8.1 Introduction - Area for further investigation

After the final master plan was developed, the area most suitable for technical development was chosen as the sketch plan area (as illustrated in Fig. 164 with the blue outline).

Fig. 164: Landscape master plan indicating Sketch plan area (Author, 2013)
8.2 Sketch plan development

Steps were proposed next to the information centre as well as public toilets (Refer to Fig. 165). All the trees were preserved and the existing buildings were restored and given new functions. Waste recycling bins are provided for pedestrians to drop off waste and market stalls were proposed along the lawn strips. The entrance building will function as a gardening shop with demonstration gardens and community-based agriculture next to the building. Storage will also be provided for vegetables and gardening tools.

Fig. 165: Sketch Plan development 1 (Author, 2012)
The steps were removed in Figs. 166 and 167 to improve wheelchair accessibility; planters were added to the lawn strips to provide seating and the market stalls were placed according to the location of the existing trees. Wheelchair parking was proposed, but because provision for wheelchair parking will be made in the staff parking area it was deemed as unnecessary.

Fig. 166: Sketch Plan development 2 (Author, 2012)

Fig. 167: Sketch Plan development 3 (Author, 2012)
The wheelchair parking was removed and proposed in the staff parking area. The market stalls were moved to a more sensible location (next to the service road), opening up towards the market area and hiding the service road at the same time. The proposed fence is hidden by planting and new trees (Refer to Fig. 168).

Fig. 168: Sketch Plan development 4 (Author, 2012)
The rectangular grass patches were given a more organic form, imitating the movement patterns (Refer to Fig. 169).

Fig. 169: Sketch Plan development 5 (Author, 2013)

8.3 Final sketch plan

The final sketch plan (Refer to Fig. 170) proposes smaller market stalls strategically placed in the market area according to the movement patterns of the locals and visitors moving through the market area and entering the site. Grass patches were provided for seating, some of the grass areas are on ground level and others are raised to seating height. The proposed toilets are fenced-off together with the accommodation for workers. The entrance building will function as a gardening shop that sells tools, compost and books about gardening with demonstration gardens next to the building where visitors will be educated on how to grow their own vegetables through demonstrations. The wetland will collect the runoff from the demonstration gardens and pump it to a storage dam. A lawn area for informal soccer, a marquee tent for functions or performances and a stramp to get to this area (recreation area) are proposed. The steps provide seating for parents to watch over their kids playing or for a performance.
Fig. 170: Sketch plan (Author, 2013)
8.4 Lighting and material strategy

Regent lighting solutions were chosen because “Regent uses only recycled aluminium. Runners and flaring cut off during the manufacturing process are all remelted, nothing is wasted. As most of the products that Regent manufactures are lights for outdoor installation, aluminium is the ideal metal to use” (Regent, 2013).

Lighting were strategically placed to ensure optimal security at night (Refer to Figs. 171 and 172).

Refer to Fig. 173 for planting and paving material selection.

Fig. 171: Lighting Strategy (Author, 2013)
Fig. 172: Lighting materials (Regent Lighting solutions, 2013)
Planting materials

Trees

Dombeya rotundifolia
- Market area
  - Accent/focal tree
  - Non-aggressive root system

Rhus lancea
- Recreation area
  - Excellent shade tree
  - No thorns

Dovyalis caffra
- Front of Buildings
  - Non-aggressive root system
  - Deciduous, evergreen under favourable conditions

Eucla crspa
- Along pathways
  - Small, structural tree
  - Non-aggressive root system

Wetland plants

Zantedeschia aethiopica

Shrubs

Celtis africana
- Remaining areas
  - Already existing tree
  - Shade tree

Combretum erythrophyllum
- Wet areas
  - Water-loving tree
  - Shade tree

Canssa macrocarpa
- Hedge planting to hide fence
  - Attractive ornamental
  - Strong, stiff spines

Tecomaria capensis
- Hedge planting front of buildings
  - Already existing
  - Attract birds and insects

Nymphaea nouchali

Fig. 173: Material Palette (Author, 2013)
Paving materials

Cyperus papyrus

Rocks and rubble from site

Recycled glass as aggregates

Typha capensis

Reuse concrete slabs removed on site

Reuse granite kerbs removed on site
8.5 Storm water strategy and details

The paving in the market area is slightly sloped towards a central line, forming a shallow ‘channel’ to transport the water through a series of catchpits. All the catchpits are connected with a 450 diameter concrete pipe (Refer to Fig. 174).

The concrete pipe then sends the water to the sub-surface detention basin and back to the storage dam (Refer to Figs. 175 - 178 for details).

Fig. 174: Storm water Strategy (Author, 2013)

Fig. 175: Catchpit plan (Author, 2013)
Fig. 176: Sub-surface detention basin (Author, 2013)

When the water reach this level, the pump will switch on automatically and the water will be pumped to the storage dam.

Electromagnetic sensor

200mm thick concrete slab, and 220mm brick wall with waterproofing bitumen paint painted on the inside.

200mm thick concrete surface

300mm thick compacted soil, compacted in 150mm thick layers, compacted to 93% MOD AASHTO

Fig. 177: Catchpit Section A-A (Author, 2013)

Concrete catch pit

4500mm Pipe. Pipe connect the catch pits

300mm thick compacted soil, compacted in 150mm thick layers, compacted to 93% MOD AASHTO

Fig. 178: Catchpit Section B-B (Author, 2013)

Cast iron 40mm grate fixed with cast iron angles

Cast iron 40mm grate fixed with cast iron angles

Paving slope to catch pit

Paving slope to catch pit

Earth

Concrete catch pit

4500mm Pipe. Pipe connect the catch pits

300mm thick compacted soil, compacted in 150mm thick layers, compacted to 93% MOD AASHTO

Soccer field lawn

Enviromat (Waterproof)
8.6 Sections

Fig. 179: Section F-F: Storage dam (Author, 2013)

Fig. 180: Section G-G: Waste drop-off and storage dam (Author, 2013)
8.7 Details

Fig. 183: Detail 1 - Road edge (Author, 2013)

Fig. 184: Detail 2 - Waste drop-off (Author, 2013)

Fig. 185: Detail 3 - Overflow and channel (Author, 2013)
Fig. 186: Detail 4 - Curb inlet (Author, 2013)

Fig. 187: Detail 5 - Retaining wall (Author, 2013)
Fig. 188: Detail 6 - River edge E (Author, 2013)

Fig. 189: Detail 7 - River edge D (Author, 2013)
Fig. 190: Detail 8 - Channel and fence next to wetland (Author, 2013)

Fig. 191: Detail 9 - Road edge (Bus drop-off) (Author, 2013)
Fig. 192: Detail 10 - Market stalls (Author, 2013)
**Fig. 193:** Stramp 3D (Author, 2013)

**Fig. 194:** Detail 11 - Tree planting and palisade fence (Author, 2013)