms part of the curtilage of a Heritage Item and has a known or documented association with the item; or
The tree is a Commemorative Planting having been planted by an important historical person(s), or to commemorate an important historical event; or
The tree is scheduled as a Threatened Species or is a key indicator species of an Endangered Ecological Community as defined under the *Threatened Species Conservation Act 1995* (NSW) or the *Environmental Protection and Biodiversity Conservation Act (1999)*; or

The tree is a locally indigenous species, representative of the original vegetation of the area and is known as an important food, shelter, or nesting tree for an endangered or threatened fauna species; or
The tree is a remnant tree, being a tree in existence prior to development of the area; or
The tree has a very large live crown size exceeding 300m^2 with 70-100% foliage cover, is visible against the skyline, exhibits very good form and habitat typical of the species and makes a significant contribution to the amenity and visual character of the area by creating a sense of place or creating a sense of identity; or
The tree is visually prominent in a view from surrounding areas, being a landmark or visible from a considerable distance.

2. Very High

The tree has a strong historical association with a heritage item within or adjacent to the property and/or exemplifies a particular era or style of landscape design associated with the original development of the site; or
The tree is a locally-indigenous species and representative of the original vegetation of the area and the tree is located within a defied Wildlife Corridor or has known wildlife habitat value; or
The tree has a very large live crown size exceeding 200m2, a crown density exceeding 70% Crown Cover, is very good representative of the species in terms of its form and branching habitat or is aesthetically distinctive and makes a positive contribution to the visual character and the amenity of the area.

3. High

The tree has a suspected historical association with a heritage item or landscape supported by anecdotal or visual evidence; or
The tree is a locally-indigenous species and representative of the original vegetation of the area; or
The tree has a large crown size exceeding 100m^2, and

Is a good representative of the species in terms of its form and branching habitat with minor deviations from the normal (e.g. crown distortion/suppression) with a crown density of at least 70% Crown Cover, and

The subject tree is visible form the street and surrounding properties and makes a positive contribution to the visual character and the amenity of the area.

4. Moderate

The tree has a medium live crown size exceeding 40m^2, and

The tree is a fair representative of the species, exhibiting moderate deviations from typical form (e.g. distortion/suppression) with a crown density or more than 50% Crown Cover, and

The tree makes a fair contribution to the visual character and amenity of the area, and

The tree is visible from surrounding properties, but is not visually prominent – view may be partially obscured by other vegetation or built forms, or

The tree has known or suspected historical association

5. Low

The tree has a small live crown size of less that 40m^2 and can be replaced within the short term with a new tree planting; or
The tree is a poor representative of the species, showing significant deviations from the typical form and branching habit with a crown density of less that 50% Crown Cover; and

The tree is not visible from the surrounding properties and makes a negligible contribution or a has a negative impact on the amenity and visual character of the area.

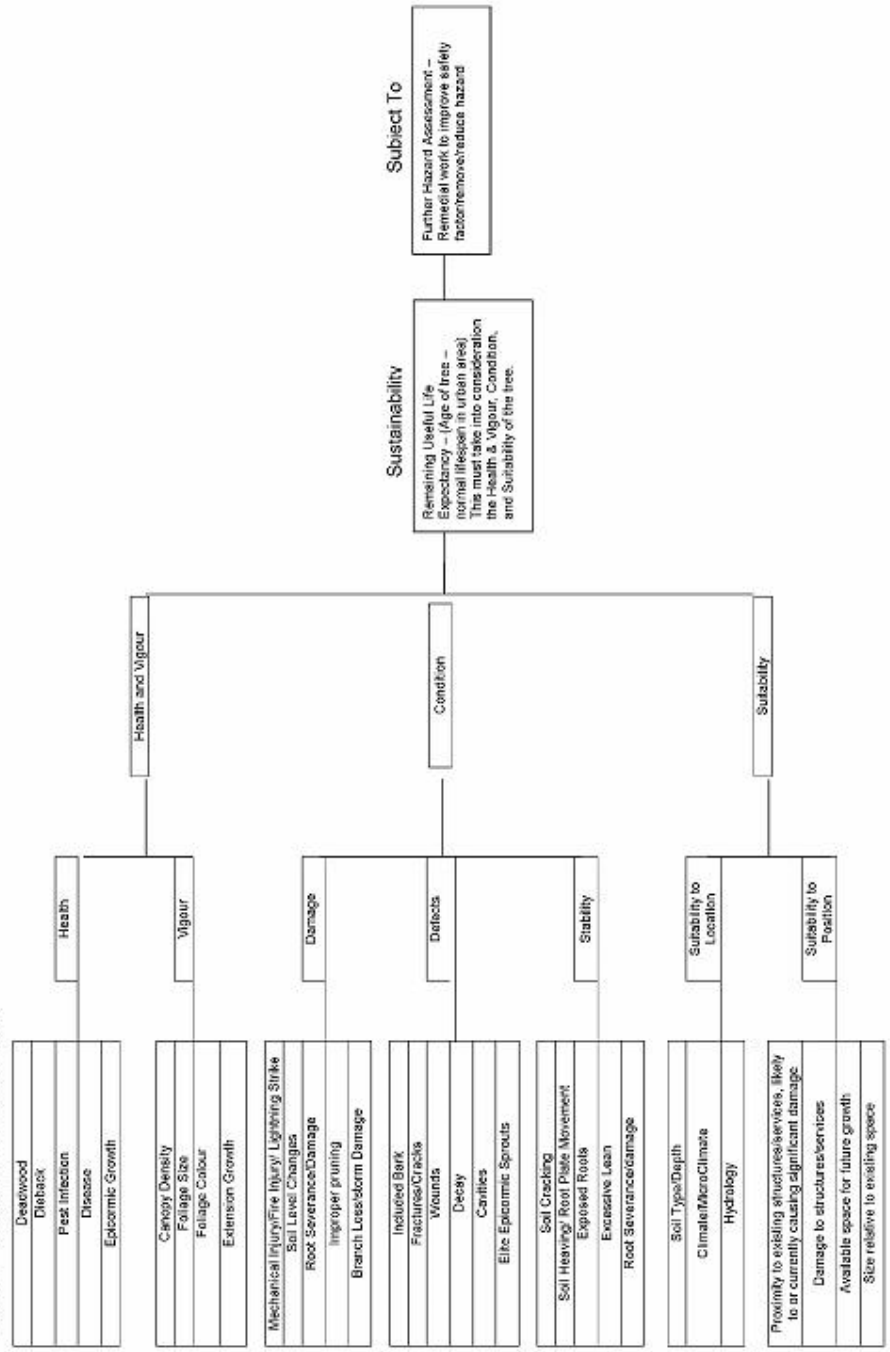
6. Very Low

The subject tree is listed as an Environment Weed Species in the relevant Local Government Area, being invasive, or a nuisance species; or
The subject tree is of a species listed in Appendix 5; or

7. Insignificant

The tree is a declared a Priority Weed/Biosecurity Matter under the *Biosecurity Act 2015*; or
The tree poses a threat to human life or property.

Figure 1 – Assessment of Sustainability



NORTHERN BEACHES
COUNCIL

Appendix 18

Class 2-9 Buildings

CLASS 2-9 BUILDINGS

All of the below reports and plans are to be undertaken by a suitably qualified person such as an arborist with the appropriate qualifications.

Pre-site Assessment Report
A pre-site assessment report is to show the following:

a) Trees on and adjacent to the site to be retained or pruned

b) Trees to be removed

c) Protection measures to be used during construction

d) Present condition of trees within the site, i.e. Life expectancy, retention value, hazard assessment

e) Soil assessment may be required at this stage, where significant excavation is to take place where the exposing of sub grade soils may result in a negative impact upon the existing trees and vegetation located on the site

Impact Assessment Report
An impact assessment report is to identify and discuss the following:

a) Location of building footprints, underground services and structures in relation to existing trees and any new trees to be planted.

b) Site access

c) Site establishment

d) Temporary services

e) Stockpiling areas

f) Likely impact of the development on the long term conditions of trees identified in the pre-site assessment

g) Estimated quantities (%) of loss of canopy

h) Estimated quantities (%) of loss of roots

i) Alterations to ground levels

j) Protection measures to be used during construction

Tree Management Plan
A tree management plan is to show the following:

a) Protection measures to be used during construction

b) Approximate life cycle of the existing trees and those to be planted

c) When and where replacement trees are to be planted

d) How long term management of trees on the site will be achieved.

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Appendix 19

Tree Protection Plan

TREE PROTECTION PLAN

A Tree Protection Plan is to detail how trees to be retained are to be protected from injury and damage during construction and development works. A Tree Protection Plan is to:

- Be clear and readable
- Be prepared by a suitably qualified arborist
- Include an inventory in tabular form of the trees to be protected.

Specifically, a Tree Protection Plan is to consist of:

a) **A composite base plan** – The purpose of this is to aid Council in its assessment of the feasibility of the protective measures and to inform the installation process on site. The plan is to be prepared on a composite base of the land survey with the layout superimposed to allow for the relationship between new and old to be clearly seen. The composite base plan must show:

- All trees to be removed and their details such as survey numbers
- All trees to be retained (nominated trees) and their details in tabular form including survey number, common name, species, DBH, height, and condition
- Crown spread of all nominated trees
- Proposed root protection area and treatment to be used

Grading and trenching details where applicable

b) **A tree protection statement** – This is to detail measures to ensure the future health and stability of the nominated trees. This is to include details of manual and machine excavation, vehicle access, site controls on waste disposal, storage of materials, root and crown pruning, and installation of utilities.

c) The Tree Protection Plan is also to identify any trees located on adjoining sites that may be impacted upon by the development. If these trees will be impacted upon, details of how they are to be protected are to be provided.