

8.2 Opportunities, problems and user needs

Opportunities:

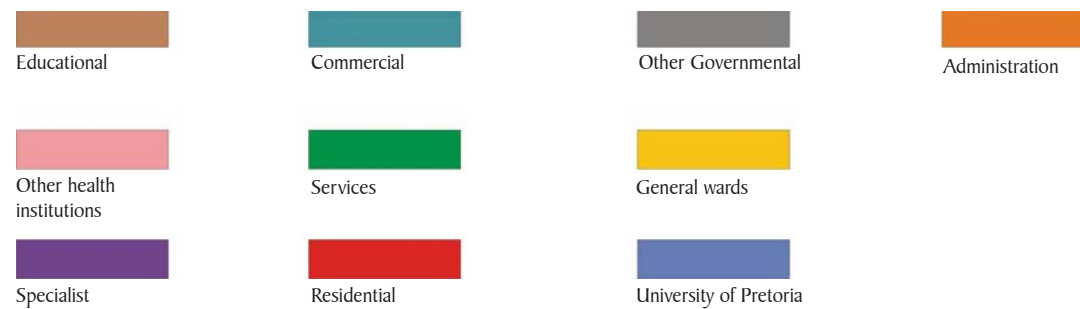
- the placement of three public buildings defines and contains a space which could act as public square
- bustling and continuous pedestrian movement across the area
- various activities: transport interchange, trading, waiting, pedestrian connection

Problems:

- unsafe crossing for pedestrians
- no waiting areas
- no designated pick-up and drop-off zones
- no designated trading areas
- placement of trees and controlled parking results in an under-utilised public space



Fig. 8.1: Existing land use. (Author, 2008, Tshwane GIS),





1: Main administration
(southern elevation)



2: Skinner clinic (eastern elevation)



3: Dental clinic (eastern elevation)



4: Pharmacy (to be demolished)



5: Creche (eastern elevation)



6: Out Patients (southern
elevation)



7: Faculty of Dentistry (northern elevation)



8: Services core buildings
(northern elevation)



10: Banking hall (western elevation)



11: Trauma unit (eastern elevation)

Fig. 8.2: Land use: site character. (Author, 2008). Refer to Figure 8.1



8.3 Existing activities

Land use around the sketch plan area include the following:

1. Main admin building
2. Skinner clinic
3. Dental clinic
4. Dental clinic (2) and pharmacy – to be demolished
5. Crèche
6. Outpatients building
7. Faculty of Dentistry – University of Pretoria
8. Services Hub
9. Pharmacy
10. Trauma Unit
11. Banking Hall.

8.4 Brief

The front entrance and streetscape of the T.R.H. form the most important exterior node of social interaction. This node should ideally prescribe the imageability of the Hospital Hill.

Movement should be guided into a central public space, from where the users are dissipated and guided into the fabric through a series of spaces. These spaces should guide circulation and accommodate varying activities, for example; informal trading, waiting areas, areas of orientation, pick-up and drop-off zones, social interaction and lines of connection between places of interest.

8.4.1 Proposed activities

1. A restaurant, with 24hr kiosk area, and a small general dealer for everyday necessities like milk, sugar and bread. An outdoor seating area with moveable furniture.
2. Information and orientation tower.
3. Day-care area with playpen for small children
4. Rentable locker space

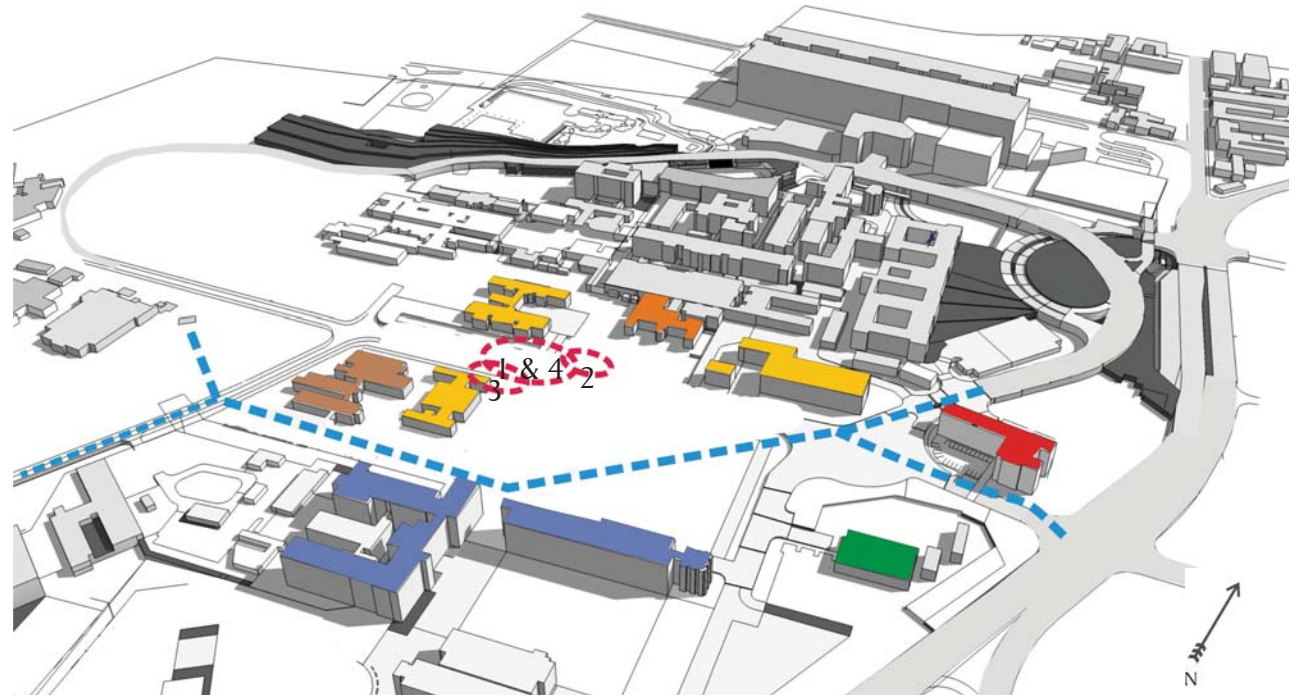
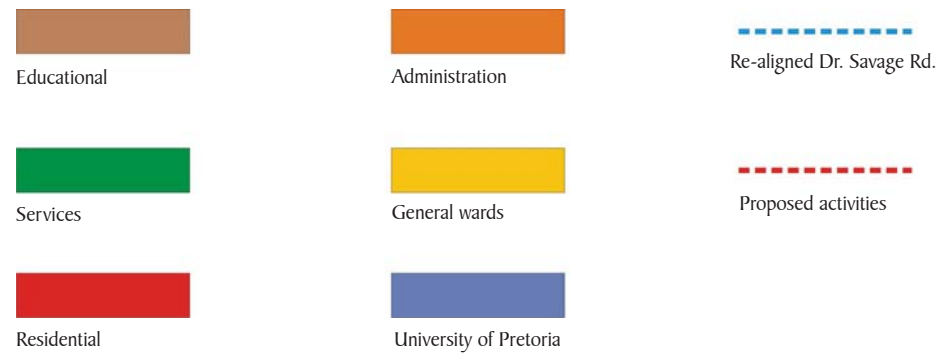


Fig. 8.3: Proposed land use indicating the re-alignment of Dr. Savage Road. (Author, 2008)



8.4.2 Vehicular circulation

Dr. Savage Road was re-aligned for the following reasons:

- To create a single intersection, which acts as a gateway into the Hospital, and an entrance to the Prinshof campus of the University of Pretoria and the Tshwane Regional Hospital.
- To create a larger, but more useable public space in front of the iconic building of the old H.F. Verwoerd Hospital. This would serve as a destination, lingering, transitional and orientation space. A larger space would provide opportunity to introduce new activities.
- To create parking and drop-off areas to the side of the Tshwane Regional Hospital (north of Dr. Savage Road), so that patients do not have to cross the busy road.
- To facilitate safer crossing of the road for students and individuals.
- To improve legibility by defining the edge of the University of Pretoria.

Services:

Service entrances are restricted to gates 4 and 7 as indicated on the Master Plan. These provide adequate access for deliveries.

Staff:

Internal parking lots, as indicated on the Master Plan, will be utilised by staff members who make use of private vehicles. Access will be controlled.

Emergencies:

Ambulances and other emergency vehicles will use the dedicated entrance and drop-off zone, and then park in the parking lot. Refer to the Master Plan (Fig. 7.12).

8.4.3 Pedestrian circulation

Pedestrian circulation consists of various user groups, and these vary in type and intensity during different times of the day. Refer to the figures 3.11-3.14. Pedestrian movement receives priority in every way. The crossing of Dr. Savage Rd consists of a slightly raised platform and a traffic light with pedestrian preference switch.

8.4.2 Public transport

As mentioned in Chapter 3, most of the patients travel to the hospital by means of public transport. The public transport node was designed to accommodate taxis, buses and private vehicle drop-offs. The drop-off area becomes a transitional node, with spaces for waiting and trading.



8.4.5 Boundaries

Although the proposed Dr. Savage Plaza will be public square with functions intended for use by the general public; the interior spaces do however require access control. Placing a boundary fence along the property of the University of Pretoria creates the opportunity to keep the Dr. Savage Plaza as open as possible. An access control system will be placed at the main entrance to the T.R.H to be used by all visitors. Regular users, such as students and medical staff, can gain access via the internal parking areas; as well as a card controlled swing door within the boundary fence.

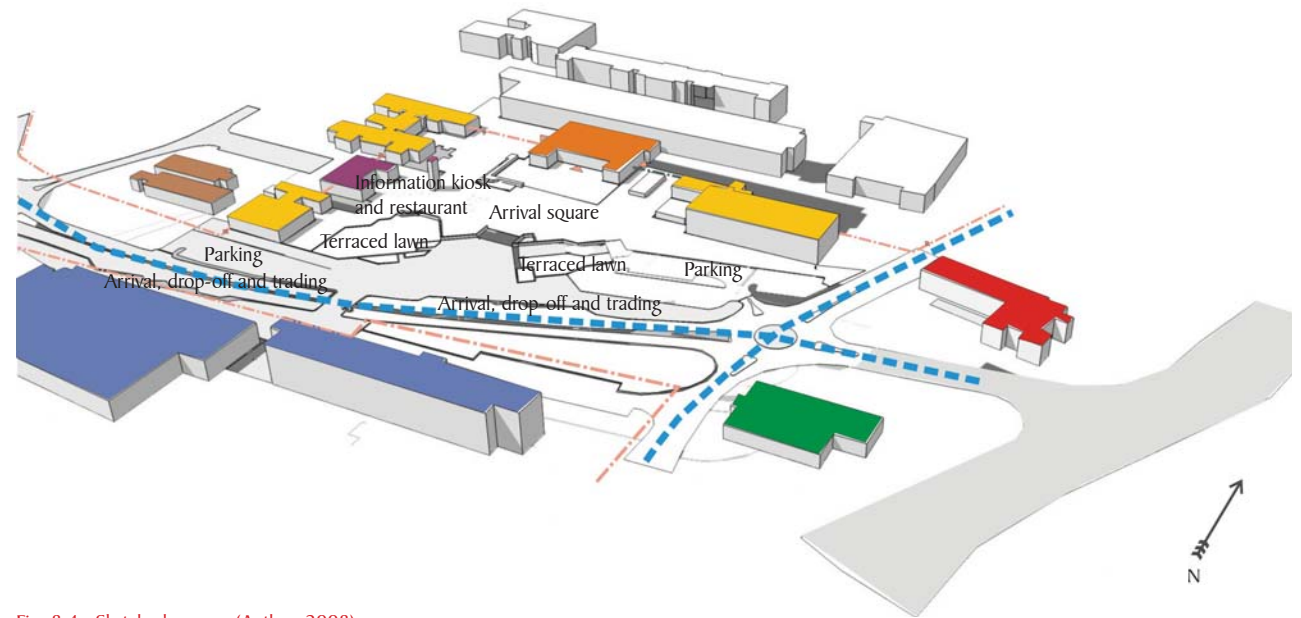
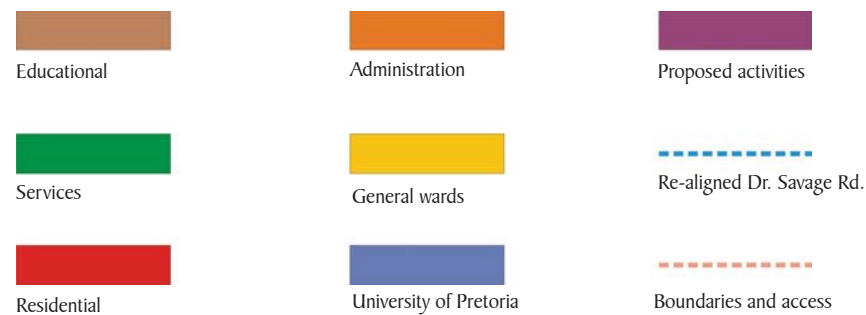


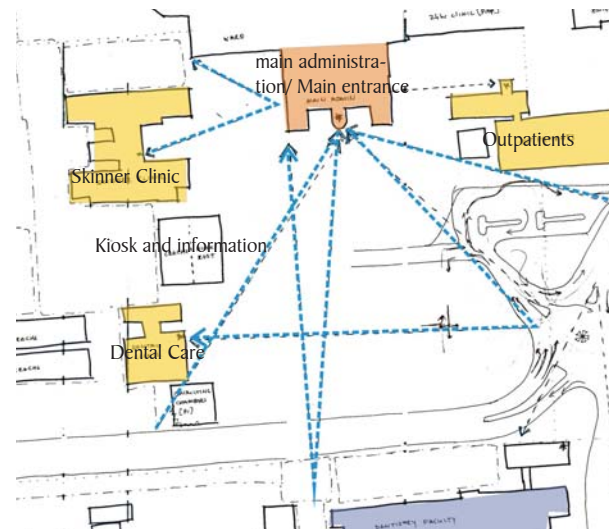
Fig. 8.4: Sketch plan area. (Author, 2008)



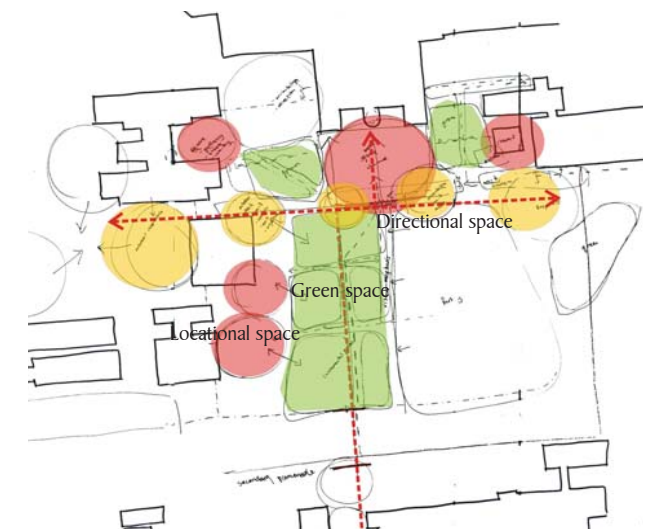
8.5 Concept

8.5.1 Conceptual development

The square is a very large space (approximately 150m X 150m) and it accommodates many functions. It could very easily not be contained enough to read as one space. Furthermore, Dr. Savage Road bisects the square. The challenge is to create an imageability that defines this large area as one square, but to incorporate a variety of smaller spaces to address human scale and accommodate different functions. This square will act as the social core of the institutions and improve social imageability. The spaces have to be informal and inviting so that the individual can relax and prepare himself to visit the institution. The overall imageability of the area should install trust in the institution.



01: Placement of activities to exploit vistas



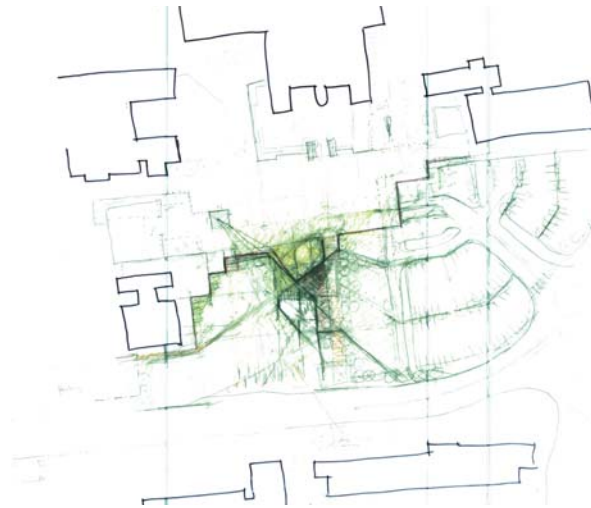
02: Zoning and relationships between activities

Fig. 8.5: Concept development. (Author, 2008)





03: Relationship between private, semi-public and public space



04: "Activity Edge"



05: Orientation of axis

8.5.2 Circulation

Circulation on the square is dominated by two main lines of direction:

- Movement towards the front entrance of the T.R.H.; and
- Movement towards the information kiosk

All major points of arrival exploit vistas to these activities to guide movement and orientate the user.

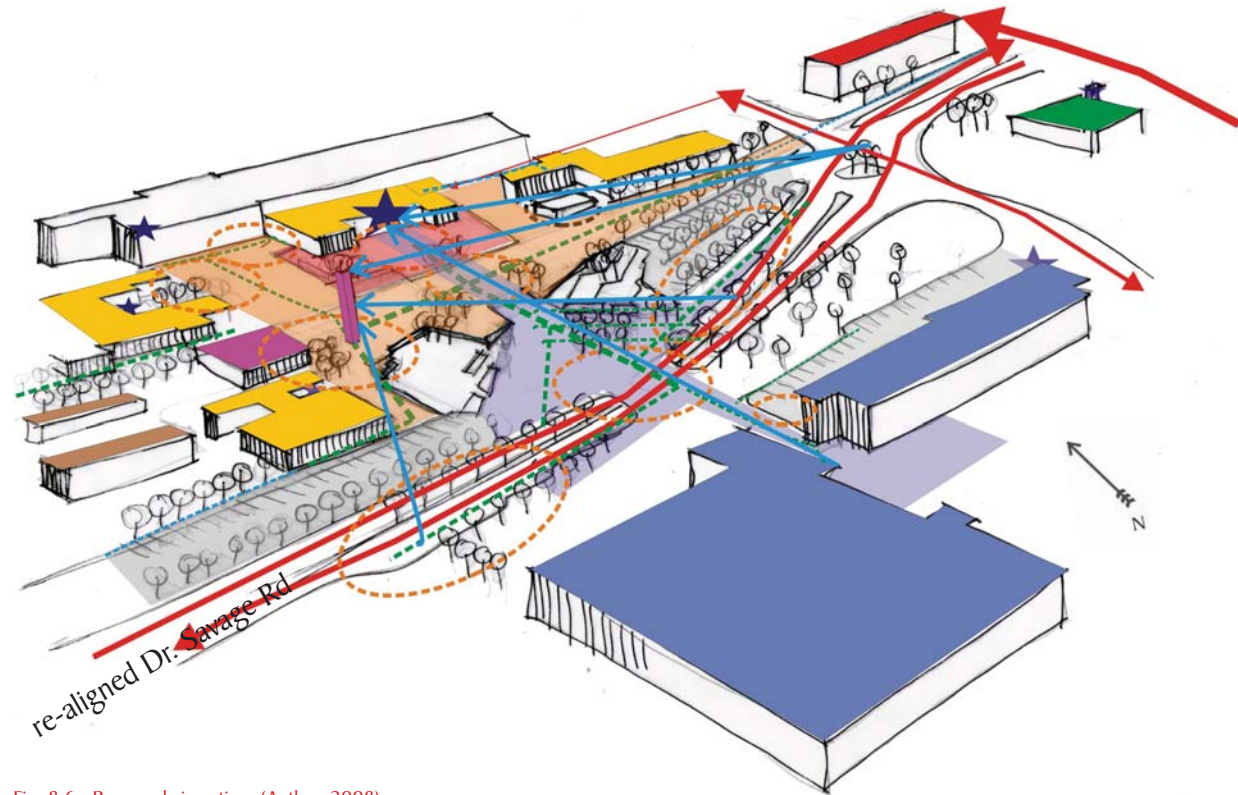
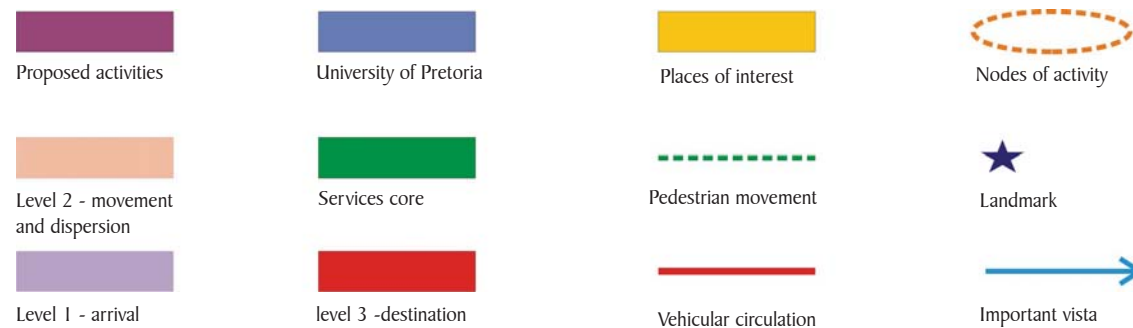


Fig. 8.6: Proposed circulation: (Author, 2008)



8.5.3 Users

Users and activities are closely related. In Chapter 3 needs were listed for the different user groups. A user profile was used to compile a programme (Refer to Section 8.5.6). A combination of user needs, site indicators and a spatial hierarchy resulted in the concept of a “transitional platform of activity”. This platform aims to address the needs of the transitional users and in essence becomes the activity edge which all users frequent.

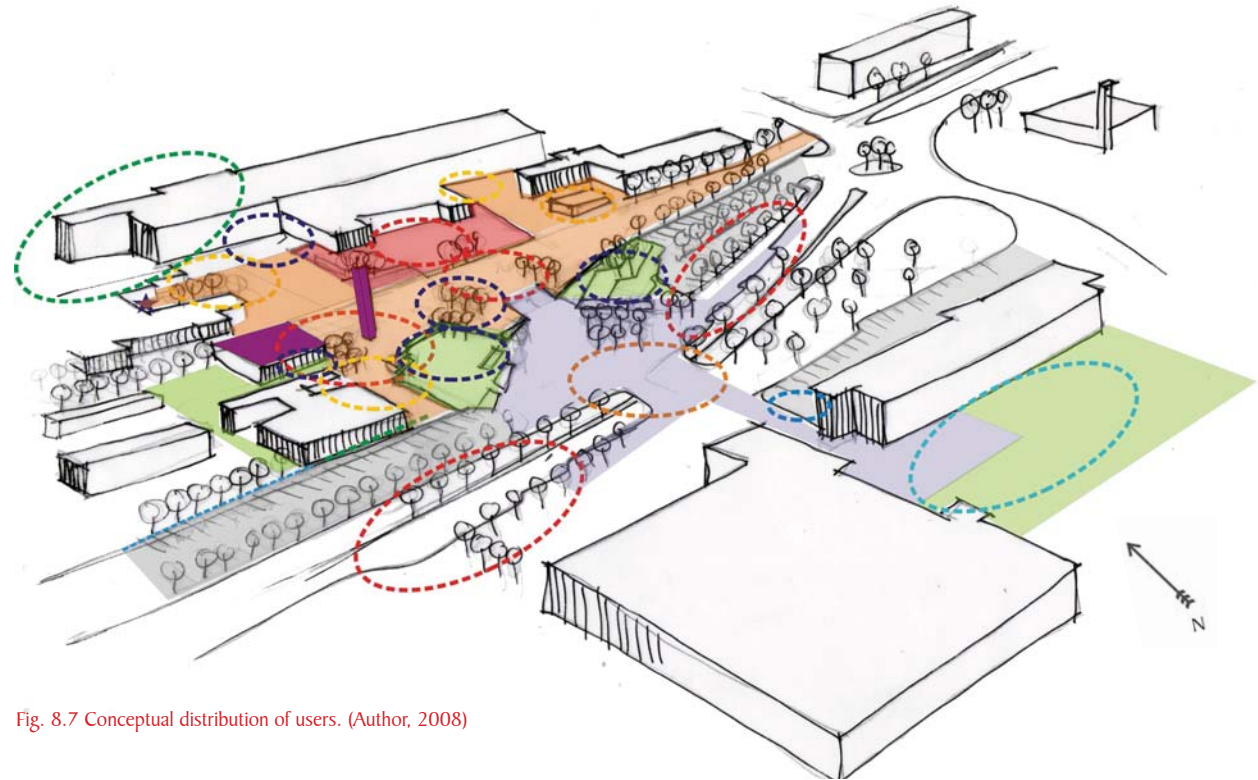
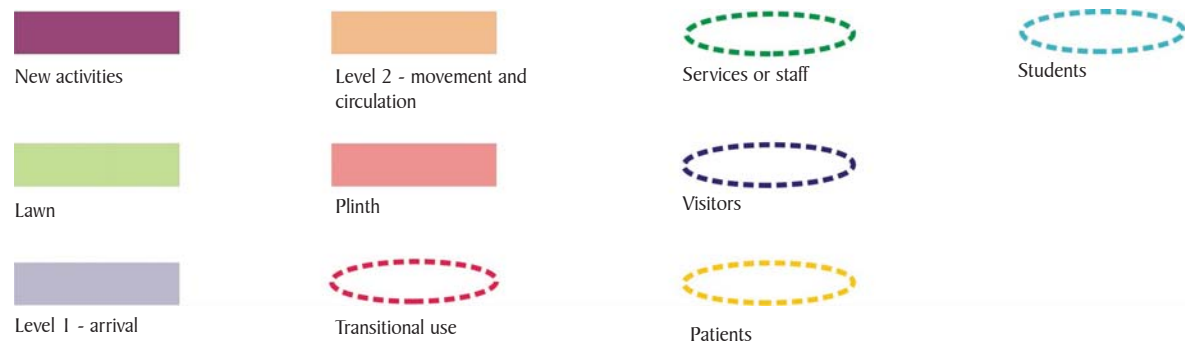


Fig. 8.7 Conceptual distribution of users. (Author, 2008)



8.5.4 A public square, for the benefit of public health.

In Chapter 4 the characteristics of an environment with the potential to benefit public health were discussed and listed (refer to Section 4.6). It is therefore argued that the Dr. Savage Plaza has a better probability of being restorative to an individual, if it contains a range of spatial organisations. The individual is then empowered to be *compatible* to a particular sub-space and to experience the *extent* thereof, as being favourable.

In the spatial organisation of the Dr. Savage Plaza specific attention was given to arrange activities in such a way that the probability of inducing *soft fascination* is increased. This can be achieved by:

- Arranging activities so that visibility between them is encouraged, but a sense of territory of the individual's space, is honoured.
- In this arrangement watching the activities of other individuals could fascinate the individual. It also improves passive observation and perceived safety. If the individual can always orientate himself easily within the space, it installs a sense of belonging.

- Placing the tower with the information kiosk was placed in such a way that it would, in most cases be visible from everywhere. This further strengthens the social imageability of the area.
- Providing opportunities for chance social encounters by placing shared activities, for example trade stalls, along the main lines of movement.
- *Creating fascination, which is an intellectual activity that is closely related to the personal frame of reference of an individual.* Exploiting ephemeral qualities within a small space can strengthen fascination, because it allows the mind to wander. Examples of these include; changing patterns in the sunlight and shadow lines, vegetation that changes significantly throughout the seasons, and larger scale interventions; for example the proposed stormwater detention feature. During the dry season they are sunken seating areas, but during thundershowers in summertime they become a dynamic systems that retain water and slowly releases it.



8.5.5 Experiential landscape

Spatial organisation of activities is strongly influenced by an experiential hierarchy. The design aims to strengthen existing social imageability and social interaction, while providing a clear hierarchy of spaces that contain the activities. The experience of moving through the spaces (the individual journey) becomes the evaluation of the experiential landscape. Also refer to Section 8.6. where three journeys through Dr. Savage Plaza will be discussed.

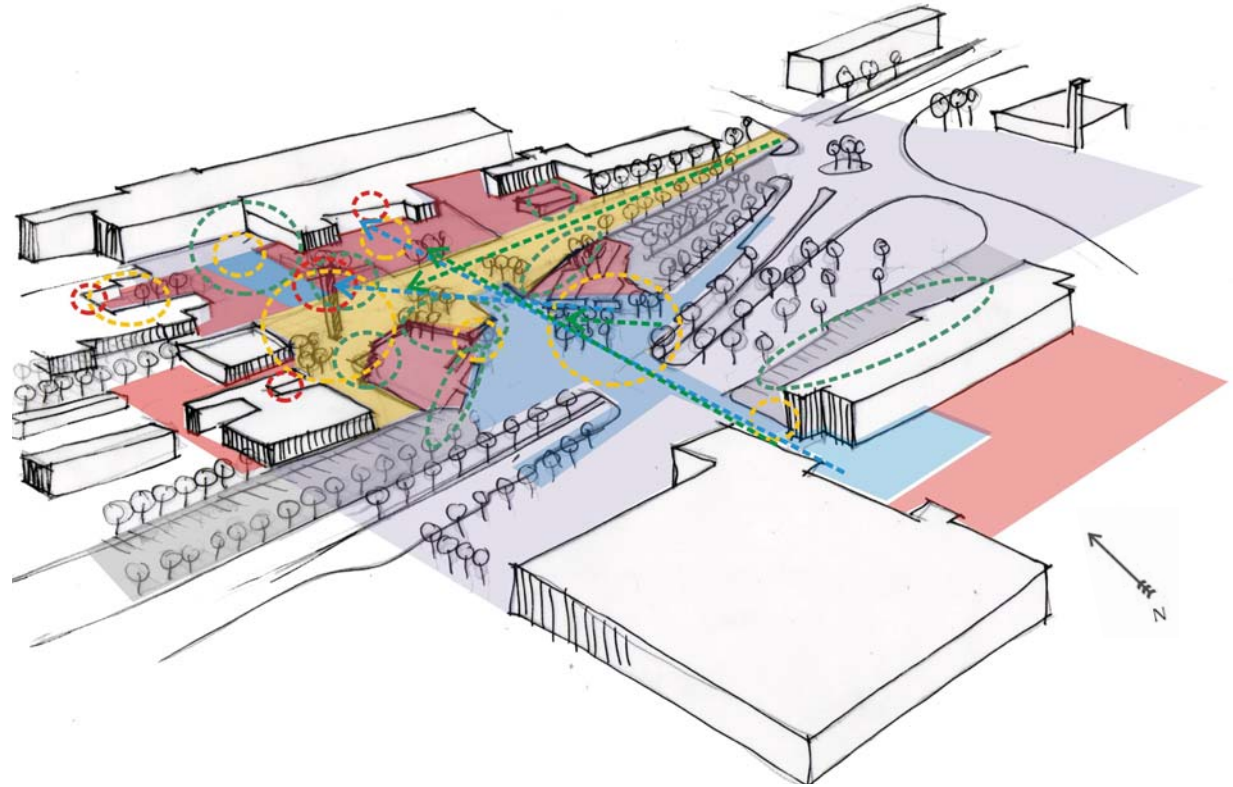
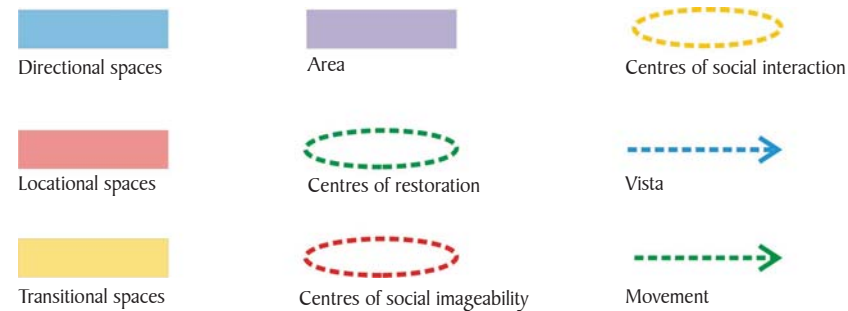


Fig. 8.8: Experiential landscape. (Author, 2008)



8.5.6 Programme

Six user groups were defined and they were subdivided into smaller groups. The user profile for these groups is based on interviews that were held during the analysis stage. The user needs were grouped to determine the need for similar activities. These little programmes were used to compile the spatial hierarchy of the transitional platform.



Liesbeth



Peter



Sylvia



Sam Wife



Andre



George & wife



Joshua



Phumzile



Emily & Wayne



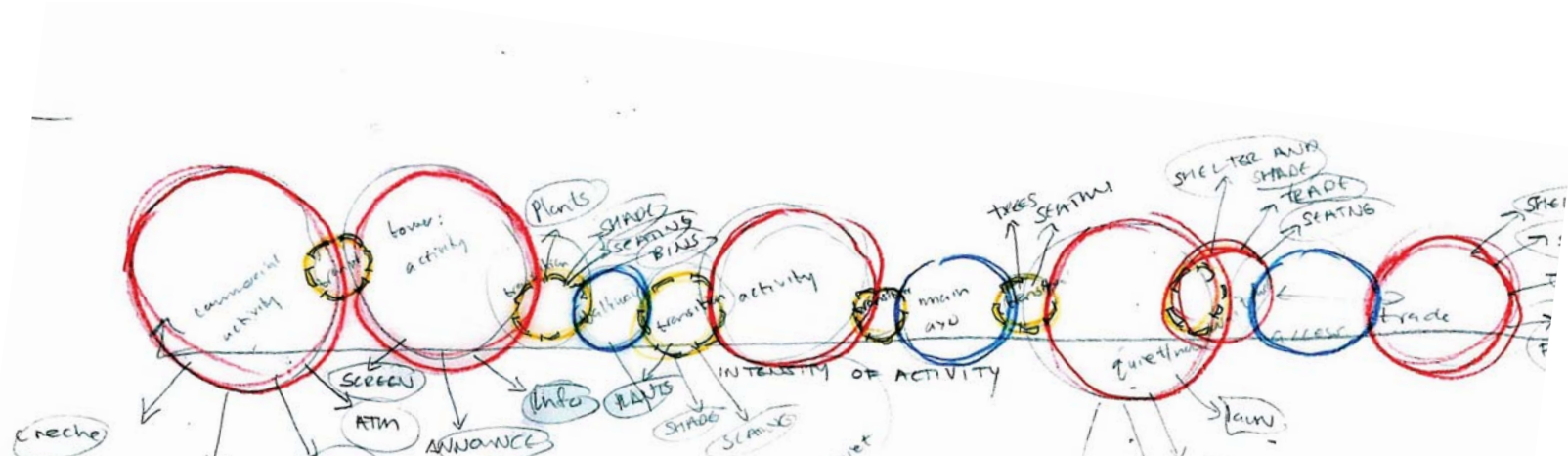


Fig. 8.9: Generation of activities within a hierarchy of locational, directional and transitional open spaces. (Author, 2008)

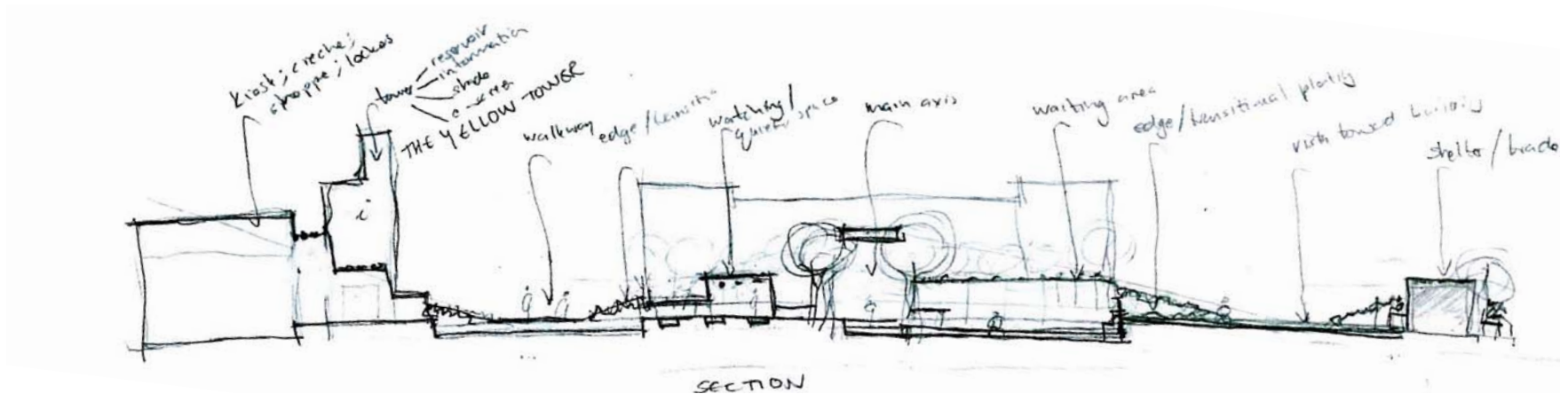


Fig. 8.10: Arrangement of activities on the "activity edge" (Author, 2008)

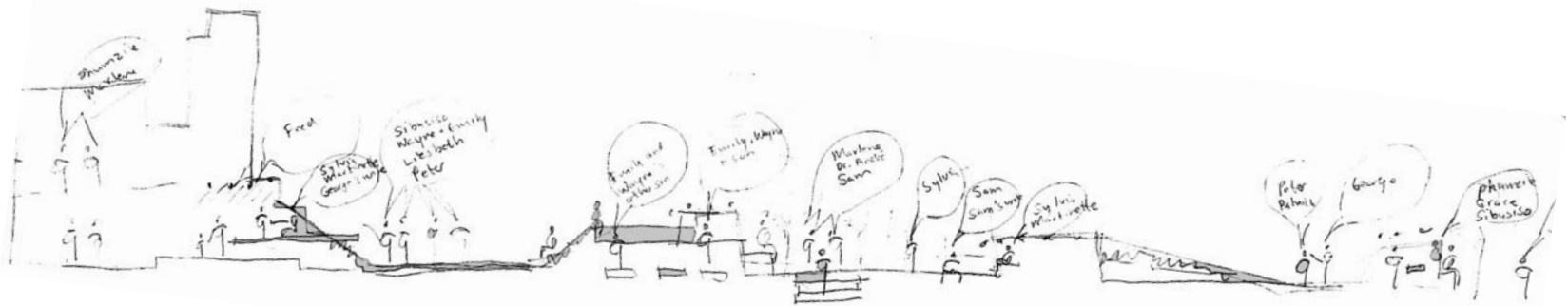


Fig. 8.11 : Relationship between activities and user needs. (Author, 2008)

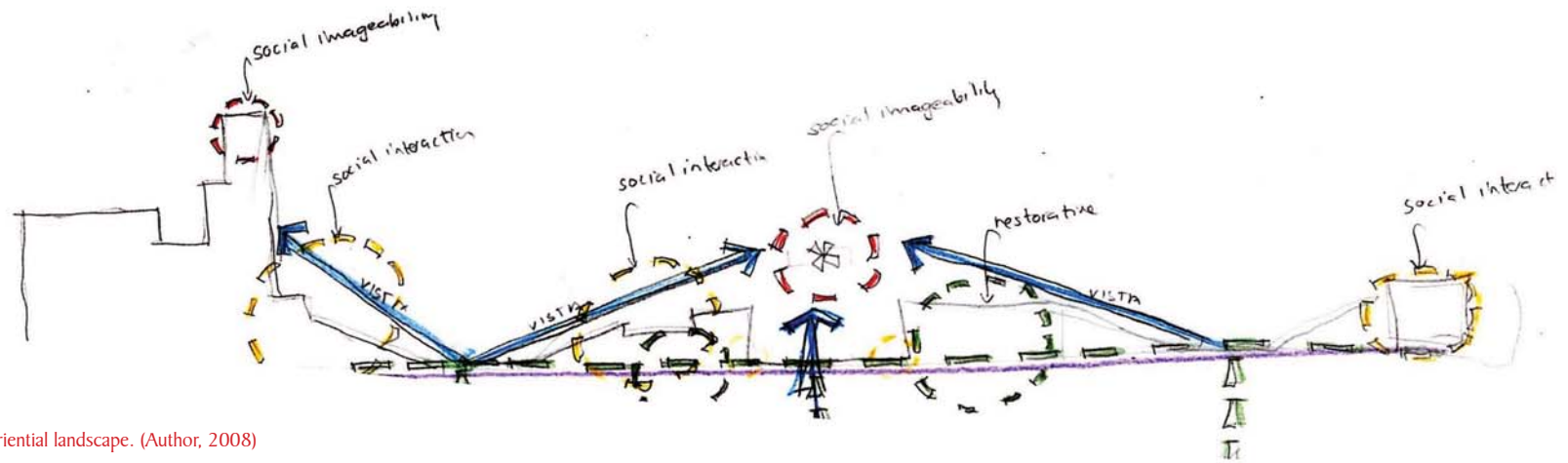


Fig. 8.12: The resultant experiential landscape. (Author, 2008)



Liesbeth



Peter



Sylvia



Sam Wife



Andre



George & wife



Joshua



Phumzile



Emily & Wayne



- Main direction of movement
- Secondary pedestrian movement
- Important vistas
- Vehicular movement
- Primary destination points
- Green spaces
- Locational spaces with specific application
- Transitional spaces that guide direction
- Arrival square: transitional space
- Nodal interchange
- Proposed parking

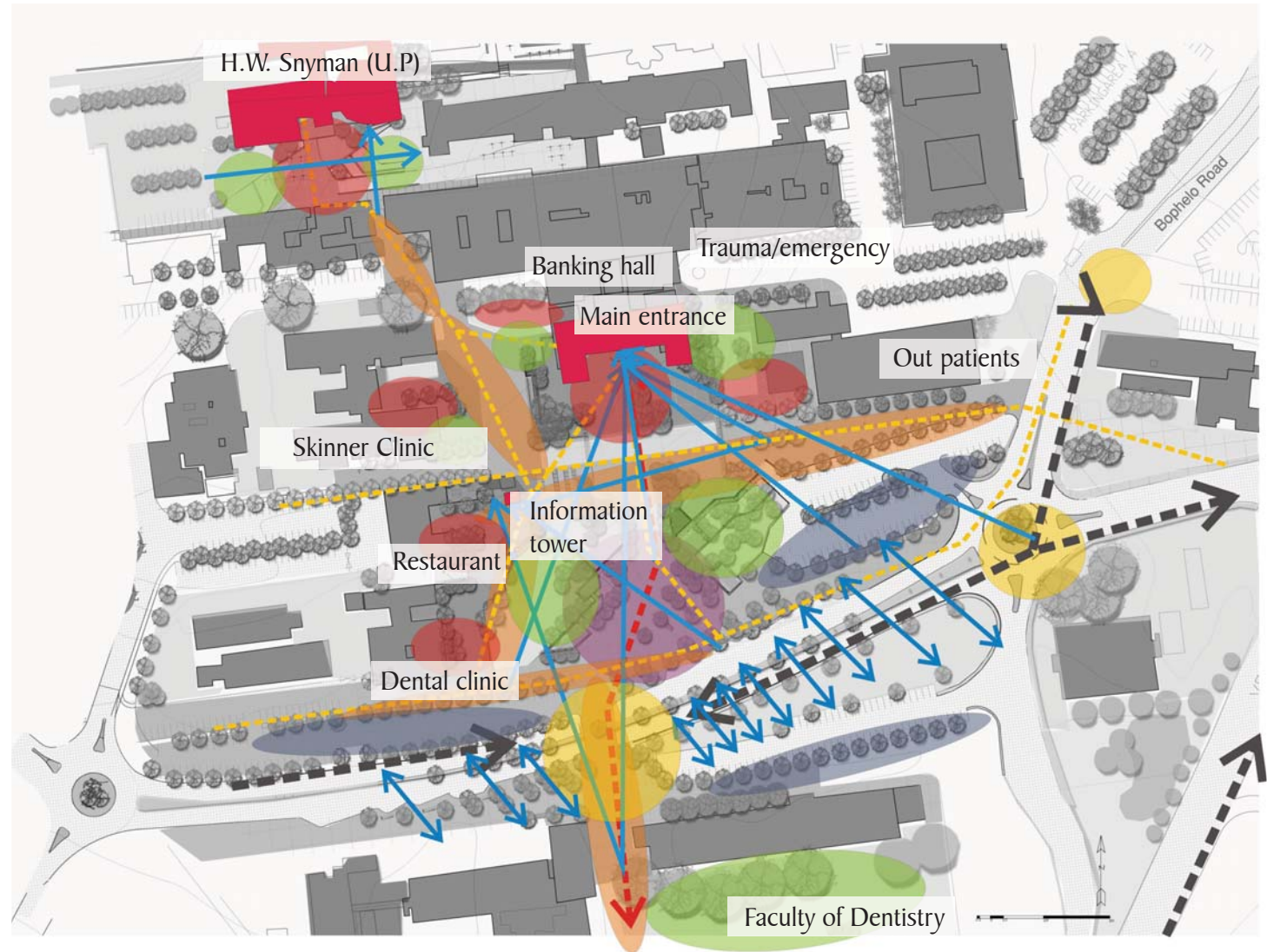


Fig. 8.13 : Sketch Plan zoning. (Author, 2008)

Land use:

- A : Creche
- B : Dental Clinic
- C : 24hr kiosk/restaurant and general dealer.
- D : ATM and services core
- E : Information kiosk and tower
- F : Skinner Clinic
- G : Admin and main entrance into T.R.H
- H : Banking Hall
- I : Trauma and Emergency Unit
- J: Chemist
- K: Out-patients' clinic
- L: Services
- M : Faculty of Dentistry (U.P)
- N: Pathology and HIV test centre (U.P)
- O: Cardiology and Surgery
- P: H.W. Snyman Building (U.P)
- Q: Children's ward

Activities:

- 1 : Waiting area at Dentistry with existing Quercus trees.
- 2: Waiting and gathering areas at crossing of Dr. Savage Roa.
- 3: Traffic light with pedestrian preference control switch.
- 4: Parking for visitors and patients
- 5: Pick-up and drop-off bays for taxis, cars and buses.
- 6 : Trade stall
- 7 : Lawn
- 8 : Terraced seating steps
- 9 : Waiting areas outside Dental Clinic
- 10: Children's playpen. (Access only from Creche and Restaurant)
- 11 : Outdoor restaurant seating
- 12 : Trellises - waiting areas
- 13: Rentable lockers
- 14 : Erratic fountain
- 15 : Shady observation spaces
- 16 : Stormwater detention feature: packed stone surface: infiltration
- 17: Feature wall with seating, lights and signage
- 18: Sunken seating areas/stormwater detention structures
- 19: Ramp to upper terrace
- 20: Terraced lawn areas
- 21: Parking for visitors and patients
- 22: Ramp to upper terrace
- 23: Lawn and waiting area at Chemist
- 24: Plinth in front of main entrance

Activities:

- 25 : Raised planter with seating
- 26: Drainage channel towards stormwater detention facility
- 27: Waiting areas in front of the Skinner Clinic
- 28: Waiting areas at the Banking Hall
- 29: Private garden for Tuberculosis Hospital
- 30 : Corridor towards secondary line of movement and the H.W. Snyman Square.
- 31: Secondary line of movement
- 32: Terraced lawn
- 33: Down ramp(emergency access)
- 34: Stormwater feature wall
- 35: Deck and steps
- 36: Children's courtyard
- 37 : Emergency drop-off area with roof-overhang, parking and shady waiting areas.
- 38 : Access control: staff and emergencies only
- 39 : Parking (Mostly for students)
- 40: Services yard
- 41: Irrigation Dam 2





Fig. 8.14 : Proposed Sketch Plan. (Author, 2008)

8.6 Journeys, sections and details

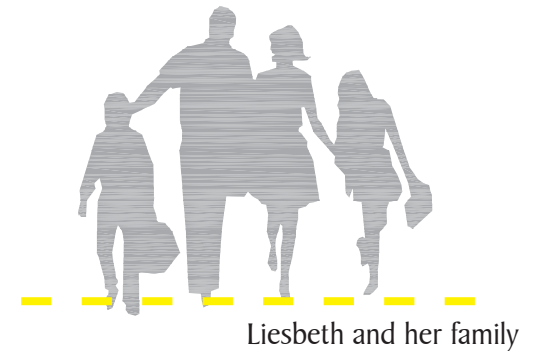
The ability of the space to be restorative is dependant on the frame of reference of the individual. The user journeys and user profile that was compiled in Chapter 3 will be now be used to illustrate the experiential landscape.

The journeys of Phumzile (nurse), Joshua (student) and Liesbeth and her family (patients) will now be used to illustrate the design in section and perspective.

Nurse - I am Phumzile Molobe and I stay in one of the apartments in Gezina. From there I take a taxi to the T.R.H.M. Sometimes I have to work the nightshift. Shift changes take place at 07h00 and 19h00. In the mornings I need a place to buy coffee and cigarettes. In the evenings I need a safe and well-lit area to wait for the taxi. Sometimes I also need to buy some basic groceries or money from an ATM. During the day I need an accessible outdoor area where I can smoke, but still be close enough to the ward if an emergency occurs.

Patient: I am Liesbeth. I have the flu and I need some medicine from the chemist. I have to know immediately where to go to, but it would also be nice to have a place to sit and wait, or do some shopping or activities with my small kids who come along on the trip.

Student: I am Joshua. I study dentistry at the University of Pretoria. I stay in Waterkloof and come to campus by car. On the Prinshof campus there is enough parking, so we park there. Sometimes we have classes in the H.W. Snyman Building which means we have to cross the busy Dr. Savage Rd. We need an ATM and outdoor refreshment area. In the vicinity of the H.W. Snyman building there is a need for lawn and an outdoor socializing space.



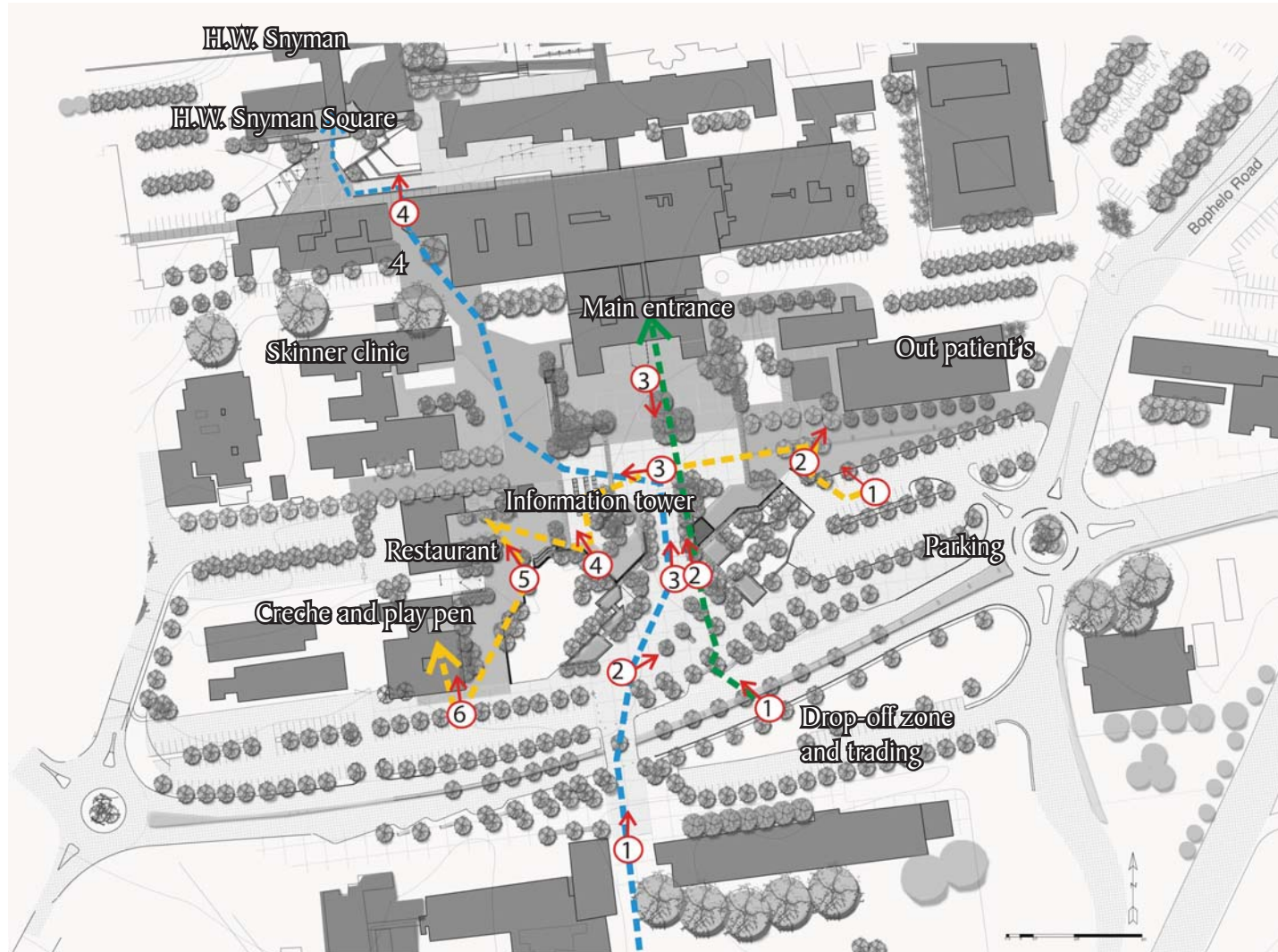


Fig. 8.15: Three experiential journeys for Dr. Savage Plaza. (Author, 2008)

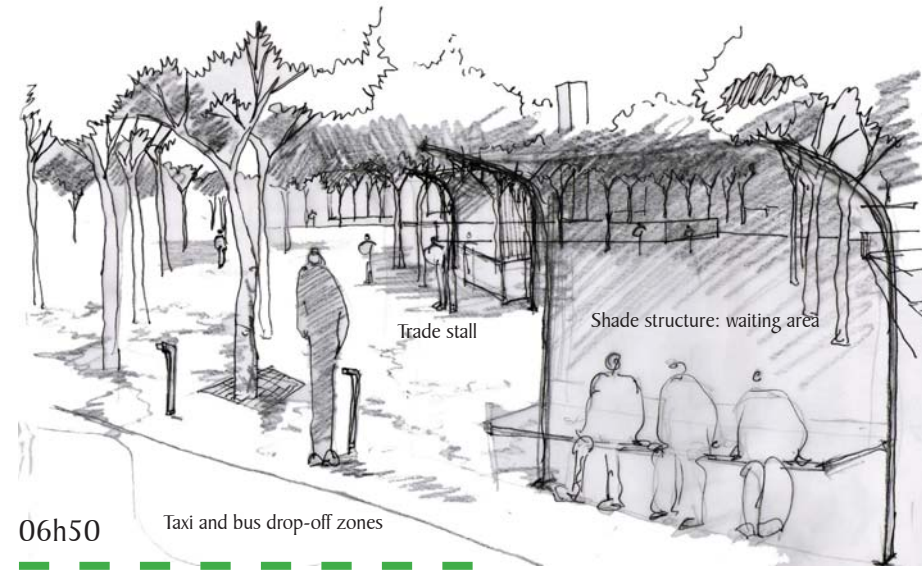
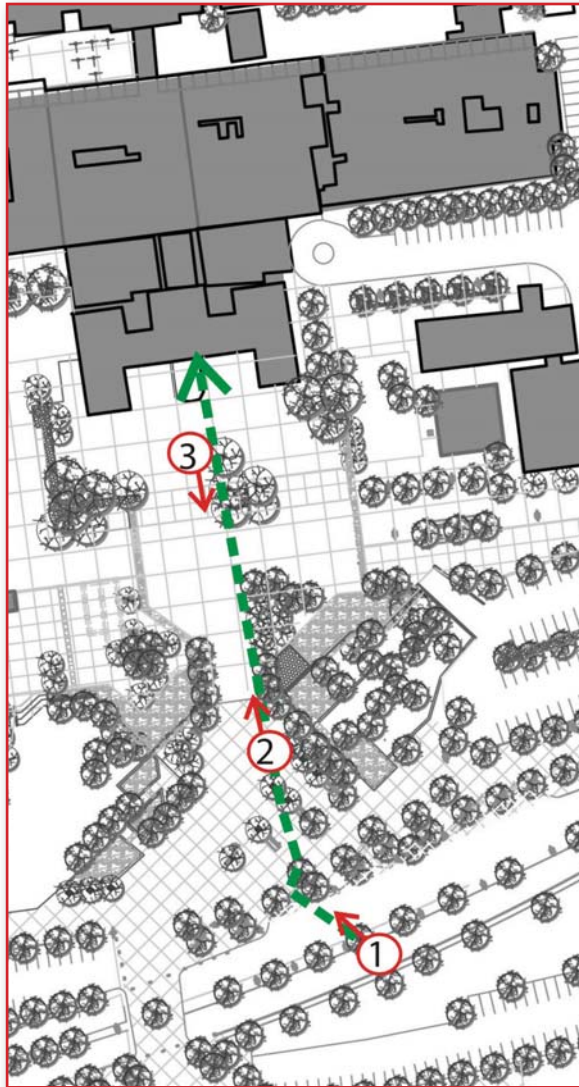


Fig. 8.16: 01 -Drop-off zone in Dr. Savage Rd and informal trade area. (Author, 2008)

“I enjoy coming to work by bus, because you get to know the regular commuters. When I get off, I always have a quick chat with some of my friends who worked the night shift - they are waiting to go home. I didn't have time to eat breakfast, so I quickly buy an apple and a cold drink from the trade stalls. I know the trader quite well by now.”

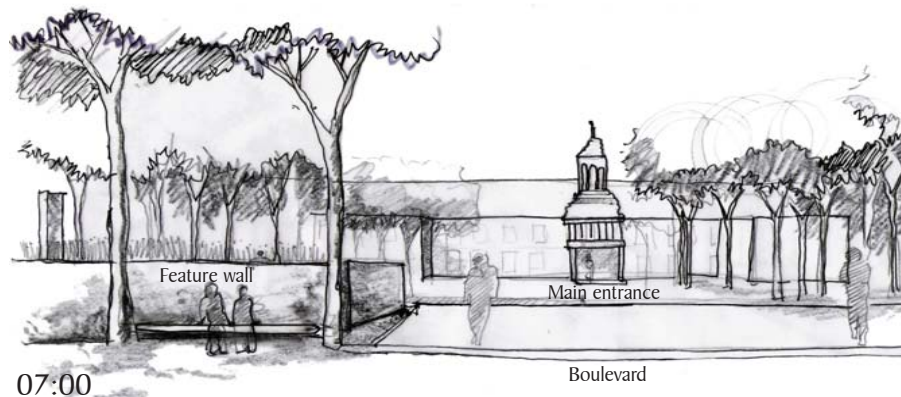


Fig. 8.17: 02 - View towards main entrance of hospital. (Author, 2008)

“There are dedicated parking areas for staff and doctors, but pedestrians and people who came with public transport enter the hospital through the main entrance.”

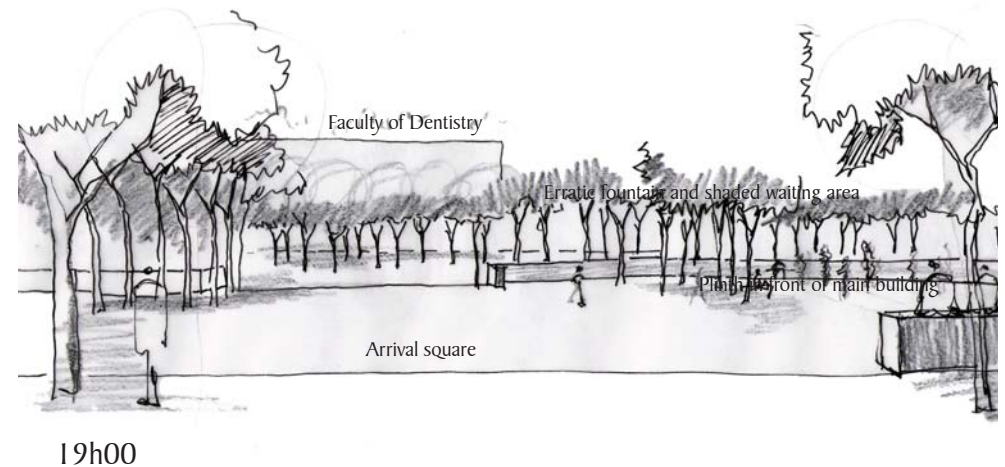


Fig. 8.18 - 03: View from main entrance towards Dr. Savage Rd. (Author, 2008)

“After a long day on my feet I look forward to sitting down in one of the shady waiting areas. Usually I also buy a few tomatoes and onions from the general dealer. There is a conveniently located ATM.”

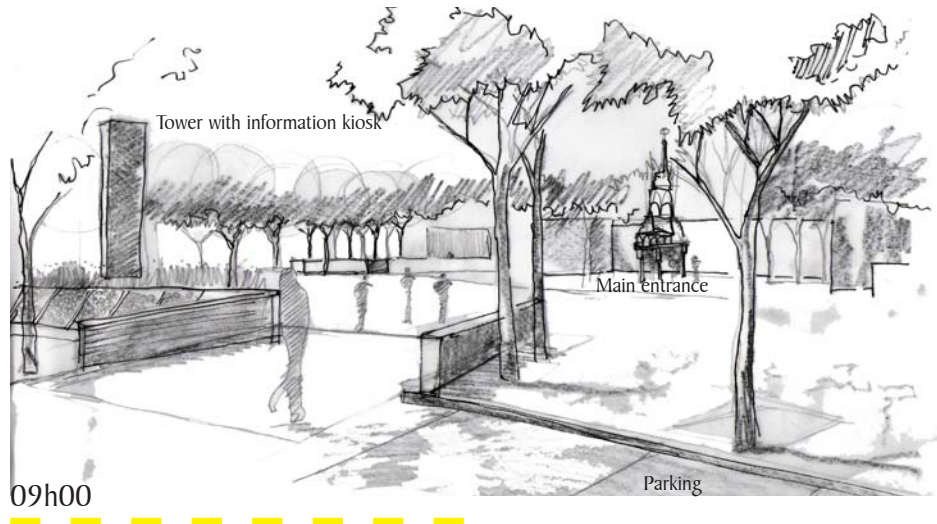


Fig. 8.19: 01- Parking area. (Author, 2008)

“Benjamin and I have small children. I have to come here once a month to fetch prescription medicine. But today Ben came with, because he wants to go to the Dental clinic. We had to bring the kids with us. We parked close by and in the shade.”

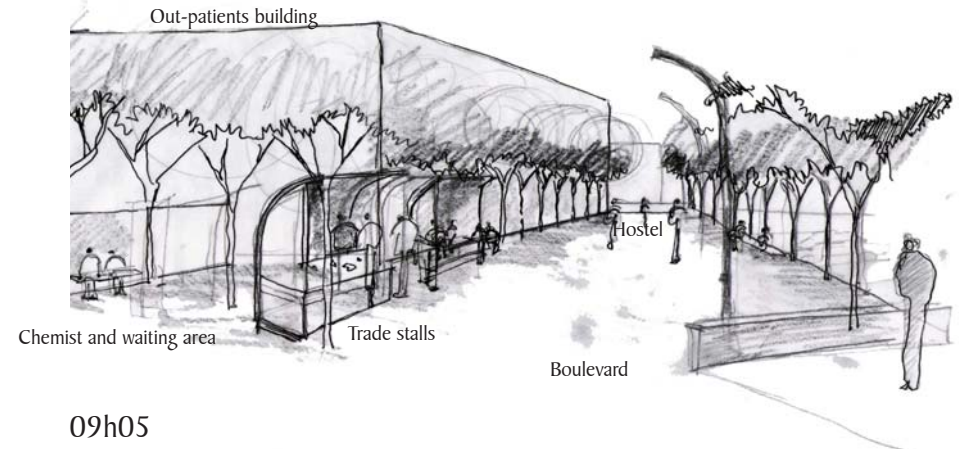
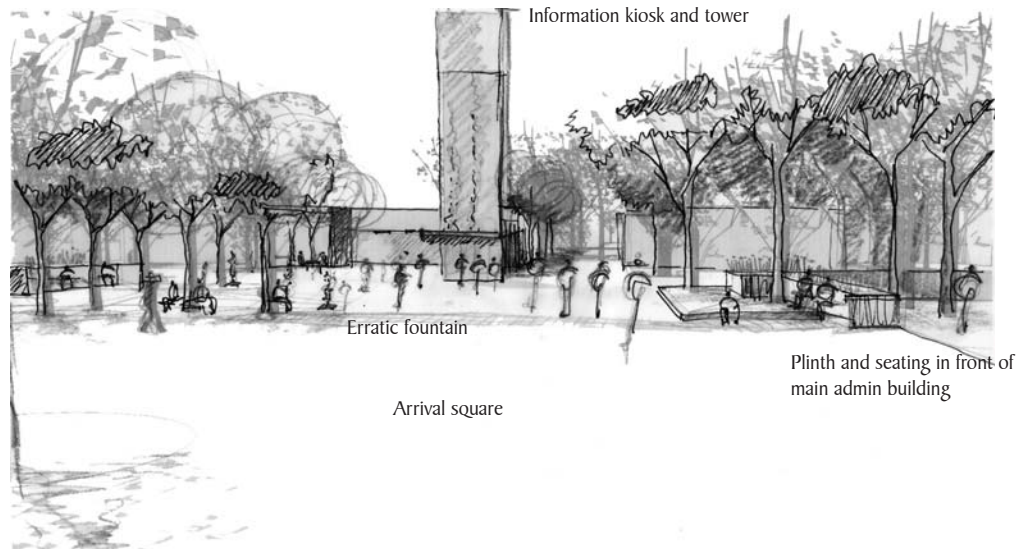


Fig. 8.20 - 02: Informal trade area. (Author, 2008)

“We walked up the ramp and saw a trade stall where we bought fruit for the children. People are already queuing in the shady waiting areas around the chemist.”

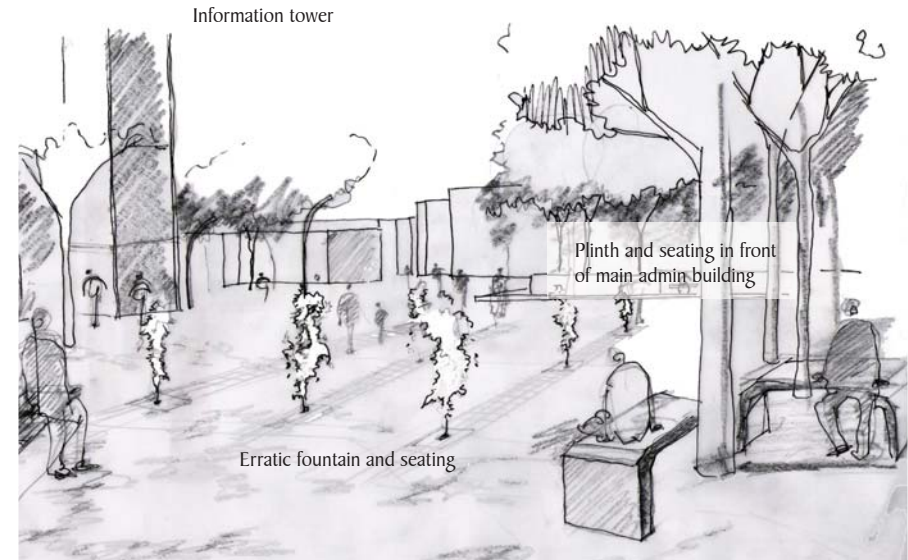




09h15

Fig. 8.21- 03: Approach to information tower. (Author, 2008)

“We have to go to the Information kiosk so Ben can find out where he has to go. We’ll store our jackets and lunch in one of the lockers. The kids and I will enjoy being outside today, while we’re waiting for Ben.”



11h00

Fig. 8.21- 04: Shaded waiting and observing spaces. (Author, 2008)

The children enjoy trying to guess which of the fountains will start spraying next. Older people sit in the quieter edge areas and watch the children that are bursting with energy.”

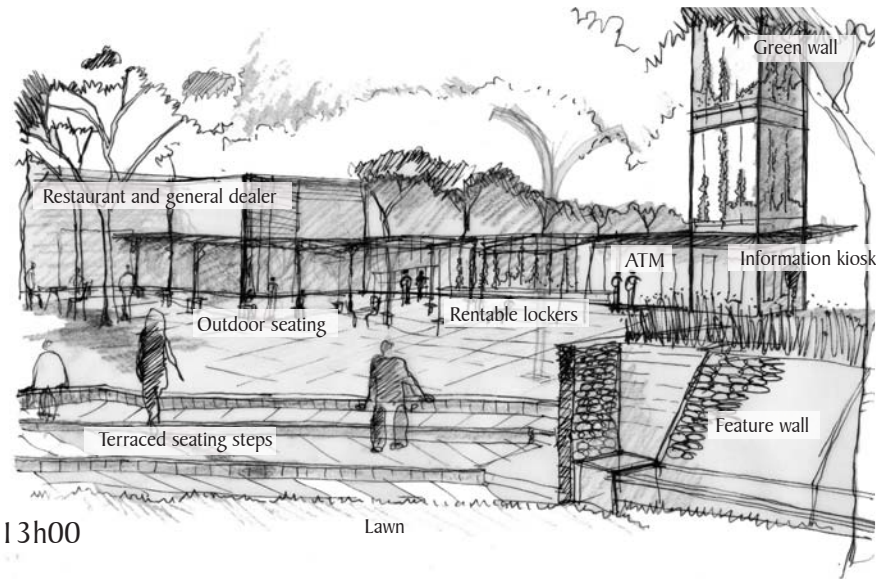


Fig. 8.22: 05 -Terraced lawn area. (Author, 2008)

Ben came back for lunchtime. We booked the kids into the daycare, because they wanted to play with the other children. Meanwhile we can have lunch on the terrace."

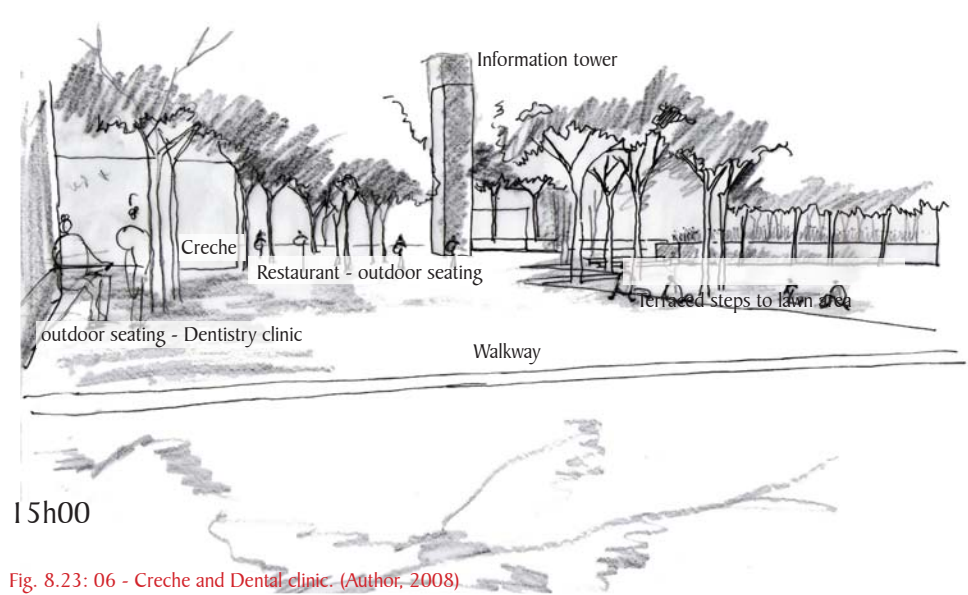
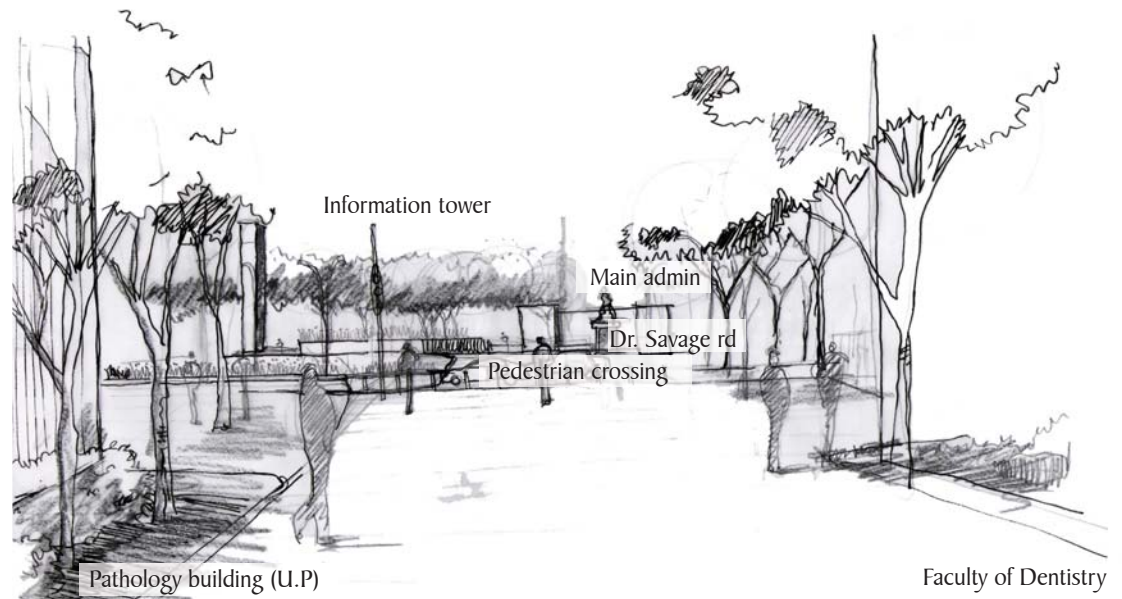
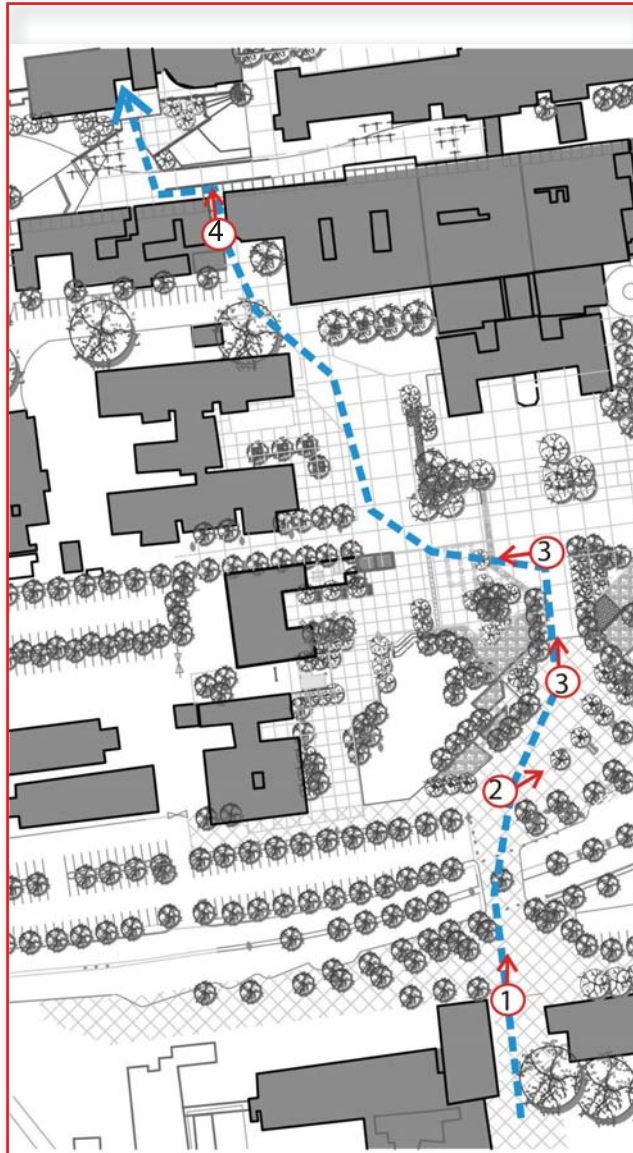


Fig. 8.23: 06 - Creche and Dental clinic. (Author, 2008)

"When Ben came back, we fetched the kids from the creche. After taking our bags from the locker and visiting the ATM and toilets, we bought milk and bread from the general dealer."

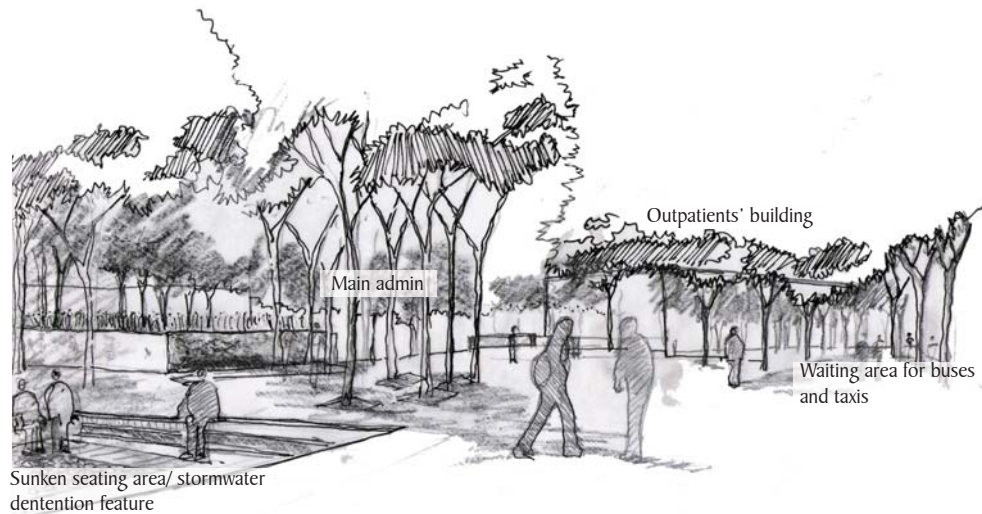




10h20

Fig. 8.24: 01 - Boulevard towards Dr. Savage Road. (Author, 2008)

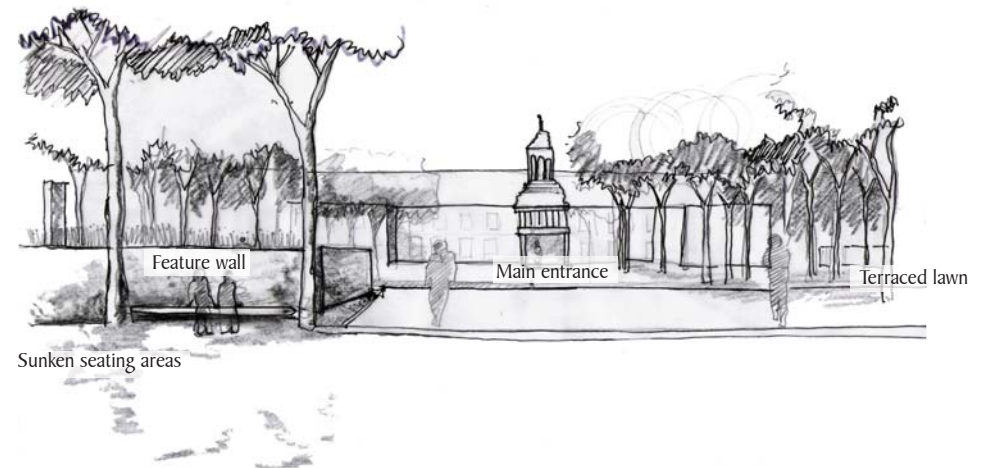
“We walk from the BMW building through the boulevard towards Dr. Savage Rd. There’s a traffic light with a pedestrian preference switch. We like the walkway because it is open and one can see quite far - we don’t feel unsafe. It is also close to the parking lot in front of the Dentistry building - easy access!”



10h25

Fig. 8.25: 06 -Sunken seating area and informal trade. (Author, 2008)

“John is my friend, he’s always late for the early morning classes. That’s why he waits until the next class in in the shady sunken seating area next to the boulevard. We meet up and sometimes we quickly buy cigarettes or cellphone airtime from the trade stall that is close by.”

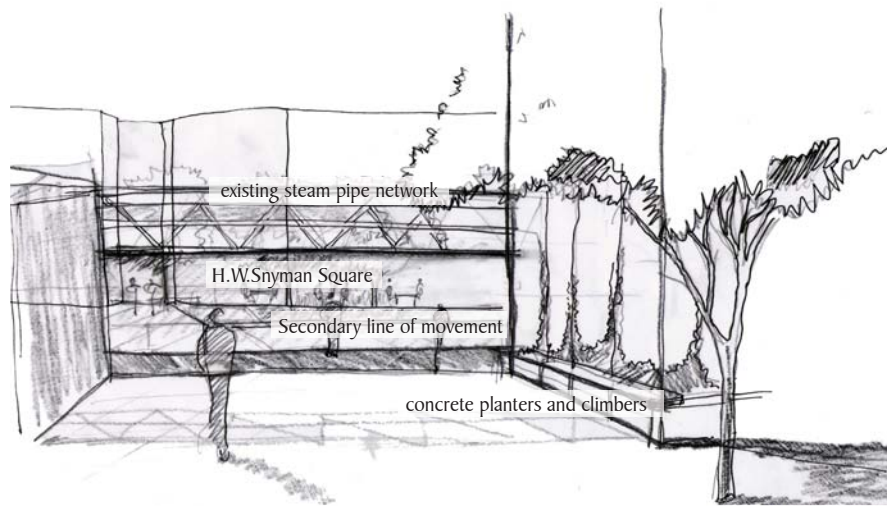


10h25

Fig. 8.26: 03 - View towards the main entrance of the T.R.H. (Author, 2008)

“This is the main entrance to the hospital. There is access control at this entrance, so it takes a little longer to go through here. We usually skip around to the card activated swing-door for students and staff to the west of the main building.”

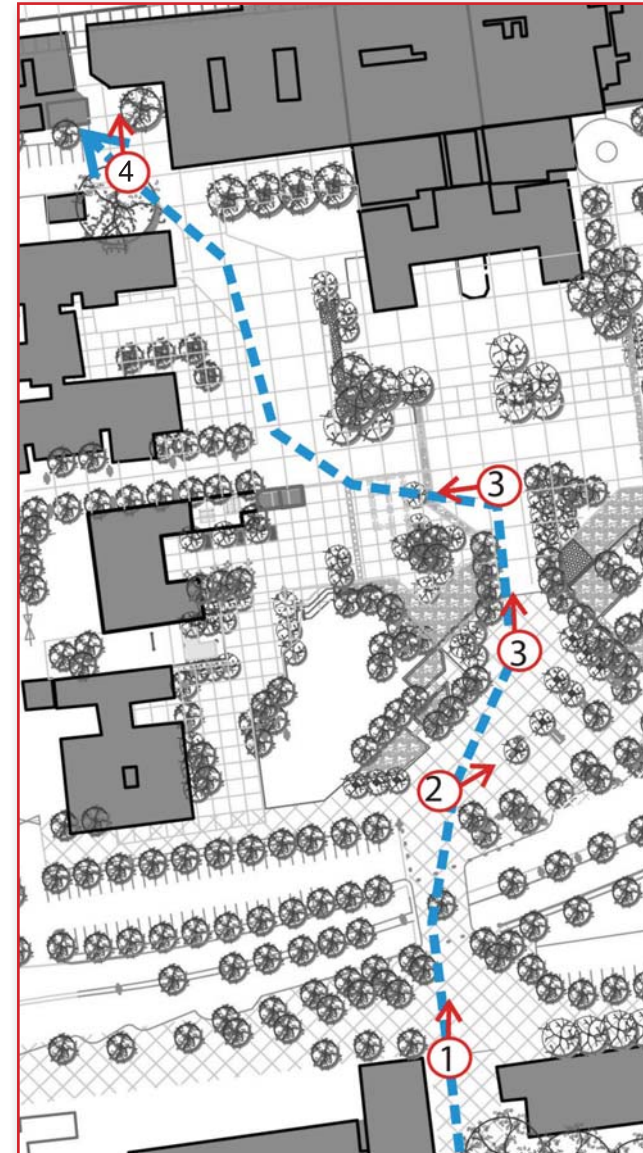




10h27

Fig. 8.27: 05 - Crossing the secondary line of movement towards the rear of the northern campus of the University of Pretoria, through the H.W. Snyman Square. (Author, 2008)

“We go through the corridor with the colourful steampipe network running above it. Behind this is one of the main walkways- it is colour coded and if you follow it, you can get just about anywhere in the hospital. At the H.W. Snyman Square there is plenty of shady waiting areas and a deck with moveable furniture. In wintertime we love to sit with our backs to the wall of the ramp that runs down to the Children’s wards. It’s sunny and there are lots of activities to look at. Sometimes we have to do assignments in groups. We enjoy sitting outside in one of the meeting places to discuss work before or after writing a test.”



8.6.1 Dr. Savage Plaza in detail

The proposed sketch plan aims to provide a wide range of spaces which have the potential to become meaningful to individuals, and it is believed that this arrangement of spaces could be beneficial for public health. The sketch plan was discussed in terms of journeys, and will now be explained in terms of materials, street furniture, planting palette and sections. In Chapter 11 some specific details (street furniture and edge details) and systems (stormwater detention feature, water feature, vertical garden and maintenance programme) will be discussed.

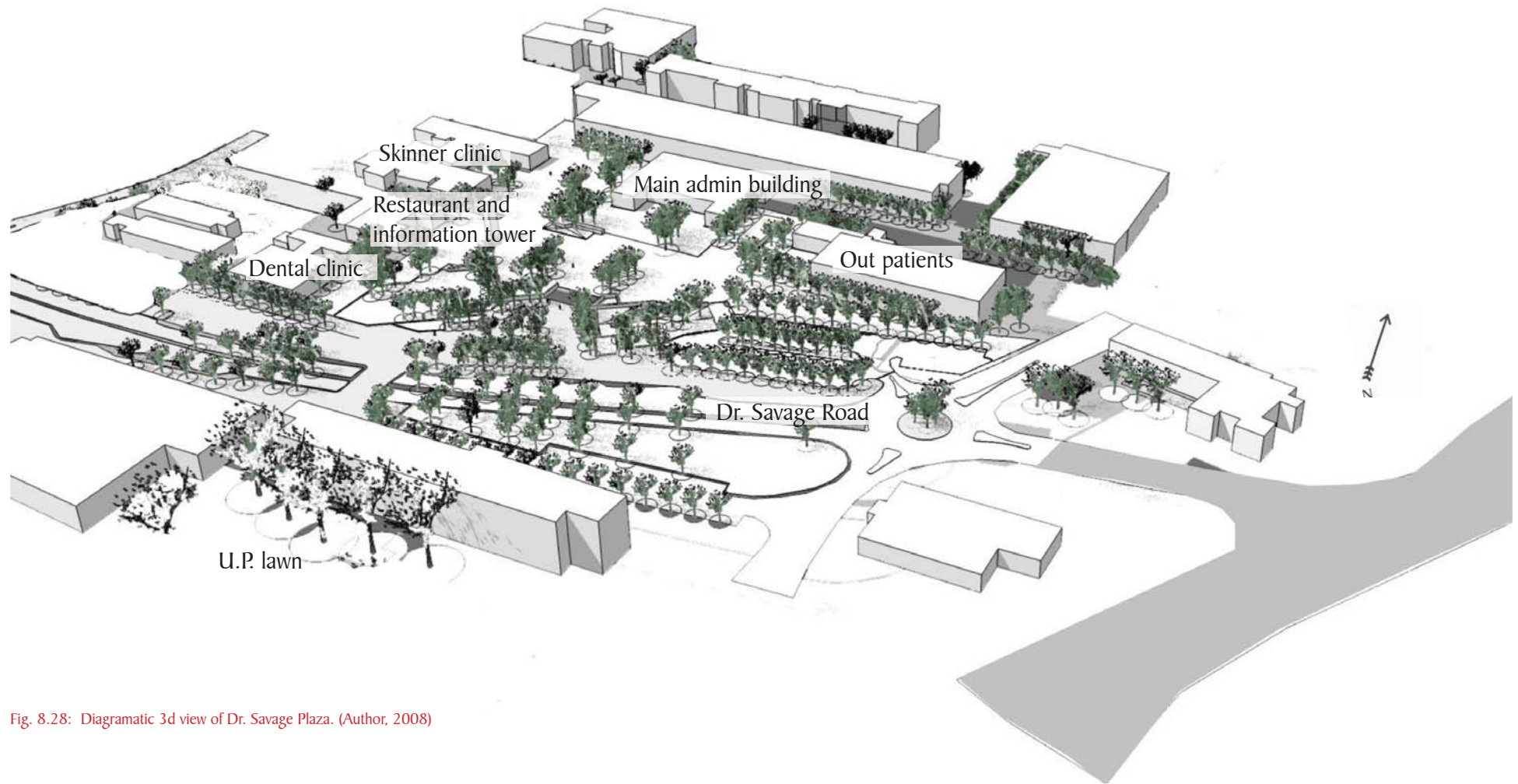


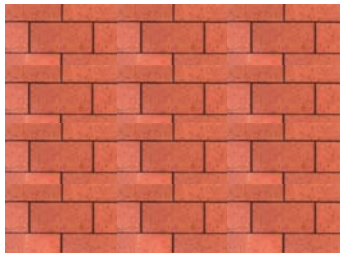
Fig. 8.28: Diagrammatic 3d view of Dr. Savage Plaza. (Author, 2008)



Infraset



Exposed aggregate concrete





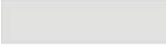
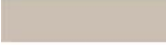


Corrobrick - burgandy pavers

Fig. 8.29 : Paving materials.
(Infraset.com, 2008; Corrobrick.co.za , 2008 and Author, 2007))

8.7 Materials and design guidelines

8.7.1 Paving

Paving is based on a grid system that is perpendicular to the existing buildings in the more formal areas, but in the transitional areas perpendicular to the information tower. The grid is composed of 3.6 m x 3.6 m units to accommodate combinations of a variety of pavers. In high-use areas the material is an in-situ cast concrete slab, with a red-brick edge and expansion joints on the grid intervals.

-  Corobrick burgandy
-  Infraset cobbles
-  Exposed aggregate concrete with red-brick joints
-  Feature wall: steel, mesh and packed rock structure
-  Drainage channels
-  Packed stone infiltration zones

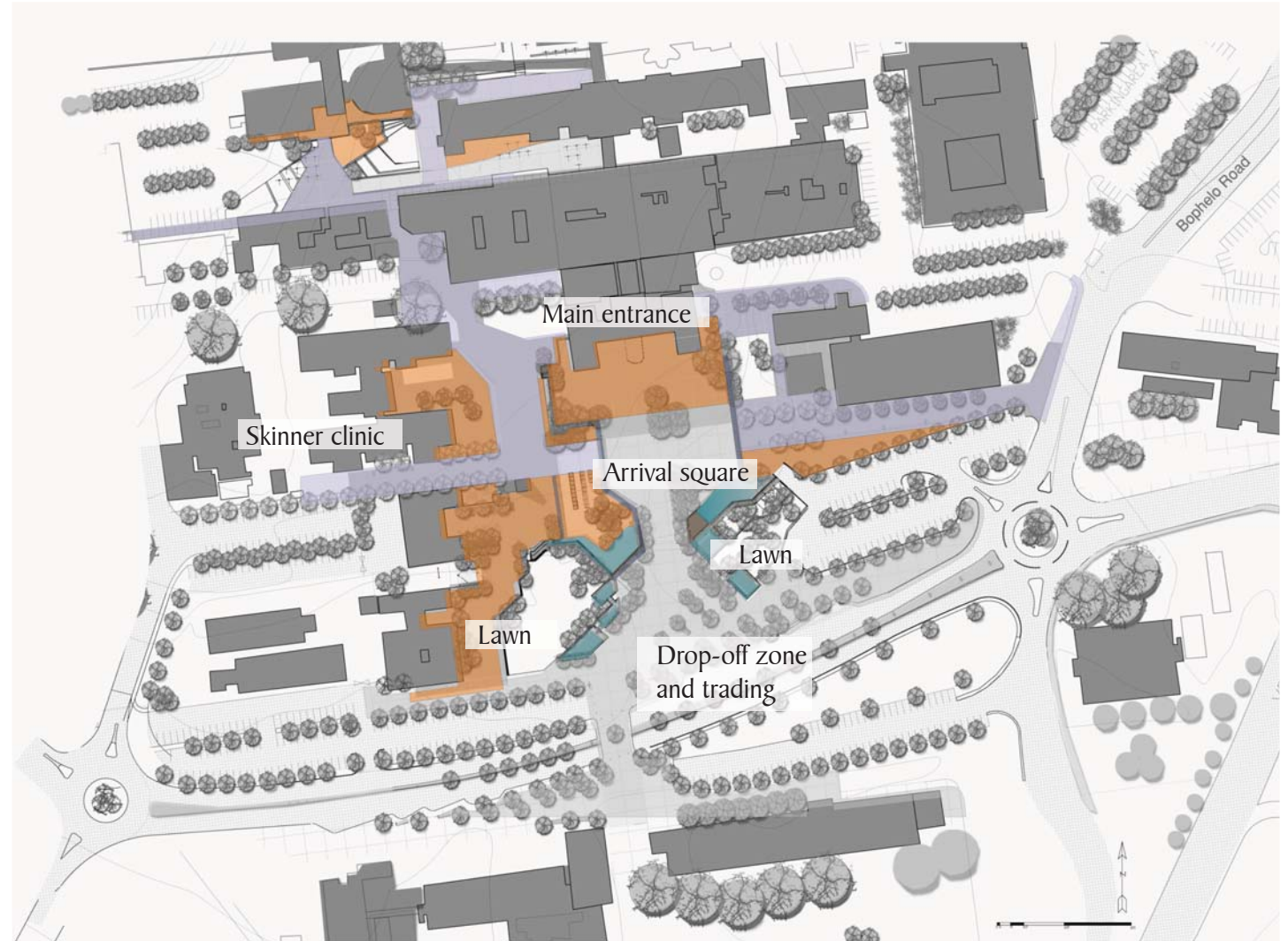


Fig. 8.30: Sketch plan - paving and materials (Author, 2008)

8.7.2 Street Furniture

The specific needs for the placement of street furniture was determined by the activities and the user profile. The palette consists of a range of:

- Bollards
- Bollards with lights
- Benches with backrests
- Benches without backrests
- Lampposts
- Shade structures
- Trade stalls

Robust materials were chosen and these include polished concrete, standard I-sections, IBR plates and square and round tube steel sections. The palette is colour coded to comply with the different master plan zones and it is also applied subtly to coloured ceramic tiles and signage.

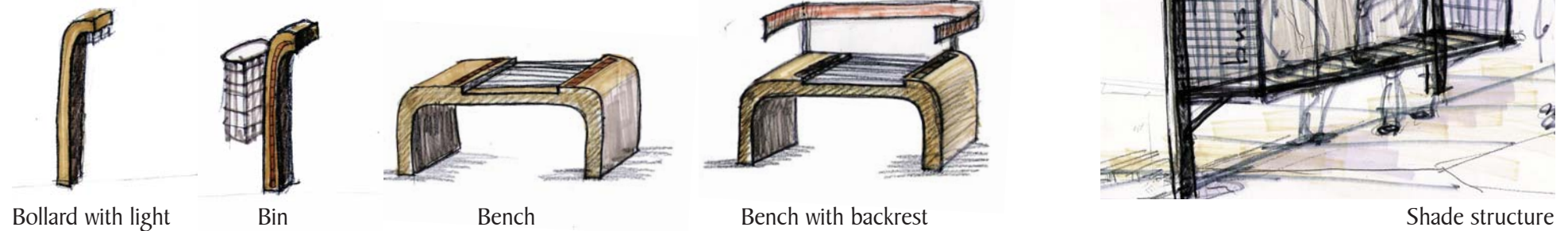
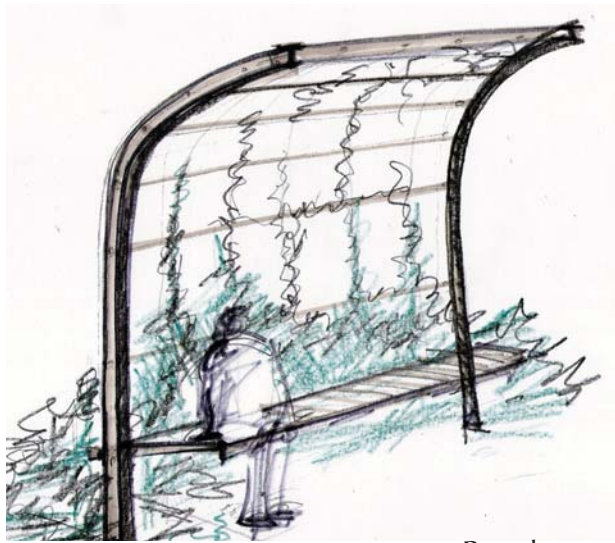
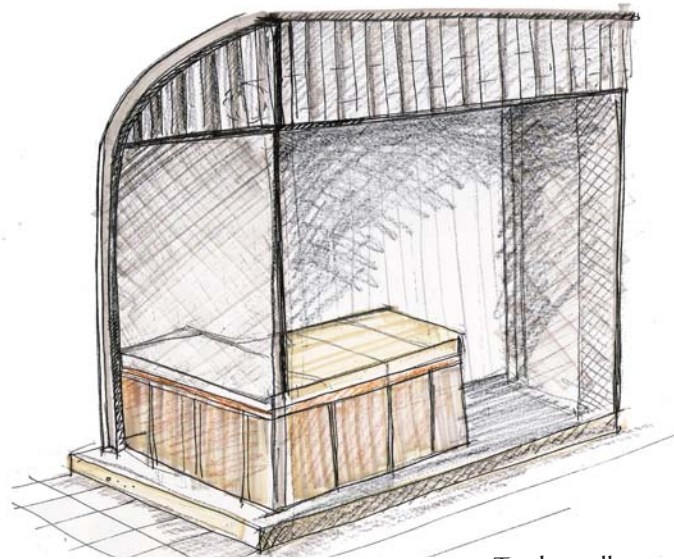


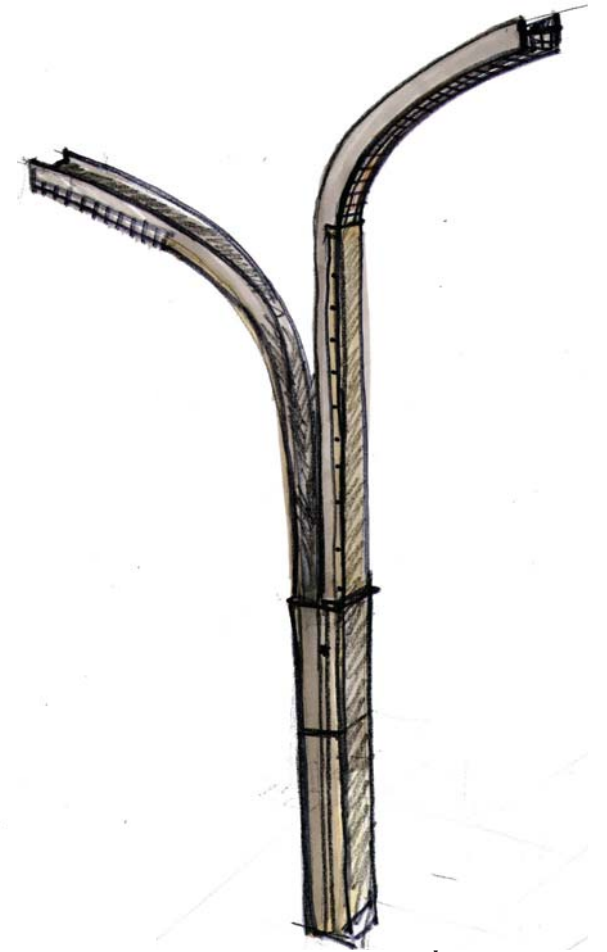
Fig. 8.31: Sketch designs for street furniture range. (Author, 2008)



Pergola



Trade stall



Lamp post

8.7.3 Lighting

The strategy for night use varies in scale.

- High-use areas are well lit with lampposts that shed light in two directions. This will encourage use in well-lit areas, resulting in a safer environment.
- Accent lighting is applied to the important buildings in the form of up-lighting. The tone of the colour should be warm.
- Indirect lighting – Subtle lighting of features, for example strip lighting on retaining walls, and LED uplighting in the erratic water fountain.
- Edge definition – Bollards with lights will be used to define low use areas.
- Special lighting – small LED lights embedded in random fashion on the plinth in front of the old admin building will subtly lead the user towards the building.



- Trade stall
- Lamp post
- Bench
- Bench with backrest
- Shade structure - waiting areas
- Rentable lockers
- Pergola

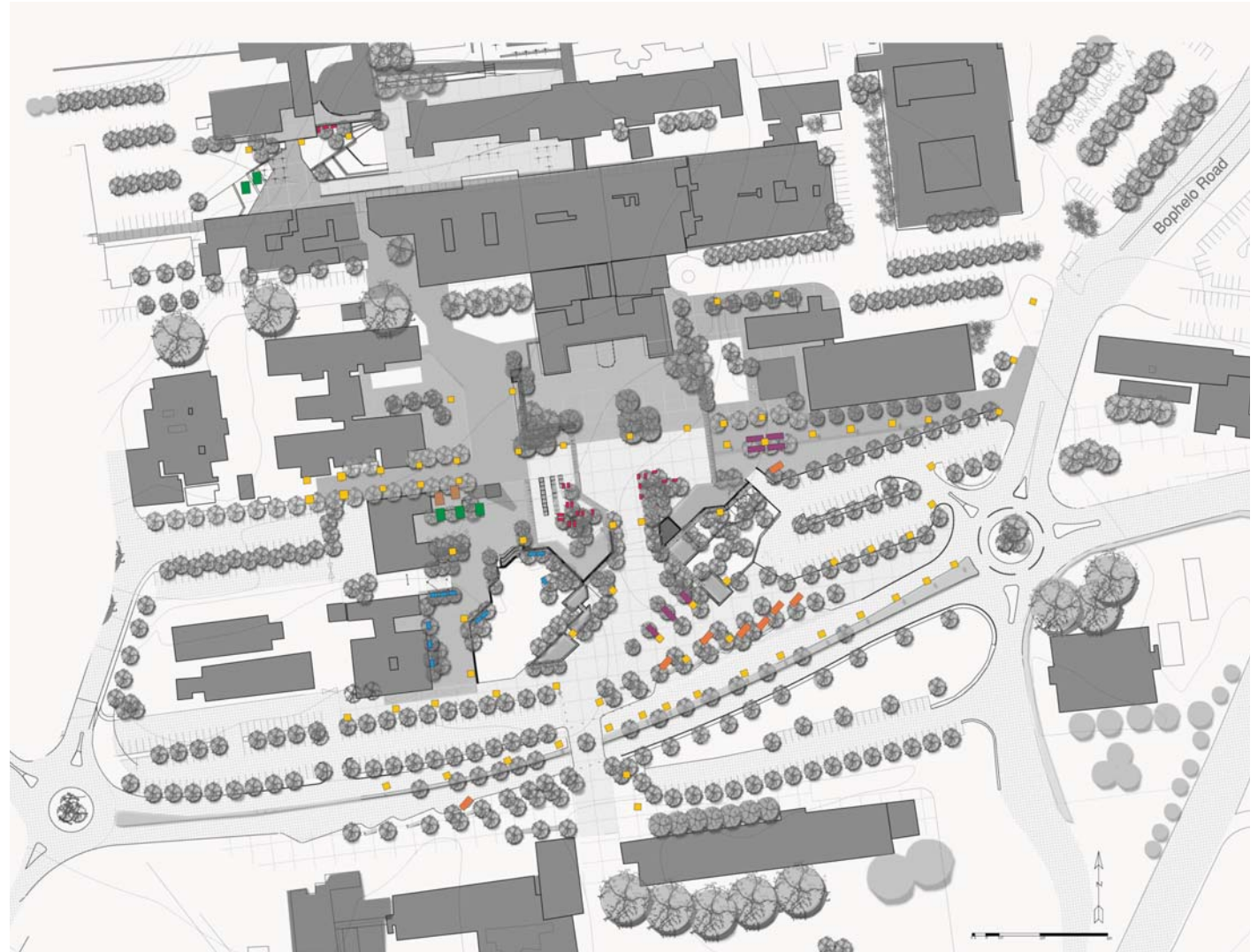


Fig. 8.32: Sketch plan: street furniture placement (Author, 2008)



Fig. 8.33: Planting palette. (Author, 2008)

8.7.4 Planting Strategy

Species were selected according to the following properties:

- Density of canopy
- Seasonal change of colour
- Deciduous or evergreen
- Sculptural qualities

Dense canopies are used in parking lots and waiting areas. Semi-deciduous trees with strong form are used in the boulevard areas and in more formal areas surrounding the building edges. Sculptural species, for example *Erythrina lysistemon*, were selected for accent areas. The lawn areas are planted with a combination from dense to deciduous trees to ensure a variety of options during different seasons.



-  *Albizia adiantifolia*
-  *Erythrina lysistemon*
-  *Dombeya rotundifolia*
-  *Celtis africana*
-  *Peltophorum africanum*
-  *Acacia sieberiana*
-  *Harpephyllum caffrum*
-  Existing tree to be conserved
-  Lawn
-  *Crocoshia aurea* and *Chlorophyt*
-  Shrubs in planter



Fig. 8.34: Sketch plan - Planting strategy (Author, 2008)

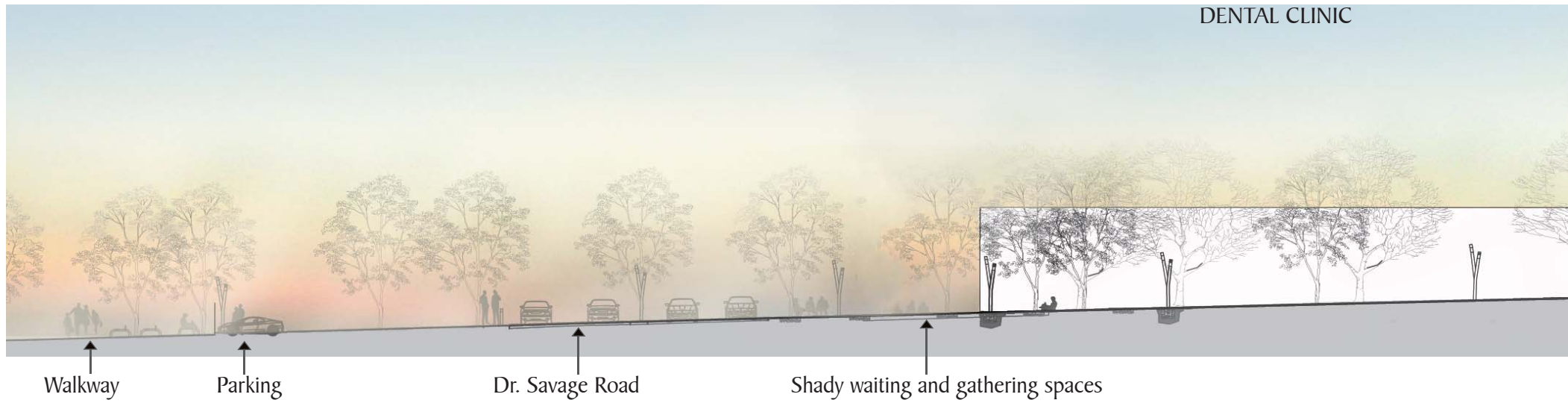
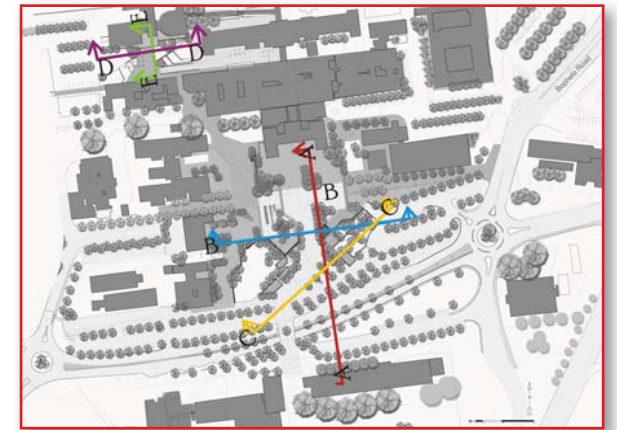
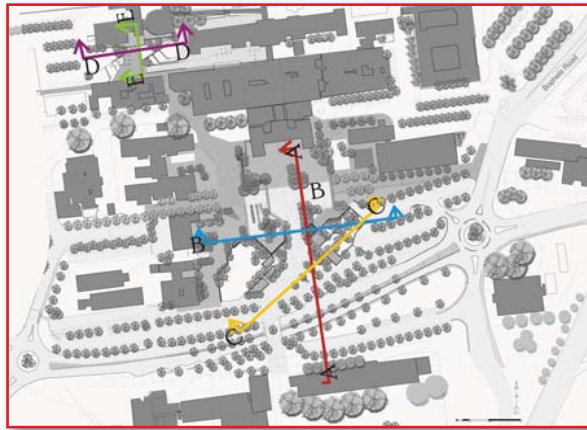
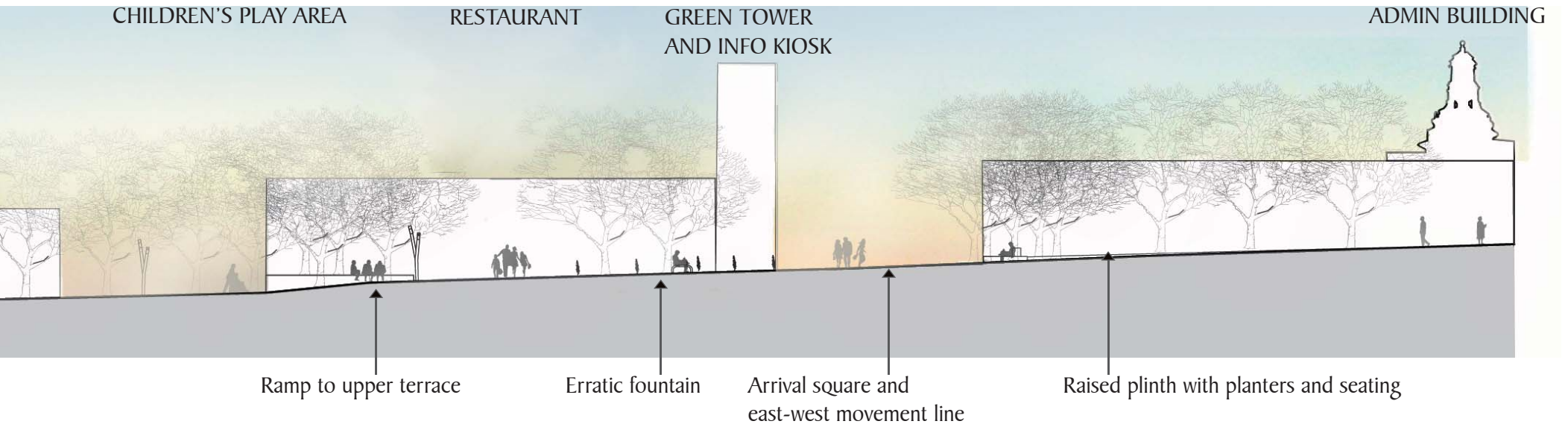


Fig. 3.35: Section A. Scale 1:250 (Author, 2008)





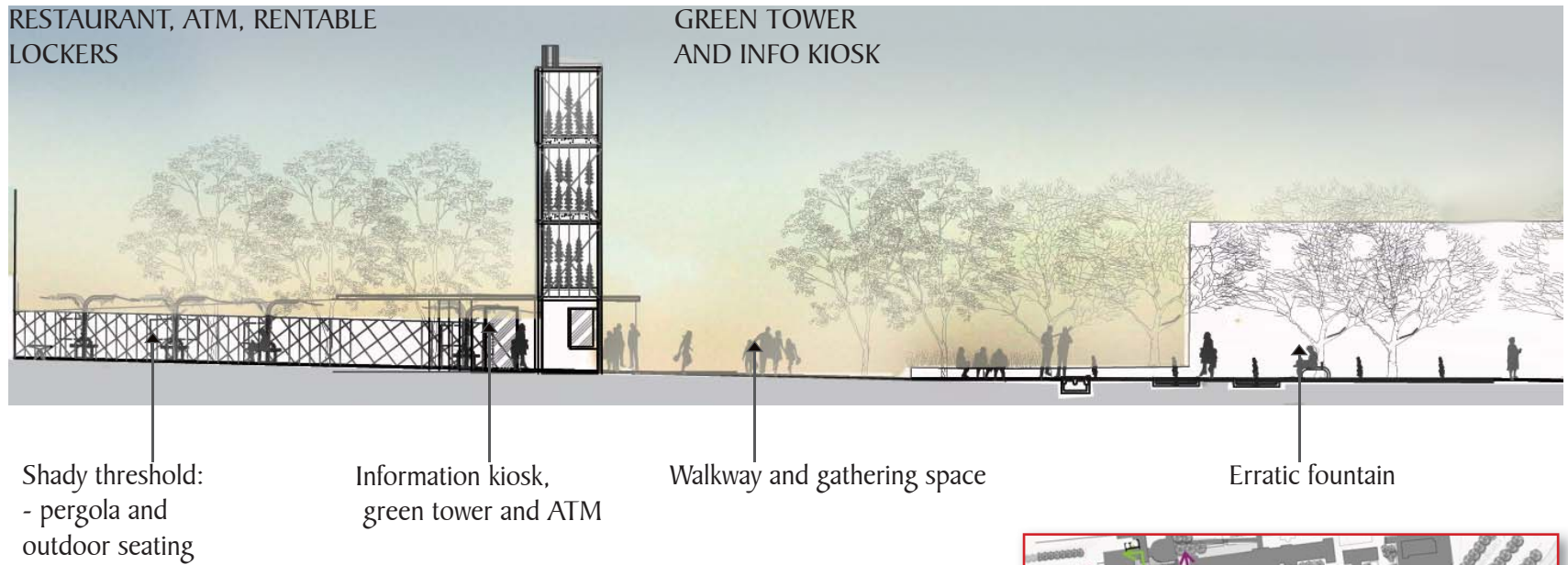
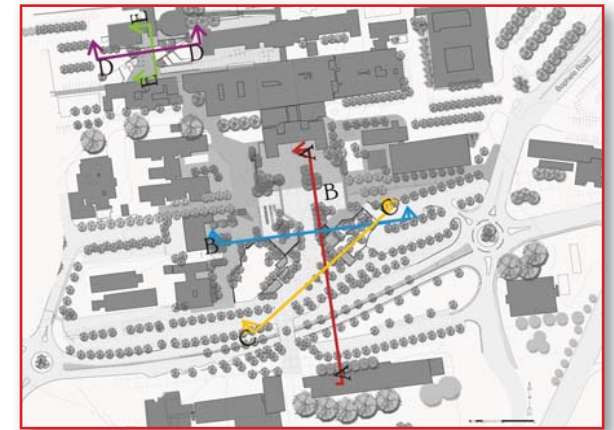
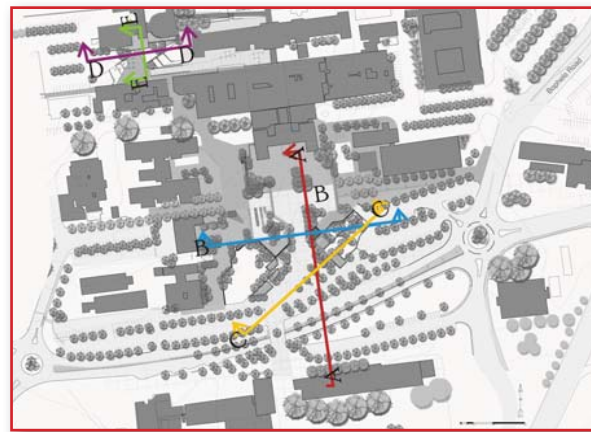
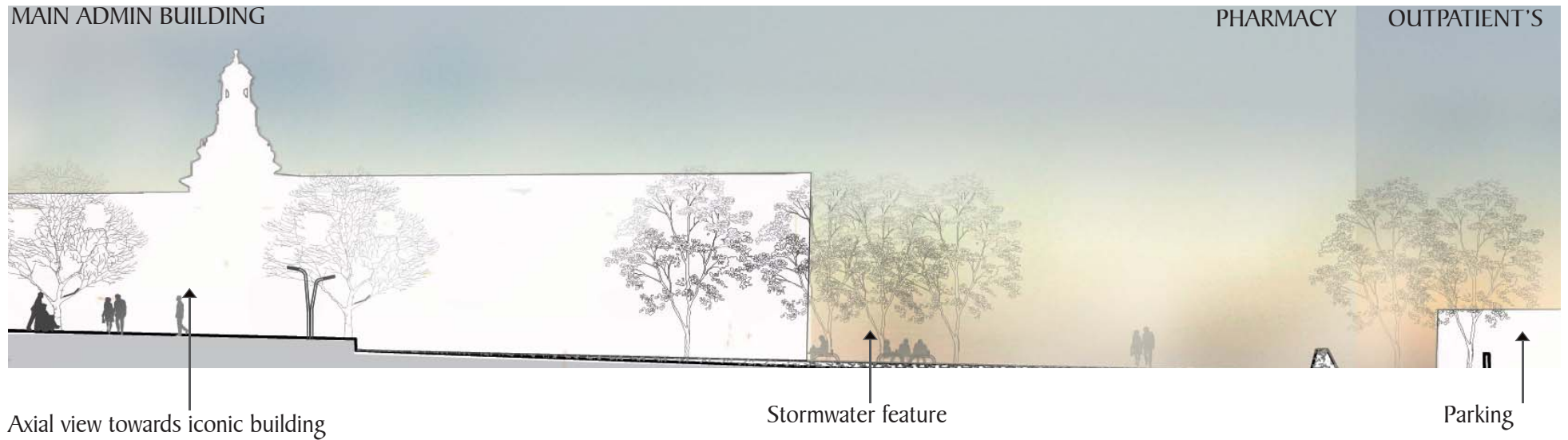


Fig. 3.36: Section B. Scale 1:250 (Author, 2008)





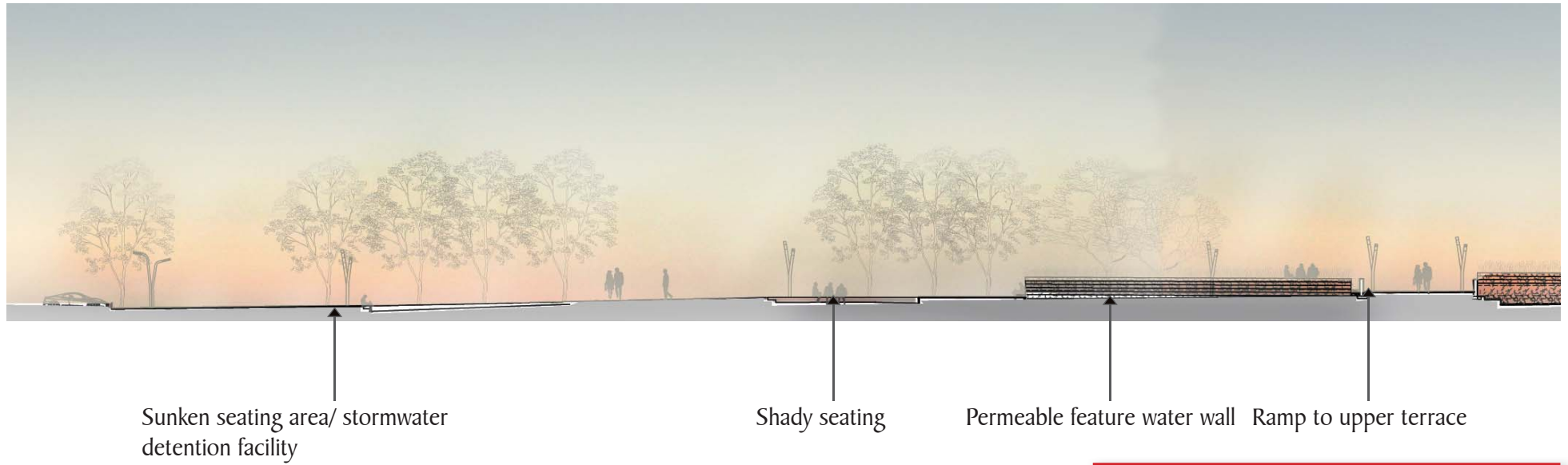
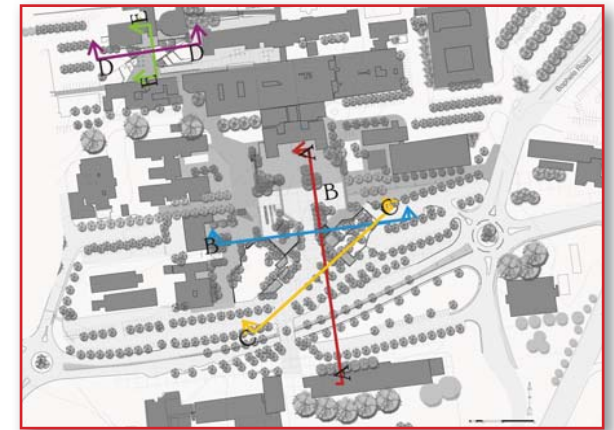


Fig. 3.37: Section C Scale 1:250 (Author, 2008)

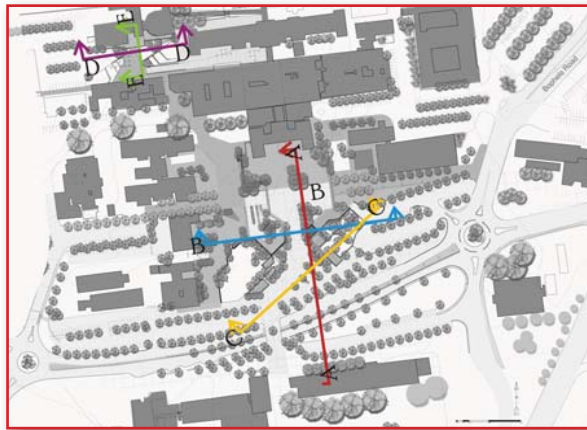




Terraced lawn area and feature wall

Ramp from parking to upper terrace

Shady boulevard and trading space



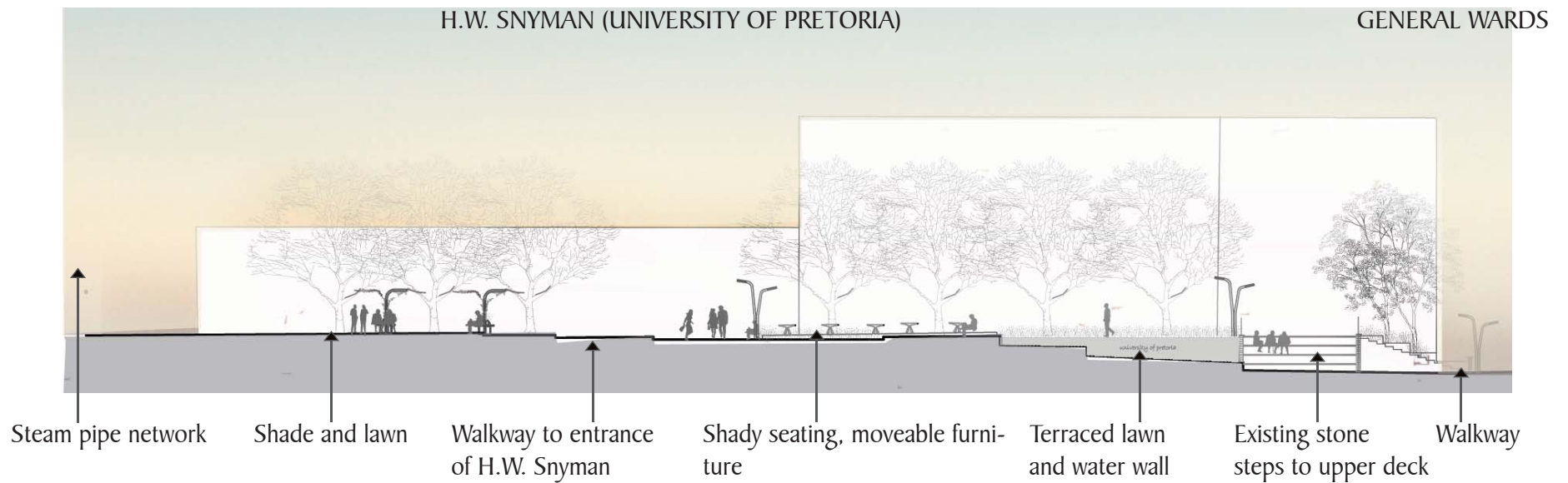


Fig. 3.38: Section D - (Master plan) Scale 1:250 (Author, 2008)



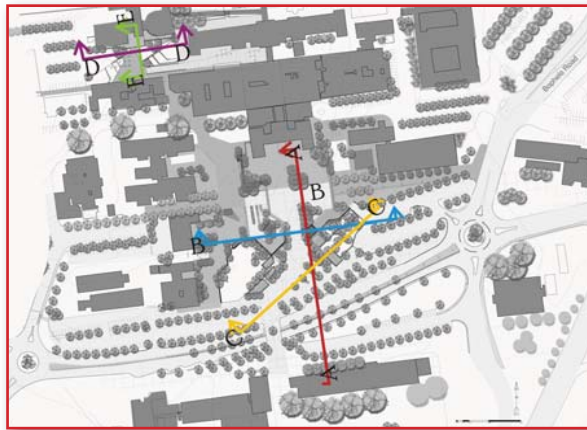
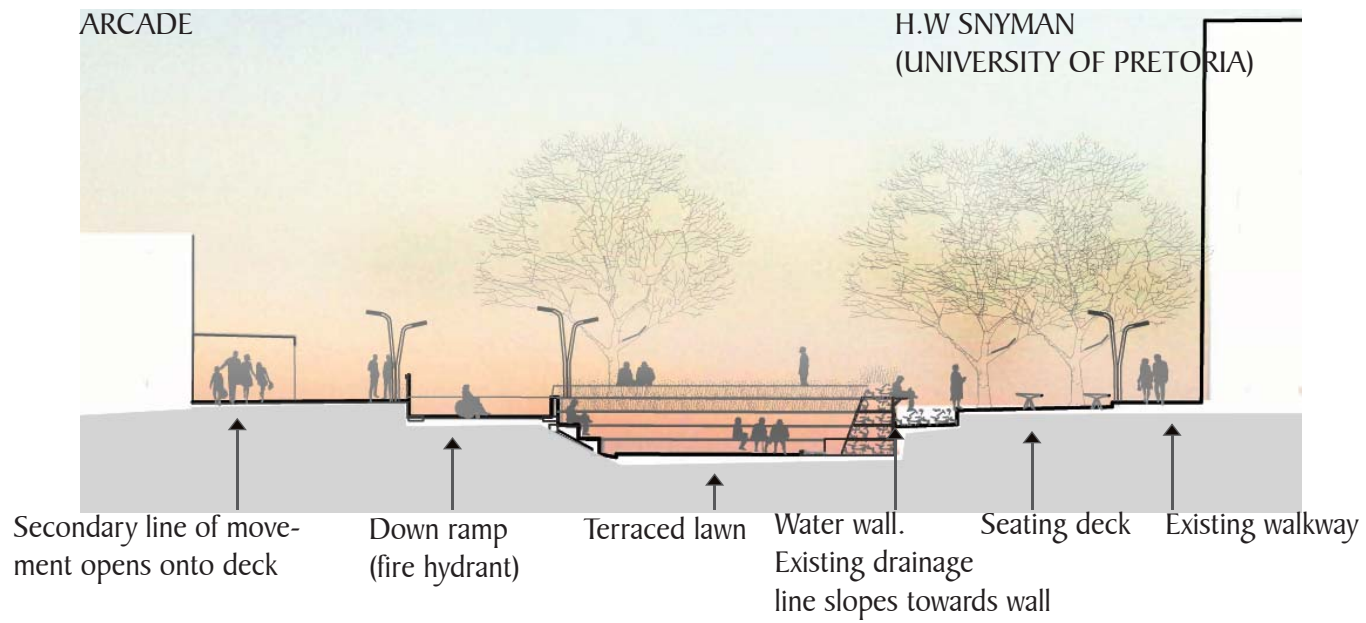


Fig. 3.39: Section E - (Master plan) Scale 1:250 (Author, 2008)