

MANGO HILL INFRASTRUCTURE DEVELOPMENT CONTROL PLAN

Sector Plan No. 038-1000

for

Residential Sector Fifty

Residential Precinct

North Lakes Development

16 December 2009

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1.0 Introduction

- 1.1 The Mango Hill Infrastructure Development Control Plan (DCP) provides for the creation of a sector within a precinct. The area of the sector may be chosen by the principal developer. The principal developer must then prepare a sector plan and lodge it with Council for approval in accordance with the relevant provisions of the DCP.
- 1.2 A sector plan is the final plan in the plan making process. Its purpose is to provide the code of development for the land in the sector. It will form the basis for assessment of development applications and self assessable development.
- 1.3 To the extent this sector plan provides development requirements which are inconsistent with those in the planning scheme, local laws, policies and codes, the requirements in this sector plan prevail as provided by clause 1.11 of the DCP.
- 1.4 To the extent this sector plan does not provide development requirements, then the provisions of the planning scheme relevant to the particular form of development will apply as also provided by clause 1.11 of the DCP.
- 1.5 The principal developer has created a sector to be known for planning purposes as *Residential Sector Fifty*. This document constitutes the Sector Plan for Residential Sector Fifty.
- 1.6 The location of the sector within the DCP area and the Western Residential South Precinct (the precinct) is shown on Figure 1.
- 1.7 Western Residential North Precinct Plan No. 038 outlines the intents and performance criteria to be complied with in the development of the sector. This sector plan outlines acceptable solutions which, if satisfied by development, will in turn achieve the requirements of the precinct plan.

2.0 Sector Plan Context

- 2.1 Residential Sector Fifty covers the portion of land fronting Endeavour Boulevard and North South Arterial Road making up the Western Residential North Precinct (Plan No. 038). It is bounded by the Golf Course to the east, Endeavour Boulevard along the western boundary, open space to the south (Sector 037-1000) and North South Arterial Road to the north. The sector forms part of the Urban Residential Area land use element. The location of the sector within the precinct is shown on Figure 3.
- 2.2 The area of the sector is 9.177 hectares.

- 2.3 The plan in Figure 3 shows the final boundaries of the Urban Residential Area land use element relative to this sector. The Proposed Metes and Bounds Description of the sector is provided in Annexure A.

3.0 General Desired Environmental Outcomes

3.1 General

In relation to the land use element of Urban Residential Area, the DCP states the following general desired environmental outcomes:

- “(a) to establish residential villages that have a high level of amenity and sense of community;*
- (b) to establish residential villages that are appropriately designed in the context of ecological sustainability and offer a range of dwelling types that are conveniently located with respect to community facilities, open spaces and public transport.”*

3.2 Specific

The DCP provides a number of specific desired environmental outcomes as outlined below:

- “(a) To promote a diverse, innovative and highly flexible choice in low, standard and medium density housing in accordance with community aspirations, needs and affordability.*
- (b) To promote residential villages which are linked to the major road network, public transport services and community facilities through safe, convenient, legible local street and path networks.*
- (c) To provide residential villages which are focused on local open space and situated conveniently to local community facilities, including education and recreation facilities, convenience shopping and open space.*
- (d) To promote a community with a high standard of residential amenity characterised by convenience, accessibility, safety, privacy, high quality design and integrated planning.*
- (e) To ensure visual integration of residential development with the natural environment, including development responsiveness to the topography, drainage patterns and remnant strands of significant vegetation.*
- (f) To ensure the development of urban residential areas includes appropriate environmental protection measures and the potential effects of incompatible land uses or transport corridors are mitigated.*

- (g) *To ensure urban residential areas develop sequentially and efficiently in residential villages, serviced with the community and engineering infrastructure necessary for achieving a high standard of residential amenity and quality of life for residents.”*

4.0 Planning Intent

- 4.1 Clause 6.2 of the DCP provides an outline of the planning intent for the Urban Residential Area, including the following summary:

“The urban residential area is intended to provide for a wide range of housing needs in a variety of forms, styles and densities to reflect the prevailing market demands. Residential development will occur in a collection of residential villages reflecting a range of densities being low, standard and medium density. Each village will focus on a centrally located village park. Villages are to be progressively developed having particular regard to the timely, efficient and economic provision of engineering and social infrastructure.”

- 4.2 The planning intent for Residential Sector Fifty is proposed to be developed as a high quality, residential community comprising medium density residential dwelling types (as anticipated by the DCP). It will integrate the medium density residential accommodation types with the future commercial and community facilities in the adjacent Town Centre Frame, consistent with the DCP, together with areas of parkland and supporting engineering infrastructure.

5.0 Development and Landscape Concept

5.1 Development Concept

Residential Sector Fifty is proposed to be developed as a high quality, medium density residential community forming an integral part of the North Lakes development. It will comprise medium density housing in the forms of town houses and may include duplex and/or triplex dwellings.

The development is to be a low rise medium density residential (2 storey residential, pitched roof,) development. The development is to be a maximum of 40 dwellings/ha. Development may comprise of detached housing on small lots (zero lot line), duplex dwellings or townhouse units or a combination thereof which will be developed as a community title subdivision in accordance with the guidelines for Integrated Development contained in the *Queensland Residential Design Guidelines* for Integrated townhouse development, as the case may be.

The development needs to portray a landscaped setting.

Given that the sector is to be developed for medium density integrated housing, the design and siting of all dwellings within the sector is to comply with the acceptable solutions outlined in the Integrated Development Guidelines of the Queensland Residential Design Guidelines (QRDG). In addition to, or by way of further qualification of, the Integrated Development Guidelines, the Specific Residential Design and Siting Guidelines outlined in section 3 are to also be complied with in the development of the sector. These additional requirements relate to key design elements which have been derived specifically for housing development at North Lakes and are intended to ensure overall design harmony and consistency between the numerous residential sectors of the project. Where a conflict arises between the requirements of Section 3 and QRDG, the requirements of Section 3 will prevail.

The Integrated Development Guidelines of the QRDG and the other Specific Design and Siting Guidelines which are included in this sector plan are considered by Council to be acceptable solutions which are consistent with the design criteria of the Residential Precinct Plan 038, AMCORD and QRDG. The acceptability of alternative acceptable solutions to any of the guidelines will need to be demonstrated to, and approved by, the Council in consultation with the principal developer. Any alternatives will only be considered where site-related issues or design and siting requirements specific to the nature of integrated housing warrant special consideration or where a variation can be demonstrated to achieve contemporary best practice in medium density residential planning, design and development. The assessment of such alternative acceptable solutions would be based on the intents and performance criteria specified in the Residential Precinct Plan 038 and, more specifically, the QRDG performance criteria for Integrated Development which are recognised in the precinct plan.

The Proposed Plan of Subdivision for the sector is shown in Figure 6. This plan identifies the following key land use elements:

- (i) Part of a residential village accommodating a maximum of 40 units per hectare;

The broad principles for residential planning and design are outlined in the Western Residential North Precinct Plan. More specific development and urban design principles behind the residential layout concept for this sector include the following:

- (i) A town medium density residential development including support facilities;
- (ii) Provision of a strong sense of arrival to the sector through an entry statement at the roundabout intersection at Endeavour Boulevard;

- (iii) Incorporation of a internal road layout with high connectivity and responsiveness to topography;
- (iv) Inclusion of street planting and attractive streetscapes for housing within the sector; and
- (v) Streets aligned to minimise rear drainage where practicable.

5.2 Landscape Concept

The landscape structure and treatment of the sector is shown in conceptual form on Figure 5. The key element of the Landscape Concept Plan for the Western Residential North Precinct as applied to the sector is the special streetscape planting. Widened collector road reserves adjacent to this sector are proposed to accommodate pathways and additional street tree planting as indicated in notional terms on the Sector Landscape Plan. In addition, the off-setting of carriageways may be implemented to allow further widening of verges for landscape purposes. Such treatments are intended to enhance the landscape structure of important road/visual linkages.

As part of the overall landscape strategy for the sector, the natural features, such as, the gently sloping topography, existing drainage lines and ridge lines, have been recognised. This site responsive approach to residential planning will be enhanced by landscape plantings within private gardens and along internal road, as well as within adjacent parkland.

The use of native species as the predominant plantings will visually reflect the existing natural setting of the DCP area, as well as offering benefits of reduced maintenance and water requirements (refer Annexure B). In addition, exotic and flowering species may be used as feature planting, for example, to announce entries to the sector, distinguish roadway networks and provide visual interest and contrast in parks and gardens.

Where appropriate, street furnishings and lighting will be utilised in addition to landscaping to create more livable spaces for residents. These elements will be unified throughout the Western Residential North Precinct to establish a common theme.

6.0 Land Use Rights

- 6.1 Clause 2.4.9 of the DCP requires the final specification of land use rights for land in a sector to be chosen from the supplementary table of development in the DCP for the particular land use element. If a purpose set out in column B of the supplementary table of development is not nominated for land in the sector, then that purpose thereafter for that land becomes permissible development (column C).
- 6.2 Land within the sector may be used for the purposes specified in column A of the supplementary table of development for the Urban Residential Area land use element which is the subject of this sector plan.
- 6.3 The following purposes in column B of the supplementary table of development for the Urban Residential Areas element are nominated for the land in this sector:
- *Community Dwelling*
 - *Duplex dwelling*
 - *Estate Sales Office*
 - *Sales and information centre*
 - *Townhouse units*
- 6.4 The Supplementary Table of Development (Urban Residential Areas Element) setting out the final specification of land use rights for land in this sector is contained in Annexure C.

7.0 Development Requirements

7.1 Introduction

Clause 2.4.2 of the DCP requires a sector plan to specify development requirements for land in the sector. Clause 1.11 of the DCP provides that to the extent a sector plan does not make these provisions, then the provisions of the planning scheme for that particular form of development will prevail.

7.2 General Requirements For All Development

The requirements for development specified in the planning scheme apply to development in this sector, except where inconsistent with requirements specified in clause 7.3 or the design and siting guidelines in Section 8 or where relaxations are granted in accordance with Section 10 of this sector plan.

For the purposes of this clause, where relevant:

- (i) references in the planning scheme to a zone are to be taken as a reference to the Special Development Zone;
- (ii) references in the planning scheme to an attached flat are to be taken as a reference to an associated unit; and
- (iii) references in the planning scheme to a multiple dwelling are to be taken as a reference to apartments.

7.3 Specific Requirements

The following requirements apply to development within this sector:

7.3.1 Density

A maximum of 40 units per hectare are envisaged for the Sector.

7.3.2 Vehicular and Pedestrian Access

- .1 Vehicular Access from Endeavour Boulevard is shown on the Sector Plan Map which is to be left in, left out at the roundabout.
- .2 Only one access point is to be used for each living unit to internal road.
- .3 Restricted Vehicular Access is highlighted on the Sector Plan Map along Endeavour Boulevard.
- .4 Provision for pedestrian access must be made within the sector as shown indicatively on the Sector Landscape Plan.
- .5 Additional pedestrian pathways may be provided in locations and to details approved by Council.

7.3.3 Lighting and Glare Management

- .1 No person will cause, carry out or erect a light source in such a manner that light emanating from the source is a nuisance.
- .2 All lighting other than public lighting (e.g. road lighting) is to comply with AS4282-1997 *Control of the obtrusive effects of outdoor lighting*. The curfew hours applicable to this sector plan are 10pm - 6am, unless otherwise varied by Council.
- .3 Lighting must provide the level of illumination necessary for safe vehicular and pedestrian movement through the sector.

- .4 Where provided within landscaped areas, the choice and location of lighting must allow for plant and tree growth and, conversely, not become obscured as the landscape matures.
- .5 Permanent strobe, laser, flashing, oscillating, moving or alternating lights are not permitted.

7.3.4 Noise Attenuation Measures for housing next to Major Roads

- (i) Where dwellings abutting the Endeavour Boulevard and North South Arterial, the predicted long term traffic noise levels may exceed 63dB(A). To minimise intrusion of traffic noise into these dwellings they are to be designed to Categories 3 or 4 as defined in Australian Standard AS3671-1989. Residents / builders should seek advice from a person expert in dwelling design which reduces traffic noise intrusion.
- (ii) Noise attenuation fencing is not to exceed 1.8 metres in height and is to be setback at least 3m from front boundary and appropriately screened with landscaping. Where a height greater than 1.8 metres is required this height is to be achieved through landscape mounds with a 1.8 metre fence on top.
- (iii) Predicted long term traffic noise levels from any source (Bruce Highway, North South Arterial Road and Endeavour Boulevard) are not to exceed 63dB (A), facade corrected, at the ground level of any residential dwelling unit. To minimise intrusion of traffic noise at upper levels dwellings are to be designed to Categories 3 or 4 as defined in Australian Standard AS3671-1989. The developer should seek advice from a person expert in noise attenuation within dwelling design to ensure these standards are met and certify that they are achieved prior to commencement of use of the site.

7.3.5 Estate Sales Office

Part of the land in this sector is to be developed as a display village and will include an estate sales office. The office will be developed by the Principal Developer and will be contained on only one lot within this sector.

Car parking for the display village may be amalgamated onto lots adjoining the display homes in lieu of each home providing on site parking. The estate sales office will be limited to the sale and marketing of the development contained within the DCP area.

8.0 Design and Siting Guidelines

The Western Residential North Precinct Plan provides a comprehensive range of design intents and performance criteria for residential development which must be complied with in the development of Residential Sector Fifty. In addition to the precinct plan general criteria and by way of further elaboration on design intentions, a range of detailed residential design and siting guidelines have been included in this sector plan and are considered by Council to be acceptable solutions which are consistent with the performance criteria of the Queensland Residential Design Guidelines (QRDG), AMCORD and/or Pine Rivers Plan.

As a medium density residential development, the design and siting of all dwellings within the sector is to comply with the acceptable solutions outlined in the Integrated Development Guidelines of the *Queensland Residential Design Guidelines* (QRDG), AMCORD and/or Pine Rivers Plan. In addition to, or by way of further qualification of, the Integrated Development Guidelines, the Specific Residential Design and Siting Guidelines outlined in section 8.1 are to also be complied with in the development of the sector. These additional requirements relate to key design elements which have been derived specifically for housing development at North Lakes and are intended to ensure overall design harmony and consistency between the numerous residential sectors of the project. Where a conflict arises between the requirements of Section 8.1 and QRDG, the requirements of Section 8.1 will prevail.

Figure 6 Sector Plan Map, shows the Proposed Plan of Subdivision within Residential Sector Fifty. As required by clause 2.4.8 of the DCP, Figures 6 must also show indicatively the nature of intended development for urban residential land within 100 metres of the sector boundaries except for those parts of the sector which abut major roads or major open space.

8.1 Medium Density Residential Design and Siting Guidelines

The following Medium Density Residential Design and Siting Guidelines for North Lakes are to be complied with in the development of any medium density housing within Residential Sector Fifty:

As a medium density residential development, the design and siting of all dwellings within the sector is to generally comply with the acceptable solutions outlined in the Integrated Development Guidelines of the Queensland Residential Design Guidelines (QRDG) Pine Rivers Plan and AMCORD. In addition to, or by way of further qualification of, the Integrated Development Guidelines outlined in section 3.5 are to also be complied with in the development of the sector.

The following Medium Density Residential Design and Siting Guidelines for North Lakes are to be complied with in the development of any medium density housing sites on the Sector Plan Map Figure 4 within Sector 038-1000:

Subdivision and Staging

- .1 The development is to be built in a community title scheme is to be a maximum of 40 dwellings/ha.
- .2 The sector may be developed in a staged manner or as a single entity, provided that community, administrative and recreation facilities are provided as part of the first stage, and each stage of the development is undertaken as part of an integrated development and makes adequate provision for access and circulation, services and service vehicles and landscaping. Disruption of established residents by construction of subsequent stages is to be minimised and uncompleted stages keep in a clean and tidy condition and landscaped to the satisfaction of the Council.

8.1.1 Site Coverage

- .1 Site coverage is limited to 50%. Site coverage is defined as that portion of a site covered by a building (including garages), fixed structure, or outdoor storage area, but not including unroofed parking areas, basement car parking (which does not project greater than 1m above finished ground level as at the date the lots are created) and roof eaves.
- .2 Pergolas, gazebos, verandahs, shade structures and other leisure and recreational purpose areas (whether fully roofed or not) are included in site coverage.

8.1.2 Building Height

- .1 Buildings within the Sector must:
 - (i) not exceed two (2) storeys in height;
 - (ii) be a maximum of 40 dwellings/ha;
- .2 The broad principles for residential planning and design are outlined in the Precinct Plan. More specific development and urban design principles for this sector include the following:

- (i) Development may include detached housing on small lots (zero lot line), duplex and triplex dwellings and/or townhouse units which will be developed as a community title subdivision in accordance with the guidelines for Attached House Development contained in the Queensland Residential Design Guidelines.
- (ii) Incorporation of a caretaker's residence together with associated communal open space (private open space) and recreational facilities;

8.1.3 Building Setbacks

.1 Building setbacks are to be:

- (i) no less than six metres (including 3m landscape buffer to Endeavour Boulevard from the front boundary alignment. However, unenclosed spaces such as verandahs, terraces, balconies and pergolas may project into the front setback by a maximum of 1.5 metres; and
- .2 Eaves, excluding gutter, are permitted to extend up to 600mm within the setback areas

8.1.4 Building Appearance

- .1 Buildings are to be orientated to address the street frontage. The incorporation of open frame construction elements in the different dwelling types is encouraged particularly where building facades face streets and parks, in order to create an architecture, which softens the visual impact of the building, enhances the streetscape and responds to the climate and lifestyle of South-East Queensland. In particular, the use of verandahs, terraces, balconies, and pergolas is encouraged. Building designs incorporating projecting elements such as front rooms, bay windows, entry porticos and articulated plan forms are also encouraged in order to achieve interesting treatments of elevations. The style, materials and extent of such extensions are to be determined by the Council upon the individual circumstances of each case and the architectural merit of the proposal. Building projections may not project within setback areas.
- .2 The form and design of roofs are to have a residential character and complement the architecture of the dwellings. The roof pitch of buildings within the sector is to be 25 degrees. Roof pitches of between 20 -25 degrees are permitted where such pitch does not become the dominant roof form and assists in reducing the apparent bulk and proportions of the building. Appropriate roof

pitches are to be determined by the Council upon the individual circumstances of each case and the architectural merit of the proposal. Flat roofs are not permitted, unless they form a minor element of the roof form. Vaulted and other roof forms are to be considered on their merits by Council in consultation with the principal developer.

- .3 Each dwelling unit within a building is to have:
 - (i) At least one habitable room and windows of appropriate proportions facing the primary street frontage; and
 - (ii) At least one habitable room and windows of appropriate proportions on each storey facing a secondary street.
- .4 Buildings are required to address the site frontage where visible from the street.
- .5 The building façade fronting the primary street frontage must incorporate the following design elements:
 - (i) A minimum of 20% of the façade area of each dwelling unit must be either windows or glass; and
 - (ii) Include verandahs, terraces, balconies or pergolas in order to achieve interesting treatments.
- .6 The building façade facing a secondary street or have a common boundary with a park must incorporate the following design elements:
 - (i) A substantial balcony, verandah, patio or other covered outdoor entertaining area for each dwelling unit in a building; and
 - (ii) A minimum of 20% of the façade area of each dwelling unit must be either windows or glass.
 - (iii) Where a horizontal length of a wall has a height of three or more storeys, it is not to be greater than 15 metres in length in one plane (i.e. where external faces offset one metre or more are not provided for that the length of wall).
- .7 Development is to be characterised by ample areas of attractive and usable private open space so that the appearance is one of dwelling units situated in a garden setting.
- .8 Buildings are to be orientated to address the street frontage. The incorporation of open frame etc.

8.1.5 General

- (i) Each dwelling unit at ground level must access usable private open space with a minimum area of 25m² with a minimum dimension of 4 metres directly accessible from a living area of that dwelling.
- (ii) All entrance foyers must include either sidelight or highlight windows in the entry alcove. The only exception is when a set of double doors are used.
- (iii) The material to be used to infill above windows and doors on a façade facing a street or public area must be the same material and colour used on the remainder of that façade.
- (iv) Each dwelling unit is to provide an internal storage area with a minimum volume of 8m³. This storage area may form part of the garage. Freestanding sheds are not permitted.
- (v) Ground level open type pergolas may be built abutting any side boundary. No part of any such structure abutting a side boundary is to be attached to the wall of an adjoining building.
- (vi) All external plumbing (waste pipes and vents) must be concealed within wall cavities.
- (vii) The underside of decks should be properly finished to compliment the building and screened from public view.

8.1.6 Building Colours and Materials

- (i) The style and colour of roofs are to vary substantially across the sector to reduce homogeneity. The extent of variation is to be determined by the council upon the circumstances of the case and the architectural merit of the proposal. In the event of dispute an independent architectural review will be sought by the Council from an architect with recognized expertise in urban design, at the expense of the applicant.

8.1.7 Private Open Space

Providing an area of 25m² of private open space with a minimum dimension of 4 metres and directly accessible from a living area of the dwelling is required in accordance with the QRDG. Screening is to be provided where necessary to ensure privacy to users of the open space.

8.1.8 Garages/Carports

- .1 All dwelling units are to provide under cover car parking spaces in accordance with the rate specified in Section 8.1.12.
- .2 Where a garage is integrated into the building design of an individual dwelling unit, the garage must be:
 - (i) setback a minimum of 6 metres to the front boundary alignment; and

- (ii) setback a minimum of 900mm from the front building line (the front building line is a line that contains no less than 3.5 metres of the dwelling excluding unenclosed spaces); and
- (iii) covered by an enclosed two storey section of the dwelling or a roofed verandah or balcony (provided that it and the balustrading has a minimum transparency of 50%) extending over the entire width and depth of the garage.

8.1.9 Boundary Fencing

1. A high quality fence is to be provided along Endeavour Boulevard for acoustic purposes. Such acoustic fencing or acoustic fencing and mounding are to be designed, located and landscaped such that the landscaping makes the dominant presentation to the streetscape. A minimum of 3 metres of landscaping should be provided in front of the fence. Where the fence height is required to be greater than 1.8 metres at the site for acoustic attenuation, a landscape mound should be introduced to ensure the maximum fence height does not exceed 1.8 metres. Acoustic fencing is to be setback from the boundary to allow the planting of landscaping to substantially screen that fence. Landscaping may be provided within the road reserve as per 8.1.11.1 to reduce the impact of acoustic treatments.
2. Retaining walls constructed along side boundaries and protruding forward of the nearest building line on the lot must be tapered to meet the profile of the finished ground line. Sleeper retaining walls are not permitted to any street front boundary.
3. Fencing along road frontages may include:

If constructed, a front wall or fence (including gates) is to be:

 - (i) constructed of rendered and painted masonry piers and base (minimum 300mm base), and infills of matching masonry, coloured metal tube and painted or treated timber lattice or battens (except where acoustic fence treatment is required); and
 - (ii) a minimum 25% transparent (except where acoustic fence treatment is required)
 - (iii) Solid pre-coloured metal fencing is not permitted.
4. All side and rear fencing must be:
 - (i) A maximum of 1.8 metres high;
 - (ii) constructed of face brickwork or rendered and painted masonry piers (either with or without masonry base) and/or hardwood timber posts; and
 - (iii) infills of coloured metal tube.

5. Where the principal developer has constructed a fence, it must be maintained by the owner to the standard at which it was constructed.

8.1.10 Landscaping

1. Landscape planting is to be provided, wherever practicable, to soften the appearance and give scale to buildings and a 3 metre landscape setback to all street frontages. Landscaping may be provided within the road reserve to screen retaining walls where sufficient area is available and where no impact on services will result. Such treatments are intended to enhance the landscape structure of important road/visual linkages and would need to be agreed by Council.
2. Of that part of the lots within the sector not used for buildings, driveways and parking (ie. the balance area), the use of permeable or absorbent finishes, eg. grass, planting or garden beds, is to be maximised. A minimum of 25% of the lot area is to be absorbent landscaping.
3. Along the perimeter of the sector, trees and shrubs are to be planted of a species likely to grow to provide a landscape canopy between the buildings within the sector and the adjacent (external) properties and major roads. The size, layout and density of trees planted in the setback areas are to take account of the need for landscaping as privacy screening, as well as useable outdoor space and solar access considerations.
4. Landscape screening is to be provided to all hardstand car park areas, retaining walls, solid fencing panels, noise attenuation fences and blank building walls.

8.1.11 Carparking

- .1 Carparking within the sector is to be provided at the minimum rate of 1.5 spaces per dwelling unit of which at least one space is to be fully enclosed, plus 0.5 spaces per dwelling unit for visitor parking.

8.1.12 Driveways

1. Driveways providing access to parking areas (i.e. being either a shared basement car parking arrangement or individual garages/carports) must be completed prior to occupation of dwelling units. Acceptable finishes for driveways are:

- (i) coloured concrete pavers constructed on a concrete base, clay pavers or natural stone pavers constructed on a concrete base; or
- (ii) stencilled concrete; or
- (iii) exposed aggregate.
- (iv) Plain concrete driveways are not permitted except within the road reserve to finish between a public footpath and the kerb.

Other driveway finishes may be considered on their merits by Council in consultation with the principal developer and, if acceptable, are to be recorded in Council's 'North Lakes Register of Alternative Acceptable Design Solutions'.

- 2. Where a garage is integrated into the building design of an individual dwelling unit the driveway must be no wider than 6.0 metres at the garage door and provide at least 500mm of landscaping either side of the driveway.
- 3. Driveways are to be paved for their full width (ie. "car tracks" are not permitted).
- 4. The maximum grade for driveways is 1:5. All driveway grades from the property boundary (not the kerb) to the garage are to conform with the North Lakes standard drawings for residential driveway layout and construction. The profile of the section of driveway between the front property boundary and the kerb is to follow the Council approved grade.
- 5. If a crossover is provided and not used then it must be removed and the verge and kerb must be constructed at the owners cost, to Council's standard.
- 6. If a footpath has been constructed in front of the property the driveway must abut and not cut through the footpath. The balance of the driveway between the footpath and the kerb may be plain concrete to match the footpath.

8.1.13 Ancillary Structures

1. *Signs*

Signs and hoardings for advertising products and businesses are not permitted on residential lots with the exception of businesses being undertaken from home within the definition of a detached house, approved home occupations or display home signage, which may only be erected with the prior approval of the principal developer. Builders/tradespersons' signs are permitted where they are required on lots but only during construction.

2. *Air Conditioners*

Air conditioners are to be located below the eaveline and screened from public view. Air conditioning units may only be permitted above the eaveline if they are of a low profile and coloured to match the roof colour.

Roof-mounted or unscreened wall and window mounted air conditioning units facing the street or parks are not permitted.

3. *Television/Radio Antennae & Satellite Dishes*

Internal or under the roof antennae are encouraged. An external antennae, if required, is to be located towards the rear of the dwelling. Satellite dishes are only acceptable below the roof line.

4. *Solar Water Heaters*

Where practicable, solar water heaters are to be located on roof pitches which minimise their visibility from public areas. Solar collector panels are to lie on the roof and not be supported on a frame. Where practicable, storage tanks are to be detached and concealed from view by locating them within the roof space.

5. *Other Structures*

Clotheslines, hot water systems, gas systems, fuel storage tanks, rainwater tanks and meter boxes are to be screened or located away from any street or park frontage.

6. *Unightly Objects*

To maintain an attractive overall streetscape, trucks, caravans, boats or trailers are not permitted to be parked on lots unless they are completely housed within a garage or screened from public view.

8.1.14 Design for Solar Access and Energy Efficiency

- .1 The design and siting of dwellings and the planting layout of trees should take into account a desirable northerly orientation of indoor and outdoor spaces to gain benefits from the sun in winter and to maximise natural lighting.
- .2 The inclusion of energy saving elements, such as ceiling and wall insulation, placement of doors and windows for ventilation, solar hot water heaters and gas supply systems, is encouraged in the design of the dwellings.

8.1.15 Security Systems, barrier or gates

- .1 Internal or private roads including the location of any security system, barrier or gates are designed to provide safe access in accordance with the Council's Design Manual.

8.2 Landscaping of Parks and Road Reserves

8.2.1 Design Strategy

- .1 Landscaping is an integral part of the total design of the DCP area and landscape development within the private road reserves in this sector must be consistent with the overall intent of the Landscape Concept Plan and landscape design principles for the wider precinct.
- .2 Landscaping within the sector must:-
 - (i) be predominantly native planting species;
 - (ii) unify the sector through planting type, texture, colour and hard landscaping elements;
 - (iii) be in scale with the buildings and outdoor spaces;
 - (iv) create a comfortable and attractive environment;
 - (v) screen utility installations from public view;
 - (vi) ensure that planting effects are contextually appropriate within the broader landscape strategy for the precinct;
 - (vii) achieve an aesthetic balance of en masse groundcover planting, shrub planting and canopy tree planting;
 - (viii) address the landscaping of the various areas as shown on the Sector Landscape Plan in accordance with the requirements of this clause; and

(ix) ensure that if plant species are chosen which are different for the purpose of creating visual and horticultural interest, they are nevertheless compatible aesthetically and ecologically with each of the other species chosen for the various areas.

.3 The species of trees, shrubs and ground covers used in road reserves are to be selected from the Plant List in Annexure B. Plants of similar characteristics may be substituted for a species in the Plant List and other plant types may be permitted, if approved by Council.

8.2.2 Streetscape Design

.1 The locations of street planting along the residential streets within the sector are shown indicatively on the Sector Landscape Plan. This plan also shows the indicative locations and alignments of carriageways and pathways which may be provided.

.2 Final streetscape designs forming part of a development application for operational works are to comply with the Integrated Development Design Elements B1, B2 and B3 of the Queensland Residential Design Guidelines.

8.2.3 Landscape and Planting Plan

The final landscaping and planting within road reserves of the sector, including details on planting size, layout and density, must be carried out in conformity with Landscape and Planting Plans prepared in accordance with the requirements of this sector plan by a qualified Landscape Architect. These plans must be submitted to, and approved by, the Council at the time of lodging a development application for operational works or building works.

8.3 Signage and Artworks within Parks and Road Reserves

8.3.1 Signage within the road reserves of the sector must provide:

- .1 visible and legible signs;
- .2 an uncluttered streetscape;
- .3 professional and co-ordinated graphics for the identification of different uses within the sector (if required);
- .4 signs compatible with their surroundings; and

.5 generally simple, robust and low maintenance signage elements.

8.3.2 The location, form, scale, materials and colour selection of signage must be in keeping with the residential environment and must not dominate the urban landscape at ground level.

8.3.3 Works of high quality urban art, including paving patterns, water features and sculptures, are encouraged. These artworks must contribute strongly to enhancing the architecture and landscape of the residential environment, and achieve humanising elements.

8.3.4 Two Categories of sign are permitted as follows:

.1 Primary Signage

(i) Primary Signs which identify the development as a whole may be located along the street frontage of the sector, generally adjacent to the Vehicular Access Locations shown on the Sector Plan Map. These signs are to be integrated with the frontage wall (if provided) or contained in a monument structure within the landscape areas.

(ii) Primary signage which identifies the development may also be located on the front façade of the building provided it is complementary to the overall building design. A front façade primary sign must not exceed 10 square metres in area. It must also be attached to the structure of the building and not to awnings and the like.

.2 Other Signage

All other signage within the sector must be subordinate in form and size to the primary signs and provided only for the following purposes:

- (i) to provide direction;
- (ii) to identify areas and intended uses; and
- (iii) to provide information and marketing identity.

The size, placement, materials and colours of all signage are to be complementary to the built forms and landscape setting.

9.0 Infrastructure Obligations of the Principal Developer

9.1 Infrastructure to be Provided

The infrastructure required to be provided by the principal developer to serve the sector includes internal and external infrastructure to be provided in accordance with the Mango Hill Infrastructure Agreement 1999 (MHIA) and agreements made with the State Government in accordance with the DCP. These obligations are summarised as follows:

9.1.1 Roads

- .1 The Endeavour Boulevard has been completed along the entire frontage of the Sector Plan and the only works required will be the provision of the site access off the existing roundabout on Endeavour Boulevard.
- .2 Although this Sector Plan does not require access from the North South Arterial Road the provisions and timing of the construction of this road from MIBA Connection Road to Boundary Road (and connecting with the internal MIBA road network), will be completed by the end of 2010, or otherwise in accordance with any alternative finding from ongoing traffic reviews provided in accordance with Section 4.2.2 of the MHIA.
- .3 Construction of the adjoining North South Arterial Road as required by the MHIA 1999.

9.1.2 Water

- .1 Construct internal reticulation systems to service all properties in the sector;
- .2 Construct an extension of the water supply network within the DCP area, including those relevant sections of the mains shown on figure 8, necessary to service the anticipated demand within this sector; and
- .3 Make contributions towards water headworks and bulk water supply in accordance with the MHIA.

9.1.3 Sewerage

Unless already provided, construct all internal sewerage systems to service the properties in the sector and make contributions towards sewerage headworks in accordance with the MHIA, and unless otherwise agreed with Council:

- .1 Construct the trunk gravity main TM4A and TM4 from the connection with the internal sewerage system to the temporary pump station TPS1 initially, and ultimately to the future pump station PS2 as shown on Figure 9.
- .2 Construct the ultimate pump stations PS180 and PS2, and discharge rising mains RM1 and RM2 in accordance with the staging requirements of the MHIA and Interim Sewerage Discharge Scheme.

9.1.4 Stormwater

- .1 The principal developer must comply with the provisions of the Stormwater Management Plan for Tributary B, as approved by Council, and construct stormwater management works so far as they relate to this sector. The provisions of the Stormwater Management Plan override Clause 45(a) of the planning scheme.
- .2 In addition, the principal developer must construct stormwater drainage systems as required by the MHIA to roads, parks and lots.

9.1.5 Parks

- .1 The requirements for park provision throughout the DCP area are set out in the MHIA. No area within this sector will be dedicated as park.

9.1.6 Electricity Supply and Lighting

- .1 Provide underground electricity distribution to all properties within the sector to Energex (or another appropriate supplier of electricity) and Council standards;
- .2 Provide public lighting to all streets and facilities within the sector to Energex (or another appropriate supplier of electricity) and Council standards; and

- .3 Provide high voltage electricity services to service the sector to Energex (or another appropriate supplier of electricity) and Council standards.

9.1.7 Communications

Arrange for the installation of underground telephone and broadband communications services for all properties in the sector.

9.2 State Government Infrastructure Requirements

- 9.2.1 There are no items of State Government infrastructure to be provided by the principal developer in conjunction with the development of the sector.
- 9.2.2 A local bus service must be provided to service the sector in accordance with the agreement with Queensland Transport.
- 9.2.3 The principal developer must contribute towards the cost of providing kerbside infrastructure associated with the public transport system. Such contribution is to be in accordance with the agreement with the State Government.

9.3 Infrastructure Affected by Development

Without the provision of additional infrastructure, the development of this sector may place demands on the following infrastructure:

- .1 Roads external to the DCP area and the sector;
- .2 Water Supply infrastructure;
- .3 Sewerage infrastructure;
- .4 Stormwater;
- .5 Parks;
- .6 Community Facilities;
- .7 Electricity and Gas Supply;
- .8 Communications Systems, and
- .9 State Government Infrastructure.

The infrastructure described in Clause 9.1, together with the obligations of the principal developer under the MHIA, is required to mitigate the adverse affects on such infrastructure.

9.4 How the Required Infrastructure Relates to the Infrastructure Agreements

The MHIA describes the infrastructure which must be provided by the principal developer as part of its obligations to provide infrastructure as envisaged by Chapter 12 of the DCP. The works described in Clause 9.1 are the principal developer's obligations under the MHIA in so far as they relate to this sector.

Infrastructure Agreements have been entered into by the principal developer with the Department of Main Roads and Queensland Transport. Any infrastructure requirements of those State Government Departments relating to this sector will be provided in accordance with the existing agreements.

9.5 Program for Infrastructure Provisions

The principal developer will provide all the infrastructure referred to in clause 9.1 at times to satisfy the requirements of the MHIA which provides for the infrastructure to be constructed to meet the rate of development in the sector. Initial infrastructure works are anticipated to be constructed by December 2009.

Except as described elsewhere in this Clause, no other works depend on the provision of this infrastructure.

The local bus service will be provided in accordance with clause 9.2.2.

Council is to use its best endeavours, including its powers of resumption if lawful, to obtain all necessary rights to permit the construction of water and sewerage infrastructure if such infrastructure is constructed on land external to the DCP area over which Council does not have such rights.

9.6 Water and Sewerage Demands

As required by the MHIA, the principal developer states as follows:

- 9.6.1 For the purpose of assessing water supply capacity, the estimated number of Equivalent Tenements for this sector is 145.8 ETs.
- 9.6.2 For the purpose of assessing sewerage capacity, the estimated number of Equivalent Persons for this sector is 583.2EPs.

10.0 Assessment of Compliance with Precinct Plan Performance Criteria

As stated in section 8.1.1, the design and siting guidelines contained in this sector plan are considered by Council to be acceptable solutions which are consistent with the performance criteria of the *Queensland Residential Design Guidelines* and satisfy the performance provisions of the precinct plan. Other design and siting solutions will be considered by Council on their merits having regard to the performance criteria of the precinct plan.

11.0 Definitions

If a term used in this sector plan is defined by the DCP or the Infrastructure Agreement then that term or expression has the meaning given to it by the DCP or the Infrastructure Agreement unless the context otherwise required.

ANNEXURE A

PROPOSED METES AND BOUNDS DESCRIPTION OF SECTOR

ANNEXURE B

PLANT LIST

**Annexure B: Plant List -
Residential Sector Thirty-One
Public Parks & Road Reserves**

Botanical Name	Common Name
Trees & Palms	
Acronychia laevis	Hard Aspen
Acacia aulacocarpa	Black Wattle
Acacia fimbriata	Brisbane Wattle
Acmena smithii	Lilly Pilly
Angophora costata	Smooth Barked Apple
Banksia integrifolia	Coast Banksia
Brachychiton acerifolium	Flame Tree
Buckinghamia celsissima	Ivory Curl Flower
Callistemon salignus	Pink Tips
Callitris columellaris	Bribie Island Pine
Cupaniopsis anacardioides	Tuckeroo
Eucalyptus maculata	Spotted Gum
Eucalyptus microcorys	Tallowwood
Eucalyptus propinqua	Small Fruited Grey Gum
Eucalyptus ptychocarpa	Swamp Bloodwood
Eucalyptus resinifera	Red Mahogany
Eucalyptus signata	Northern Scribbly Gum
Eucalyptus tereticornis	Forest Red Gum
Eucalyptus tessellaris	Moreton Bay Ash
Euodia elleryana	Pink Euodia
Ficus Hillii	Hill's Fig
Ficus macrophylla	Moreton Bay Fig
Ficus obliqua	Small-leaved Fig
Grevillea robusta	Silky Oak
Jacaranda mimosifolia	Jacaranda
Leptospermum petersonii	Lemon Scented Tee Tree
Lophostemon suaveolens	Swamp Box
Melaleuca quinquenervia	Broadleaved Paperbark
Oreocallis sp. nova (wickhamii)	Tree Waratah
Pittosporum rhombifolium	Hollywood
Syzygium australe	Bush Cherry
Syzygium Blaze	Blaze
Syzygium Elite	Elite
Syzygium leuhmanii	Small Leaved Lilly Pilly
Waterhousia floribunda	Weeping Myrtle
Xanthostemon chrysanthus	Golden Penda
Shrubs	
Baeckea virgata	Twiggy Myrtle
Baeckea virgata dwarf	Dwarf Baeckea
Banksia Birthday Candles	Birthday Candles
Banksia ericifolia	Heath Banksia
Banksia robur	Swamp Banksia
Banksia spinulosa var collina	Hairpin Banksia
Callistemon Dawson River	Dawson River

**Annexure B: Plant List -
Residential Sector Thirty-One
Public Parks & Road Reserves**

Botanical Name	Common Name
Callistemon Little John	Little John
Grevillea "Coconut Ice"	Coconut Ice
Grevillea "Majestic"	Majestic
Grevillea "Superb"	Superb
Grevillea Honey Gem	Honey Gem
Grevillea Ned Kelly	Ned Kelly
Hovea acutifolia	Pointed Leaf Hovea
Leptospermum flavescens	Tantoon Tea Tree
Leptospermum Pink Cascade	Pink Cascade
Melaleuca Claret Tops	Claret Tops
Melaleuca linariifolia	Snow in summer
Melaleuca linariifolia Snowflake	Dwarf Tea Tree
Pittosporum revolutum	Brisbane Laurel
Pittosporum undulatum	Mock Orange
Syzygium Tiny Trev	Dwarf Lilly Pilly
Tibouchina Juls	Dwarf Lassiandra
Tibouchina urvilliana	Lassiandra
Westringea fruticosa	Wynyabbie Gem
Groundcovers	
Agapanthus africanus	Lily of the Nile
Agapanthus orientalis	Lily of the Nile
Alternanthera dentata	Alternanthera
Austromyrtus dulcis	Midyim Berry
Brachyscome microcarpa	Forest Daisy
Brachyscome multifida	Daisy
Cissus antartica	Grape Ivy
Cissus rhombifolium	Grape Ivy
Crinum pendunculatum	Swamp Lily
Cymbogon refractus	Barbed Wire Grass
Dianella caerulea	Flax Lily
Dianella revoluta	Spreading Flax Lily
Dietes bicolor	Japanese Iris
Dietes grandiflora	Wild Iris
Doryanthes excelsa	Gynea Lilly
Erigeron karvinskianus	Sea Side Daisy
Grevillea Bronze Rambler	Bronze Rambler
Grevillea Royal Mantle	Prostrate Grevillea
Hardenbergia violacea	False Sarspiralla
Helichrysum ramosissimum	Yellow Buttons
Hibbertia scandens	Snake Vine
Kennedia rubicunda	Dusky Coral Pea
Lomandra longifolia	Mat Rush
Lomandra multiflora	Many Flowered Mat Rush
Myoporum ellipticum	Creeping Boobiolla
Pennisternum alopecuroides	Swamp Foxtail
Poa labillardieri	Tussock Grass

**Annexure B: Plant List -
Residential Sector Thirty-One
Public Parks & Road Reserves**

Botanical Name	Common Name
Zierra Carpet Star	Carpet Star
Grasses	
Danthonia induta	Wallaby Grass
Cynodon dactylon	Green Couch
Pennisetum alopecuroides	Swamp Foxtail
Poa australis	Native Poa
Themeda australis	Kangaroo Grass
Digitaria didactyla	Blue Couch
Vines	
Trachelospermum jasminoides	Star Jasmine
Pandorea jasminoides	Bower of Beauty
Hibbertia scandens	Snake Vine
Grevillea Royal Mantle	Prostrate Grevillea
Street Trees	
Acmena smithii	Lilly Pilly
Alphitonia excelsa	Red Ash
Angophora costata	Smooth Barked Apple
Backhousia citriodora	Lemon Scented Myrtle
Barklya syringifolia	Crown of Gold Tree
Brachychiton acerifolium	Flame Tree
Buckinghamia celsissima	Ivory Curl Flower
Callistemon viminalis	Weeping Bottlebrush
Callitris columellaris	Bribie Island Pine
Cassia brewsteri	Leichhardt Bean
Cupaniopsis anacardioides	Tuckeroo
Eucalyptus maculata	Spotted Gum
Eucalyptus microcorys	Tallowwood
Flindersia australis	Crows Ash
Grevillea baileyana	White oak
Harpullia pendula	Tulipwood
Hymenosporum flavum	Native Franjipanii
Lophostemon confertus	Brush Box
Lophostemon suaveolens	Swamp Box
Melaleuca leucadendron	Small Leaved Paperbark
Melaleuca quinquenervia	Broadleaved Paperbark
Metrosideros queenslandicus	Lilly Pilly
Peltophorum pterocarpum	Yellow Flame Tree
Pittosporum rhombifolium	White Holly
Podocarpus elatus	Brown Pine
Pongamia pinnata	Pongamia
Syzygium australe	Scrub Cherry
Syzygium leuhmanii	Small Leaved Lilly Pilly
Xanthostemon chrysanthus	Golden Penda

ANNEXURE C

SUPPLEMENTARY TABLE OF DEVELOPMENT (URBAN RESIDENTIAL AREAS ELEMENT) FOR THIS SECTOR

SUPPLEMENTARY TABLE OF DEVELOPMENT (URBAN RESIDENTIAL AREAS ELEMENT) FOR RESIDENTIAL SECTOR TWENTY-ONE

<p align="center">Purposes for which premises may be erected or used without the consent of Council (Permitted Development)</p> <p align="center">COLUMN A</p>	<p align="center">Purposes for which premises may be erected or used without the consent of Council subject to conditions (Permitted Development subject to conditions)</p> <p align="center">COLUMN B</p>	<p align="center">Purposes for which premises may be erected or used only with the consent of Council (Permissible Development)</p> <p align="center">COLUMN C</p>	<p align="center">Purposes for which premises may not be erected or used (Prohibited Development)</p> <p align="center">COLUMN D</p>
<p>Associated unit in association with lot types 1-3 (table 6.1 of the DCP) Caretaker's residence Detached house Display home Domestic storage and recreation structures where <8% of the site area Local utilities Park</p>	<p>Any one or more of the following purposes on land nominated for that purpose or purposes on an approved sector plan.</p> <p>Community dwelling Duplex dwelling Estate Sales Office Sales and information centre Townhouse units</p>	<p>For land in a sector any purpose not listed in Column A, D or included in Column B but not nominated for that land in an approved sector plan</p>	<p>Adult product shop Agriculture Air strip Amusement premises Animal husbandry Aquaculture Bulk garden supplies Camping grounds Car park Car wash Caravan park Casino Catering premises Cattery Cemetery Commercial services Communication services Communication station where part of any mast is higher than 10m above ground level, or is attached to a building and projects more than 3m from that building Community premises Concrete batching plant Contractor's depot Convention centre Correctional institution Crematorium Cultural facility Dairy Educational establishment Entertainment library Extractive industry Fuel depot Funeral parlour General industry Hardware centre Hazardous industry Heavy vehicle parking Heavy vehicle sales Helicopter landing site Hospital</p>

<p>Purposes for which premises may be erected or used without the consent of Council (Permitted Development)</p> <p>COLUMN A</p>	<p>Purposes for which premises may be erected or used without the consent of Council subject to conditions (Permitted Development subject to conditions)</p> <p>COLUMN B</p>	<p>Purposes for which premises may be erected or used only with the consent of Council (Permissible Development)</p> <p>COLUMN C</p>	<p>Purposes for which premises may not be erected or used (Prohibited Development)</p> <p>COLUMN D</p>
			<ul style="list-style-type: none"> Host farm Hotel Indoor recreation Institution Junk yard Kennels Licensed club Lot feeding Mini-brewery Motel Motor sport or shooting Occasional market Office Outdoor recreation Outdoor sales Passenger terminal Piggery Place of worship Poultry farm Re-cycling depot Restaurant Retail nursery Retail showroom Rural industry Service industry Service station Shop >200m² GFA Shopping centre Showground Simulated conflict Special use Stable Stock sales yard Technology industry Tourist facility Transport terminal Transportable home village Turf farming Vehicle hire depot Vehicle sales yard Veterinary clinic Veterinary hospital Warehouse

The provisions of the Supplementary Table of Development are subject to section 2.4.9 of the DCP.