

# JB HORTICULTURAL REPORT

PREPARED BY RED LANDSCAPE ARCHITECTS (PTY) LTD

## JB1.1 Existing Vegetation on Site

---

### Overview:

The vegetation can be classified as Bhisho Thornveld. This is located on an undulating slope with a shallow, incised drainage "valley". The site is characterized by small trees of *Acacia natalitia* with a short to medium, dense, sour grassy under story, dominated by *Themeda triandra*.

The geology is of Mudstone with subordinate sandstone of the Adelaide subgroup (Beaufort Group, Karoo Super group) and is intruded by the Karoo Dolerite dykes and sills.

The area is a summer rain fall region with some rain in the winter. The mean daily maximum temperature for January is 26 degrees and a mean daily minimum in July of 3 degrees.

Important vegetation found in and along the site were

the **small tree**: *Acacia natalitia*,

the **tall shrub**: *Tephrosia capensis*,

the **low shrubs and grasses**: *Anthospermum rigidum subsp. pumilum*, *chrysocoma ciliate*, *Felisia muricata*, *Eragrostis plana*, *Heteropogon contortus*, *Hyparrhenia hirta*, *Sporobolus africanus*, *Themeda triandra*, *Aristida junciformis subsp. Junciformis*, *bulbostylis humilis*, *Cynodon dactylon*, *Digitaria diagonalis*, *Digitaria eriantha subsp. Eriantha*, *Elionurus muticus*, *Eragrostis capensis*, *Eragrostis chloromelas*, *Eragrostis curvula*, *Kyllinga alata*, *Microchloa caffra*, *Paspalum dilatatum*, *Schoenoxiphium sparteum*.

**Plants in the wet sections of the site:** *Aristida junciformis subsp. Junciformis*

Due to the wide distribution of the vegetation classification "Bhisho Thornveld" it incorporates a wide variety of environmental conditions, it borders on a number of other vegetation types and species from the different vegetation types may co-occur along overlapping areas.

Reference: Acocks (1988)

### Species worth keeping:

None of the species found on the site had any red data status that warrants them to be kept on site, however, it is important to note that the architect should deal sensitively with the ecology when designing the building. It is important to note that the newly designed landscape needs to blend in to the existing surrounding landscape.

### The existing retention swell:

The existing water retention swell on site seems to be a man made structure to manage the storm water on site. A concrete drinking hole was also found near this retention swell. *Aristida junciformis* subsp. *Junciformis* naturally established in and around this area creates the illusion of a swamp or a wetland. When planning the new development it is important to manage the site's storm water in an ecologically friendly manner. The architect does not need to keep the existing retention swell in its original form. This can be reshaped and re-formed or even be moved to another location if so desired.

## JB1.2 The Newly Designed Plant Theme

---

What plant theme to use for the design proposal:

### **The boulevard to the city centre:**

The boulevard needs to be a celebration of the city leading to the city centre. The new boulevard should create unity in a somewhat fragmented approach to the city centre. The boulevard should be planted with large trees in a rhythmic pattern creating a vertical human scale.

The tree species need to be selected for the growing form of large trees that will be able to create a closed canopy effect. This will give the approach to the city centre an arched effect, and create an intimate, yet unrestricted, sense of place. An irrigation system also needs to be installed for the trees.

The custom-made, themed street furniture, (bollards, seating, lights, litterbins), should be placed in rhythmic intervals to strengthen the approach to the city centre.

A broad pedestrian and separate cycle way should be designed on both sides of the boulevard. The paving design and patterns could reflect the historical character of the surroundings and should also highlight features along the boulevard.

Both sides of the boulevard should be lined with buildings that will create an important axis to the centre. However the newly designed buildings should not infringe and take away the openness of the surrounding landscape.

### **The premier's office:**

The planting theme should respond to the open feel and the undulation of the surrounding natural landscape.

The Landscape Architect should take great care when doing the planting design. The newly chosen plants need to tie in with the natural character of the site. All new plants need to be non-evasive, indigenous and, where possible, endemic species. All plants will also need to be low maintenance where possible.

The theme needs to be that of an ecologically sensitive landscape incorporated within the site rather than a landscape that was forced on the site.

The Landscape Architects should also place the trees in such a way that all hard surfaces and facades are shaded where possible.

## What plants to use for the design proposal:

The following plant families may be considered:

- All plants mentioned in the existing species list.
- **Trees:** Acacia spps, Bolosanthus spps, Podocarpus spps, and other similar species
- **Shrubs:** Chondropetalum spps, Dietes spps, Juncus spps, Leonotus spps, Tecomaria spps, Plumbago spps, Aloe spps, and other similar
- **Groundcovers:** Felicia spps, Crassula spps, Kniphopia spps, Bulbine spps, small Aloe spps, Tulbachia spps, and other similar species
- **Veldgrass:** Cynodon dactylon, Eragrostis curvula, Eragrostis capensis, and other similar species

## More design principles:

The Landscape Architect should plant and reinstate the existing landscape in as many areas as possible. However, if the planted areas are too small or too shady, indigenous plants will need to be introduced as described above.

All paved surfaces should be shaded using trees and carports where possible.

All soil shaping to assist storm water management on site.

Fully automatic irrigation needs to be installed in all landscaped areas; all indoor planting needs to be hand watered in a controlled environment.

Maintenance specifications are to be drafted by the Landscape Architect for after completion maintenance.