

OPPORTUNITIES AND CONSTRAINTS

The Northwood Neighbourhood Centre lacks a broader base of uses which would serve the population of Northwood, Longueville and South Lane Cove. It does not perform a similar role to the Fig Tree Centre and West Lane Cove. For example it is not possible to buy a coffee in Northwood Neighbourhood Centre.

The opportunities for the Northwood Neighbourhood Centre include:

- the opportunity to convert a predominately general service centre for through traffic to a more interesting centre for Northwood, Longueville and South Lane Cove residents;
- the opportunity to introduce residential apartment buildings at this node in terms of proximity to services, overall amenity and downsizing for existing residents currently living in large houses on the peninsulas;
- its highly visible and accessible location;
- the access to open space and recreation, schools, employment and public transport;
- the views from the subject site;
- the opportunity to take advantage of the topographical falls particularly to the east and optimise the density without the built form being dominant; and
- the ability to link visually and actually the western and eastern bushland corridors.

The constraints for the Northwood Neighbourhood Centre include:

- limited vehicular access from Northwood / Longueville Roads into both precincts and the eastern precinct in particular;
- limited opportunity for pedestrian connections from east to west;
- the shape in plan of the Western Precinct B1 Zone. It is delightfully shaped in terms of land form but not easily retrofitted to mixed uses; and
- the feasibility (or not) of the Western Precinct given its size, plan shape, proximity to a heritage zone and possible contamination.

OBJECTIVES FOR NORTHWOOD NEIGHBOURHOOD CENTRE

The Desired Future Character and the Objectives for the Northwood Neighbourhood Centre are set out in the Lane Cove Development Control Plan (DCP) Locality 2-Northwood Neighbourhood Centre adopted on 22 February 2010 Amendment 2-9 December 2011 Part D Commercial Development and Mixed Use Localities states:

Desired Future Character

"The desired future character for the Northwood Neighbourhood centre is to create a pedestrian friendly, cyclist friendly, vibrant and active, small neighbourhood centre for local residents. To achieve this outcome retail uses are to be concentrated around the east and western sides of Kenneth Street beginning at the intersection with Northwood Road extending to Woodford Street. A small retail kiosk can be introduced to the southern end of Central Park to increase activity and to encourage a greater neighbourhood focus to this end of the park.

Public domain upgrades to River/Northwood Road and Kenneth Street will improve the ambiance and sense of place for the centre including street trees, verge widening to Kenneth Street for outdoor seating, lighting and signage.

The existing commercial/retail uses on the other side of Northwood Road could continue but should be encouraged to become commercial/retail uses rather than uses with high pedestrian visitation.

Mixed use development to all blocks within the area is encouraged with residential uses located further away from Northwood Road to the rear of the blocks. Active street edges to Kenneth Street will provide opportunities for a cafe, restaurants, newsagent, take-away and other low scale retail tenancies appropriate for a small local centre such as home wares, antiques, etc.

Objectives

- *To create a high quality, vibrant and pleasant neighbourhood centre to serve local residents needs.*
- *To prohibit large retail outlets requiring a larger floor area (max. 400m² as per LEP) such as major supermarkets, discount department stores, hardware or other retail that would compete directly with Lane Cove Village Centre.*
- *To improve the pedestrian connectivity and amenity of the local centre.*

- *To concentrate pedestrian and resident based retailing to Kenneth Street.*
- *To improve bicycle access to this area, and encourage walking and cycling.*
- *To provide a high quality landscaped public domain for the new centre.*
- *To mitigate against the impact of traffic noise and movement from River Road and Northwood Road on the local centre.*
- *To fully integrate Central Park into the local centre as the main public open space area and encourage establishment of cafe uses and seating opportunities co-located with the park and play areas.*
- *To encourage upgrading of the park to improve its facilities for children and older residents.*
- *To provide the opportunity for outdoor seating and dining in a pleasant neighbourhood environment."*

It should be noted that:

- there may not be sufficient patronage for a kiosk in the park.
- upgrading the park is important but the value and beauty of the park is diminished by the fact that it is faced on two sides (it is triangular and has three sides) by back and side fences. A longer term vision in which the park has development facing it in the manner of Victorian parks would totally change the perception of the park along with its value and use.

It is not possible to locate the residential away from Northwood Road at the rear of the blocks because of the depth of these sites. This is shown in the block studies.

DESIGN PRINCIPLES FOR THE MASTER PLAN

Background

In its role as a neighbourhood centre, Council envisages that Northwood will undergo a change in building form, use and density. The principles outlined in this report are based on the assumption that:

- this part of Lane Cove is moving to a mixed use centre with a denser housing form and a more diverse retail offering.
- every urban area should be designed to establish the Desired Future Character in terms of the three-dimensional built form and spatial structure prior to setting the planning controls.
- not every precinct with a similar zoning will be able to accommodate a similar amount or form of development.
- not every site with a similar amount or form of development will be equally feasible.

To optimise the quality of the outcome for the centre, including highlighting the natural environment, it is essential to consider the area as a totality and not as a series of separate sites. To this end a Master Plan is essential.

A key aspect of a Master Plan is to define the built form and the spatial structure. The spatial structure of an urban area consists of the spatial relationships of the buildings to each other, to the street pattern and to the land form. To ensure the success, amenity and quality of an urban precinct, it is critical that the spatial structure resolves basic structural issues and is defined relative to its neighbouring areas. No amount of "tweaking the architecture", "changing the paving", will be able to address the problems of a poor spatial structure. The final Master Plan must also provide guidelines for the resolution of the architecture and public domain.

The spatial structure of any urban area consists of the street and block pattern and the open space system as defined by the built form relative to the topography. The spatial structure is a major determinant of legibility and identity, variety, accessibility and walk-ability as well as the amenity of the buildings. Legibility and identity rely on revealing the topography and enhancing any "points of difference". Variety is dependent on the proportions of the spatial system in plan and section in comparison to adjacent related spatial systems such as a series of wide streets juxtaposed with a series of narrow streets. Legibility and accessibility are dependent on the continuity and connectivity of the street pattern, the density and the proximity of activities relative to walking distances. Walk-ability is dependent on legibility; the continuity and the connectivity of the street system. Amenity for the buildings, privacy, noise transference, light and sun etc. relies on the internal organisation of the

buildings, the site layout relative to other sites and the character of the street in which the buildings are located.

The spatial structure consists of the following:

- the street and block pattern including street hierarchy and proportion;
- the open space: public and private;
- view corridors;
- view cones;
- siting and arrangement of the building, alignments, setbacks etc, including height and relationships with heritage elements, interfaces with the ground plane and with edges;
- capacity / floor space ratio related to the building envelopes and / or building typology;
- height;
- access;
- safety; and
- landscaping vegetation / deep soil zones.

The spatial structure is influenced in detail by the resolution of the architecture.

Urban Fabric and Points of Difference

Every urban area consists of basic urban fabric and "points of difference". The "points of difference" are where the spatial structure departs from the main characteristics of urban fabric in the surrounding area. These "points of difference" may be quite minor such as a distinctive corner site or they may be quite major like a heritage conservation area or a campus. They are essential in adding diversity, interest and legibility to urban areas. The "points of difference" assist in structuring what can otherwise be a monotonous environment. The Northwood Neighbourhood Centre is the "point of difference" within the greater urban fabric which is characterised predominately by detached dwellings.

Street and Block Pattern

The street and block pattern is a major determinant of the character of any area. In particular, the spatial quality of the place. Northwood Neighbourhood Centre is located on a high point in the topography. The topography rises from Lane Cove River to the south but is relatively flat around the vicinity of the Western Precinct but falls away sharply in the Eastern Precinct into the gully.

The existing street pattern provides:

- An understanding of the topography/landscape.
- A variety of experiences.
- A framework for architecture and vegetation.
- A setting for the public life of the surrounding suburbs.
- Opportunity for a range of different uses and economic opportunities. These are limited by the size of the centre, public transport etc.
- The potential to connect to the surrounding environment, Central Park, the Bushland walks to Warraroon Reserve on the west to the Lane Cove County Club and Osborne Park in the east.

New Streets

When an urban area transforms from low density uses to a higher density and a more complex mix of uses ideally a finer street and block plan needs to accompany the change. This can be done by introducing new streets.

Western Precinct

The overall street block of Northwood Road, Kenneth Street, Arabella Street and Woodford Street is large and hilly and not conducive to easy pedestrian use. Currently the two service stations in the Western Precinct act as thoroughfares for both vehicles and pedestrians between Kenneth Street and Northwood Street. This connection is used by cars to avoid the traffic lights at the junction of Kenneth Street and Northwood Road. They are also used by pedestrians aiming to reduce the walking distance to the crossing on Northwood Road. There is one pedestrian walkway between Arabella Street and Northwood Road through McMahon's Road West. This joins Northwood Road just to the south of the Centre, opposite a bus stop for city-bound buses. With the development of the Northwood Neighbourhood Centre, there is the possibility of introducing a connection through the Western Precinct. This could be:

- A pedestrian connection; or
- A share-way with left in / left out into Northwood Road and Kenneth Street subject to RMS approval; or
- A street with left-in / left-out into Northwood Road and Kenneth Street subject to RMS approval.

A new connection would reduce the size of the overall block and introduce a "mews" type street or regular street for dwellings. Such a connection is important to preserve existing movement patterns

and to facilitate pedestrian movement in the area, particularly from Central Park to the Eastern Precinct. It is also a way of providing outlook, light and air to dwellings.

Eastern Precinct

In the Eastern Precinct there are no opportunities to introduce new streets. The very steep topography, the bush and the Country Club inhibit the introduction of any new connections other than pedestrian connections to the bush. There are a limited number of connected cross streets in this part of Lane Cove because of the gullies. These gullies form the basis of the drainage and recreation systems.

A paper road, McMahons Road East, is indicated on the survey plans. It is slightly south of the Northwood Neighbourhood Centre and is the continuation of McMahons Road West from the western side of Northwood Road across to the east. McMahons Road West is part "made" road and part "paper" road through to Arabella Street from Northwood Road. It is this alignment that forms the pedestrian connection.

On the eastern side of Northwood Road, McMahons Road if built would continue across the golf course to Osborne Park and would join a connection between Richardson Street West and Richardson Street East. As the Richardson Street extension does not exist it is unlikely that McMahons Road will ever be constructed. Also because the density of development is relatively low there are limited benefits and high costs involved. Paper Roads are not uncommon in Northwood and South Lane Cove. They relate to the original grid layout which in some places has not been able to be constructed because of the steepness of the topography.

Future-enhanced pedestrian connections along the bush corridors will assist in achieving better connectivity to the Eastern Precinct. Any services and facilities in the precinct however, will not be able to rely on 'through' pedestrian traffic from a fully-connected street system. Success for this centre will rely on being a combination of a local pedestrian destination, a local car destination and some "through" traffic.

Principles

Western Precinct

- A new street/ connection should be introduced between Northwood Road and Kenneth Street.

Eastern Precinct

- A new pedestrian connection should be introduced between Northwood Road and the Lane Cove Country Club.

Street Hierarchy

The hierarchy of the streets in the Northwood Neighbourhood Centre are:

1. Northwood Road / Longueville Road (River Road);
2. Kenneth Street;
3. Local Streets / William Edward / Woodford/ Arabella; and
4. "New" Street.

Northwood Road / Longueville Road (River Road) is the main arterial. Kenneth Street a secondary road. River Road is a four-lane road connecting the peninsula ridge roads and valleys into the Pacific Highway and ultimately the CBD of Sydney. This existing hierarchy of streets provides the following range of spatial experiences:

- The contrast between the busy Northwood Road / Longueville Road (River Road) is predominately that it is car-focused and curve linear in plan. This is different in plan and use to other nearby streets that form the local, informal street grid that sits within the major traffic routes;
- The contrast in terms of sun and shade between north / south facing streets and east / west streets;
- The long and short blocks along the peninsulas;
- The relatively flat sites on either side of the ridge roads;
- The high and low sides of the street blocks along the peninsulas;
- The stepping characteristics of the buildings and gardens on the "up and over" short streets along the peninsulas; and

- The potential for an additional short cross-street connection from Kenneth Street to Northwood Road. This would structure the sites in the Western Precinct and improve the hierarchy.

Street Hierarchy: Form and Uses

The section of Northwood Road that passes through the Centre, is a major access way and is consequently noisy and a relatively inhospitable environment for residential development. Kenneth Street only serves the Longueville peninsula. There is reduced traffic on this thoroughfare so it is more conducive to residential development and "casual retail", particularly where there are views over central park.

Retail development other than the service stations and the bottle shop, has struggled on Northwood Road. Parking is difficult to access and there are insufficient retail offerings to create a destination other than for a highly specified reason, such as the Veterinary Clinic. Retail at ground floor along Northwood Road and Kenneth Street would assist in activating the Centre but it is evident that more retail is required so that the whole Centre can become a "destination".

In a "traditional" city, the larger and more important buildings face the main streets and house the more important uses. In a modern city and in this case, in particular it is preferable to locate the residential uses away from busy noisy roads. Northwood Road / Longueville Road have poorer amenity in terms of noise and dirt. For this reason it is preferable to locate the majority of dwellings at the rear of the Eastern Precinct sites and facing Kenneth Street in the Western Precinct. In the Eastern Precinct, it is remarkably quiet behind the existing shops and there are expansive bush views.

Principles

Western Precinct

- Retail development should be located on all street frontages; and
- Residential development should be concentrated on the Kenneth Street frontage although the block studies show that this may not be able to be achieved.

Eastern Precinct

- Retail development should be located on Northwood Road and should serve outdoor public spaces; and

- Residential development should be concentrated on the Conservation Lane Cove Country Club frontage.

History

The history of a place can provide information as to how to make meaningful interventions into the urban fabric. When the historic layers of development of a place are drawn in both the broad and local context valuable features which have been neglected and lost can be reinstated and brought to life within the context of the new development. Changes in urban areas are the result of introducing new layers of development. The new layer can reveal, enhance or destroy the past. Ideally the interventions reveal and enhance. Where poor interventions have taken place there is sometimes the potential to repair that environment through the new development.

The street pattern, the "paper roads" and informal connections in the suburbs along the Lane Cove River are the key to revealing the history of these suburbs. Detail aspects include the use of sandstone in kerbs, walls and building foundations, the mixed lot sizes and the retention of the topography in preference to on-site car parking provisions (although this is sadly changing much to the detriment of the suburbs) reveal the broader landscape and reflect its history. The sandstone retaining walls in the Eastern Precinct are a good example of this historic development. These contrast with the concrete driveways and platforms that are later poor interventions and which could be replaced with more sympathetic development.

Principles

Western Precinct

- New development should retain the street pattern, its width and alignment.

Eastern Precinct

- New development should retain the street pattern, its width and alignment (Northwood Road);
- New development should repair the damage done by the current development; and
- Development proposals should consider the use of sandstone in walls, foundations etc. in the public domain.

View Corridors

View corridors are contiguous spaces in the public domain defined in varying ways by buildings. View corridors visually and spatially link one part of an urban area to another by focusing on space (as a connector) or a feature, e.g. park / plaza / water / trees / public building. View corridors are most often streets and / or the continuation of streets and are the mechanism by which people understand the landscape and geography of an area. For this reason alone they are key to establishing identity, legibility and a "sense of place".

The street layout in Lane Cove particularly, on the peninsulas, is such that it operates as a series of view corridors. It is important to note that these view corridors although not necessarily very wide all extend to include the sky and the full width of the particular street. It is important that all the streets in the Northwood Neighbourhood Centre and surrounding precincts are maintained as coherent, contiguous spaces in plan and in section.

Principles

Western Precinct

The Western Precinct has de facto view corridors through the two service station sites. They are ill-defined but do spatially connect Kenneth Street to Northwood Road. There may be an opportunity to formalise one of these into a new short street which would act as a view corridor between east and west.

It would be ideal to be able to connect Warraroon Reserve to the Lane Cove Country Club with a contiguous open space however the alignments of public land, pedestrian crossings etc. will need to be evaluated to see if this opportunity can be incorporated in the future. The relative locations of both precincts preclude the opportunity to provide a view corridor from the Western Precinct to the Eastern Precinct. A connection from the Western Precinct could only be realised if the Northwood Neighbourhood Centre extended further south on the eastern side.

- All existing streets should be maintained as view corridors;
- A new street as a view corridor should be introduced into the Western Precinct; and
- Connect Warraroon Reserve to the Lane Cove Country Club with a contiguous open space.

Eastern Precinct

In the Eastern Precinct there are minor view corridors between buildings. There are some expansive views from the rear of the Speedway service station site and some glimpses between the buildings located on Northwood Road through to the bush gully. There is an opportunity to reconnect the gully to the Centre by providing one or more view corridors from Northwood Road to the bushland as is demonstrated in the Planning Proposal.

- The new development should provide one or more view corridors from Northwood Road to the bush.

View Cones

View Cones are different to View Corridors. They are general expansive views from a point. They may include public and private land.

Principles

The two most important view cones in Northwood Neighbourhood Centre are the view at the junction of Woodford Street and Kenneth Street to Woodford Bay and the Sydney CBD and the view over the Conservation Zone and Lane Cove Country Club. These views are over predominately public land.

- Views from the junction of Woodford Street and Kenneth Street to Woodford Bay and the Sydney CBD should be maintained and enhanced.

Views over the Conservation Zone and Lane Cove Country Club should be maintained and enhanced.

Siting and Arrangement of Buildings

The overall objective for the built form is to ensure that the area capitalises on its location and existing street pattern by creating a strong spatial system and coherent urban fabric. It is important that the organisation of new buildings reinforces the spatial characteristics of the street pattern and open space pattern.

Building as Objects: Buildings Defining Space

Many modern buildings purport to be landmark and gateway and are designed to "stand out", self-reverential buildings many displaying characteristics which absorb rather than define the urban space. Buildings which sit at 45 degrees to the street, elements such as such as hip roofs; curvilinear shapes and exaggerated facades create buildings which are designed to "stand out" as objects-buildings as sculptures.

Rather than complement the urban fabric and create a contiguous spatial whole these buildings detract by drawing attention away from the experience of the spatial system, the streets and open spaces and by focusing attention on the built form. Where the built form is dominant the apparent density will appear greater.

When the buildings are dominant in an urban context the opportunity for any complexity in the spatial system is reduced because there is no tension created between the buildings, only random left-over space. Where buildings physically touch and are joined by party walls, as with block edge development and / or town houses, it is relatively easy to provide a continuous "wall" which defines a public and private spatial system. A "wall" of buildings can provide continuity of the spatial system even when the facades of those individual buildings are quite different.

The principles outlined are to ensure that in the view from the public domain either from the street or the open space:

- *the land form is revealed and legible;*
- *the spatial system is dominant;*
- *the skyline is clearly delineated and not a series of "stacked" buildings;*
- *the buildings are related to each other so that they define a series of public and private spaces; and*
- *the heritage items have an appropriate spatial relationship with new development and development of different typologies and scale.*

Building Siting, Arrangement and Form General Principles

The siting, arrangement and form of buildings envisaged under the neighbourhood centre DCP is that the buildings should:

- contrast with the neighbouring suburban development in form and typology;
- be larger in scale than the existing buildings in the Centre;
- be larger in scale than the surrounding suburban development;
- be an urban form not a suburban form They will not be "object" buildings; and
- form a coherent whole so that the Centre reads as a compact entity.

Relationship of Buildings to Streets and Public Open Space

In the Western Precinct, there are two street frontages and one interface with adjacent sites and one street interface with open space across the street.

In the Eastern Precinct, there is one street frontage, two interfaces with adjacent sites and one interface with the Lane Cove Country Club and Lane Cove Bushland Park.

Alignments to Streets and Public Open Space

To minimise the visual impact of development in an urban area the spatial system must be dominate.

To ensure that the spatial system is dominant buildings / building envelopes/ footprints are to:

- *align to the streets and open space so that there are clear sight lines and the street open space system is given value.*
- *align with each other in plan and section within the development sites, to the adjacent sites and across street and or create positive spatial relationships.*
- *be vertical in section and / or that any set-back relates to the height of the building. The buildings should not be overly "stepped", in section or in plan or have large protruding and/or curvilinear elements.*
- *create a clear roof line against the sky.*
- *ensure fronts of buildings face the street and open space. This reinforces the street as the dominant element.*
- *ensure backs of buildings face backs of buildings.*
- *ensure windows, balconies and entrances face the street.*

Principles

Western Precinct

Ideally buildings should align with and face Northwood Road and / or Kenneth Street. It is critical that this occurs at the intersection of Northwood Road and Kenneth Street. However the ability to align residential development along both Northwood Road and Kenneth Street continuously is limited because of the depth of the site between Kenneth Street and Northwood Road relative to the required depth and separation distances for residential development. Ground level retail can align both streets.

- New development should face and align with the intersection of Northwood Road and Kenneth Street; and
- New development should face and align with, as continuously as possible, Northwood Road and Kenneth Street.

Eastern Precinct

Buildings should "edge" and face Northwood Road and the public open space at the rear of the Planning Proposal site. The alignment to the open space may not be exactly parallel to Northwood Road because of the edge and angle of the bushland corridor. It may be slightly irregular depending on the contours. Proposed development should align with the side boundaries.

- New development should align and face Northwood Road; and
- New development should align and face the Conservation Zone and Lane Cove Country Club.

Relationship of Fronts and Backs of Buildings

Wherever a building faces a space, that space / street etc. will read as being the most important. Wherever a building backs onto a space, that space / street etc. will read as being the most important. This aspect of urban form particularly affects legibility, safety and identity.

Some building typologies are more able to be "double sided". These are typically apartment buildings, commercial buildings and some small shops (although the latter require high levels of patronage and staffing). Apartment buildings and commercial buildings can have dual entries and face in both directions.

Principles

Western Precinct / Eastern Precinct

In both precincts buildings should:

- The fronts of new development should face Northwood Road, Kenneth Street and the Conservation Zone.
- The backs of new buildings should face the backs of buildings.
- The sides of new buildings should face the face the sides of buildings on the southern boundary of the Western Precinct.
- The sides of new buildings should face the face the sides of buildings on the northern and southern boundaries of the Eastern Precinct.

Setbacks to Streets and Public Areas

Street setbacks should be designed relative to history and use. They should respond to the future uses, street hierarchy, street proportions including building height and Desired Future Character. Street setbacks should be meaningful and should not compromise rear setbacks. The streets themselves provide generous distances in terms of light / air/ privacy and sun. Street setbacks can be designed in many ways. They do not have to be private gardens but can be developed into wide footpaths with generous proportions especially where densities are increased, open into plaza areas or form eating courts.

Principles

Western Precinct

In the Western Precinct there:

- should be no setback to the street frontages on the northern end of the site because of the narrowness of the site. This important corner condition should be retained.
- should be no setback to the street frontages along Northwood Road and Kenneth Street at the street or upper levels.

Eastern Precinct

Interface with western boundary Northwood Road:

There may be opportunity to provide a more generous footpath setbacks in Northwood Road but this would need to be evaluated against the sharp falls in the Planning Proposal site's topography and the need to retain a strong built-form along Northwood and Longueville Roads.

Interface with Eastern Boundary (the Lane Cove Country Club):

The eastern boundary edges the bushland of the Conservation Zone. This is public land and a 10-metre protection zone is to be introduced. This setback buffer protects the bushland and maintains the requirement for a bush fire protection zone.

Because the bushland gully and the Lane Cove Country Club is public land, new development must face this frontage as though it was a public street. This will reinforce its importance and public value even though it is not possible to introduce a new street.

In the Eastern Precinct there:

- should be no more than minimal setbacks at ground level in Northwood Road.
- should be no setbacks at upper levels along Northwood Road.
- should be 10-metre setback from the bushland corridor on the eastern boundary. This is required as part of the bush protection zone.

Relationship of Buildings to Buildings (Side Boundaries)

Alignments of Buildings to Buildings

Buildings should relate one to another. This is to create a positively defined spatial system in which space is not just what is "left over" around each building.

Buildings which are regular in shape, related to the street and boundary alignments and with modest projections will appear less dominant than buildings which are round, have large curving balconies / windows / large irregular projections or a stepped profile. Curvilinear shapes etc with rare exceptions cannot relate to the adjacent buildings by creating a positive spatial system.

Where buildings don't align with site boundaries it can be difficult for the neighbouring buildings to relate to them. The spaces between the buildings then are ill defined and the buildings become dominant. This can be exacerbated by the level differences in the topography.

Principles

Western Precinct

Alignments for new development on the southern boundary need to address a complex boundary condition that includes the angled boundary relative to the existing buildings, the location and alignment of the heritage dwelling, the apartment building and the topography.

Side boundary alignment in the Western Precinct should:

- be decided as part of the detail design when the uses and typologies are known; and
- create a positive space with the heritage buildings.

Eastern Precinct

Existing development on both the northern and southern boundaries are perpendicular to Northwood Road. New development should align with these boundary conditions so that positive spaces are created.

Side boundary alignments in the Eastern Precinct should:

- follow the northern and southern site boundaries;
- create a positive space with the adjacent buildings; and
- provide view corridors into the open space system on the eastern boundary.

Setbacks Buildings to Buildings

Where buildings are built "boundary to boundary" with a party wall condition or where this is permissible, adjacent new development can be built to the boundary. Attention will be required as to how the wall is treated architecturally.

Where buildings are set back in a "landscaped" setting new development should respect this, with appropriate setbacks however it should not be incumbent for one site to provide light and air to the adjacent development.

Principles

Western Precinct

Interface with Southern Boundary (heritage dwelling and apartment building):

The southern boundary of the Western Precinct between Kenneth Street and Northwood Road is very irregular. On Kenneth Street there is a garage structure associated with the heritage dwelling close to the boundary. The heritage dwelling itself is set well back from the boundary at an angle to the side and front boundary; it is single storey but set on a "podium" above ground level.

The apartment building faces Northwood Road and is located towards the centre of the site with windows on all sides. There is a partially "see through" wall on the boundary to protect the amenity of residents from the BP service station. The building is parallel to the front and side boundaries. A setback for new development will be required on this boundary.

The dimensions of the setback to the southern boundary of the Western Precinct should:

- be decided as part of the detail design when the uses and typologies are known.

Eastern Precinct

Interface with Northern Boundary (apartment building):

This northern boundary is to an apartment building located at the centre of its site with windows on all sides. It is parallel to the front and side boundaries. A setback for new development will be required on this boundary.

The dimensions of the setback to the northern boundary in the Eastern Precinct should:

- be a minimum of 6 metres.

Interface with Southern Boundary (Riverview Animal Hospital and Veterinary Clinic):

This is a side boundary with the Veterinary Clinic. The clinic is built in the traditional urban shop form with a party wall on the boundary and a "wing" at the rear.

The dimensions of the setback to the southern boundary in the Eastern Precinct should:

- be nil or minimal adjacent to the Northwood Street frontage and the party wall.
- be decided as part of the detail design for the urban form on the rear of the site.
- ensure that the Veterinary Clinic has adequate light and air.

Note: if the Riverview Animal Hospital and Veterinary Clinic is amalgamated into the Planning Proposal site a more substantial set-back will be required on this boundary adjacent to the residential development.

Relationship of Buildings to Heritage Buildings

Heritage buildings and other elements, their curtilage and street systems should be retained and enhanced by new development. This is to retain the memory of previous urban environments, expose layers of urban fabric and reinforce the sense of place. Heritage elements should be "built-in" to the precinct and / or town holistically. Spaces as well as material elements have heritage value.

Principles

Western Precinct

The Western Precinct is adjacent to a heritage precinct of detached dwellings sited on hilly topography. This has implications for the setbacks, alignments and height of buildings in the precinct. The complexity of the outcome for this part of the precinct can only be resolved when the uses and extent of developable sites are better known.

Eastern Precinct

The Masonic Hall is a heritage item on Longueville Road situated in the Northern Precinct. It has a regular building form and a small setback to the street frontage. This has implications for the setbacks and alignments along Longueville and Northwood Roads. Buildings should align with and be close to the front boundaries of both roads. Height is not a significant issue provided that the alignment is maintained.

New development should:

- Align with Northwood Road.

Relationship of Buildings to the Ground Plane

The interface between the Ground Plane and a building is critical to the quality of the urban environment. The detail design should be considered so that a building, entrance detailing, ground floor height and proportions are carefully related to the footpath levels and width. The relationship should not be dictated by the "absolute" height of the building or disabled access. This is particularly important where the terrain is hilly.

Buildings should not be sited so that the ground slopes away from them and they sit on "hills". Benching the topography particularly up the hills, will enable buildings to "sit" so that they do not appear as if it will slide down the hill. This will also ensure that the space around the building appears more generous.

Principles

Western Precinct

The Western Precinct provides a relatively flat interface with the ground plane.

The relationship of the buildings with the ground plane should:

- be resolved in the detail design of the buildings; and
- address pedestrian views across Kenneth Street to Central Park.

Eastern Precinct

Interface with the ground plane is a critical consideration in the Eastern Precinct, which is currently terraced into a series of podiums defined and created by sandstone retaining walls. Any new development should employ this approach, as has been done in the Planning Proposal.

The interface with the ground plane in the Eastern Precinct should:

- use terraces and podiums to reflect the historical development and "seat" the buildings so that they are not dominant in any views from Lane Cove Country Club.

Density

All sites in urban areas have differing physical capabilities of taking development. In this respect urban areas are different from suburban areas. The capacity of a site and / group of sites depends on the site shape and proportions relative to the desired building typology, the topography and the amount of street or public frontage. Feasibility issues such as contamination, contributions etc will also impact on whether a site will be developed. As a general rule, the longer the public frontage relative to the size of the site the more capable it is of taking a greater amount of development. Because Sydney is growing and housing is needed, density should be maximised to suit the particular conditions of its site and location. This means that there will be differentials in the capacity of sites in the same zone. Density should be optimised across a precinct and maximised on sites that are physically capable of absorbing that density. This approach is supported as best practice of in many countries and is the reason master plans / urban design studies are prepared prior to setting planning controls. The FSR "falls out" of the building envelope designs not the other way around. The other factor affecting density is the use. Retail uses particularly large floor plan items such as supermarkets add substantially to the FSR without adding to height and mass.

Principles

Western Precinct

The Western Precinct has a long street frontage but is very inefficiently shaped for residential apartments and car parking. Exclusive of the company title apartment block the four sites are in different ownerships. The individual sites may not be able to be amalgamated. Furthermore, the two service stations may have contamination issues. The residential apartment building on the precinct's southern boundary is in company title ownership. This building has a relatively small setback to the BP service station which may impact on setbacks and height for any new development. The southern boundary is also adjacent to one of the most important heritage items in the area.

Density should be maximised to ensure that the Centre is redeveloped. This can be achieved through a design process that tests building envelopes and uses related to the site conditions, uses and ownership. A greater amount of retail will increase the FSR however this may not be desirable in terms of competition with the Lane Cove Village Centre, or feasible given the traffic constraints and irregular precinct shape.

If the feasibility is not in line with the Desired Future Character of the precinct, Lane Cove Council may need to consider reducing the Section 94 Developer Contributions to achieve the desired outcome and / or reducing car parking requirements.

Density in the **Western Precinct** should:

- be determined as a result of the design option selected for the buildings and spatial structure. The block study in this report has tested the Western Precinct to ascertain appropriate heights and floor plans and has illustrated options. The assumptions are that there is retail at ground and residential above. Greater FSR could be achieved with retail and commercial only on this site but car parking may not be able to be accommodated. The achievable FSR appears to be approximately 2.2:1 – 2.29:1, depending on height. Car parking was not tested as part of this process. The assumptions for the FSR are:
 - the building envelope capacity minus 20% for residential (the 20% allowance is for wall thickness, vertical circulation balconies etc.).
 - the building envelope capacity minus 50% for retail (the 50% allowance in this case is high and it is based on wall thickness, vertical circulation, a cross block connection, loading access, car parking access).

Eastern Precinct

Density in the Eastern Precinct should also be determined as a result of a design option which specifies the built form and spatial structure. The Planning Proposal in this report has put forward such a proposition. This report has measured the proposal against the principles outlined and made recommendations for amendments.

The Eastern Precinct is capable of accommodating more development than the Western Precinct because its shape is more regular, the dimensions of the developable part of the precinct is sufficient to enable two parallel residential buildings with an adequate set-back between them, the falls in the site can be used favourably to accommodate taller buildings at the rear and there is a long frontage to both Northwood Road and the public open space.

The Riverview Veterinary Animal Hospital and Clinic in the same B1 zone, may not achieve a similar FSR to that of the amalgamated Planning Proposal site. The Clinic site will be limited by the amount of car parking that can be provided. As it is a very established, viable business in the locality and linked to its sister business in Crows Nest, the Clinic site may be worth retention as a business rather than a redevelopment site. In urban design terms and urban form terms there is no problem with the site remaining in its current form and current use as it adds to the variety and complexity of the Centre.

Density in the **Eastern Precinct** should:

- be determined as a result of design for the built form (building envelopes) and spatial structure. The design in the Planning Proposal appears to be approximately 2.5:1 depending on height and the final amount of retail.

Height

Height is a very complex and emotive issue. The height of buildings has to be satisfactory from within the street and block system from the public and private space and when viewed externally from outside a precinct. Common misconceptions suggest the tall buildings should be located on the highest topographical point of a site. This is not correct. The height of a building is part of its ability to structure the spatial system and therefore must relate to the width of the street and / or open space, adjacent buildings, the footprint, the role of the particular site, the potential of building on the site to define a clear roof line to the sky, the topography and the desired future character of the area.

The definition of height under the standard LEP includes the roof. The definition of height also includes as a storey, any area 1.2 metres out of the natural ground. Given the slope in the Eastern Precinct this needs to be carefully evaluated.

Principles

Western Precinct

The DCP nominates four storeys as the height limit. The height in the precinct should be consistent and reflect the height on the eastern side of Northwood Road. The only exception to this would be an additional one to two storeys on the northern end of the precinct at the Kenneth Street intersection with Northwood Road. Additional height here has been carefully evaluated in the block study design options. A height of six storeys with a relatively small footprint is suggested to make a strong urban form for the corner and a viable building. It is not suggested that the six storeys extends for the full length of the site.

The height in the **Western Precinct** should:

- be determined on the corner through a rigorous application of design principles; and
- be no more than four storeys at the southern end of the precinct.

Eastern Precinct

Height is more easily accommodated in the Eastern Precinct because of the falls in the land. This can in fact be seen in the existing development. The apartment building at 268-270 Longueville Road is two storeys to the street and five storeys at the rear. A height of four storeys is appropriate for Northwood Road and this can potentially relate to the opposite side of the street. Development parallel to this and facing the gully would accommodate six storeys at a similar Reduced Level (RL). The Planning Proposal has eight storeys, two levels higher than the height of the Northwood Road frontage. It appears that one of the additional two storeys is visible above the four storey building facing Northwood Road when viewed from the River Road / Northwood Road intersection. This contradicts the principle of a clear roof line to the sky and not seeing one building above another when viewed from the public domain. The proposed height of eight storeys from the lower level, in terms of the frontage to the Conservation Zone and Country Club is satisfactory. It is not possible to see the Planning Proposal site, including the telecommunications tower, from the Country Club, Richardson Street or Osborne Park. It is not satisfactory however from the Northwood Road side.

The height in the **Eastern Precinct** should:

- be four storeys to Northwood Road;
- ensure that any development at the rear of the subject site is not visible behind the Northwood Road building from the public domain. A height of one level above the RL of the top of the Northwood Road building is proposed; and
- ensure that any development along Northwood Road is not visible behind the building at the rear of the subject site from the Lane Cove Country Club. A height of one level more than the RL of the top of the Northwood Road building is proposed.

Access

Pedestrian

In urban areas pedestrian access should be clear, direct and faced and overlooked by buildings. Connectivity will assist in making a city more walkable and pedestrian paths / streets should endeavour to be located where people want to go.

Principles

Western Precinct

The long street frontages and levels of the precinct provide multiple easy access points into the precinct. The cross-block connection would assist in linking Central Park through the Western Precinct to the Eastern Precinct and to Lane Cove Bushland Park.

The pedestrian access in the Western Precinct should:

- provide a connection between the Western Precinct and the Eastern Precinct from Kenneth Street to Northwood Road.

Eastern Precinct

There is potential for pedestrian access along Northwood Road. The Planning Proposal provides a generous set of steps at the northern end of the site from Northwood Road to the lower levels of the development and the bushland beyond. Pedestrian movement within the site will depend on lifts / escalators and stairs.

The proposal includes a large plaza area on the Northwood Road level. This area, including the lower level shops, will be accessed by car and by a limited number of people on foot. The present arrangement of the plaza and retail shown in the Planning Proposal will not create a successful active plaza.

Pedestrian plaza spaces work successfully and attract people when located at the centre of a highly accessible network of streets defined by active edges, e.g. Lane Cove Plaza. Although the design of Lane Cove Plaza is not of a particularly high standard it attracts large numbers of people day and night and it is arguably the most successful street closure in Sydney. The reason for the Plaza's success, is that it is at the centre of criss-crossing lanes, streets and arcades. It is extremely difficult to enter Lane Cove Village Centre without proceeding through or into the Plaza.

Northwood Neighbourhood Centre cannot provide this level of accessibility because of the limited street and access network. Its success will depend on defining a space and providing activities around it that will feed the space. A good model for Northwood is the Stockland Centre in Cammeray (see later evaluation of Stockland Cammeray).

The Planning Proposal should revise the pedestrian access to ensure that:

- the Northwood Road level has a well-defined easily accessible space with active edges; and
- access routes between the levels and to Northwood Road are clear, direct and generous.

Vehicle Access and Movement

Vehicle access should be safe and discrete. It should have minimal impact on the public domain.

Principles

Western Precinct

There are currently numerous vehicle access points through the precinct. The Caltex site has two direct routes, while the BP has one entry / exit in Kenneth Street and two in Northwood Road. There is vehicle access to Northwood Cellars from Kenneth Street and to the apartment building from Northwood Road.

The long street frontages and levels of the precinct provide multiple, easy vehicle access points into it from both the east and the west. Distances from the junction of Northwood Road and Kenneth Street however, will restrict access opportunities, depending upon density and uses.

In the Western Precinct:

- The access into this precinct will need to be agreed with the RMS and Council.

Eastern Precinct

There are currently six vehicle access points into the precinct from Northwood Road: one to the detached dwellings, two to the service station, two to the retail and one to the veterinary clinic. Apart from the service station, these accesses are physically restricted. They lead to customer or residential car parking at the rear of the buildings and the turning circles provide forward access to Northwood Road.

There is only one access proposed to the Planning Proposal site and it is on its southern end of the Northwood frontage. There have been discussions with Council as to whether it is more applicable to have the vehicle entrance at the northern end. This will need to be agreed with the RMS.

In the Eastern Precinct:

- There should be one access point from Northwood Road. The final access point into the subject site will need to be agreed with the RMS and Council.

Safety and Surveillance

Safety and surveillance will depend on the buildings facing the street and levels of activity. Windows which overlook the street, bay windows and balconies assist in providing a sense of safety. Multiple entrances are an asset and help in increasing activity levels on the street. Where buildings are located at angles or sideways to the street, the importance of the street is negated along with its sense of security.

Principles

A sense of safety and security can be provided in this Centre by facing the dwellings to existing streets, new streets, plaza and bushland gully. All these principles have been considered in the current Planning Proposal.

New development in the Centre there should:

- address all public and private spaces with windows, entrances etc.
- provide a clear demarcation of private and public areas.
- provide appropriate lighting, paving and seating.

Landscaping

The arrangement and species of street trees should reinforce the street hierarchy orientation and scale. Trees can be very dominant elements in a street. Simple rows of trees define a very strong spatial system which can particularly reinforce the spatial qualities of a street.

Principles

Planting within the new development should structure the precincts and should:

- be an appropriate species;
- relate to the scale of the development;