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LANDSCAPE DESIGN STATEMENT:
LOFTUS RESIDENTIAL DEVELOPMENT
LOFTUS& BONAR STREETS, ARNCLIFFE

For

MERITON APARTMENTS PTY. LTD.

16th December 2009

1.0 Site Analysis

1.1 Site context

The site is located at the junction of Bonar, Hirst and Loftus Streets at Arncliffe.

1.2 Topography

The subject site consists of flat land with a slight fall towards the south. The drainage flows overland to Wolli Creek and ultimately to the Cooks River and Botany Bay.

1.3 Existing Vegetation

Given the previous use and industrial warehousing little vegetation is existing on site. What remains is to be largely cleared as a result of the new development.

The Tree Report prepared by TALC (Tree and Landscape Consultants) indicates that of 15 trees assessed that all 15 can be adequately retained without dramatically impacting on the root systems of the trees. Soil levels will be maintained or marginally decreased to cater for the area set aside for the overland flow path.

2.0 Design Principles

2.1 Design Objectives

In accordance with the Rockdale Development Control Plan 71; *Landscape Design Principles & Guidelines*; the landscape objectives include:

- *Landscape design must be both functional and aesthetic.*
- *Attention needs to be given to plant selection and placement.*
- *Areas of deep soil planting should be maximised and consolidated into large areas rather than many small not functional pockets.*
- *Large endemic trees should be planted where appropriate.*
- *exotic species may be used as feature trees in areas where an established exotic character exists.*
- *Invasive exotic species should not be planted.*

More specifically in accordance with the Rockdale Development Control Plan 80; *Bonar Street Precinct* the landscape objectives include:

- *provide amenity for residents and the wider community, improve the legibility of the urban environment by reinforcing the structure of the public domain and quality of the* private domain landscape;
- *create a series of distinctive and attractive landscaped areas that enhance the visual and environmental amenity of the area;*
- *ensure a safe, permeable and legible public domain;*
- *create attractive landscape settings for buildings with a clear definition between public and private spaces;*
- *introduce colour, environmental amenity, and identity into each part of the Precinct;*
- *integrate the stormwater drainage corridors with landscape features as far as practical;*
- *create attractive street edges and streetscapes with widened footpaths;*
- *incorporate sustainable design practices and outcomes in the landscape design;*
- *provide usable and attractive communal and private open spaces for residents;*
- *promote ESD objectives by encouraging the use of locally endemic plant species and*
- *landscape designs that reduce water usage.*

2.2 Sustainable Design

These general design principles are coupled with the need to include design measures which promote sustainability, which include:

a) Use of endemic and ecologically appropriate plant species where appropriate that will reduce irrigation, maintenance requirements, and the use of pesticides and herbicides
b) The planting of lawns will be minimised and more drought tolerant native groundcovers and grasses will be encouraged as an alternative to lawns.
c) Using irrigation systems that utilise drip irrigation systems
d) Using quality, long lasting materials
e) Using soils and mulches manufactured with recycled waste.
f) No noxious plants or plants known to be invasive or which become invasive will be planted.
g) Shading western building facades with vegetation will be encouraged.

h) Generally soft landscaping will be preferred to large areas of hard landscaping.

2.3 Vegetation protection

The proposed site clearance means that there is minimal vegetation to be protected.

2.4 Integration of design

All landscape and building designs will be complementary and be aiming to achieve similar design outcomes. Similar materials, finishes and colours will be utilised in architectural components and hardscapes in gardens and open space areas to give continuity to the development.

2.5 Podium planting.

As per Rockdale Development Control Plan 71; Landscape Design Principles & Guidelines the design standards for podiums for large scale developments have generally been met; namely:

- A minimum of 50% of all podiums must be landscaped to such a quality as to make them usable and attractive spaces.
- a minimum soil depth of 300mm is required for turf, 600mm for shrub planting, and 1000mm for tree planting.
- soil must be mounded where possible to increase the potential for large trees.
- All planted areas are to be drained effectively and are to be linked to the stormwater drainage system of the development.
- Paved areas are to be linked to the stormwater drainage system.
- Fully automatic irrigation systems are required due to limited soil depths and the free draining nature of on-slab gardens.

2.6 Streetscape

The landscaped frontages of the development will make a contribution to the existing streetscape by way of the design of any structures or vegetation.

Landscaping will be used to soften the impact of buildings when viewed from the street front and neighbouring properties.

More specifically in accordance with the Rockdale Development Control Plan 80; *Bonar Street Precinct* the streetscape provisions include:

2.6.1 Bonar Street

This part of the Bonar Street will establish a new tree lined street to define the precinct. The avenue provides an intimate scale to the street as well as defining parking bays and reducing their visual impact on the streetscape.

a) Pavement: 2.5m wide asphalt footpath with concrete unit paver banding, adjacent kerb edge.
b) Street Trees: Blueberry Ash (*Elaeocarpus reticulatus*) in tree grates within raised pavement between parallel parking bays at 15m centres. Spotted gum (*Eucalyptus maculata*) planted alternately at 5m centres to central median swale.
c) Median Planting: Native grass and macrophyte planting to bio-retention swale. Landscaping of the median island should use only low understorey planting beneath the trees.

2.6.2 Hirst Street

Paved footpath to be provided of adequate width for pedestrian movement to the station and local shops.

a) Pavement: 1.8m wide concrete footpath and 1.7m wide grassed nature strip.

b) Street Trees: Tulip Tree (*Liriodendron tulipifera*) in grassed nature strip at 8m centres. Magnolia (*Magnolia* 'Exmouth') in tree grates within raised pavement between parking bays at 21m centres.

2.6.3 Loftus Street

Paved footpath to be provided of adequate width for pedestrian movement to the station and local shops.

a) Pavement: 1.8m wide concrete footpath and 1.7m wide grassed nature strip.
b) Street Trees: Blueberry Ash (*Elaeocarpus reticulatus*) in grassed nature strip at 8m centres.Manchurian Pear (*Pyrus ussuriensis*) in tree grates within raised pavement between parking bays at 21m centres.

3.0 Plant Materials

As per Rockdale Development Control Plan 71; Landscape Design Principles & Guidelines the selection and use of planting materials take the following into account,:

I. To increase the number of indigenous species planted in Rockdale City.
II. To eliminate the use of noxious weeds or potentially invasive species in developments.
III. To plant in an energy efficient way so that long term benefits to residents are maximised.
IV. To reduce the maintenance and water required through correct species selection.
V. To create buffer zones and add to existing areas of remnant vegetation with locally indigenous species.
VI. To plant species suited to each region within the City.
VII. To increase the number of trees planted in the City to provide shade, habitat, beauty, wind control and dust control.

3.1 Open Space and Courtyard Planting

Whilst the stormwater swales will be planted predominantly with indigenous species, within the site and in private courtyards, a mix of both native and exotic species will be used. The use of ornamental species within these areas will allow for the creation of differing character zones.

3.2 Riparian Planting

The stormwater swales and bioswales in medians will be planted with endemic riparian species.

3.3 Tree Root Depths & Deep Soil Zones

The provision of Slab set downs to allow for soil profiles of between1.2m to 1.5m deep. Council recognizes in their Landscape DCP 71 that “Deep soil zones are areas of soil 1.5 metres deep.”

It is well recognised that 95% of tree roots are found in the top one (1) metre of the soil profile and it is in fact soil volume and not depth that is the limiting factor on tree growth. This is supported by the authoritative source of *Urban Landscape Management* authored by *J.D. Hitchmough* and is backed up by all best practice documentation.

The large setdown areas designed by the Architects will allow for both large tree planting and good landscape amenity. The design meets the control target of 25% deep soil landscape space.

3.4 Plant Establishment and Maintenance

Careful selection of plant materials, good ground preparation before planting and adequate delivery of water, will ensure that the landscape will establish and thrive. Particular attention will be paid during the planting and installation phase to make sure that best practice is followed. Maintenance will play an integral part of the establishment process, ensuring that there will be a high standard of presentation at all times.

4.0 Conclusion

The landscape proposal for the Loftus Residential Development at Loftus, Hirst & Bonar streets, Arncliffe has been designed to complement and integrate the development with its surrounding character, and the future developments of the Bonar Street Precinct. It will provide a high standard of landscape and amenity in a functional and practical landscape.

The landscape design is generally in accordance with the Rockdale Development Control Plan 71; *Landscape Design Principles & Guidelines* Area) and Development Control Plan 80 –Bonar Street Precinct; and meets their primary objectives for landscape and open space.