



UNIVERSITEIT VAN PRETORIA
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YUNIBESITHI YA PRETORIA

Marabi Culture

A CATALYST IN FACILITATING IDENTITY

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Submitted in fulfillment of the requirements for the Degree of Magister in
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and Information Technology
University of Pretoria
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CONTENT

1 INTRODUCTION

- 1.1 LOCALITY
- 1.2 BACKGROUND
- 1.3 SITE
- 1.4 CONTEXT
- 1.5 DESIGN PROBLEMS
- 1.6 OBJECTIVES
- 1.7 RESEARCH METHODOLOGY
- 1.8 BACKGROUND AND RATIONALE

2 REVIEW & REASONING

- 2.1 PROBLEM STATEMENT
 - 2.1.1 SUB PROBLEMS
- 2.2 ASSUMPTIONS AND DELIMITATIONS
- 2.3 CLIENT PROFILE AND BRIEF
- 2.4 RELEVANCE OF STUDY
- 2.5 AIM OF STUDY
- 2.6 RESEARCH METHODOLOGY REVIEW

3. THEORETICAL PREMISE

- 3.1 APPLICATION
- 3.2 RELEVANCE

4 PRECEDENT STUDIES

- 4.1 RELEVANCE
- 4.2 APPLICATION

5 ASSIGNMENT AND ACCOMMODATION

- 5.1 CALCULATIONS
- 5.2 ACCOMMODATION SCHEDULE

6 CONTEXT AND SITE

- 6.1 BACKGROUND
- 6.2 HISTORICAL ANALYSIS
- 6.3 LOCAL ANALYSIS
- 6.4 CLIMATIC ANALYSIS
- 6.5 MATERIALITY
- 6.6 SITE SELECTION

7 CONCEPT DEVELOPMENT

- 7.1 CONCEPT REVIEW
- 7.2 SKETCH MODELS
- 7.3 DRAWING DEVELOPMENT

8 DESIGN DEVELOPMENT

- 8.1 PROPOSED SOLUTION
- 8.2 DESIGN ESSENCE
- 8.3 SKETCH PLANS
- 8.4 DRAWING DEVELOPMENT

9 TECHNICAL REPORT

- 9.1 DESIGN DEVELOPMENT

FIGURE LIST

CHAPTER 1

1.01 Aziz Tayob Architects Urban Framework
1.02 Aziz Tayob Architects Urban Framework
1.03 Aziz Tayob Architects Urban Framework
1.04 Author
1.05 Author
1.06 Author
1.07 Author
1.08 Aziz Tayob Architects Urban Framework
1.09 Aziz Tayob Architects Urban Framework
1.10 Author
1.11 Author
1.12 Author
1.15 Author
1.16 Author
1.17 Mr. Sid Mapping
1.18 Author
1.19 Author
1.20 Author
1.21 Author
1.22 Author
1.23 Author
1.24 Author
1.25 Author
1.26 Author
1.27 Author
1.28 Author

CHAPTER 1

1.29 Labelle Prussin; A study of forms and functions
1.30 Labelle Prussin; A study of Forms and Functions
1.32 Architecture South Africa, November/December 2008
1.33 Architecture South Africa, November/December 2008

CHAPTER 3

3.01 Author
3.02 Author
3.03 Author
3.04 Mr. Sid Mapping
3.05 http://en.wikipedia.org/wiki/Villa_Mairea
3.06 Author
3.07 Author
3.08 Author
3.09 Aziz Tayob Architects Urban Framework
3.10 Aziz Tayob Architects Urban Framework
3.11 Author
3.12 Author
3.13 Author

CHAPTER 4

4.01 to 4.13 http://en.wikipedia.org/wiki/Villa_Mairea
4.14 Author
4.15 Author
4.16 Author
4.17 Author
4.18 Author
4.19 Author
4.20 to 6.26 www.galinsky.com/buildings/luzernkkl

CHAPTER 6

6.01 Author
6.02 Author
6.03 Author
6.04 Author
6.05 Author
6.06 Author
6.07 Author
6.08 Author
6.09 Author
6.10 Author
6.11 Author
6.12 Author
6.13 Author
6.14 Author
6.15 Author
6.16 Author

CHAPTER 6

6.17 Author
6.18 Author
6.19 Author
6.20 Author
6.21 Author
6.22 Author

CHAPTER 7

7.01 Author
7.02 Author
7.03 Author
7.04 Author
7.05 Author
7.06 Author
7.07 Author
7.08 Author
7.09 Author
7.10 Author
7.11 Author
7.12 Author
7.13 Author
7.14 Author
7.15 Author
7.16 Author
7.17 Author
7.18 Author
7.19 Author

01

INTRODUCTION



1.0 INTRODUCTION

South African cities reflect Apartheid policies of spatial segregation. They exhibit cases of sprawl, fragmentation and isolation, leading to partial thresholds and inefficiencies in social equity. The city of Tshwane is no exception. It has populations of marginalized and impoverished groups residing in remote settlements far from their places of employment. The 1994 adoption of a new constitution in South Africa opened new avenues to address and redress these spatial characteristics of apartheid planning, to create better urban environments.

This dissertation is a reaction to the 1994 constitution, exploring ideas of spatial integration and identity in the previously marginalized community of Marabastad in Tshwane. At present, Marabastad has a harsh atmosphere of crime, unemployment, homelessness and the lack of a sense of community. The prevalent issues in this community are the needs for social infrastructure and identity: an identity that reflects and accommodates the different cultural groups, and promotes re-integration of spaces within Marabastad and the Pretoria C.B.D. A social platform for expression is a means to address the lack of social infrastructure. This platform would encourage both spontaneous and organized events to activate the urban surface of Marabastad.

In addition, the platform becomes a transformed urban configuration promoting intercultural communication within Marabastad and the city of Pretoria. The platform's constructs attribute permanence and temporality, in an attempt to engage in social dialogue with the individual. In the publication "A study of forms and functions, 1969:ix", Labelle Prussin reaffirms that the identity of the individual is developed by validating their existence, therefore the idea of critical difference assists in informing the design. Critical difference accounts for the essential fact that individuals are not alike and their differences affect the lifestyle of the community in its entirety. This, allows the individual room for the transformation and evolution of their identity with time.

"Similarly, programming is an investigative task, which, when thoughtfully pursued in relation to the issue or topic identified, can produce new relations that are in turn supportive of contesting familiar functional spatial relationships", Coetzer, N (2004).Architecture South Africa, November/December.

The dissertation attempts to apply this investigative task to identify relevant programmes. The programmes take into cognizance existing social, economic and cultural relationships within Marabastad and the city, to facilitate an integrated platform that enables a conducive environment for growth and development of the individual. They re-addresses socio-economic and cultural issues bestowed on this community to provide pleasurable use of the urban space (instating social equity and infrastructure). The use of integrated communal social platforms is synonymous with South African architecture prior to colonial and apartheid rule. These platforms were efficient in utilizing South Africa's climatic conditions, whilst facilitating a sense of community.

1.1 LOCALITY

South Africa

Tshwane forms the Northern section of the Gauteng province, which is to a large extent the backbone of the South African economy, with Tshwane as the administrative capital city of the country.

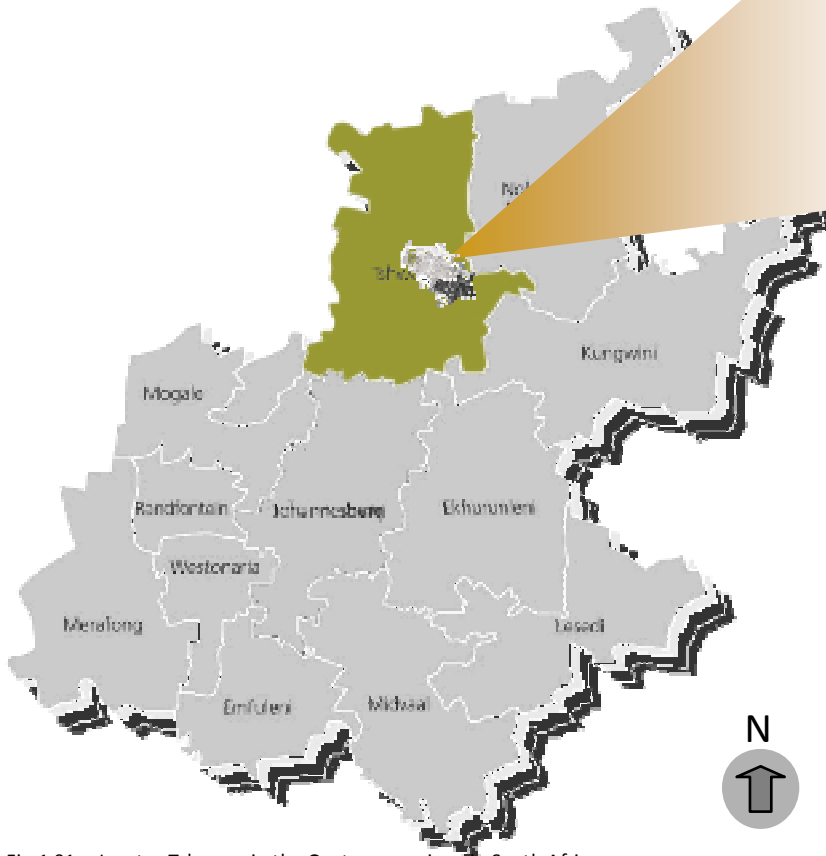


Fig 1.01 Locates Tshwane in the Gauteng province in South Africa

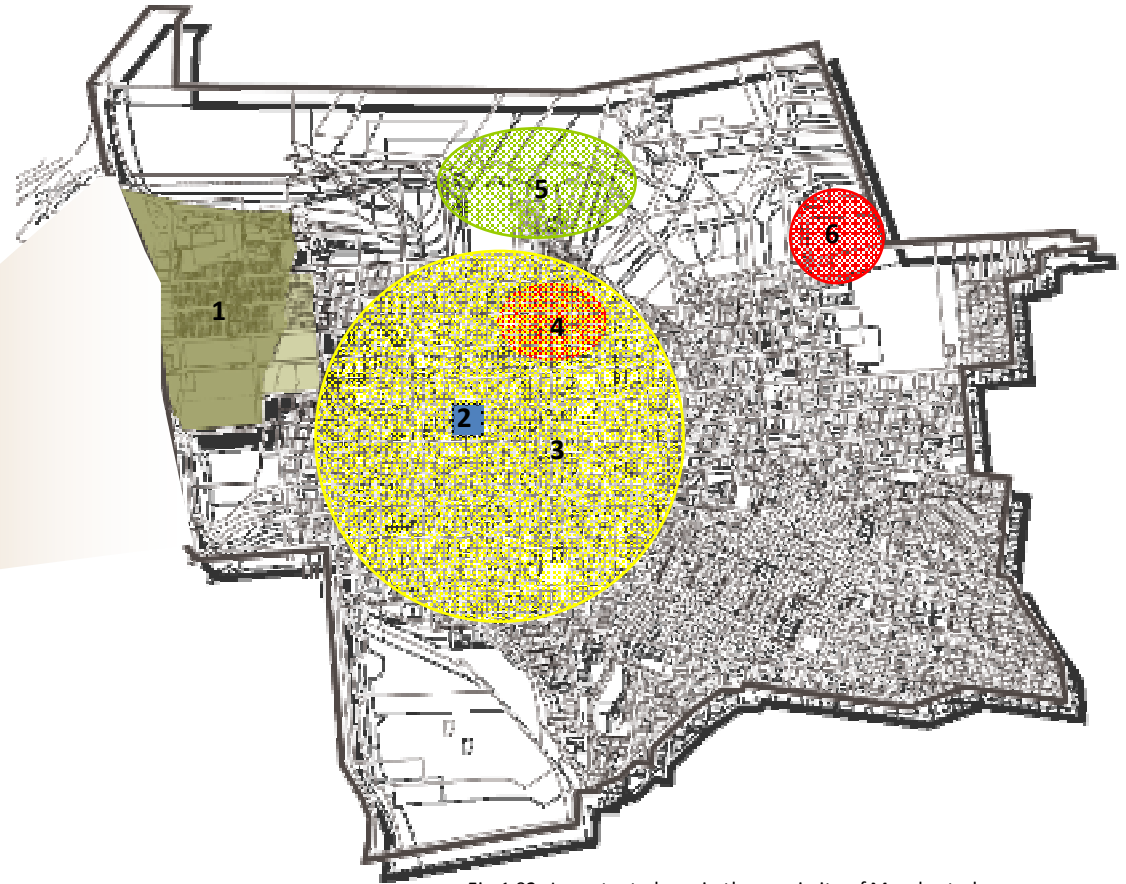


Fig 1.02 Important places in the proximity of Marabastad

1. Marabastad
2. Church Square
3. Pretoria C.B.D
4. Pretoria Munitoria
5. Pretoria Zoo
6. Union Buildings(President Offices)

1.1 LOCALITY



Fig 1.03 Electricity pylons with the city as a backdrop (2009/03/20)

Fig 1.04 Bus sheds used as markets (2009/03/20)

Fig 1.05 Daasport ridge north of Marabastad (2009/04/03)

Fig 1.06 Informal meat market (2009/03/20)

Fig 1.07 Marabastad in context (2008/03/20)



1.2 BACKGROUND

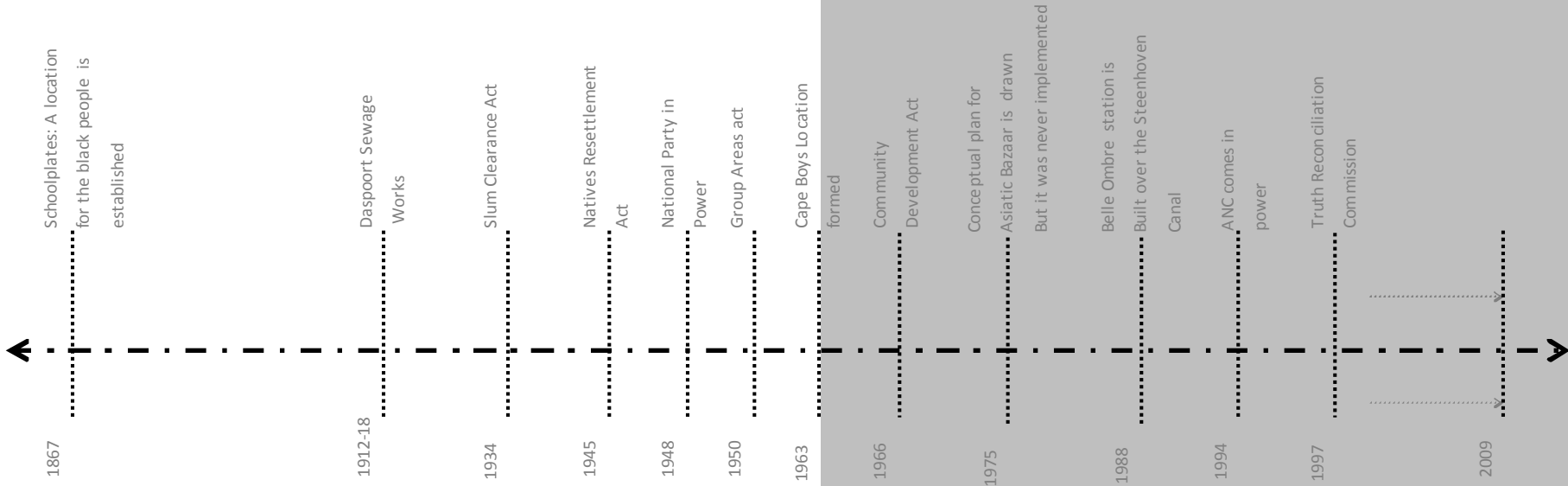
Marabastad has a narrative of collectively marginalized groups. Their struggle against apartheid policies that undermined their right to legal possession of land within the city dates back to the establishment of this community. It developed on Pedi chief Maraba's kraal as an informal location in 1867, housing black people not residing on the premises of their employers. Marabastad developed into a culturally diverse community with the inclusion of Asian and Coloured people who sought to exploit opportunities within Pretoria. The lack of land, unregulated services and growth to the community's population resulted in decay and unsanitary conditions. This compelled the institution of the Administrator's notice *no. 561* of 1925, which formally defined and imposed apartheid planning on Marabastad (Meyer Pienaar Tayob, 2002:34). The policy's racial classification and failure to address proper planning and service delivery did not hamper the vibrancy of the community. It rather stimulated a stage for political expression amongst the disenfranchised community.

In a move to further curb "black" urbanization, the apartheid government instituted statutory and regulatory policies. Amongst others, these included the Slums Clearance Act of 1934, the Natives Consolidation Act of 1945 and the Group Areas Act of 1950. These policies aimed to segregate races, disintegrating the cultural diversity through racially dividing the inhabitants of Marabastad, and relocating race groups to remote townships removed from the C.B.D and from each other. The Community Development Act of 1966 conclusively froze all development within Marabastad, disintegrating it from the C.B.D. Consequently the area deteriorated into a slum infested with crime, squatting, insufficient and poor service delivery, and unregulated trading.

Today, the once vibrant cultural hub is largely a transportation node with large bus, train and taxi depots. According to the City of Tshwane Integrated Transportation Plan 2006, an excess of 40 000 commuters distributed amongst these services pass through Marabastad daily, with the majority from Garankuwa and Mabopane (apartheid relocation townships).

1.2 BACKGROUND

Timeline of Events in Marabastad



1.2 BACKGROUND

1934

The figure ground is an illustration of a vibrant, functional and integrated society uninterrupted by apartheid policies. At this time Marabastad had a functional square which operated as a grid generator, framing the fine built fabric at close intervals to create dense intimate spaces that encouraged social interface.

Fig 1.08 Marabastad before 1934 removals, with a Functional square



1950

The demolition of the Northern segment is a result of the implementation of the Slum Clearance Act, the Natives Consolidation Act and the Group Areas Act. In contrast, the south west segment is densified with academic institutions that solely served the Asian community. Consequently, the once vibrant square is partially diminished largely to the community's obligatory densification in an insufficient space.

Fig 1.09 Marabastad After Slums clearance Act, Northern half demolished and square is also demolished.



1998

The figure ground is an illustration of the existing fabric in Marabastad, and is a result of the Community Development Act. It undoubtedly shows the disintegration of the grid system and the abolishment of the fine urban fabric to make way for large overbearing structures inappropriate in this context.

Fig 1.10 Current context of Marabastad.



006

1.2 BACKGROUND

Activities

The Displaced Community

Political: As oppression intensified in Marabastad, so did its status as a stage for political expression. This resulted in the founding of the Transvaal head office of ANC in Marabastad (Blueprints in Black and White, 2002:65). Simon Matseke, one of the founding members and later president of the organization was instrumental in placing Marabastad on the map through the organization of large demonstrations (Meyer Pienaar Tayob, 2002:35). In addition, the arrival of Mahatma Gandhi to Pretoria marked the beginning of long Indian resistance to unfair practices of the apartheid government. Through actively leading non violent campaigns, Gandhi managed to have several discriminatory laws rescinded or amended (Blueprints in Black and White, 2002:68). Upon returning to India, his work was carried on by Ama Naidoo, a Marabastad resident. She was actively involved in historic events such as the passive resistance campaigns of the 1940's and leading 20 000 women in a campaign against pass laws. She later assumed the posts of vice president of the Transvaal Indian Congress and the Chairperson of the South African Peace Council (Meyer Pienaar Tayob, 2002:53).

Artistic: Simon Matseke's son Thabang became an acclaimed artist advocating for the use of art as a therapeutic activity which could give the community the opportunity to fully express themselves creatively against an insensitive backdrop of politics. *"In so doing, he has left a cultural legacy rooted in a very particular South African historicity and African Consciousness..."* (Meyer Pienaar Tayob, 2002:37).

Concurrently, Es'kia Mphahlele and Can Themba, both from Marabastad, became prominent Journalists for Drum magazine (The first black African magazine in South Africa). They were also internationally recognized authors for publishing autobiographical accounts of their experiences in Marabastad. These shed light on the injustices and struggles of the Marabastad community under apartheid rule.

Marabi Culture: This is an early music and dance form orchestrated in Marabastad in the 1920's and 1930's. This culture resulted as a tool for expression against apartheid oppression. It evolved into a social and cultural ritual performed on *Marabi Nights* in Columbia Hall in the heart of Marabastad (Meyer Pienaar Tayob 2002:40). It also became a "place" to escape, to forget life as they knew it. Today *Marabi* music is an underpinning component of South African Jazz and is still heard in the sounds of the likes of Hugh Masekela and Miriam Makeba (Prominent South African musicians).

1.2 BACKGROUND

Activities

The Current Community

Currently, Marabastad is devoid of urban and social infrastructure resulting in sporadic social activities at street corner's, taxi ranks and trading stalls. An analysis of Marabastad reveals the abolishment of prior communal social activities such as *"Marabi nights"*, which have been replaced by broadcast media (television and radio). These target select groups (taxi drivers and informal traders), further marginalizing excluded individuals within the community. Larger social gatherings are accommodated in *"lost spaces"*, which often serve dual functions as dump sites and car mechanic workshops. These areas pose health and ecological hazards largely because rainwater drains filth into the Steenhoven spruit canal to the east of Marabastad. This canal pollutes into the Apies river which flows north and east of the C.B.D.



Fig 1.11
A group of people surrounding a TV (2009/04/25)



Fig 1.12
Illustrates lack of urban furniture. (2009/04/25).



Fig 1.13
Dump site next to a tent used as a barber. (2009/04/25)



Fig 1.14
Gathering node next to Steenhoven Spruit canal. (2009/04/25)

Relevance and Application

Identifying displaced socio-cultural activities and comparing them to current activities or lack thereof, clarifies existing problems that resulted from this displacement. This illuminates problem areas and design possibilities for re-instating social equity (impartiality) and urban infrastructure. The objective is to create a platform that promotes and facilitates social and cultural vibrancy which advocates an identity contextually relevant. This identity results from the use of the platform which comprises of hierarchies of spatial organization and thresholds.

1.3 SITE

Site

The proposed site is located on the periphery of Marabastad, making it a gateway to the CBD. It is an effective catalytic location for the re-integration of Marabastad and the C.B.D since it is easily accessible from either direction and is next to an arterial public transport network which is also largely used for pedestrian access into Marabastad. The proposed site is next the Steenhoven Spruit canal and is currently used as a dump site and taxi cleaning and servicing area. There is need to resuscitate the canal, to create a recreational and pleasurable route across the north to south of Marabastad.



Fig 1.15 Site location



Fig 1.16 Billboard post to the west of the site



Fig 1.17 Panoramic view of site in relation to the city



Fig 1.18 Cityscape



Fig 1.19 Views & pedestrian access



Fig 1.20 Dump on the site

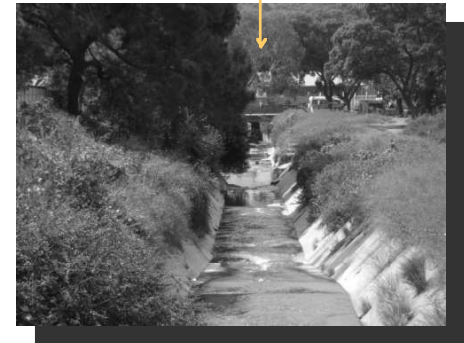


Fig 1.21 Scale of Steenhoven Spruit

1.4 CONTEXT



Fig 1.22 Illustrates the current scale at the periphery of Marabastad

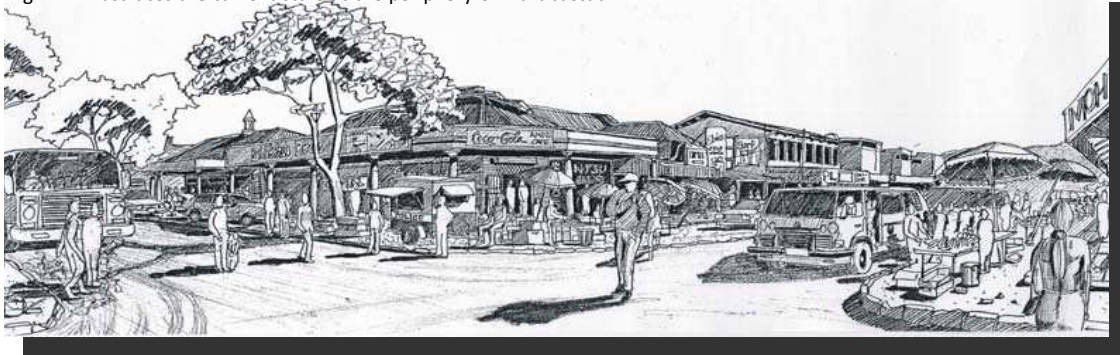


Fig 1.23 Illustrates the current scale of Marabastad proper



Fig 1.24 Illustrates the difference in scale and proportion between Marabastad and the CBD



Fig 1.25 Illustrates the scale and proportions within Marabastad proper

Scale

The scale of Marabastad is different to that of the C.B.D. The study area consists of mostly single storey buildings and occasionally two to three storey buildings which are later additions during the transitional period of government marred with confusion in policy. The train station and shopping centre built during this transitional phase have occupied large pieces of land, thus breaking the grid system. This has impacted on the circulation patterns with this community. Large land parcels were cleared to make way for a highway linking the west to the C.B.D, but this did not materialize. Today these land parcels act as buffers between Marabastad and the city.

Density

The density of Marabastad is unsustainable and underutilizes its potential, leaving large open pieces of land (Lost Space) and in some cases, transforming them into dump sites, taxi cleaning and servicing areas, and/or gathering nodes. This has created problems with hygiene and security

1.4 CONTEXT

Topography

The site is situated south of the Apies River which runs on the foot of the Daasport ridge

The proposed site falls at a gradual slope of 1:36 from southwest to northeast and it is 1300m above sea level

Watercourses

The Steenhoven Spruit flows from south to north along a small concrete stormwater canal. It is a tributary flow into the Apies river in the north of Marabastad.

Geology & Soil

- Marabastad is of Precambrian origin, and is part of the Gauteng province
- The area is largely of andesitic lava in alternate layers with other compounds such as shale and tuff.
- The stability varies across the area, ranging from shallow lying rock and andesitic soil commonly found in low lying areas.

Climate

- The temperature is relatively high throughout the year apart from the winter months of June and July where they are moderate to low. In summer the high temperature and high local humidity cause discomfort
- Summer rainfall reaches averages that surpass the 700mm p/a mark, with heavy downpours and thunderstorms...resulting in precipitation of up to 100mm an hour.
- Hail is common and often severe
- Cloud cover is 33% annually, 13% in July and 54% in December
- Humidity ranges from 57% early morning to 29% at 2pm in September and from 75% to 48% in March
- Prevailing winds turn from northeast in the morning, to north west in the afternoon. Cold spells bring winds from the south during winter

www.weathersa/climate/climastats/pretoriasats

1.5 DESIGN PROBLEMS OVERVIEW

South African spatial resource distribution between population groups is uneven due to apartheid social and physical planning policies. This imbalance impacts the daily lives of the Marabastad community, which lacks social amenities in the form of cultural and recreational facilities. As a consequence, it has necessitated disproportionate expenditure of time and money by the already impoverished community, further marginalizing and impoverishing it (Blueprints in Black and White, 2002:72). The lack of this infrastructure is evident in "lost spaces" where disparate activities of gathering and waste disposal share a common space. This poses both health and environmental hazards to the community and its resources. One such natural resource is the Steenhoven spruit canal.

The Steenhoven Spruit canal flows through the proposed site and it shows cases of pollution affecting the current flow. Sections along the canal are slowed down by litter and filth, leading to stagnant water ideal for mosquito breeding and flooding. Other sections suffer from direct human interference, such as bathing and excreting along and within the canal. This has deemed the canal unsafe and disposed of its social and recreational potential.

This dissertation addresses the lack social infrastructure by proposing a piazza to meet the community's cultural and recreational needs. The design proposal resuscitates and integrates the Steenhoven Spruit canal with the social platform. It also investigates existing spatial organization and social patterns to create a stimulating environment conducive to intercultural interaction. Programming of buildings surrounding the piazza is supportive to the social activities within the piazza and these include a theatre, jazz club and exhibition, nursery school, to name but a few.

Research questions:

- Does the intervention enhance the environment, enabling growth to the community?
- Does the intervention respond to existing patterns of circulation and interaction?
- Can an intervention be developed to enhance Marabastad's resources?
- Does the design proposal address needs of the community as formulated by the Marabastad interest group?
- Would a cultural and recreational facility improve the quality of life of the urban users?
- Does the proposal fit into the urban context?

1.6 OBJECTIVES OVERVIEW

Social and Cultural

Migrants and immigrants create complexities in spatial ordering, but also offer opportunities, diversity and growth crucial to the development of a city.

- To create an integrated platform promoting social interaction and intercultural communication between the current community of immigrants, migrants from other provinces, and the re-integrated community. It is a communal social stage discouraging fragmented social gatherings around televisions and radios. A piazza forms a means to realize this platform. The community's identity results from community's use and the individual's transformation of the piazza. This transcends the piazza from an architectural intervention to a place of belonging which offers security, pleasure of use and ownership. Ownership is essential because it encourages the community to maintain, safeguard and preserve this platform. This process allows integration of fragmented spaces within Marabastad and acts as an initial phase in strengthening Marabastad's relationship with Pretoria C.B.D.

- To create continuity in urban fabric and efficiency in space utilization.

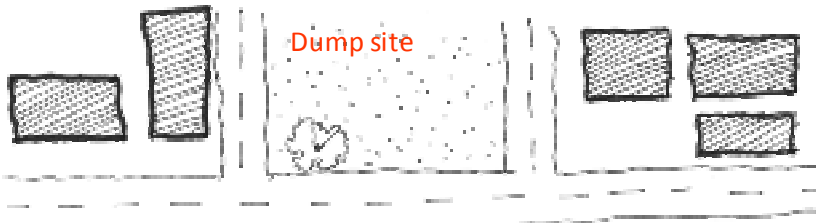


Fig 1.26 Current scenario showing open land parcels



Fig 1.27 Proposed scenario with building in fill to create continuity

- To create a socio-cultural destination in Marabastad that performs the dual function of a pause or holding area for people waiting to board taxis, buses and trains.

Environmental

- To reuse waste materials available in the community.



Fig 1.28 Abandoned concrete sewer pipes that can be used in the design



Fig 1.29 Plastics and bins on a dump site. These are considered as resources for building the piazza



Fig 1.30 Used tyres as a resource

- To make use of water harvesting to irrigate plants on site and to act as a backup water source.
- To optimize the full potential of the Steenhoven Spruit as an income generator for the Marabastad community

Economic

- To create opportunities for income generation through provision of infrastructure for formal and informal trade. This encourages vibrancy whilst preventing informal traders from setting up dilapidated market stalls. The informal trade sector of the piazza constitutes the temporary section of the piazza. It allows the individual to transform their stall, giving it an identity relevant for their business. The formal trade units are rented out. The accrued revenue is used for maintaining and servicing the piazza.
- The idea of flexibility is implemented to allow different functions such as weddings and birthdays to be accommodated within the piazza. The rental revenue accrued is used to pay wages and for further development of the community of Marabastad.
- The proposed programme such as restaurant, retail, theatre and exhibition act as means of generating income. Spontaneous performances in the piazza generate income for the participants, who often walk through the audience with a basket to deposit money. The organized events held within the auditorium are often charged and the revenue is used for payment of wages and maintenance. However, the auditorium occasionally holds free performances for the benefit of the community and the city.

Safety

- There is need to address issues of safety and crime in this community. Jane Jacobs' idea of "eyes of the neighborhood" is implemented to facilitate surveillance. This is achieved by overlapping programmes of day and night made possible through the provision of multifunctional spaces and mixed uses such as the jazz club functioning at night and the nursery school during daytime.

1.7 RESEARCH METHODOLOGY OVERVIEW

Qualitative

Historical Analysis

The dissertation analyses Marabastad's historic context to understand densities of the built fabric. This highlights spaces of gatherings which promoted social and cultural interaction. It creates an understanding of displaced spatial hierarchy and ordering sequences of space.

Local Analysis

The dissertation is supported by an analysis to capture the fundamental nature of the site. The aim is to understand how space and place impact on the user and vice versa. This includes the analysis of circulation patterns, visual links and qualities, and usage. The analysis also identifies materials, scale and densities of the urban space to give a better understanding of the context.

Interviews

Interviews have been held to facilitate understanding of the needs of the community of Marabastad. They clarify paramount issues to consider when designing socio-cultural spaces for previously marginalized groups. Professionals working with spatial organization in an African context have been interviewed to highlight problems encountered and successes in their own work.

Precedent Studies

Precedent studies have been evaluated critically to make alert the concerns that arise, the successes and failures. The outcomes are reinterpreted and applied to the Marabastad context.

Urban Design Principles

Research of urban design principles is done to identify and understand concepts to rejuvenate spaces within Marabastad.

Quantitative

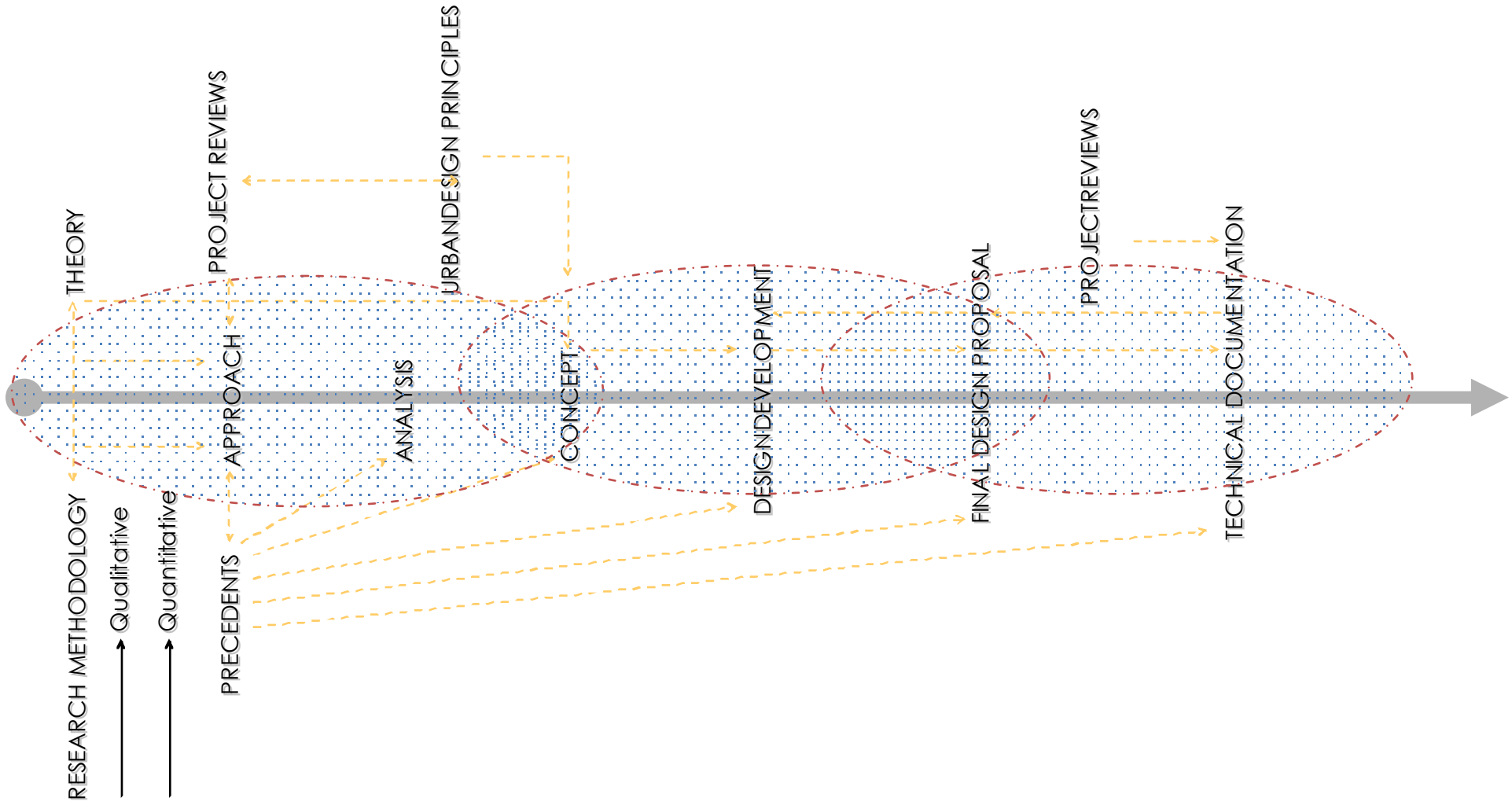
Physical Analysis

The dissertation is supported by an analysis on topographical patterns, geological constructs, watercourses, climatic and microclimatic studies. These inform the design proposal.

Contextual Analysis

The context is analyzed to create a better understanding of the current setting of Marabastad. It clarifies the needs of the community and their daily ritual patterns. The analysis also identifies materials, scale and densities in Marabastad, which have direct impact on the design proposal.

Fig 1.31



1.8 BACKGROUND & RATIONALE

Rationale

In warmer climates such as that of Pretoria, social and cultural activities infrequently occur within internal spaces defined by building, but in outside spaces and surrounding enclosures. This is evident in settlement morphologies of traditional African architecture which revolve around spatial organization of social, cultural and ritual patterns within a communal courtyard. In the publication “A study of forms and functions, 1969: 34”, Labelle Prussin reaffirms that the arrangement of architectural forms in traditional African architecture constitutes a definition of space inseparable from the architecture, the culture and the identity. Emphasis shifts from the technology of enclosing space to the nature and quality of the space itself. This utilization and definition of space unmistakably identifies the Zulu, Ndebele, Kasuliyili and Yankezia cultures, to name but a few, which all evolve around communal internal compounds for their daily rituals.

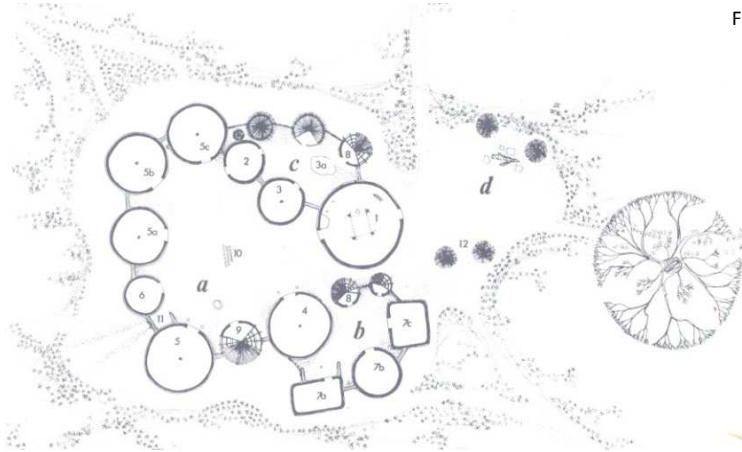


Fig 1.32

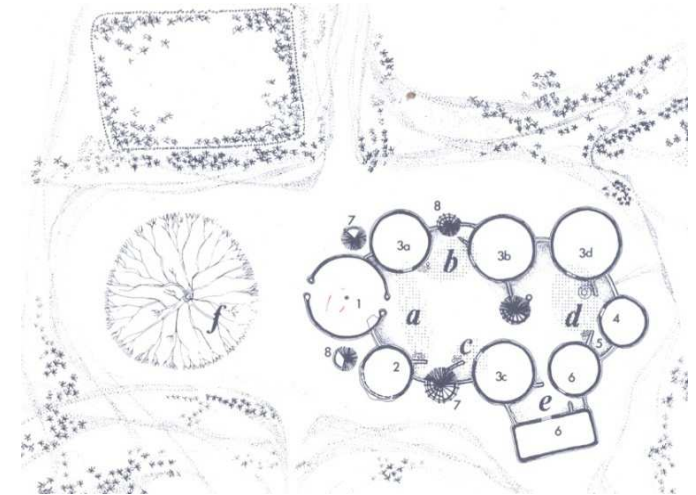


Fig 1.33

Fig 1.30 and Fig 1.31 show the similarities between The Kasuliyili and the Yankezia tribes respectively

The dissertation proposes a social and cultural node that not only considers available technology and social factors, but also environmental, when shaping space. The design proposal suggests an outside enclosure in the form of a piazza to exploit the climatic conditions of Pretoria and the natural heritage of Marabastad by interweaving them with the architectural response. The climatic changes regulate the patterns of human activity whilst the natural resources define the spaces within the piazza. Nature not only becomes an integral part of the daily ritual of the community but a component of the architecture itself. Resources such as trees become areas for congregation and performance of rituals, whilst offering shelter and shade for markets.. This addresses the needs of the community by facilitating a secure environment which promotes social and intercultural interaction. The surrounding building programme is supportive of the activities within the piazza. Amongst others, it accommodates multifunctional spaces such as a nursery school, formal and informal trading, theatre, exhibition and gallery and jazz club. These spaces contain the diversities and complexities that generate pre conditions that promote identity generation for the community. The idea of complexity carries through in the building form and materiality of the building fabric, thus, creating a unique environment.

02

REVIEW & REASONING



2.1 PROBLEM STATEMENT

Prior to the implementation of apartheid policies, Marabastad was a socially and culturally diverse community which founded Mamelodi Sundowns football team and invented Marabi music. After fifteen years of a shift in policy, Marabastad is still devoid of urban and social amenities

In the publication “Spaces of Global Cultures, 2002: 49”, King affirms the necessity of social and cultural infrastructure in places of cultural multiplicity. The infrastructure accommodates their complexities and facilitates a place for social interaction and intercultural cross pollination. This process is required to ease tensions between race and cultural groups, and it implicitly addresses the issues of identity and a sense of belonging.

Goal Statement:

The dissertation transforms and enhances the existing social space into a stimulating and engaging “place” which accommodates existing rituals of living, work and play, whilst affording freedom of expression and choice.

Research Questions Reviewed:

- Does the design proposal promote interaction amongst cultures whilst engaging with the individual?
- Does the design respond to its urban context and environment?

2.1.1 Sub Problem

The dissertation addresses environmental and ecological concerns within this community. The Steenhoven Spruit canal is polluted and affected by crime along its length. The community, particularly the immigrants acknowledge the spaces along the length of the canal as a dump site and places to seek shelter overnight. This dissertation serves to re-instate the status of this canal as a safe vibrant social resource offering opportunities for income generation.

Research Questions Reviewed:

- Does the proposal enhance the livelihood of the community?
- Is the design proposal considerate to the canal flow patterns and its immediate environment?

2.2 ASSUMPTIONS & DELIMITATIONS

Assumptions

Land claims and/or property rights on adjacent sites marked for development will not restrict the proposed development on the proposed site.

The dislocated community will want to return and there is sufficient housing in the development to cater for them and the locals currently working there

The proposed site is earmarked for infrastructural development. Any development that occurs on the proposed site after commencement of the dissertation is not considered.

Delimitations

In an ideal situation the following aspects amongst others, form part of social and cultural activities.

- Political
- Educational
- Language
- Music & Dance
- Art and crafts

However a number of constraints (including time and availability of contact persons amongst others) may result in acquiring inadequate information of particular cultural subject matters.

2.3 CLIENT PROFILE & BRIEF

Client Profile

The proposed clients for this dissertation are the current community working and residing in and around Marabastad. In addition, the marginalized and dislocated community seeking relocation and reintegration into Marabastad will also be supported.

Brief

The brief focuses on instating social amenities in Marabastad to create opportunities for income generation whilst predominantly addressing the lack of social and cultural infrastructure in Marabastad.

As per the interview with the representative of the Marabastad Interest Group on May 20th 2009. The community requires a multifunctional urban platform that encourages vibrancy and engages with the individual. This platform is a social interchange of people with different cultures, incomes and needs. It accommodates both organized and spontaneous activities to cater for the community, the tourists and the city of Tshwane.

2.4 RELEVANCE OF STUDY

The community of Marabastad lacks social and urban infrastructure promoting interaction and quality of life. The study's relevance is as a result to address the social ills within Marabastad by proposing social amenities to enhance the community's experience of space. These amenities provide a sense of place and belonging to a previously marginalized community once considered a slum. Currently, Marabastad is littered mostly along the Steenhoven Spruit canal and crime levels are higher in this region. The study integrates the canal into the community's daily activities, thereby transforming the canal into a resource. This addresses the issues of safety and crime whilst providing a pleasurable place for leisure, living and working. It transcends space from an intervention to a place of belonging which offers security, pleasure of use and ownership.

2.5 AIM OF THE STUDY

To enhance and promote social and economic activities in Marabastad, by creating a safe and secure place where the community spends time. This will be a catalytic strand in the creation of urban space and continuity within Marabastad. This process allows integration of fragmented spaces within Marabastad and acts

to explore the relationship between Marabastad's relationship with Pretoria C.B.D.

2.6 RESEARCH METHODOLOGY REVIEW

Interviews

First Interview

There was need to interview a Marabastad Interest Group representative in order to understand the community needs. This led to the interview with Laura Lourence who is currently the head of the Marabastad Interest group and also works for the Tshwane I.D.P

Date : 20 May 2009

Time : 0900 hrs

Place: Tshwane I.D.P offices

Q. Marabastad was once a vibrant community with social and cultural diversity. Are there any social or cultural programmes in the current community?

A. Currently this community does not have significant activities as compared to the previous community. However, the government is redistributing spatial resources and this will see Marabastad with a Jazz square within the next six months. The Jazz square will be occupied by the Zion Christian Church on Sundays.

Q. Why a Jazz square? Is it in the best interest of the community and what programmes are within the square?

A. South African Jazz originated in Marabastad. Today, people of Marabastad play music at street corners, market stalls and at the taxi rank because they either have large gatherings or they form . This is a clear indication of the role of music within this community. The Jazz square gives a place to express themselves whether they listen to “kwaito” or “raggae”. The square does not give defined programme, it is just a platform that allows for sitting, dancing and trade. Yes, the square is what the community needs at the moment. It gives them a place to mingle and chat.

Q. Apart from the Jazz square, are there any other social or cultural programmes proposed for Marabastad by your department?

A. We have proposed social activities such as braaing along the Steenhoven Spruit canal. Initially we had proposed a stadium but this faced resistance from the community, so we are putting a soccer field next to the canal as well.

Q. How do you propose to address the issue of immigrants in Marabastad and are they accepted in this community?

A. That is a delicate issue which still needs to be resolved. The proposed framework facilitates social and cultural activities for all. We can only hope they are accepted, if not already.

Q. How do you address the issue of job creation?

A. The framework focuses on mixed use housing for the community resettling in Marabastad. They need to have income generating activities to better their lives. We are also promoting informal trade by adding more stalls around social infrastructure.

Interviews

Second Interview

There is need to interview an architect involved with issues of identity in places with similar social dynamics to Marabastad. Peter Rich is the architect interviewed because of his experience and successful design interventions in Alexandra township and Mapungubwe.

Date : 15 May 2009

Time : 1920 hrs

Place: Peter Rich's residence

Q. Are there any underlying principles or common threads when one designs space in an African context?

A. Traditionally it was done through social order. Before the Ndebele or Zulu looked at making space, they looked at the social relationships of gender. You can identify a culture, the wealth of a community and the number of women one has by looking at the spatial arrangement. But these are traditional values and people do not follow them anymore.

Q. Is it possible to apply these principles of ordering in an urban context?

A. One has to look at the elements used in traditional African architecture. They are not particularly African. It is thought so because Africans explicitly used the courtyard and this was largely due to African climatic conditions. The essential lesson in traditional African architecture is about space making not social hierarchy. The issue is looking at spaces around buildings to create an enclosure

Q. Marabastad has diversity in culture. How would you address the issue of illegal immigrants?

A. Because they are far from home, they need to feel comfortable, secure and a sense of belonging. Therefore the idea is to create a nice, secure environment which offers ownership.

Q. Do you know any successful projects that have dealt with such issues?

A. I designed the Nelson Mandela Interpretation centre in Alexandra. It addresses similar issues through facilitating space that promotes interaction between different cultural groups. The project learns from its context and the community feels like they identify with the building because they helped to make it and they identify with the language of building.

03

THEORETICAL PREMISE



3.0 THEORETICAL PREMISE

3.1 Urbanism

Pretoria spatial town planning characteristics complement apartheid ideologies that sought to marginalize and fragment race groups. The grain of the city, particularly that of Marabastad, is coarse primarily because development occurs in relatively detached parcels bound by road networks and large open spaces. These planning policies consequently result in high transportation and living costs for this already impoverished community. Associated with high costs of living are constrained choices on how to spend time and money resulting in severe developmental issues of unemployment and inequality, further marginalizing and making life a desperate struggle to meet basic needs.

Of particular importance in Marabastad, which is experiencing rapid growth of backyard shacks and illegal squatting induced by the relocation of displaced households and natural increase, is the need to create opportunities for small scale, self generating economic activities, and facilitating social amenities which promote social interaction and cultural cross-fertilization. In the publication “South African Cities: A manifesto for change”, Dewar and Uytendogaardt ,2002:38, reiterate that public gathering spaces are an extension to the private dwelling unit. If these spaces are poorly designed, the entire environment remains sterile and dysfunctional regardless of the detail and investment placed in individual dwelling units. Thus, public spaces, institutions and facilities form the basic structuring framework for urban settlements. These spaces generate economic, social, cultural and recreational opportunities for large agglomerate groups or individuals, with these groups and individuals incapable of benefiting from these services in isolation.

In the publication “The production of Space, 2004:56”, Lefebvre affirms that there are different levels of space, and they range from rudimentary natural environments to intricate spatiality's whose significance is socially produced. Lefebvre argues that this social production of urban space is fundamental to the production and development of society. Thus, the urban construction of space is based on values and the social production of meaning. This space serves as a tool of thought, action and expression, with each society producing space with its own spatial practice.

The dissertation places emphasis on social and spatial ordering constructs of urbanism, to create a conducive and pleasurable environment for community rituals of leisure, living and working. Urbanism is the study of economic, geographic, political, social and cultural environments within cities, and their impact on the built environment (<http://en.wikipedia.org>). It focuses on the revitalization of public spaces and the improvement of the quality of life by facilitating sustainable and stimulating environments. These environments constitute integrated community life with efficient infrastructure to promote interaction, creativity and opportunity.

Best practice urban design principles have been formulated to guide the process of generating these integrated environments for communal activities. The dissertation identifies, re-interprets and utilizes these principles to create a social and cultural node relevant for the community of Marabastad. However, it should be noted that urban design is an intervention of physical space and is insufficient to grasp social space without society or community involvement.

3.2 Application

Urban Design Principles.

Urban Regeneration

Marabastad's formal economy is incapable of absorbing and sustaining new entrants in the job market. Most of its community members are unskilled and frequently have no choice but to seek survival through self generated employment in the informal sector. There, therefore is need to transform Marabastad into an efficient economic node by creating pre-conditions which facilitate opportunities for economic generation, ingenuity and creativity. Providing places of trade and manufacturing with very low or no rental is one way of achieving this. It becomes vital to the survival chances of Marabastad.



Fig 3.01 Illustrates insufficient formal space, so the traders has set stalls on the pavement.



Fig 3.02 Informal trade node



Fig 3.03 illustrates the lack of informal trading space. Traders set up in a prominent pedestrian route to the Bus and train stations

Access

There is a need to facilitate ease of access to resources and opportunities to promote equity in Marabastad. This impoverished community needs physical access to these opportunities and resources, thus, movement on foot defines the primary scale of development. Though it has a viable and efficient public transportation system, it becomes an option, not a pre-requisite. Currently, it reflects fundamental problems of urban form because of impositionary economic, political and regulatory policies. This restricts the community from fully participating and benefiting from urban life, which to them, demands the use of time and personal resources.

Promotion of Collective Activities and Contact.

Places of collective activities in an urban context facilitate social contact and interaction, which in turn offers opportunities for innovation and diversification, (Dewar and Uytenbogaardt 2000, p17). Because of critical difference between individuals, complex social networks emerge in these places which are of profound significance to the quality of life of urban dwellers. Creating such space in Marabastad will provide social security and insurance to its inhabitants.



voids in pedestrian circulation



Fig 3.05 Facilitating an environment that allows for performance promotes social contact and interaction

Individual Needs

Urban public places need to meet an individual's needs for the individual to engage fruitfully with the spaces. These include physical, social, psychological and sensory needs, (Dewar and Uytendogaardt 2000, p18).

Physical needs

Nutrition

Health

Safety

Shelter

Water

Employment

Social needs

Interaction

Community ties

Psychological needs

Security

Identity

Sense of belonging

Choice

Sensory needs

Stimulating environment

Learning opportunities



Fig 3.06 Poor service delivery is a hazard to the community's wellbeing



Fig 3.07 Block stormwater drains also affect the communities wellbeing and security.



Fig 3.08 The image shows a lack of a stimulating environment providing a sense of belonging

Freedom

Individuals determine their own needs and this is facilitated by offering considerable freedom of choice, decision making and action. Promoting freedom for individuals to act realizes different energies and talents, making it a stimulating, diverse and complex environment. It is this complexity which reflects and contributes to the identity of a community and society at large. However, too much freedom leads to chaos ,so there should be judgment on the necessary freedom sufficient to release these energies.

Balance

Balance guides growth of a community and maintains important relationships that can otherwise be destroyed. This Balance includes:

Society and Cosmos

Integral to this is a sense of place. It creates a recognition and celebration of natural resources, culture and historic distinctiveness, providing landmarks to the urban users, (Lynch, K .(1960) The Image of the City)

Society and Nature

Retaining contact with the natural context is vital because it allows people to appreciate and understand that they are a small part of a greater whole.

Relationships between people (Mixed Use)

This refers to the structural configurations which provide opportunities for people whilst enhancing their standards of living for themselves and others. This relates to primary elements of movement, accommodation, working and playing mixed to improve social activities and events which define urban life

Flexibility

With balance comes flexibility. Space and buildings should adapt to accommodate different needs and uses. These spaces should be composed that should one component change, the system remains functional.

Intensity, Diversity and Complexity

Pretoria has a diverse range of cultures from within South Africa and from other countries, particularly Southern African countries. These groups offer population support sufficient to create intense interaction with a variety of overlapping activities. They facilitate opportunity for spontaneous and unexpected events to occur. The conflict and juxtaposition between different activities at a particular time compliments and reinforces these activities allowing the individual to participate or withdraw from an event as they choose.

Hierarchy. These complexities should be expressed by spatial contrasts from community to individual scales. What is manifest in one level is hidden in the other

Community

The idea of community relates to an individual's sense of identity and belonging within a greater whole. This is vital for both the development of the individual and for the community (Urban development). The way in which urban spaces are designed affects processes of socialization, the individual's identity and identity of the community.



Fig 3.09 promoting communal activities, whilst allow the complexities of different events.(circulation, sitting, children playing)

Integration

Positively functioning urban environments show high standards of integration within themselves and with other parts and elements of their surrounding environment. Currently, Marabastad is fragmented within itself and isolated from its surrounding environments. For integration to occur, intensive activities and events which depend on support and participation of large populations from Marabastad and the city as a whole need to be facilitated. Furthermore, infill in the open land parcels acting as buffers between Marabastad and the city needs to transpire to allow urban continuity. Other factors which allow for integration in Marabastad include:

Legibility

Legibility promotes easily accessible environments through the use of pathways, nodes, gateways and edges, (Kevin Lynch, 1960:p25).

Connectivity

Promoting well linked parts and elements that connect different activities, events and urban parcels.

Movement

Creating secure, pedestrian friendly public spaces designed for walking whilst encouraging social contact and interaction



Fig 3.10 A legible, well designed environment with a scale ranging from pedestrian to society. The built fabric is well balanced with the landscape



Fig3.11 A poorly defined system with No space for the pedestrian in Marabastad

Climate and Design

To make Marabastad as responsive as possible to climatic conditions to provide comfort to its users. The use of shadow, breeze, water elements (the Steenhoven Canal), and minimization of the of direct solar radiation within built forms are some of the tools utilized to provide these comfortable spaces for the user.

Shadow

The use of a courtyard space and an internal atrium allows for different shadow patterns, whilst providing comfort at different times of day. The atrium allows diffused sunlight during the hot hours and acts as a solar chimney. A pressure gradient is created by the heat on the roof of the atrium. This constantly forces warm air to rise, allowing cooler air to enter adjoining spaces.

Landscaping and Water.

The courtyard is comfortable in the morning and evening when temperatures are still cool. The use of trees and shrubs provides shade and breeze which make it comfortable to use at any particular time of day. This makes it vital to fully integrate and address Marabastad's public realm with both hard and soft landscape. Both water and trees act as cooling elements and should be located along prominent pedestrian activities where they also function as sensory amenities, adding to the sense of place.

Other factors such as orientation, compactness and form also play a vital role in reducing direct solar radiation entering buildings.



Fig 3.12 The use of water and landscaping. These can be used to transform the



Fig 3.13 landscaping to provide shade

3.3 Relevance

Castella's collective consumption theory suggests that the individual derives meaning in his or her life through collective action, thus an individual is understood in personal terms as well as part of a collective. This suggests that identity and meaning are generated in a social landscape with proper integration of the individual into a conducive and stable society leading to a strong sense of identity.

Urbanism facilitates this conducive environment for the community to meet and create memories whilst developing their identity. It facilitates social and cultural platforms which create and accommodate this sense of identity. Castella affirms the better the environment, the stronger the sense of identity. This necessitates the creation of this environment in Marabastad, with the development of identity boosting a sense of positive self esteem with this previously marginalized community. The design intervention forms a means to address and redress the lack of social infrastructure through this transformed urban environment, identity is generated.

04

PRECEDENT STUDIES



4.0 PRECEDENT STUDY

VILLA MAIREA

Client : Harry and Maire Gullichsen

Architect : Alvar Aalto

Location : Noormakku Finland

Year : 1937 - 1940

Motivation : This precedent study is necessary to investigate the use of a wide range of tactile materials in defining space. The building's use of material surpasses the visual realm to a haptic experience. Pallasma (1996:46) establishes that Alva Aalto's architecture exhibits a muscular and haptic presence.

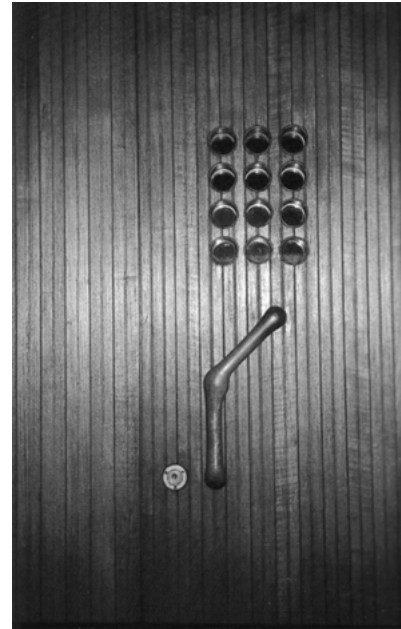


Fig 4.01
Pallasma states that Villa Mairea's door handle is a reminder of the pieces of a tree branch

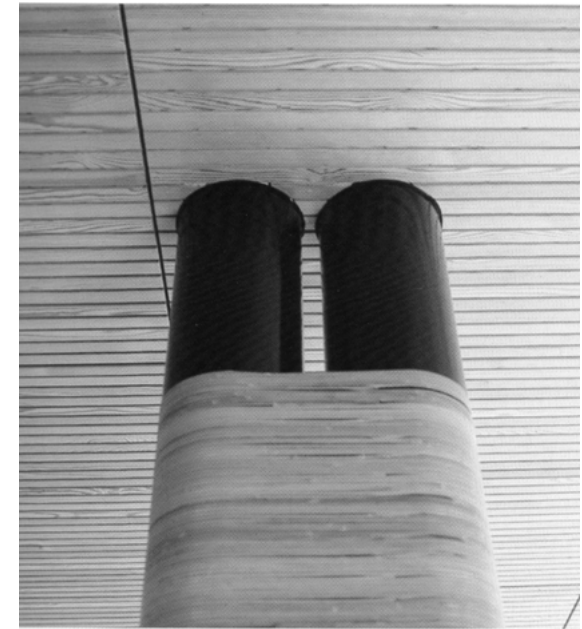


Fig 4.02
Aalto defined the junctions between different materials (architectural kiss) as a language of building.

Villa Mairea utilizes surface textures and details to arouse the sense of touch whilst enhancing intimacy and warmth. This experience generates a memory for each individual space. The architecture transcends the visual experience to a sensory realism which creates dialogue between the building and the individual. The building uses a juxtaposition of several materials which include amongst others; timber, concrete, brickwork, glazing. Apart from the use of materials, Aalto incorporates dislocations, skew confrontations and irregularities.

The building's spaces and elevations are characterised by multiple colours, forms and textures of teak, stone cladding, assorted poles, wood and metal railings, blue glazed tiles, lime-washed brickwork, weathering board and climbing plants.



Fig 4.03
The image shows the use of different materials



Fig 4.04
Entrance with climbing plants



Fig 4.05
Feature staircase



VILLA MAIREA

Alva Aalto's building responds to its contexts, and makes the context part of the architecture. He shows the exploration of the expansion of architectural space as an abstraction of the forest. This is done through the use of wooden columns and the presence of climbing plants as a feature on the main staircase. He draws the forest into the building through introducing full height glazing facing the garden and internal use of pine strips and columns. The use of different textured materials is used to define spaces.

The house illustrates richness in the use of materials, comfort, closeness to nature, form, proportion and works of art. The house is built on opposing themes: nature and culture, the rustic and the urban, the primitive hut and the refined villa. These oppositions reflect a wide range of experiences the house offers to the occupant.



Fig 4.06

The image shows the square in context



Fig 4.08 The image shows use of different materials

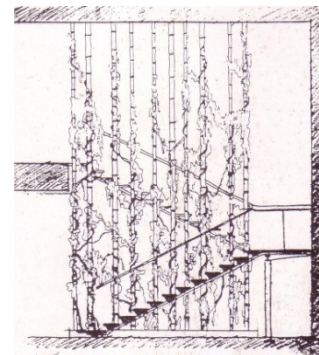


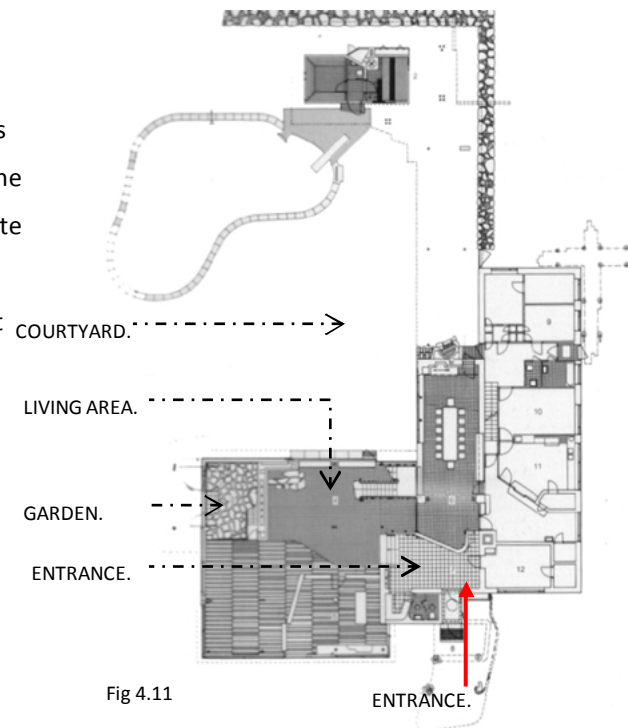
Fig 4.09 The image shows the feature staircase with the use of wooden columns



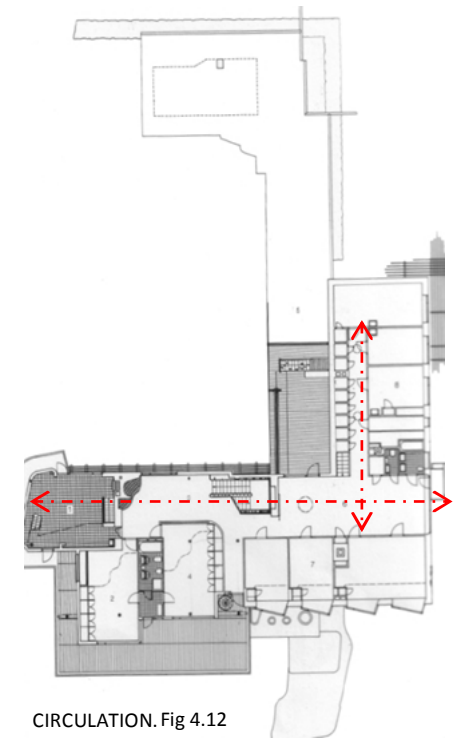
Fig 4.10

VILLA MAIREA

The ground floor shows a slightly complex plan as compared to the straightforward first floor layout. On the ground floor are more public spaces which surprisingly enough do not show continuous spaces or spaces that flow into each other which where common to modern architecture. The first floor is furnished with more private spaces and these are boldly discrete and contained. The general layout is also simple to read and understand. The clarity of such a plan can also be appealing to a blind person because it will be easy create a memory map of the layout.



Ground Floor.



First Floor.

4.01 PRECEDENT STUDY

MARY FITZGERALD SQUARE

Client : Johannesburg Development Agency

Architect : Albonico Sack and Muzumara

Location : Newton, Johannesburg, South Africa

Year : Progressive Development since 2002

Motivation : This precedent study is necessary to create understanding of spatial ordering and hierarchy of space in a South African urban context. The square has been unsuccessful as a place for the urban user's daily rituals of living, working and playing.

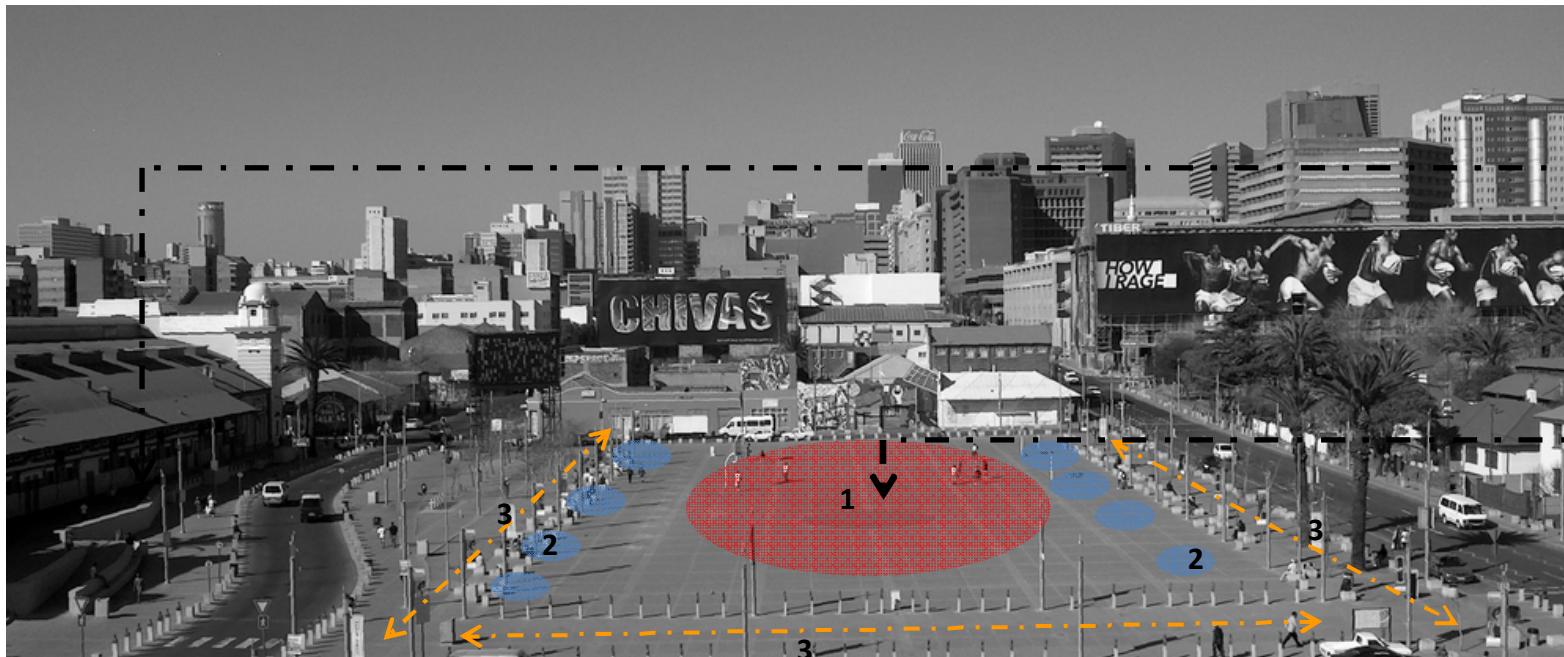




Fig 4.14 Square with city as backdrop



Fig 4.15 Occupied square during function

Fig 4.13 The image shows the square in context

- 1.  Centre of Square often used for large events
- 2.  Smaller gathering nodes at the periphery of the square

ns around the square

MARY FITZGERALD SQUARE

Mary Fitzgerald Square has evolved into an Integrated social platform which stimulates informal and formal trade whilst assisting as a stage for expression.

The square is rectilinear as a result of the city grid. The site is constraint driven. It has two busy vehicular roads flanking it on either end. Thus, the hierarchy and privacy gradient increases towards the core or center of the square. Pedestrian circulation and urban furniture is placed next to the vehicular circulation. This often results in the square being vacant at the centre and vibrant towards its periphery. Spatial qualities result form multifunctional uses of objects for example, seating becomes a bollard and also becomes a ramp.

The square is enclosed by supporting social activities which spill out onto the square, they include amongst others, a theatre, restaurants and offices. These activities maintain the consistent vibrancy and use of the square



Fig 4.16

Image shows the use of urban furniture around the square



Restaurant facing the square
Fig 4.17



Informal trade on the periphery
Fig 4.18



Informal trade on the periphery
Fig 4.19

4.01 RELEVANCE & 4.02 APPLICATION

It is necessary to analyze the Mary Fitzgerald Square because it has shown significant success in catering for both small and large scale events. Though different in context to the dissertation proposal, it illuminates clear spatial ordering sequences and hierarchies relevant in an urban context. Analysis of circulation patterns and daily rituals in and around the square reveal the needs of the urban user. This analysis shows that the square is frequently occupied along its periphery and not the centre. This dissertation applies a similar concept in spatial ordering of the piazza. The centre of the piazza is used for circulation whilst the gathering

4.02 PRECEDENT STUDY

LUCERNE CONGRESS CENTRE

Client : Lucerne Development Department

Architect : Jean Nouvel

Location : Lucerne, Switzerland

Year : 1995 - 2000

Motivation : The precedent study is necessary to investigate design responses in sensitive environments (heritage, scale and materiality). The building uses opposition as a theme throughout the design. These themes are as listed below.

Fragmentation vs. Unity

The three main structures are aligned perpendicularly beneath a huge horizontal plane. The roof shelters like a vast pagoda the three different volumes of the building. It was planned to harmonize the building with the horizontal expanse of the lake and it invites one to spend time outside. The facility contains a 1840-seat concert hall, a 900-seat multifunctional hall and a museum with a 300-seat conference hall.

Fig 4.20



Image shows the harmony between the building and its environment

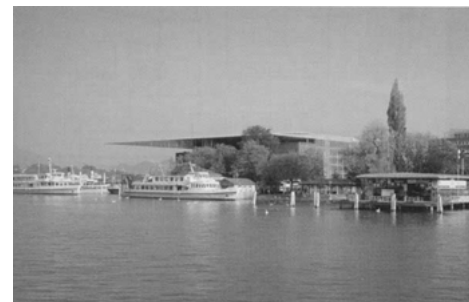


Fig 4.21 The building embraces to the lake



Image illustrates use of volume to create grandeur
Fig 4.22

LUCERNE CULTURAL & CONGRESS CENTRE

Innovation vs. Respect

Standing on the edge of Lake Lucerne, the Cultural and Congress Centre looks out towards 17th-century houses, an old wooden bridge and medieval stone watch towers. Nevertheless, the building respects the existing structure of the city. Only a close look will reveal the enormous overhang of the roof, the three parts of the building underneath and the traffic-free waterfront.

Harmonize vs. Dominate

The architecture and materials used harmonize with the existing, rather than dominate it. The large expanse of glazing reflects the lake and the large canopy and forming a “hat” offering protection to the building. Though the building is a dominant feature in the cultural life of Lucerne, it is not overbearing.

Reflection vs. Existence

The huge roof, with its cantilever of 45 meters, is the strongest architectural feature in this building,

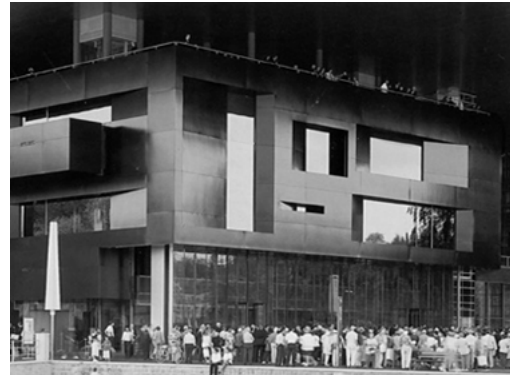


Fig 4.23

Image shows play of solids and voids



Fig 4.25 Image shows the large canopy overhead

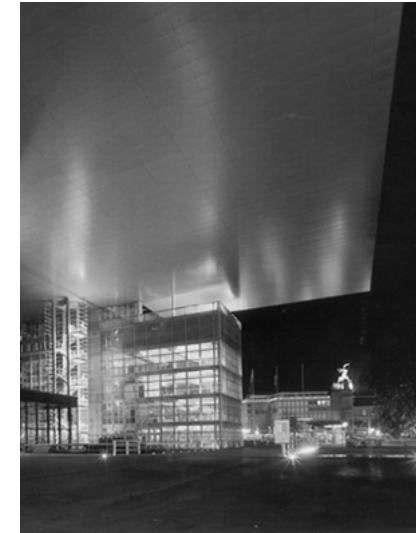


Fig 4.24 Image illustrates transparency and mass



Fig 4.26 Image illustrates the play of extrusions and intrusions

LUCERNE CULTURAL & CONGRESS CENTRE

Opacity vs. Transparency

The building houses functions that are traditionally designed as closed, non-communicating, inside worlds. The concert hall, the congress centre, and the museum are autonomous spaces, but the complex as a whole gives hints of what happens inside, playing with different levels of transparency and opacity.

Frames vs. Panoramic view

The visual experience within the building is composed of different kinds of openings. The terrace underneath the roof covers the entire building, offering panoramic views of the landscape. The composition of the different windows offers a more controlled experience, it captures selected views and moments in the city's life and frames them for the visitors.

Filter vs. Exposure

The architect created visual play using metal grills of different transparencies in different places on the facade. The impact is both internal, the grills filter light and view, as external, exposing the passer-by to the images of the people in movement and the inside world of culture.

Shore vs. Lake

The architect introduced the lake into the building, with two channels of shallow water that run through the complex and effectively separate it into the three sections.

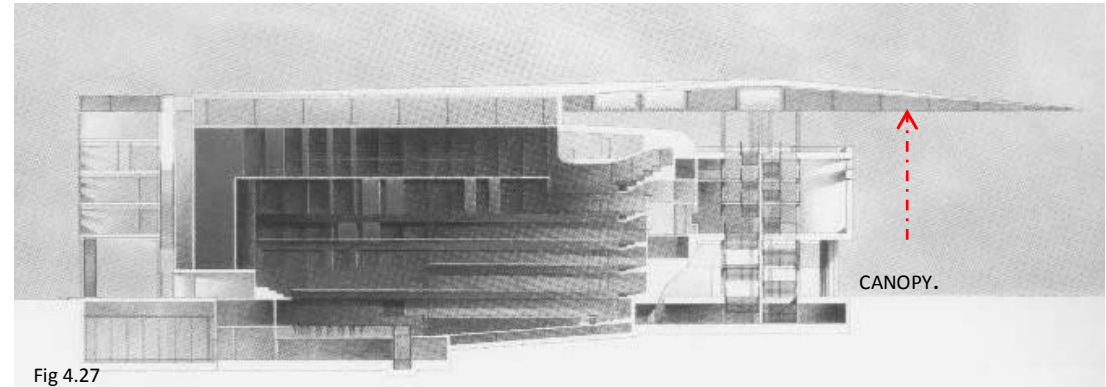


Fig 4.27
Section.

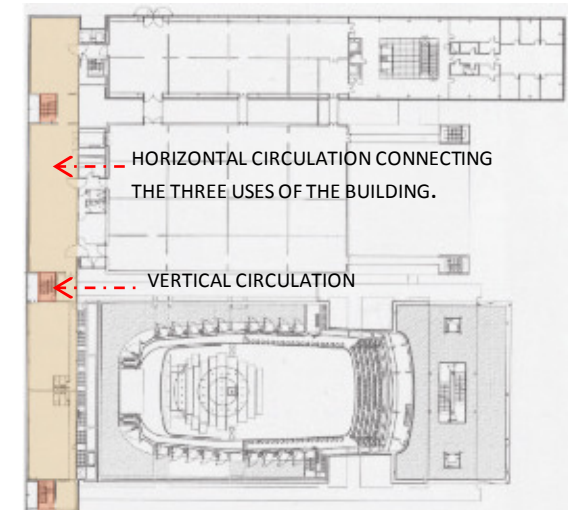


Fig 4.28
Plan.

4.0 3PRECEDENT STUDY

LUXOR THEATRE

Client : City of Rotterdam

Architect : Bolles & Wilson Architects

Location : Rotterdam, Netherlands

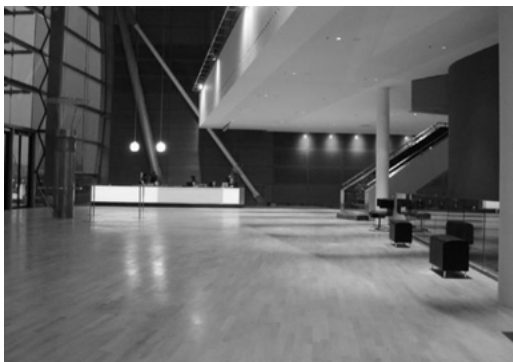
Year : 1995

Motivation : This precedent study is necessary to understand design principles and relevant programme to support a theatre. The luxor theatre has multiple orientation points to address both the Maas river and Rijn harbour on the north and south respectively. The idea of multiple orientation points is applicable to the dissertation proposal. The proposal responds to the Steenhoven Spruit canal, the park and the enclosed piazza.



Fig 4.29

The theatre has multiple orientation points



Volume

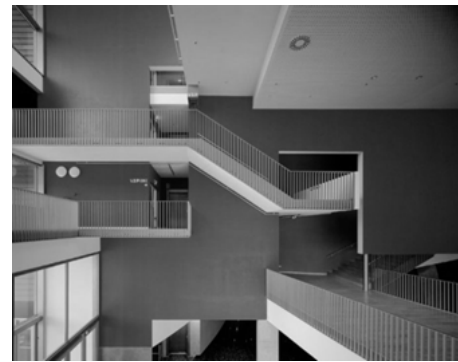


Fig 4.31 The image illustrates the play of circulation patterns



Fig 4.30

The theatre responds to the Rijn harbour and to its context



LUXOR THEATRE

The multiple orientation concept is achieved by creating a single wrapping façade. An internal ramp forms a means to address circulation. This ramp is carved to determine the form of the building. The ramp is exposed in sections of the building to form an external feature of the building. The concept is to create a panoramic view of the river and harbour. The ramp roof transforms into a viewing decking facing the harbour.

Bolles and Wilson's concept was to create a theatrical experience rather than a theatre as destination. Thus, circulation across the building and the building itself offer this theatrical experience. The design links the audience both visually and physically to the harbour and river. This is achieved by creating solids and voids in the built fabric, thus animating the experience by offering alternate framed and panoramic views. The ground floor has opening sections that filter the audience to the harbour and river shores.

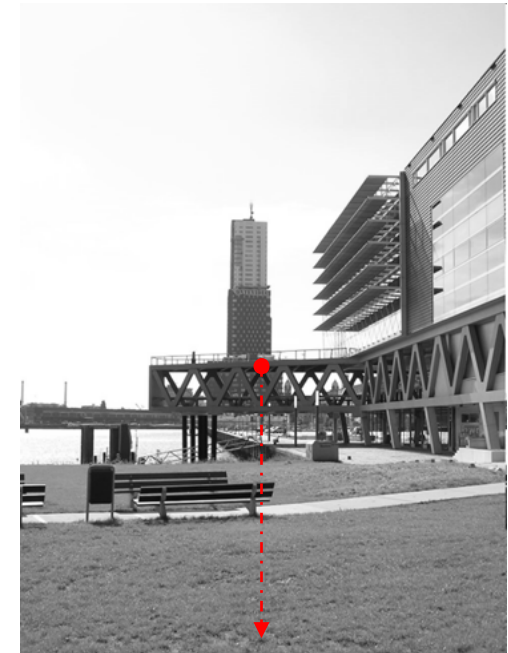


Fig 4.33 Ramp transforms into viewing deck

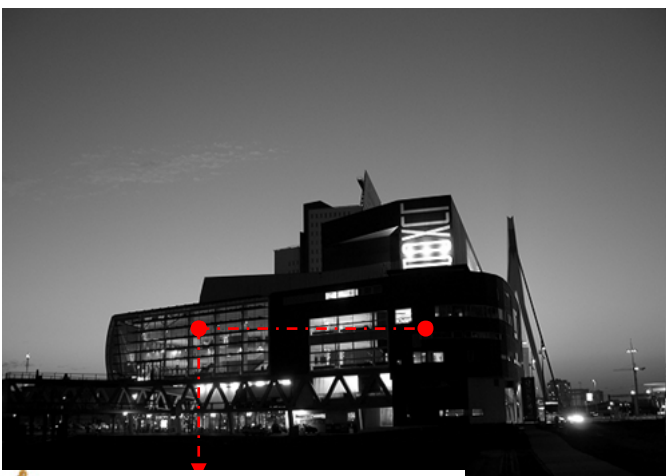
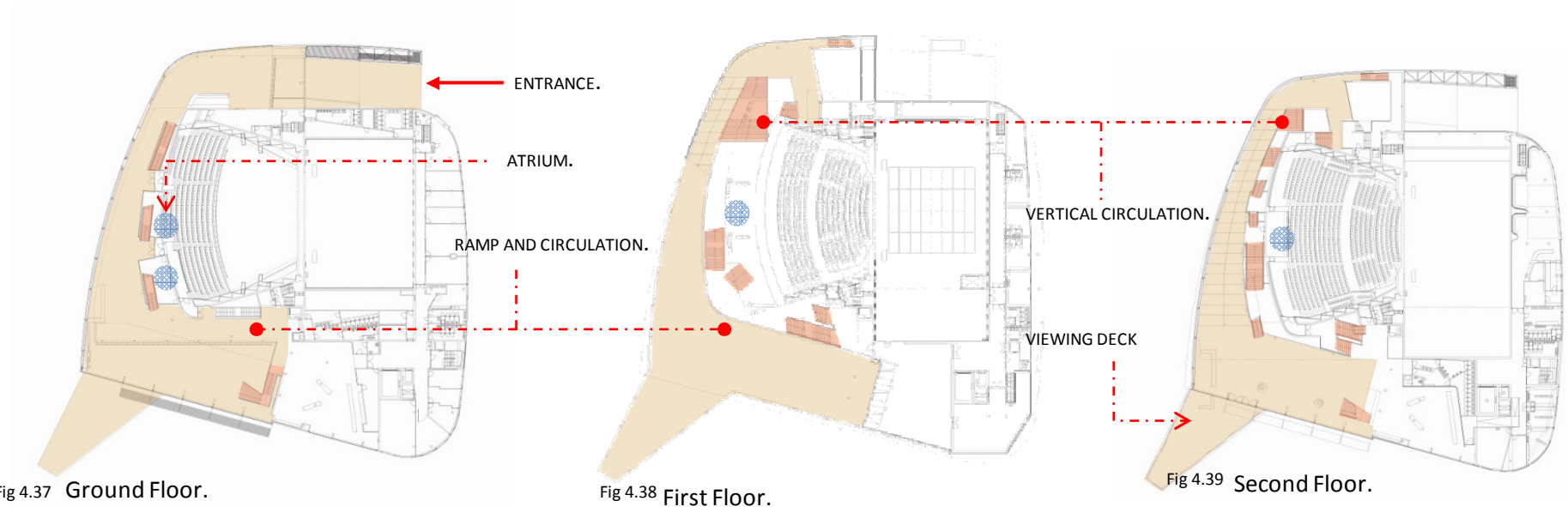


Fig 4.35 Theatre with multiple orientation points



Fig 4.34 Theatre with multiple orientation points

LUXOR THEATRE



The floor plans illustrate a complex circulation process which includes ramps and stairs. The theatre follows the modern concept of spaces flow into each other. The plans show a play of double volumes . This creates a spatial experience that is appealing to the audience and makes it easy to create a memory map of the layout. The second floor has the viewing deck which faces the harbour.

4.01 RELEVANCE & 4.02 APPLICATION

The precedent study illustrates how the architect embraces the environment in the design. It also illustrates design initiative in creating a playful environment appealing to the audience. This study was relevant to understand supporting programme for a theatre and to understand spatial considerations when designing such programme. The dissertation proposal will follow a similar concept of creating a playful environment. The building creates a theatrical experience, creating places of memory and embracing the Steenhoven canal, park and piazza.

4.01 PRECEDENT STUDY

DZ Bank Building

Client : DG Immobilien Management GmbH
Hines Grundstücksentwicklung GmbH

Architect : Frank Gehry

Location : Berlin, Germany

Year : 1995- 1996

Motivation : This precedent study is necessary to create understanding of of contrast in the building form. Frank Gehry follows the rigid urban grid, but creates an organic internal skin. This precedent study is relevant because the proposed concept follows a similar philosophy.



Fig 4.40 A geometric façade with punch in widows



Fig 4.41 the organic interior



Fig 4.42 Interior view behind punch in windows

The Pariser Platz 3 is a mixed-use building consisting of the Berlin Headquarters of DZ Bank and a residential component with apartments. The commercial component, that being the bank, is oriented towards Pariser Platz and the Brandenburg Gate. The residential element is orientated towards Behrenstrasse.

Both the Pariser Platz facade and the Behrenstrasse facade are fairly rectilinear. This is because FOGA had strict principles which it had to follow. The facades are clad in a buff-coloured limestone that matches the Brandenburg Gate. However the two are scaled independently from one another, so as not to disrupt the proportions of their immediate environment and context.

The façade of the Pariser Platz consists of a series of unpretentious, punched openings and deeply-recessed window bays. The rhythm of the openings allows the building to merge into the unique urban fabric which is the setting of the Brandenburg Gate. A glass canopy covers the main entry from Pariser Platz.

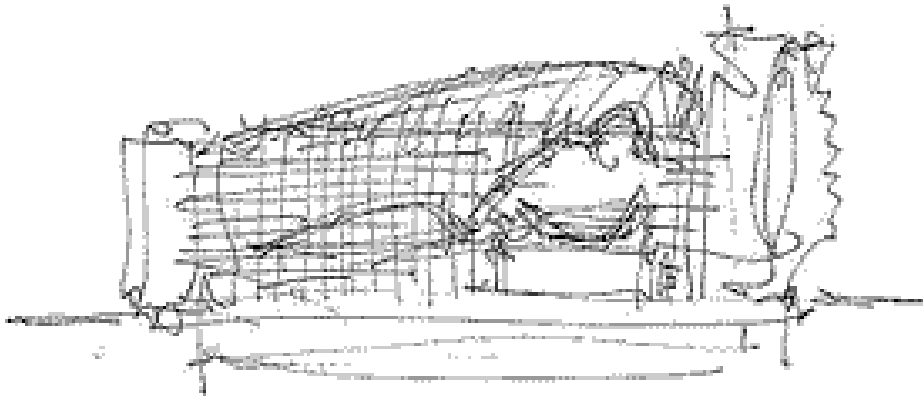


Fig 4.43 The image shows the organic interior

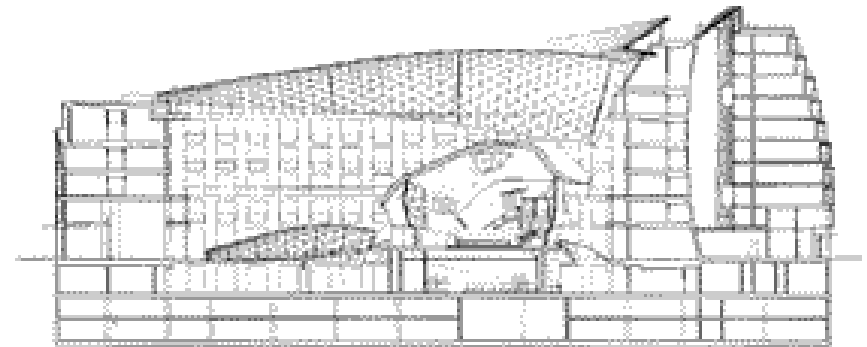


Fig 4.44 The Organic interior juxtaposed with the geometric external form



Fig 4.45 Organic interior



Fig 4.46 Juxtaposition in materials





Fig 4.47 An organic interior view of the boardroom

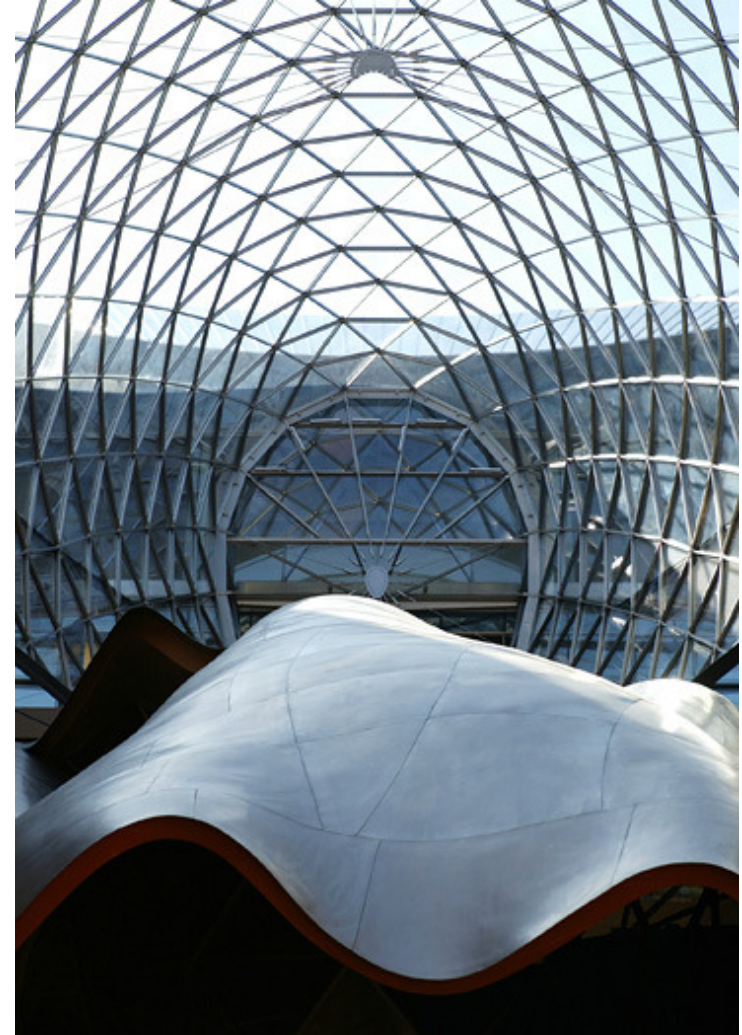


Fig 4.47 Contrast in Materiality

05

ASSIGNMENT AND ACCOMODATION



5 ASSIGNMENT AND ACCOMODATION

5.1 Calculations

Theatre

The proposed theatre accommodates a population of 150 people. This is sufficient to host a large event and ideal for daily community use. 0,5m² is the minimum area occupied by each individual in a theatre, and 0.65m² is comfortable. It is analyzed and concluded that stage layout dimensions are as follows according to Neufert :

Stage 1 (Performance stage) – Not less than 100m²

Stage 2 (Rehearsal stage) – Not more than 100m²

This dissertation follows these guidelines to determine the area for the Theatre.

Calculations:

Audience space – 150 people x 0.65m²
= 97.5m²

Stage 1 = 150m²

Stage 2 =80m² (Will perform a dual function as a Nursery school)

Change rooms = 50m²

Total Area = 377.5m²

Ablutions (as per S.A.B.S); assuming that at anytime there are 60% males or 60% females (at 1person for every 5m²: inclusive of the stage)

= 377.5 / 5

= 76 Males & 76 Females

Therefore, Males need 6 Urinals, 5 W.C's, 6 W.H.B and 3 Showers

Females need 8 W.C's, 6W.H.B and 3 Showers

5.1 Calculations

Music Studios

The proposed music studio is used for, amongst others, recording music and dance. It is designed to accommodate a total population of 50 people. It has the dual function of hosting small community meetings. Neufert (2000:122) states that in multipurpose speech and music space, each individual requires 5m^3 of volume with a maximum volume of 8000m^3 .

The following assumption is taken : The height of the space is 3.5m

Therefore Area person – $5\text{m}^3 / 3.5\text{m}$

$$= 1.42\text{m}^2$$

Total Area of space - $8000\text{m}^3 / 3.5$

$$= 2285\text{m}^2$$

This dissertation follows these guidelines to determine the area for music studion.

Calculations:

Studio space – 50 people x 1.42m^2

$$= 71\text{m}^2$$

Recording space = 25m^2 (Assumed)

Change rooms(Sharing with Theatre) = **50m^2**

Total Area = 96m^2

Ablutions (as per S.A.B.S); assuming that at anytime there are 60% males or 60% females (at 1person for every 2m^2 : inclusive of the recording studio)

$$= 96 / 2$$

$$= 48 \text{ Males \& } 48 \text{ Females}$$

Therefore, Males need 3 Urinals, 2 W.C's, 3 W.H.B

Females need 4 W.C's, 4W.H.B

5.1 Calculations

Other programme

The listed programmes below do not have area limitations. The areas are determined by desired spatial qualities, therefore the areas listed below are per the spatial experience proposed by the dissertation:

Admin Office = **80m²**(15people/m²)

Ablutions = 80m²/15

= 6

Therefore, Males need 2 Urinals, 1 W.C and 2 W.H.B's

Female need 2 W.C'S and 2 W.H.B's

Gallery and Art Studios = **350m²** (Excluding ramp area): Dual Function as community Hall (10people/m²)

Ablutions = 350m²/10

= 35

Therefore, Males need 3 Urinals, 2 W.C's and 3 W.H.B.'s

Females need 4W.C's and 4 W.H.B's

Jazz Club = **250m²** (Use common ablutions)

Retail = 150m² (Use common ablutions)

Restaurant = 300m² (Including Kitchen) (10people/m²)

Ablutions = 300m²/10

= 30

Therefore, Males need 3 Urinals, 2 W.C's and 3 W.H.B's

Females need 4W.C's and 4 W.H.B's

5.2 Accommodation Schedule

Ground Floor

Retail

Unit 1	= 23.02m ²
Unit 2	= 171.25m ²
Unit 3	= 108.54m ²
Unit 4	= 71.90m ²
Unit 5	= 61.29m ²
Unit 6	= 39.45m ²
Unit 7	= 46.20m ²
Total Area	= 521.65m²

Fast food outlet 1

Sitting Area 1	= 52.65m ²
Kitchen	= 52.65m ²
Sitting area 2	= 72.80m ²
Total Area	= 178.10m²

Fast food outlet 2

Sitting Area	= 79.06m ²
Kitchen	= 79.06m ²
Total Area	= 158.12m²

Restaurant

Sitting Area	= 123.05m ²
Kitchen	= 52.00m ²
Total Area	= 175.05m²

Café

Sitting Area	= 56.65m ²
Total Area	= 56.65m²

Coffee and Book shop

	= 70.16m ²
Total Area	= 70.16m²

Ground Floor

Sports and Jazz Club

	= 239.25m ²
Stage Area	= 30.50m ²
Total Area	= 269.75m²

Community Club

	= 147.10m ²
Reception	= 34.72m ²
Total Area	= 181.82m²

Exhibition

	= 168.86m ²
Total Area	= 168.86m²

Children play area

	= 87.48m ²
Total Area	= 87.48m²

Informal traders

	= 348.16m ²
Storage	= 3.60m ²
Total Area	= 351.76m²

Atrium

	= 119.04m ²
Total Area	= 119.04m²

First Floor

Café

Sitting Area	= 116.09m ²
Kitchen	= 25.56m ²
Total area	= 141.65m²

Offices

Rentable space	= 179.02m ²
Reception	= 43.16m ²
Boardroom	= 25.74m ²
Total Area	= 247.92m²

First Floor

Exhibition	= 197.20m ²
Storage	= 22.95m ²
Total Area	= 220.15m²

Auditorium	= 215.78m ²
Stage	= 89.10m ²
Storage	= 14.50m ²
Dance Studios	= 159.96m ²
Pose Area	= 30.55m ²
Performers lounge	= 72.05m ²
Choral and instrument room	= 89.08m ²
Total Area	= 886.80m²

Viewing deck 1	= 40.74m ²
Viewing deck 2	= 93.58m ²
Total Area	= 134.32m²

Flea market	= 285.10m ²
Storage	= 84.00m ²
Total Area	= 369.10m²

Gym	= 174.26m ²
Gym reception	= 17.64m ²
Total Area	= 191.90m²

Nursery	
Reception	= 27.50m ²
Classrooms	= 40.15m ²
Dining	= 12.88m ²
Kitchen	= 21.16m ²
Play area	= 40.74m ²
Balcony	= 9.00m ²
Total Area	= 151.43m²

First Floor

Bridge link	= 36.66m ²
Total Area	= 36.66m²

Information Box	= 1.20m ²
Total Area	= 1.20m²

Second Floor

Offices	
Rentable space	= 612.64m ²
Reception	= 43.16m ²
Kitchen	= 28.08m ²
Staff lounge	= 37.62m ²
Boardroom	= 25.95m ²
Storage	= 22.95m ²
Total Area	= 1 383.04m²

06

CONTEXT AND SITE



6 Context and Site

Background

The city of Pretoria was founded in 1855 and by 1989, the grid system was already visible. At this time Marabastad was not integrated into this grid system as illustrated by the block on the left and the image on the left of Marabastad in 1905, taken from Daspoortrand.



Fig 6.02

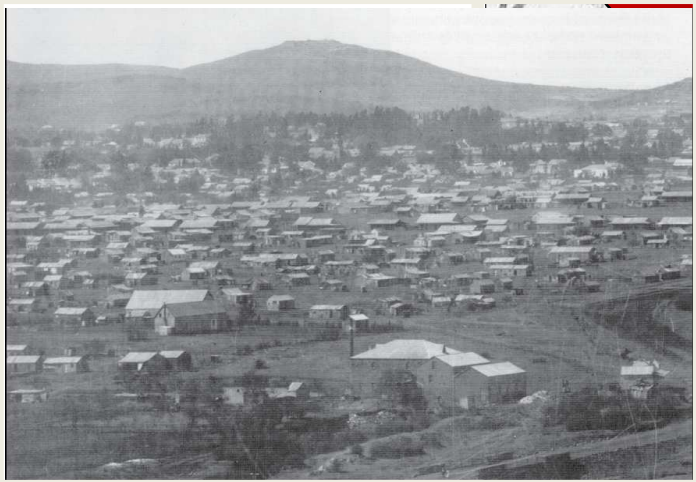


Fig 6.01

6.1 Macro Analysis

Social and Economic Aspects

Problems identified:

- High unemployment
- Lack of social spaces to interact
- Lack of cultural amenities and expression
- Insufficient housing
- Insufficient security

The South African census held in 2001 indicates a growth in population in the Tshwane metropolis. With this growth, are the problems of unemployment, crime and insufficient healthcare services.

Unemployment

The survey held in Marabastad indicated that 5% of the people were unemployed and 18% were earning R500 or less per month, GIS spatial data, 2003: 30 ; census 2001, statistics South Africa. To assist and educate the unemployed community of Marabastad, the Tirisano ya Tswelopele programme was formed. It is located towards the south eastern corner of the Maraba shopping complex. This programme supports the community through counseling, referral and information services, skills training, free medical consultations by Pholateng medical staff (Pholateng clinic: west of DF Malan drive) and a childcare programme.

The dissertation proposal creates pre-conditions in which the community can apply their skills and generate income. This reduces unemployment and poverty levels, thus benefiting not only the Marabastad community, but the Tshwane metropolis as a whole.

Informal Trade

Informal trade offers a means of survival to many people in Tshwane. It provides an income to the trader and affordable goods to the consumer. Marabastad informal traders constitute of 18% of the informal trading in Tshwane, having 658 licensed informal traders in 2004. However, most of the traders are illegal, and their equipment and products are confiscated by the municipality every month. To operate legally, the informal traders should register with the municipality. In order to register they need to own a table, sheltering structure and a license. Acquiring the permit does not guarantee the traders water and electricity supply. In turn, the traders acquire the water illegal.

The dissertation proposal offers the informal traders the facilities that make registration easier, whilst offering a legal supply of clean water.

Immigrants

South Africa has experienced a surge in immigration because it forms a large economic hub, not only in southern Africa but in Africa as a whole. The majority of the immigrants are from Zimbabwe because of the political instability and hardships in that country. The Gauteng province forms the economic backbone of the South African economy, and Tshwane is part of that province. In Pretoria, Marabastad has high numbers of illegal immigrants, with there presents validating the fact that the area is in an unsafe and uncontrolled state.

Issues of xenophobia were experienced in the poorer communities in South Africa in 2008. This created fear and uncertainty for the immigrants living in these communities. The dissertation proposal addresses these complexities by facilitating pre conditions in which the different groups and cultures can co-exist and interact without marginalizing any particular group.

Safety and Security

Crime is often associated with poverty, poor living conditions, insufficient services and a lack of law enforcement. Upliftment of living conditions and the urban

Environment significantly reduces levels of crime, whilst creating better conditions that offer pleasure of use. This assists in creating a sense of community and pride in ownership. Ownership and a sense of community are fundamental tools in lowering crime levels.

Public Survey

Aziz Tayob Architects and Meyer Pienaar Tayob carried out a public survey in Marabastad in 2002. The information from the survey is translated in diagrammatic format below.

Fig 6.03 Mode of transport

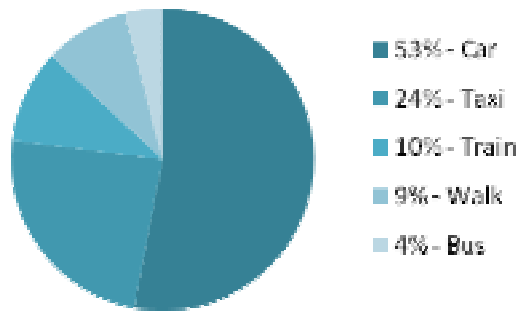


Fig 6.05 Victims of crime

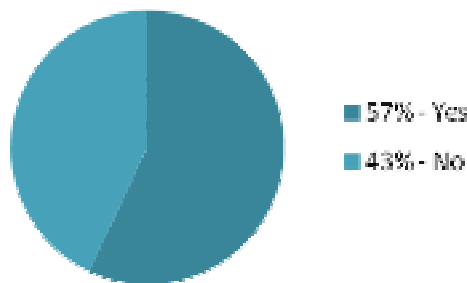


Fig 6.07 Time spent travelling to Marabastad

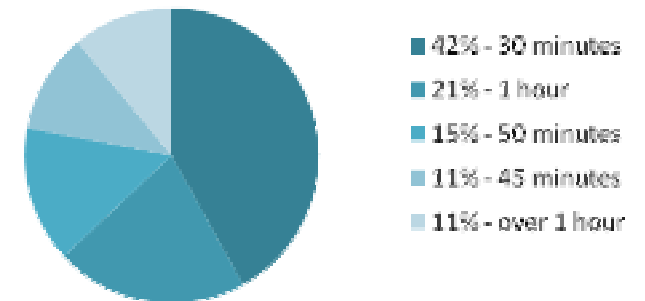


Fig 6.04 Household income after taxes

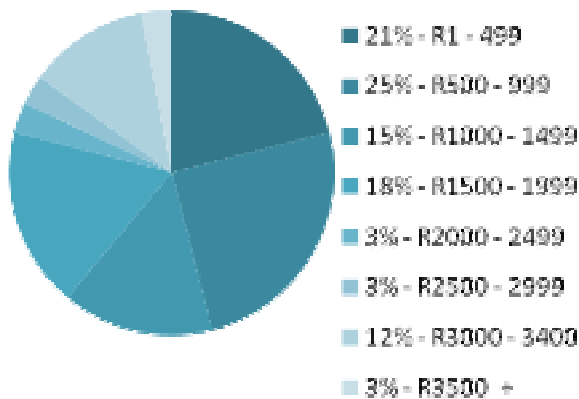


Fig 6.06 Reasons for being in Marabastad

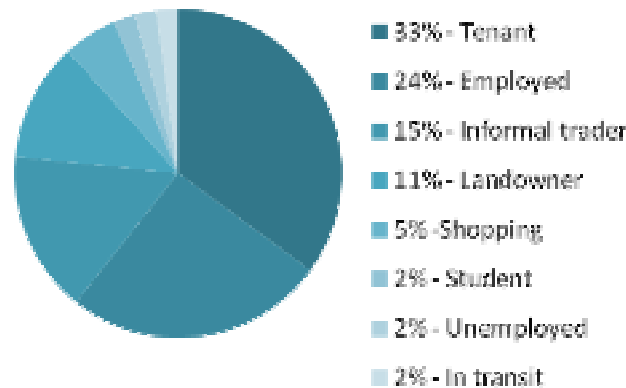
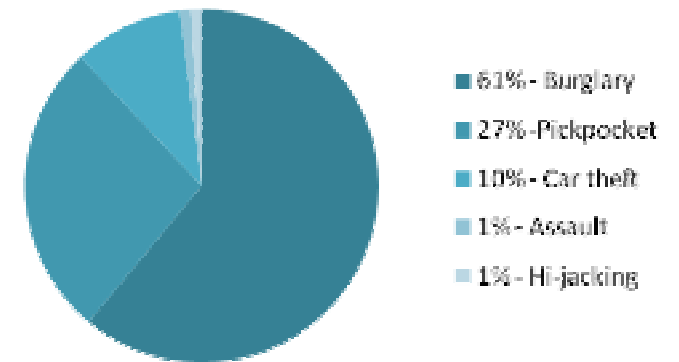


Fig 6.08 Nature of crime



6.2 Micro Analysis

Fig 6.09

Contextual Analysis

The contextual analysis focuses on the relationship between Marabastad and Pretoria C.B.D. These two urban parcels are separated by the Steenhoven Spruit canal and by large open pieces of land previously used as buffers. On the southern side of the proposed site, Bloed Street forms the main vehicular artery, making the site a gateway into Marabastad. As result, the site is inaccessible from South of the street due to the high traffic volumes travelling at high speeds.

On the northern side, Grand Street is a more quiet street with high pedestrian circulation serviced by retail outlets on either end. The street demarcates the developed northern parcel from the southern urban parcel which is underutilized and has substantial lost space. These open land parcels create opportunity for the development of a public node. Currently, the Pretoria municipality has proposed a Jazz park along Bloed street and construction should be complete by the end of November 2009. The presence of the jazz park strengthens the proposed cultural centre, which becomes a node in transition from the train and bus stations to the jazz park and housing proposed further south.





Locating Displacement

Fig6.10
 The analysis shows the historic fabric overlaid with the current fabric. This creates a better understand of displacement patterns. Prior to the implementation of apartheid policies, Marabastad had a functional square which sufficiently served the community, the community having both physical and visual links with the Daasport ridge towards the north. Today Marabastad is fragmented and dislocated from Pretoria C.B.D. The Steenhoven spruit creates a boundary between the two.



Fig 6.11

The site forms a gateway as it is on the entrance into Marabastad along Bloed Street. There is no formal gathering node so people gather in small clusters in different zones. This has led to partial thresholds which are non stimulated and lack the complexity to generate identity. There is lack of urban continuity from the C.B.D to Marabastad.

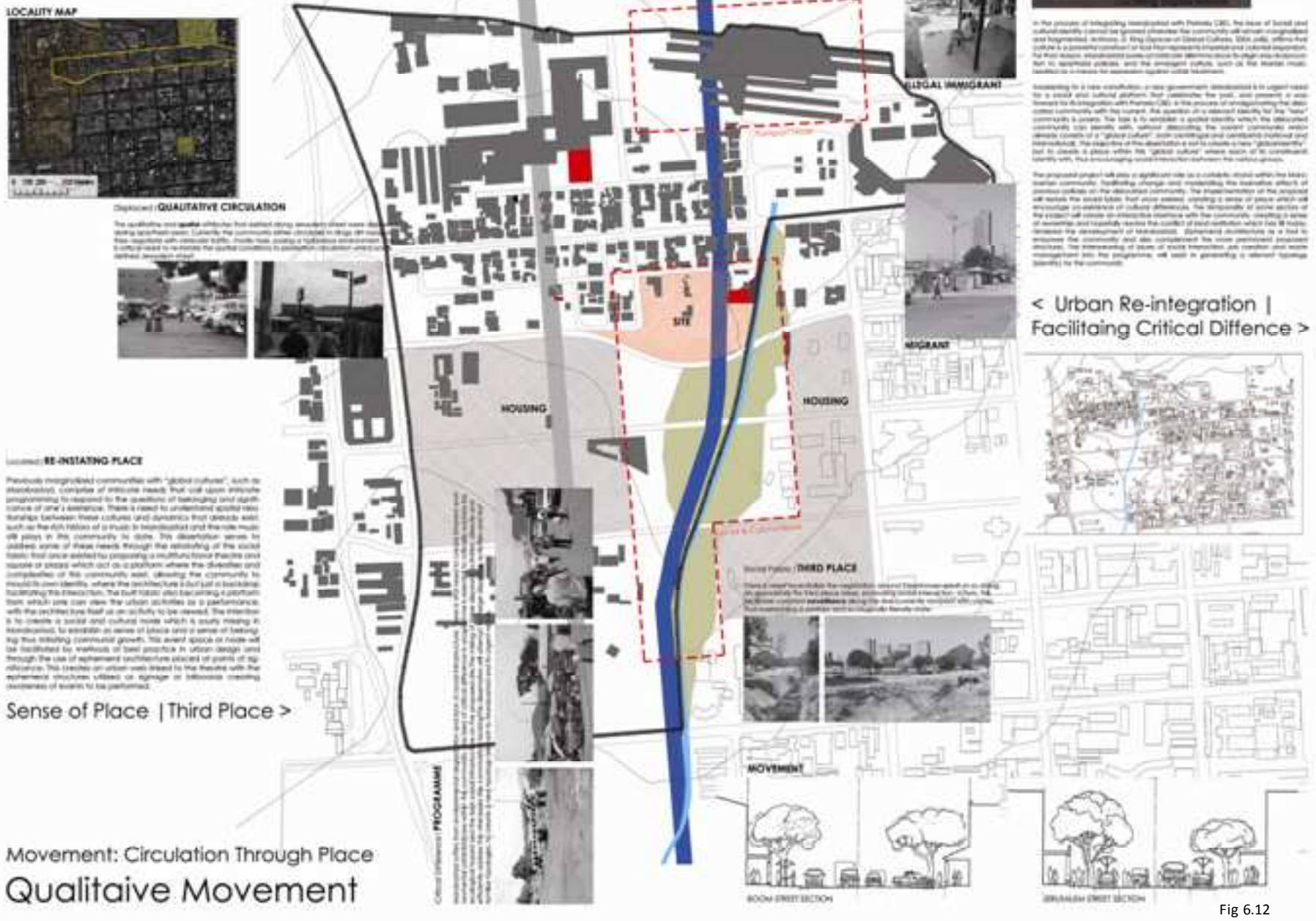


Fig 6.12

The qualitative and spatial attributes that existed along Jerusalem street were displaced during apartheid years. Currently the community either circulates in dingy dirt roads or they negotiate with vehicular traffic, mostly taxis, posing a risk to injury. There is critical need to reinstate the spatial conditions in pedestrian circulation, which once defined Jerusalem street. The blue line in the image above defines a possible route that both enhances the natural resources (Steenhoven spruit) and facilitates connectivity between the north and south, which is currently missing in Marabastad.



Informal Trading Nodes

Fig 6.15

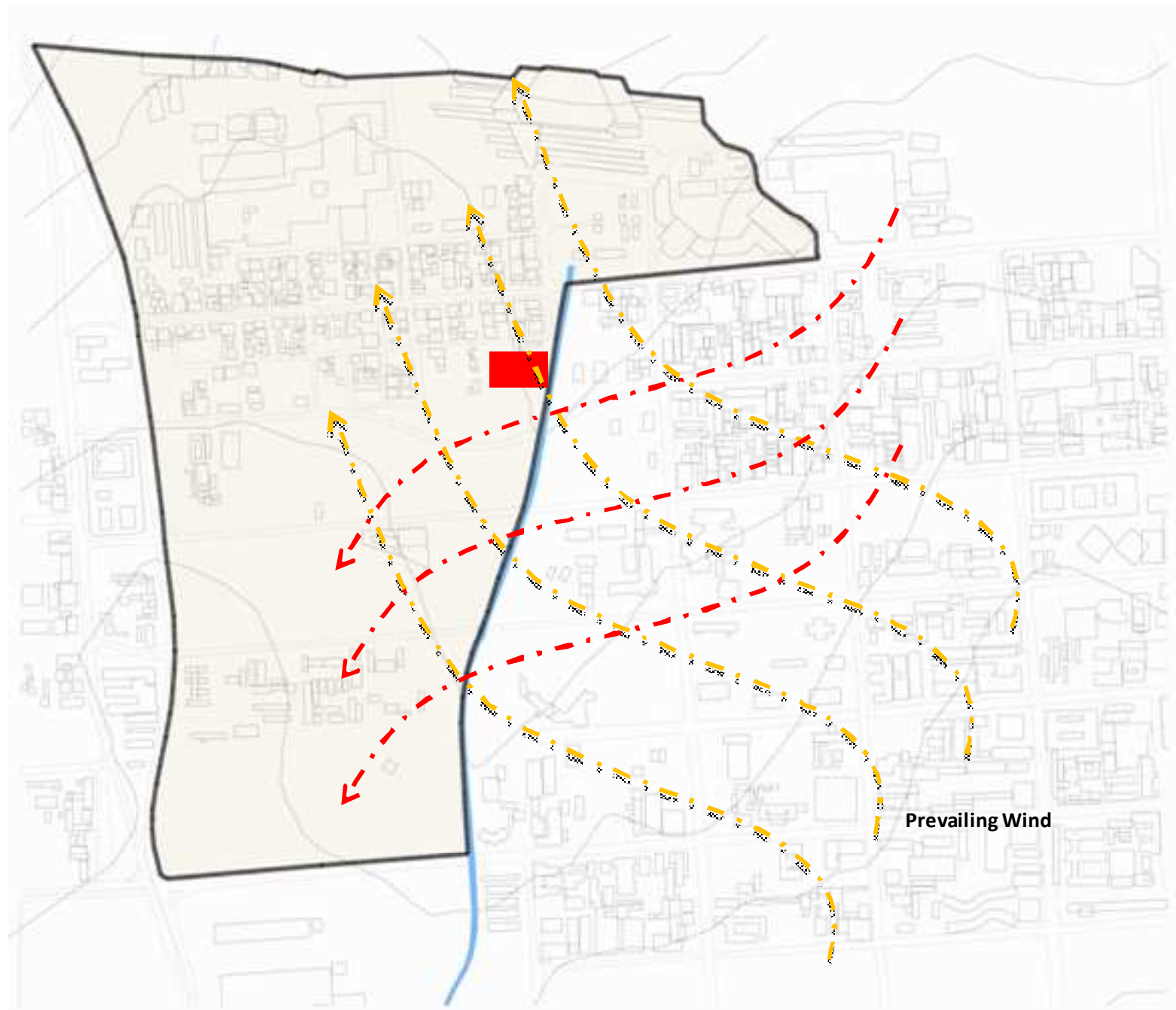


Fig 6.14

Informal Traders

The informal traders have insufficient space for growth so they encroach the pedestrian pavement, forcing the pedestrians to walk on the vehicular road. The traders shelter themselves with umbrellas, whilst using makeshift tables to display their products. Each trader has at least 15 litres water containers to collect water for cleaning and drinking.

Materials

- Profiled sheeting roofs Timber for stalls & fascia boards
- Plastered and painted brickwork Canvas for umbrellas

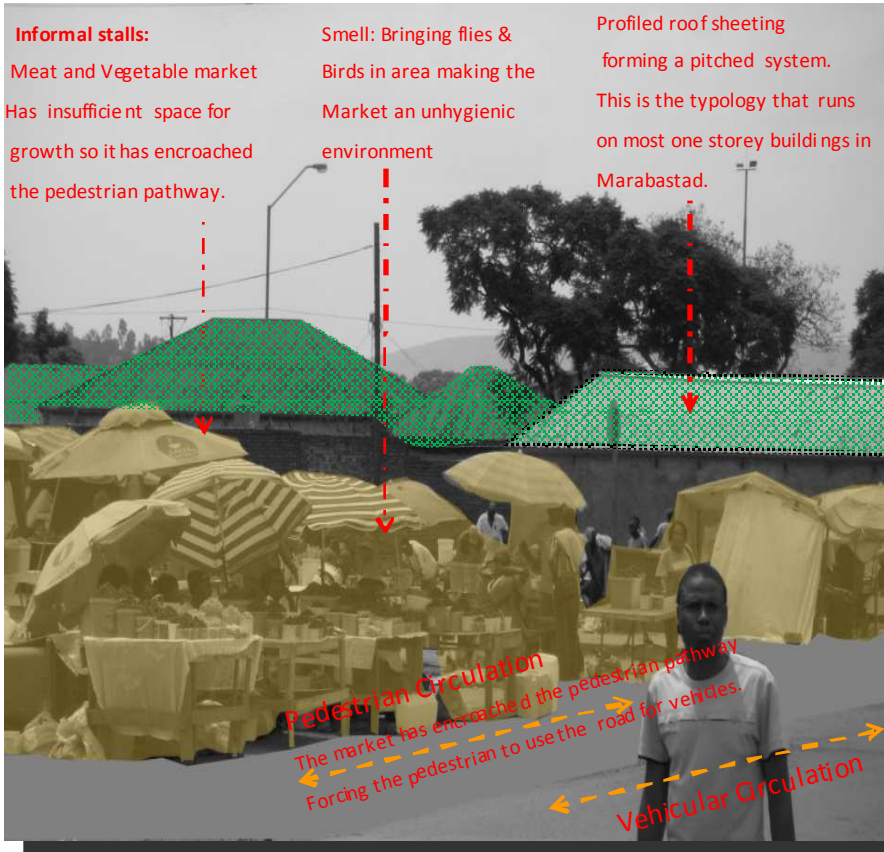


Fig 6.15

Routes

The study area has large open land parcels which are often utilized as dump sites. In some cases, these dump sites form part of the pedestrian routes. Informal traders always follow pedestrian circulations, so they wind up setting shop in the dump area (image below). This poses a health risk to not only the traders but to the consumers as well.

Materials

- Canvas for tent Plastics
- Face brick for building Rubber (tyres)



Fig 6.16

Scale

Marabastad has a height restriction of 3 storeys and most the buildings are dilapidated or underutilized. The C.B.D buildings are in excess of 5 storeys. This contrast or juxtaposition in scale can be enhanced to create a conscious awareness of the transition from Marabastad to the C.B.D.

The dilapidated buildings in Marabastad house the homeless and they also act as hide outs for criminals. The buildings need to be restored and utilized or demolished as a means of addressing crime in the area.

Traders' stalls

Traders' stall were installed too close to the electricity pylons, making them unusable. These stalls can be uprooted and relocated to a conducive and safer location in the area.

Materials

- Steel for the traders' stalls
- Profiled sheeting for the roof
- Plastered and painted brickwork for the walls

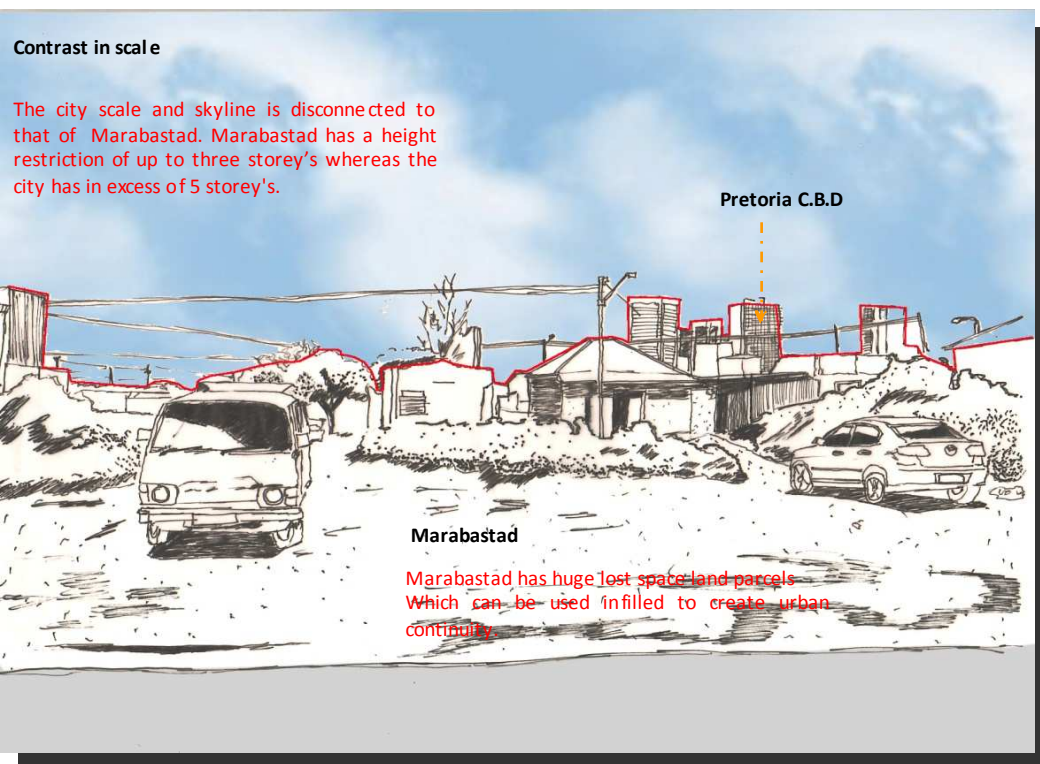


Fig 6.17

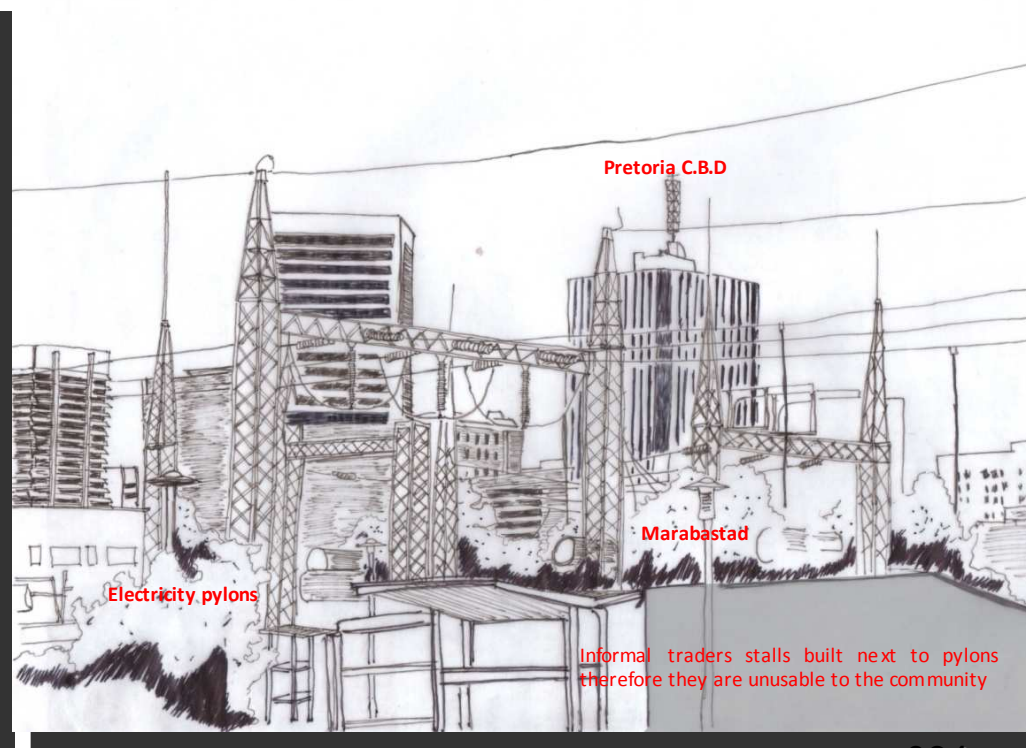


Fig 6.18

City as backdrop

The city forms a picturesque backdrop to the proposed site. The design proposal should utilize and enhance the views towards the city.

Vegetation

The Steenhoven spruit canal has large trees along its length. The proposed jogging trail in the framework should be integrated to the trees to offer shade and pleasure of use. Views from the site to the canal are emphasized as the canal will be a visual resource.

Daasport ridge

The Daasport ridge is one of the few natural resources in Marabastad. The design proposal emphasizes a visual link to the ridge. This creates an awareness that the community is a small part of a greater whole. It also creates appreciation of their natural resource and this is necessary for the preservation of the ridge.

Informal traders

The informal traders take up the pedestrian pavement and the obscure the entrances to the retail outlets.

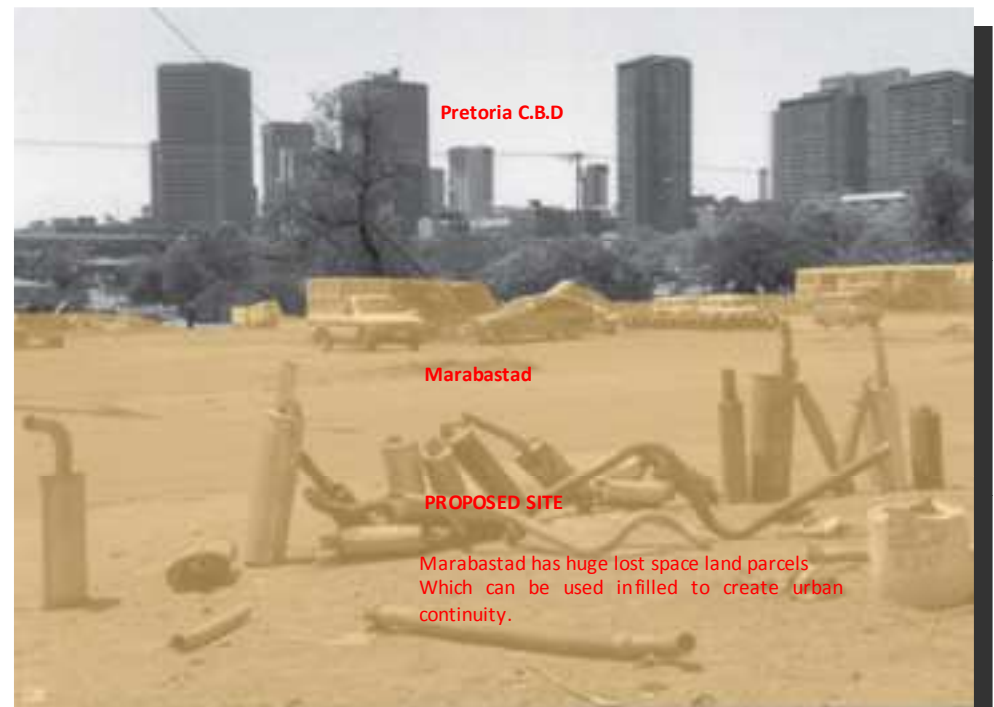


Fig 6.19

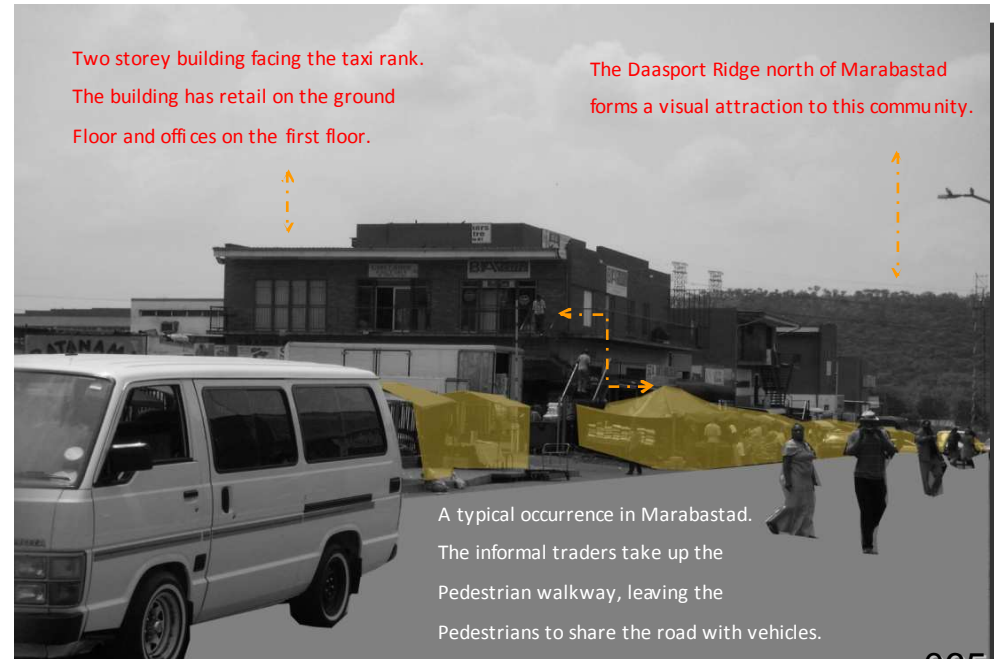


Fig 6.20

Informal Traders

The informal traders have taken up the bus stop station. This is a clear indication of the shortage of space and lack of definitive traders stalls in the area. The traders follow pedestrian routes, therefore, informal trading nodes should be setup along pedestrian routes.

The Maraba shopping centre forms a node which attracts visitors in the area.

Materials

- Profiled sheeting roofs Steel for the bus stop structures
- Plastered and painted brickwork Face brick for the walls



Fig 6.21

Hygiene

The traders in the image below setup shop in the proximity of a public toilet and waste collection zone. This poses a health hazard to the traders themselves, and to the consumers that buy from them.

Materials

- Canvas for tent Plastics
- Face brick for building Steel for signage



Fig 6.22

Materials

Marabastad has an assortment of materials used in building work. There is need to understand the materials in the area Canvas for umbrellas so as to design a building that is contextually relevant

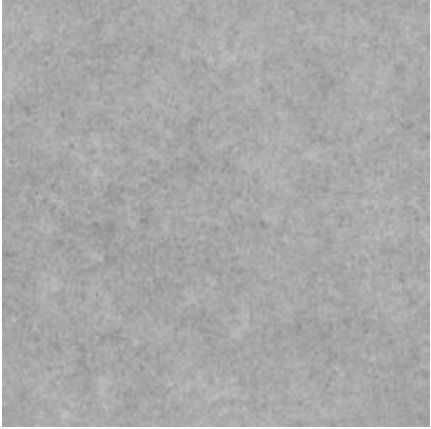


Fig 6.23 Concrete is used for structure and as building skin in the area

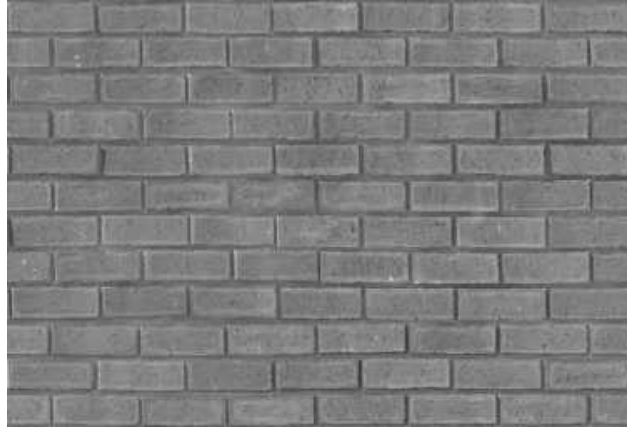


Fig 6.24 Face brick is used in the majority of the buildings

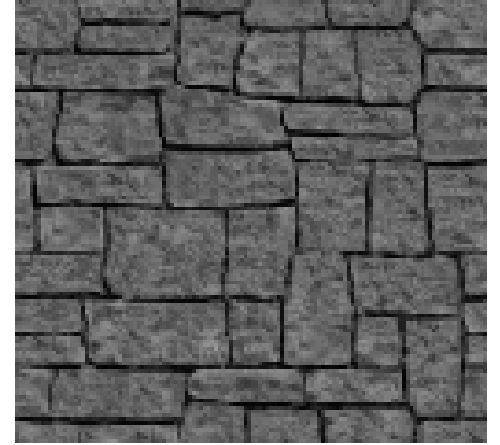


Fig 6.25 Stone is used along the Steenhoven spruit Banks to prevent erosion.



Fig 6.26 Profiled sheeting is used as a roofing material. It is also used as cladding for the traders stall

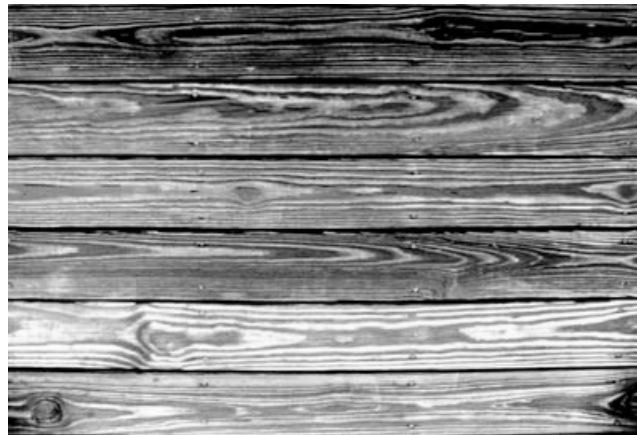


Fig 6.27 Timber is used for structure and cladding

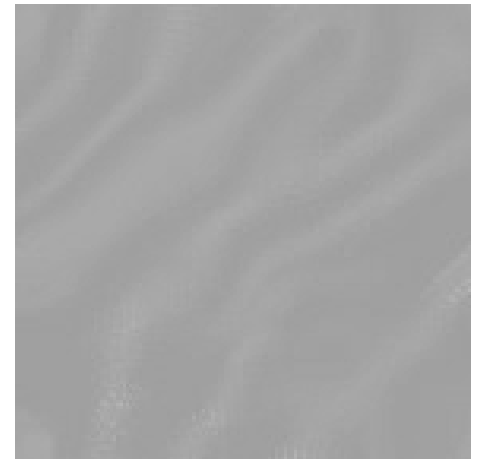


Fig 6.28 Glazing is used on the windows

07

CONCEPT DEVELOPMENT



7 CONCEPT DEVELOPMENT

7.1 Concept Review

The principles of enclosure and juxtaposition are carried through out the design proposal. These two principles address the fundamental need for a public platform which accommodates the diversities and complexities of the cultural and economic differences within Marabastad. The concept of juxtaposition defines the primary enclosed form and the materiality of the building fabric. The exterior skin of the enclosure reinforces and protects the block and street patterns of Marabastad's urban form. This facilitates legibility, cohesion with existing fabric whilst allowing for continuity in the streetscape and urban form.

The interior skin is organic in form to create a unique place with qualities and attributes that provide a rich and memorable experience. The use of an organic form in a rigid rectilinear context facilitates an identity and recognizable character to form this public realm. In addition, the use of diverse tectonic detail, and sensory stimulating colour and texture creates a sense of place and identity.

This enclosure becomes a significant node within Marabastad and the city of Pretoria. Spatial hierarchies and secondary nodes within the platform are utilized to prevent conflict whilst promoting multiplicity of activities and events at any given time. The social platform or enclosure forms a catalytic strand in supporting Marabastad's younger generations to bypass their marginalized colonial past and embrace not only their traditional heritage and culture, but also the "global culture" now existent in Marabastad.

Platform

The platform is subdivided into secondary nodes. This offers the user choices, whilst still having secondary participation in other nodes. The buildings have direct interface with the pedestrians.

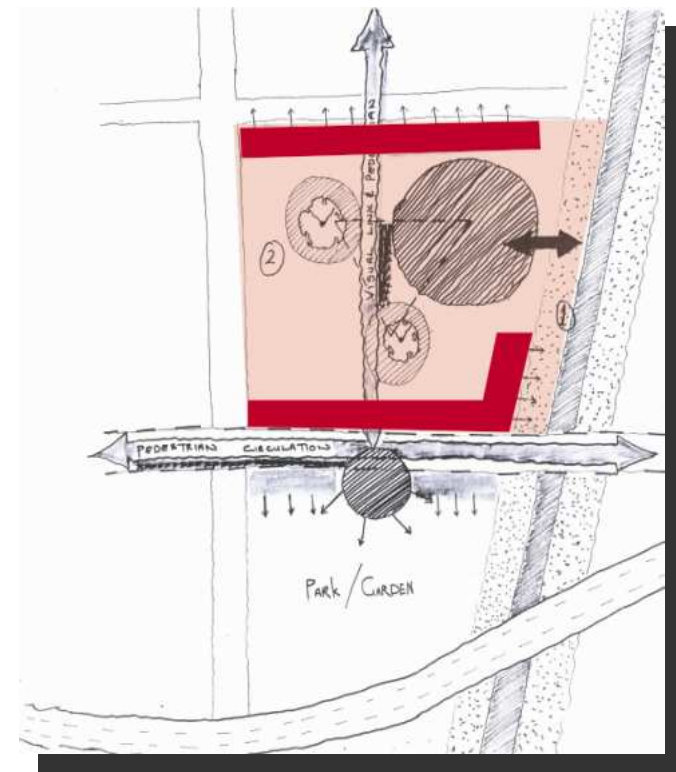


Fig 7.03

Circulation

The circulation determines the building forms

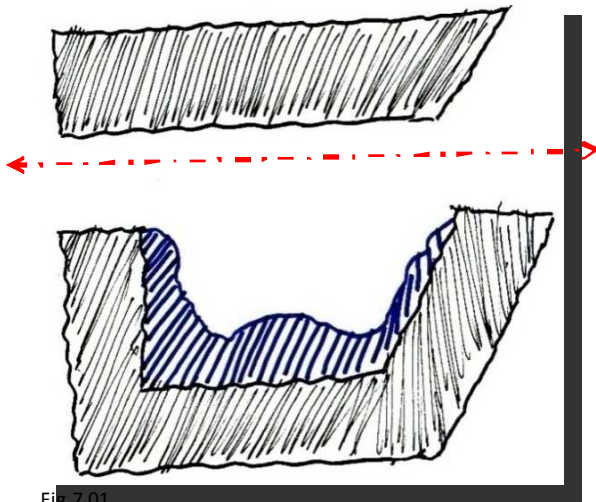


Fig 7.01

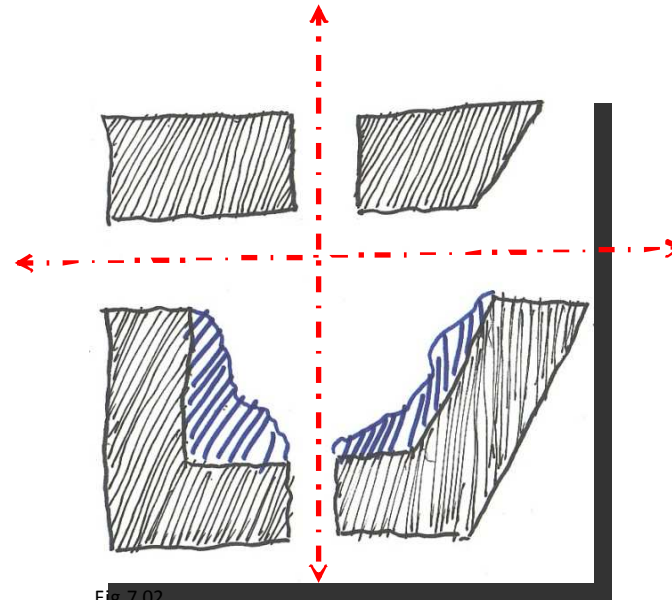
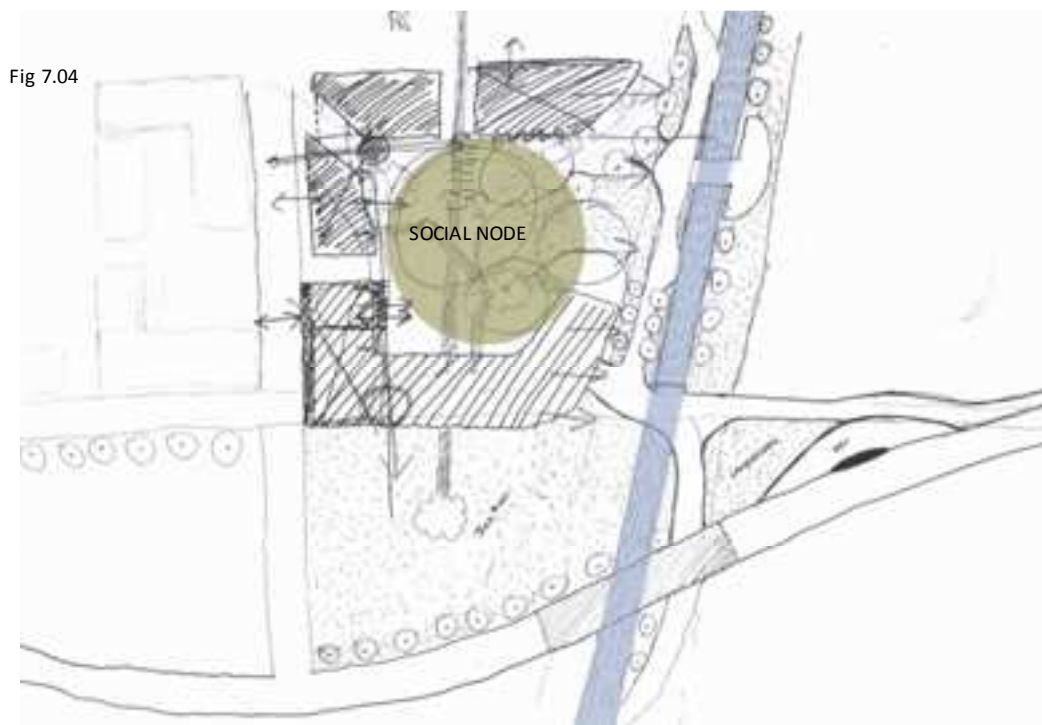


Fig 7.02

Enclosure

The concept was to create an enclosure where the community interacts. The enclosure opens up to allow views to the Steenhoven Spruit Canal and the Daasport ridge. This platform also has a direct link with the BRT station and the proposed skills centre.

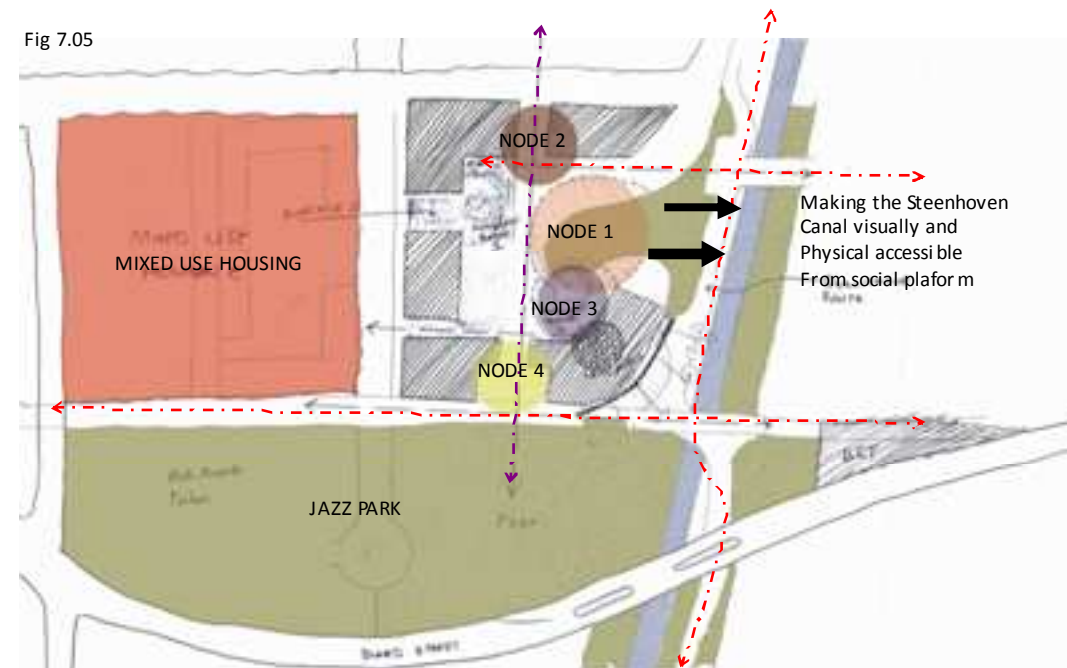
Fig 7.04



Mixed use

The platform has a variety of uses to cater for a large collective. These activities overlap and occur at different times of the day. This promotes security in the area. The people residing in the proposed mixed use and social housing in the area utilize the platform, keeping it vibrant and stimulating.

Fig 7.05



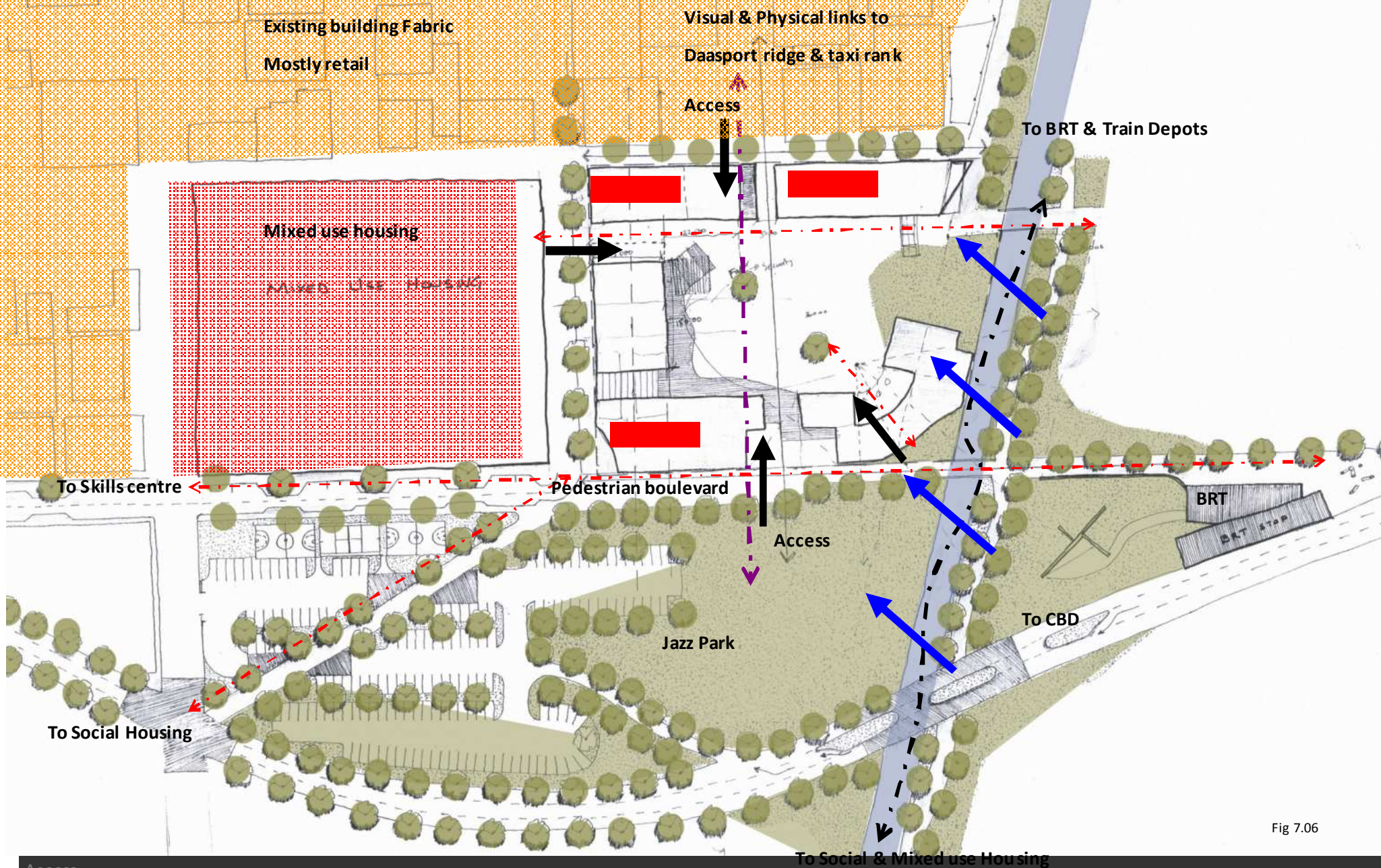


Fig 7.06

Access

The proposed layout allows easy access to the resources and opportunities in and around Marabastad. Movement on foot determines the primary scale of the development

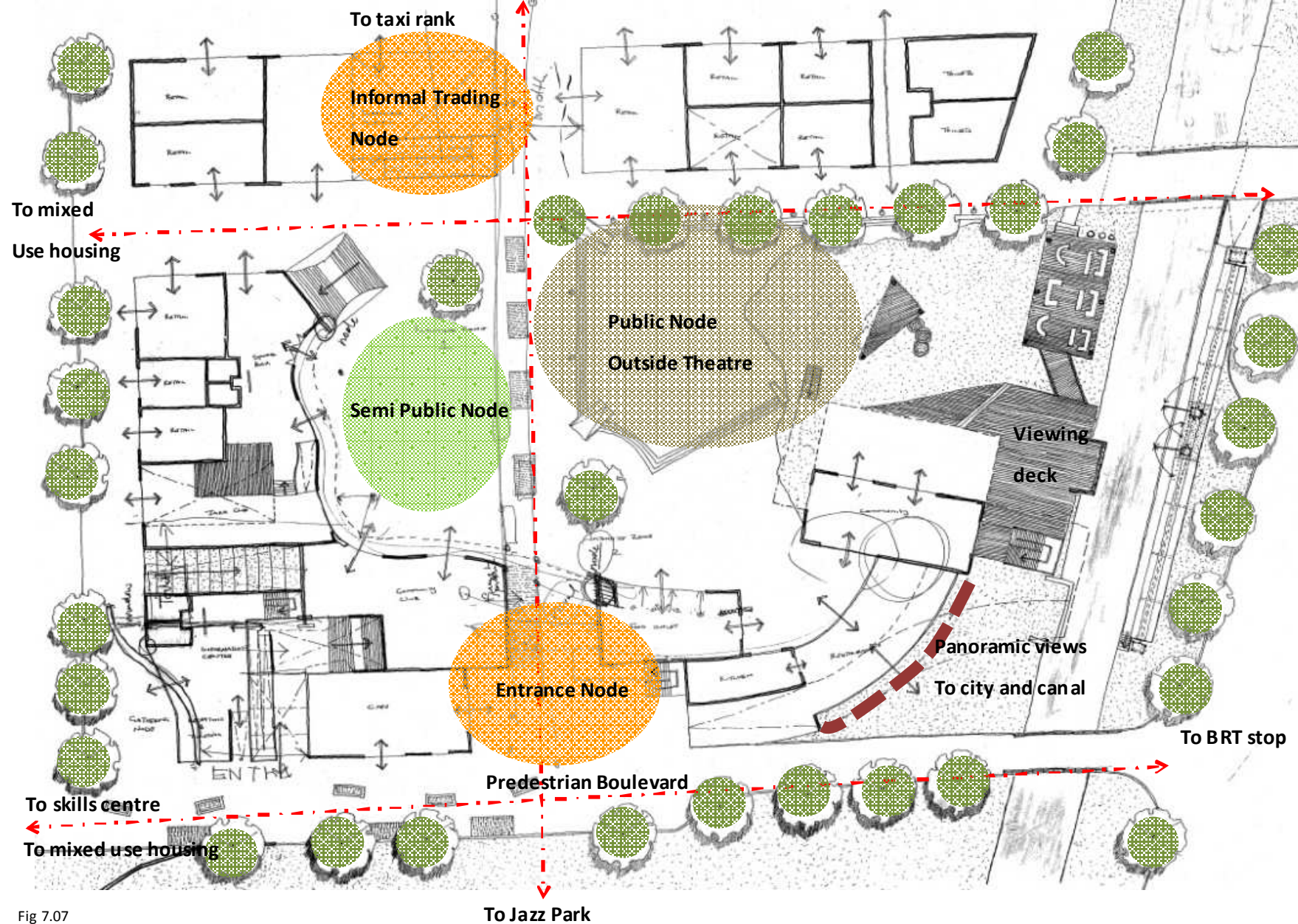


Fig 7.07
Individual Needs

The platform is a place where the community meets to interact and engage fruitfully. It addresses social, cultural, economic and sensory needs within the community. It is a stimulating environment that offers learning opportunities. The platform incorporates informal traders in facilitate use by the lowest common denominator.

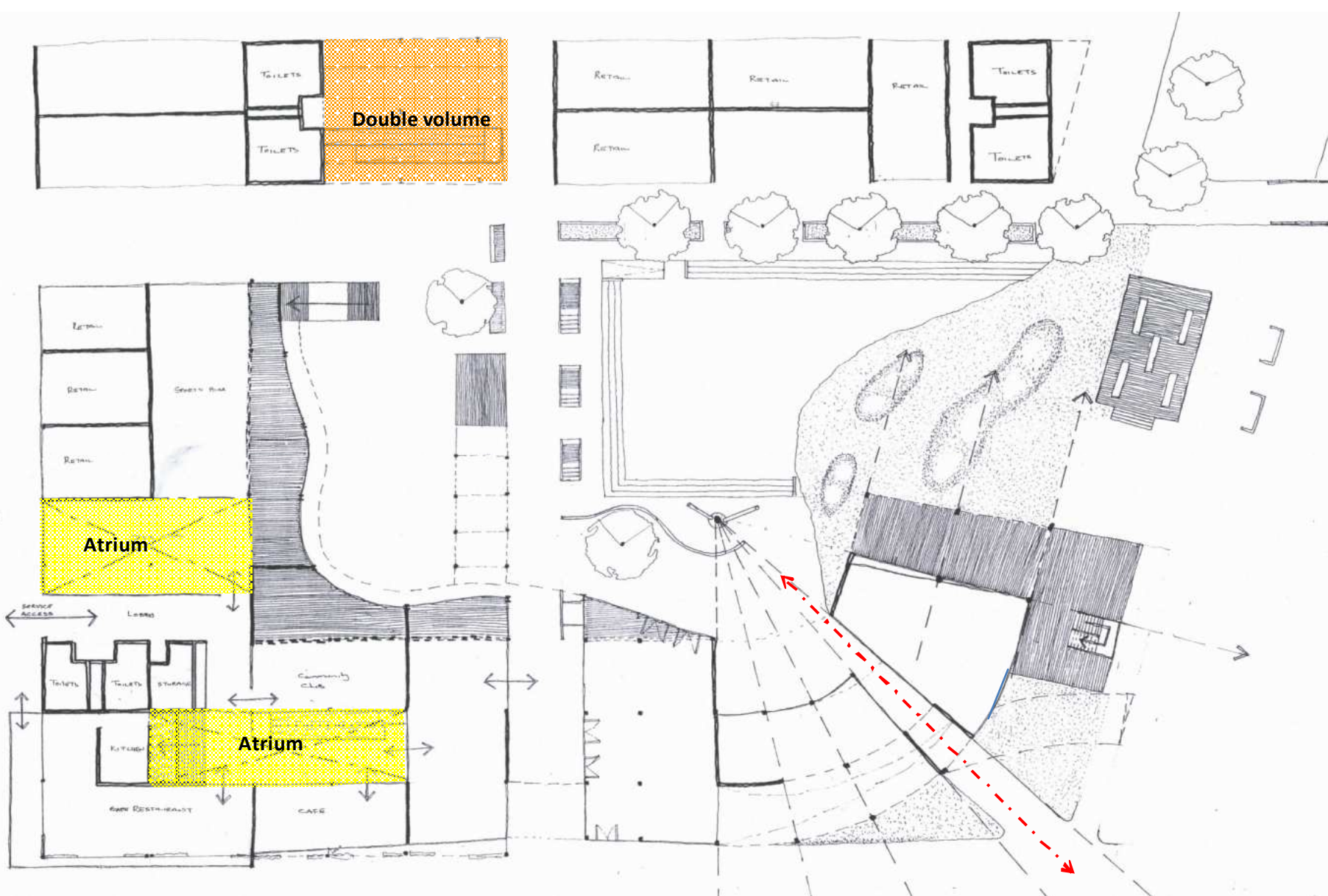


Fig 7.08

Solids and Voids

The buildings make use of double volumes and atriums to stimulate the human senses. The atriums also act as lightwells and ventilation chimney's.

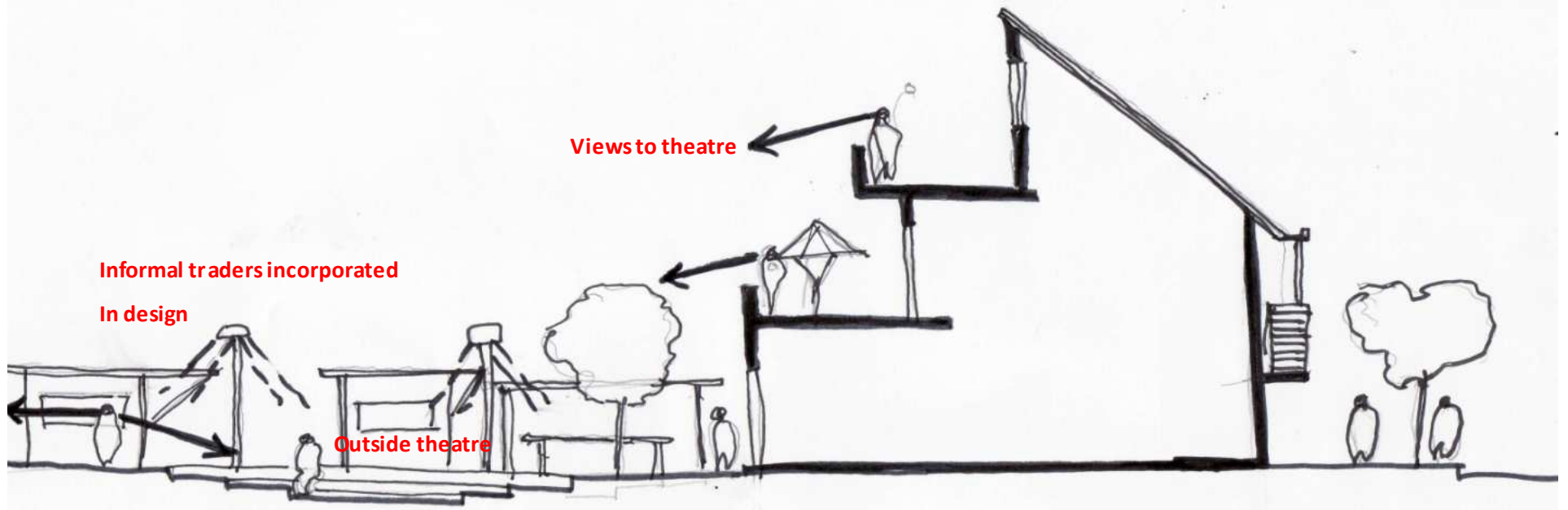


Fig 7.09

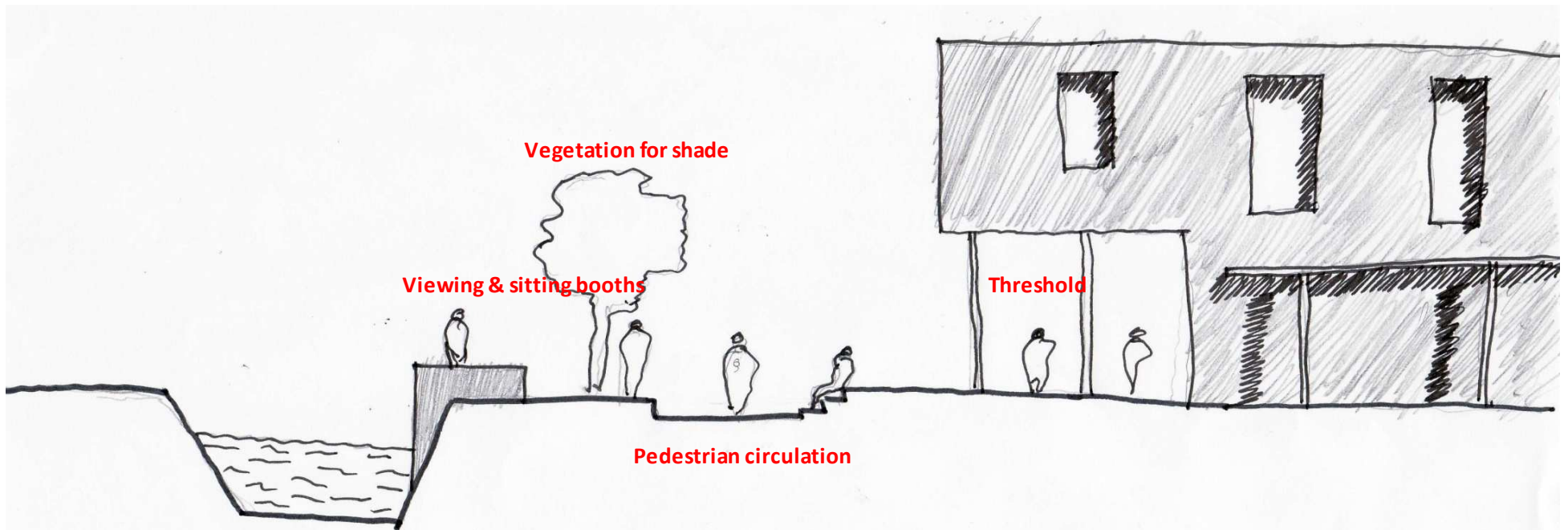


Fig 7.10

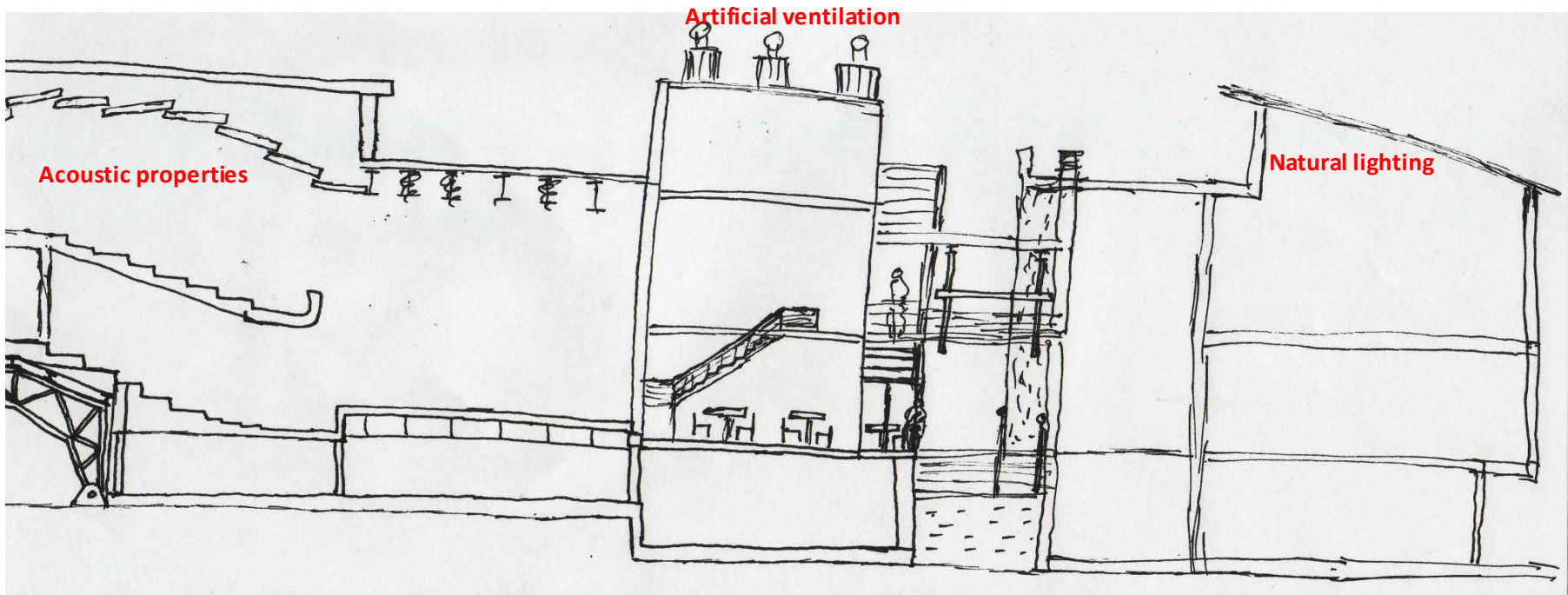


Fig 7.11

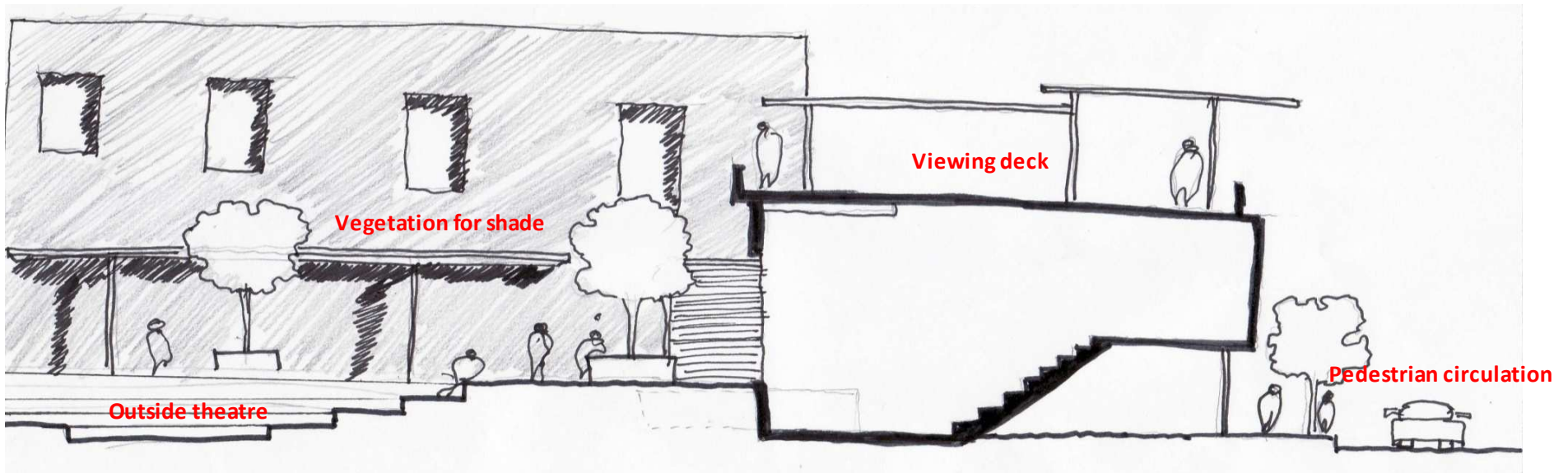


Fig 7.12

Pedestrian Boulevard

- Seating
- Shade
- Retail opens of street
- Informal traders
- Signage



Fig 7.10

Resuscitating the Steenhoven Spruit Canal

There is need to resuscitate the Steenhoven Spruit Canal into a safe and conducive environment for people. Currently, the Canal is considered an unsafe place because of the high levels of crime that occur in its proximity.

Option 1

Urban agriculture is a means to address this. The residents from the social housing are delegated land along the bank of the canal, so they can grow vegetable. This not only keeps the canal safe, but provides the community with a supply of cheap produce

The problems of erosion can be addressed by terracing.

Option 2

The areas along the canal are used for public gathering, sitting and relaxation. This preserves the canal, and the entire community benefits from this resource

The figure shows a pictorial view of the proposed development in context



Fig 7.11

Fig 7.12 The figure shows a pictorial view of the proposed development in context

Fig 7.13 Pictorial view of the proposed development

Fig 7.12

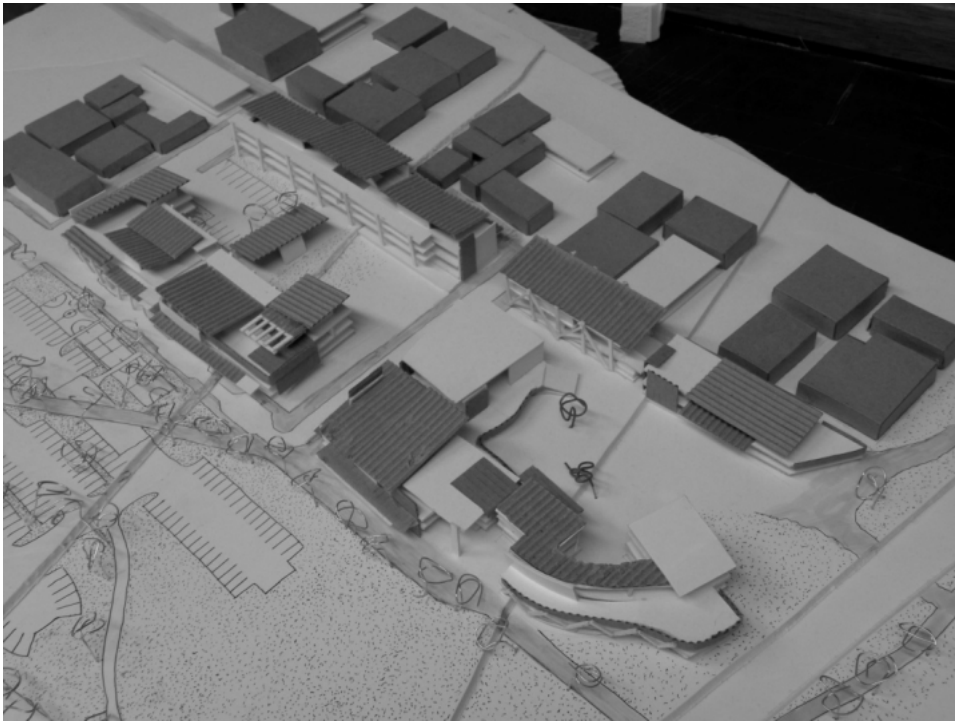


Fig 7.13

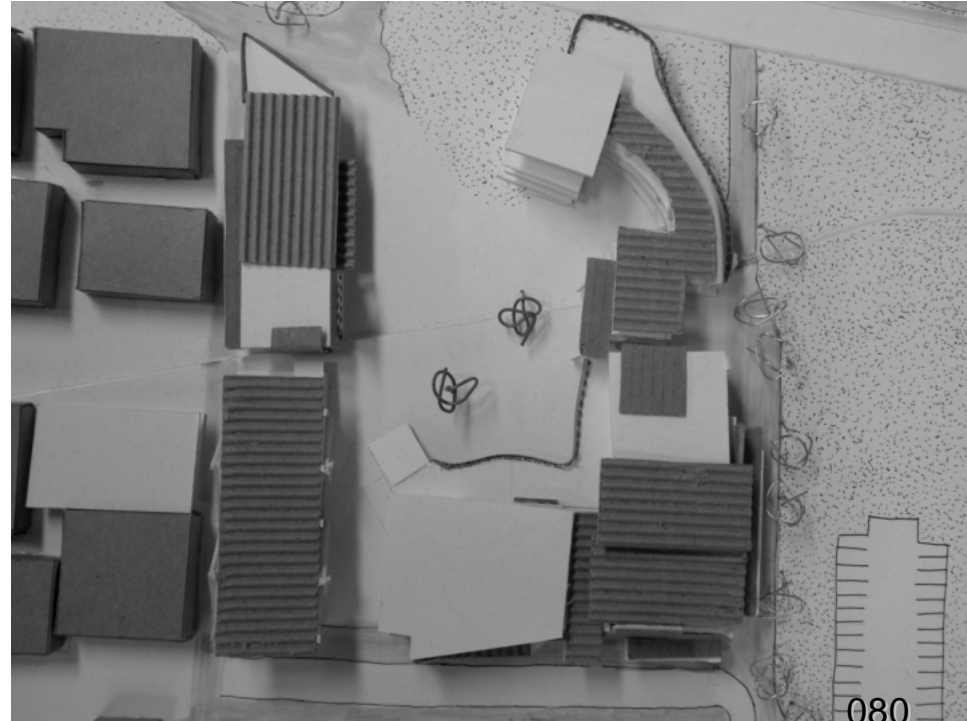




Fig 7.14 Image shows canopies to provide shade



Fig 7.15 S New development to match scale of existing

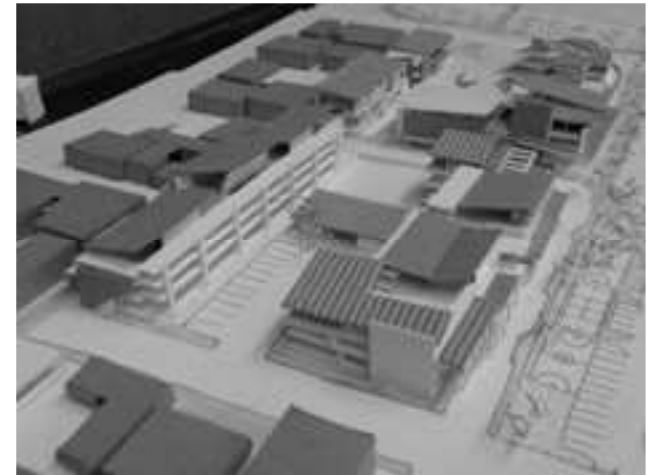


Fig 7.16 image illustrates rectilinear building typologies

Fig 7.17 The south east ern corner with a ramp incorporated into the design.

The ramp offers panoramic views towards the city and the canal.

Fig 7.18 The image shows the proposed mixed use housing component. The

buildings are of a simply typology, with flat roofs.

Fig 7.19 The informal traders node is open, allowing cross ventilation and

views all around the context

Fig 7.17

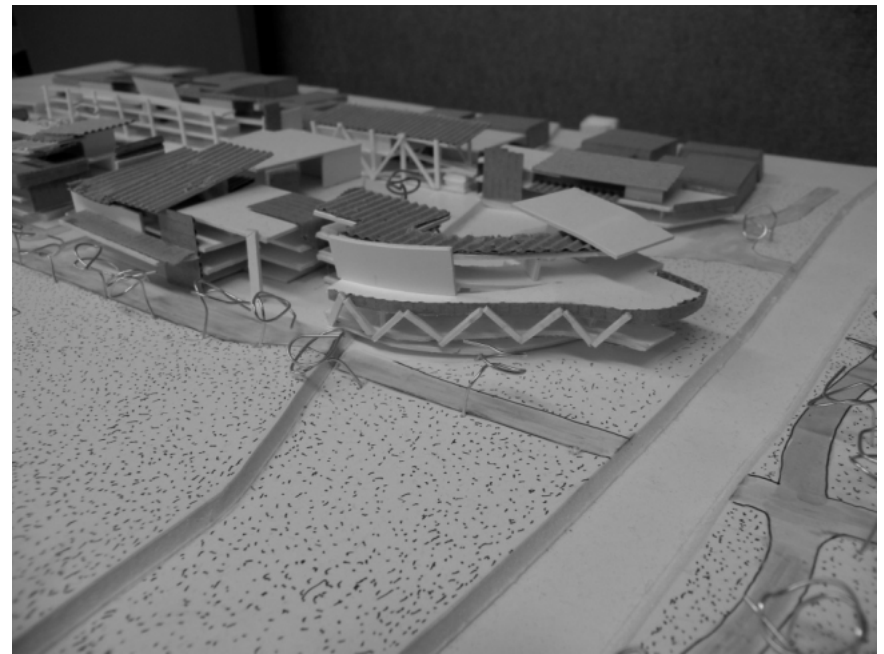


Fig 7.18

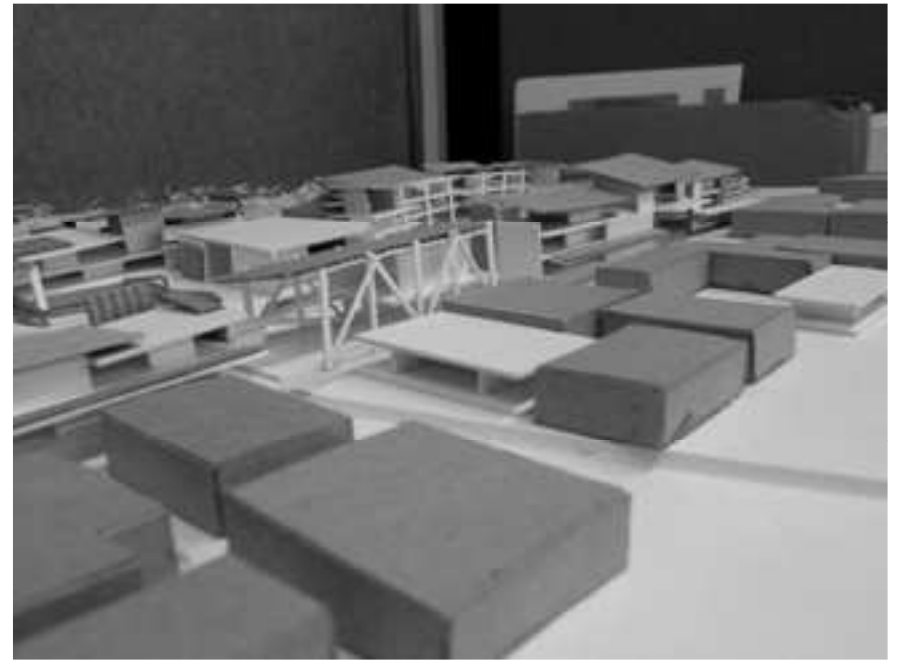
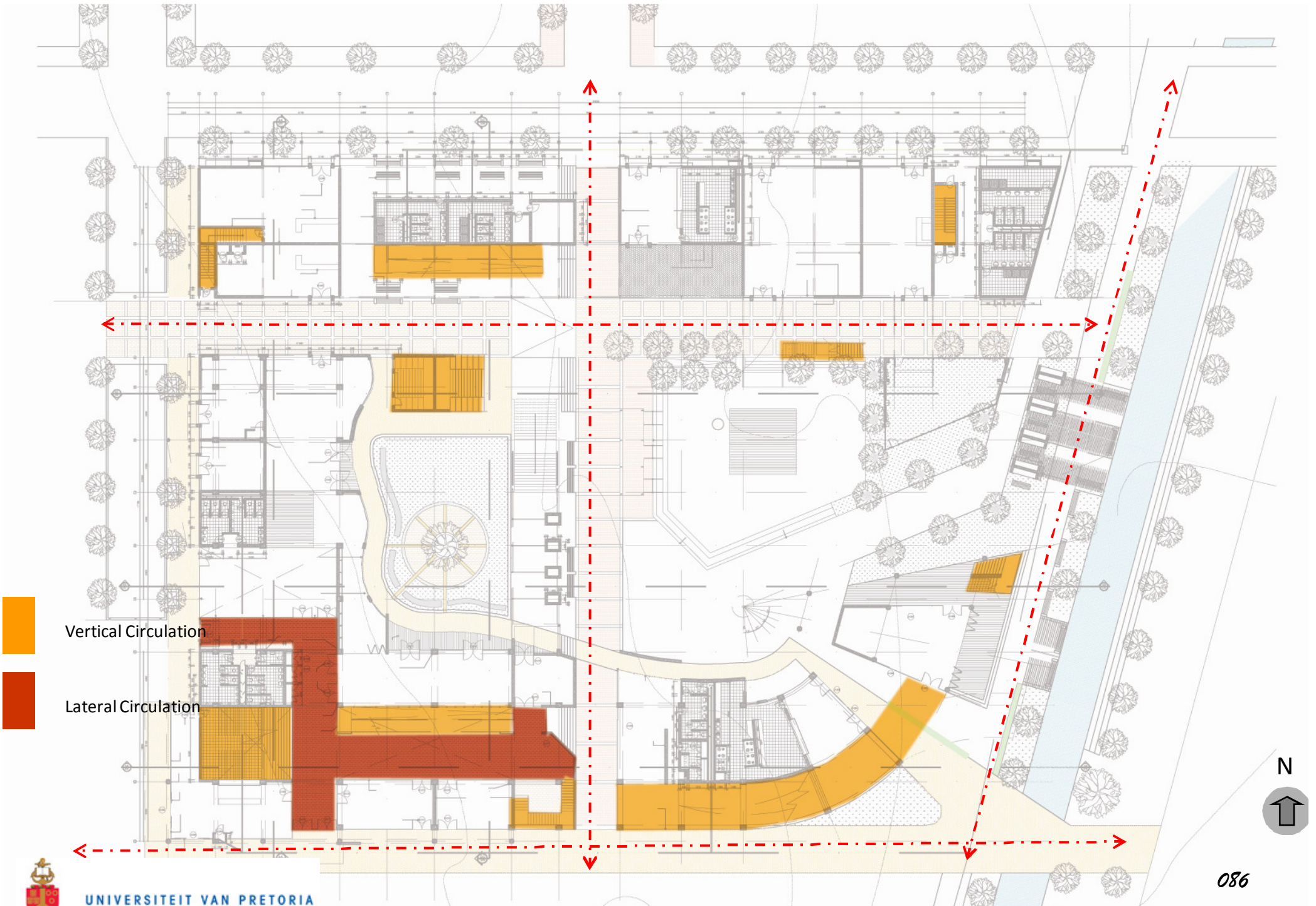


Fig 7.19

08

DESIGN DEVELOPMENT

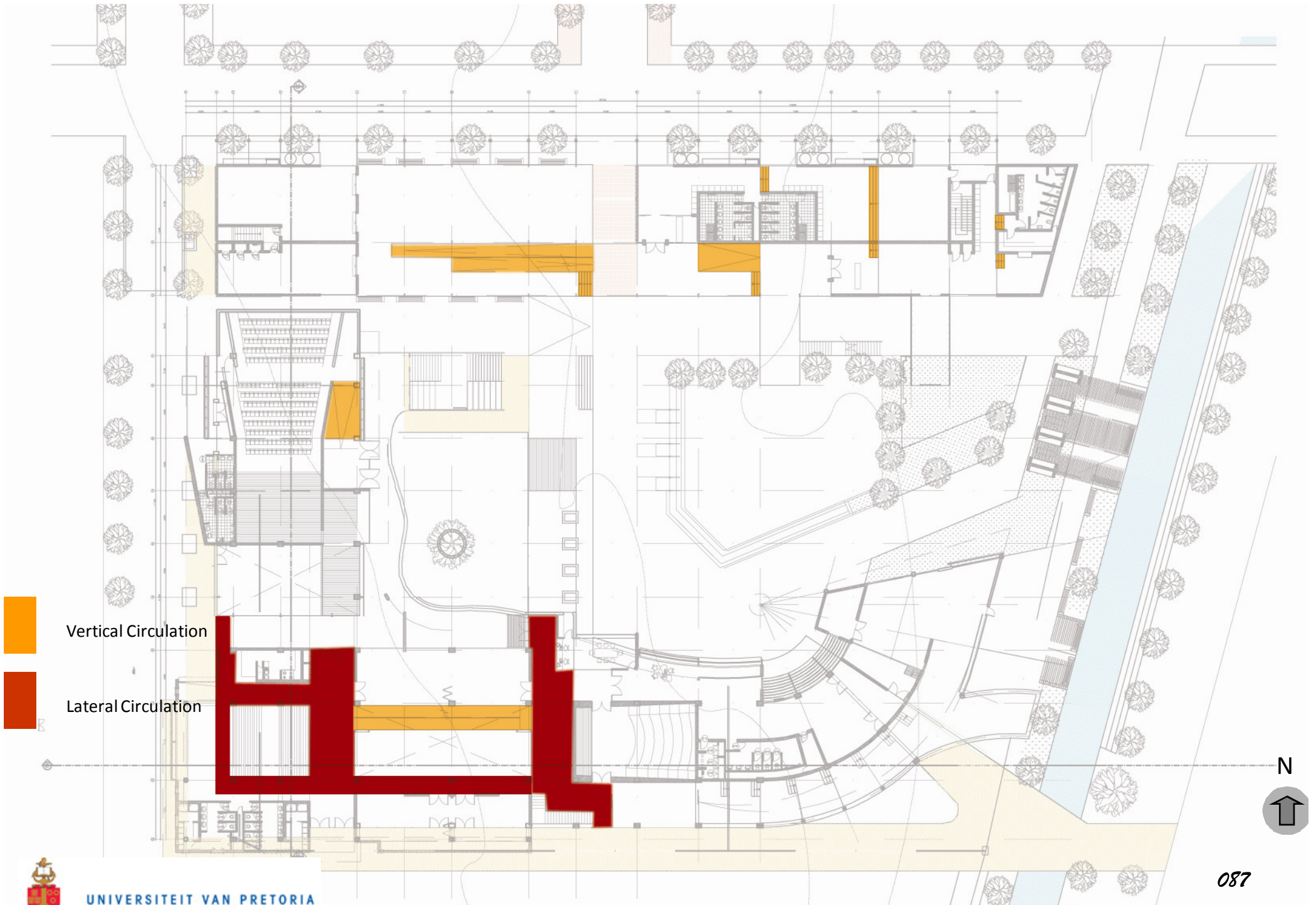




Vertical Circulation

Lateral Circulation



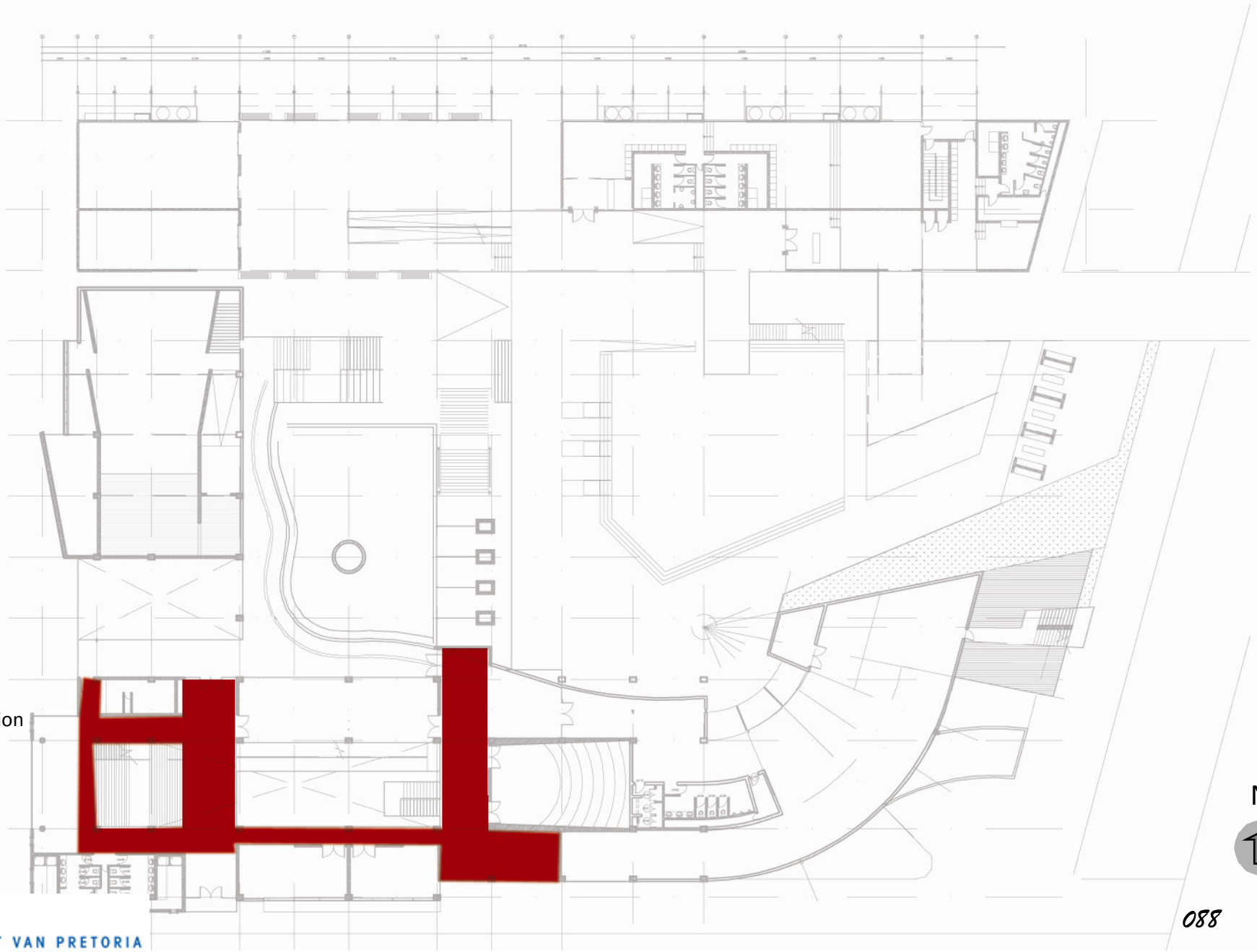


Vertical Circulation



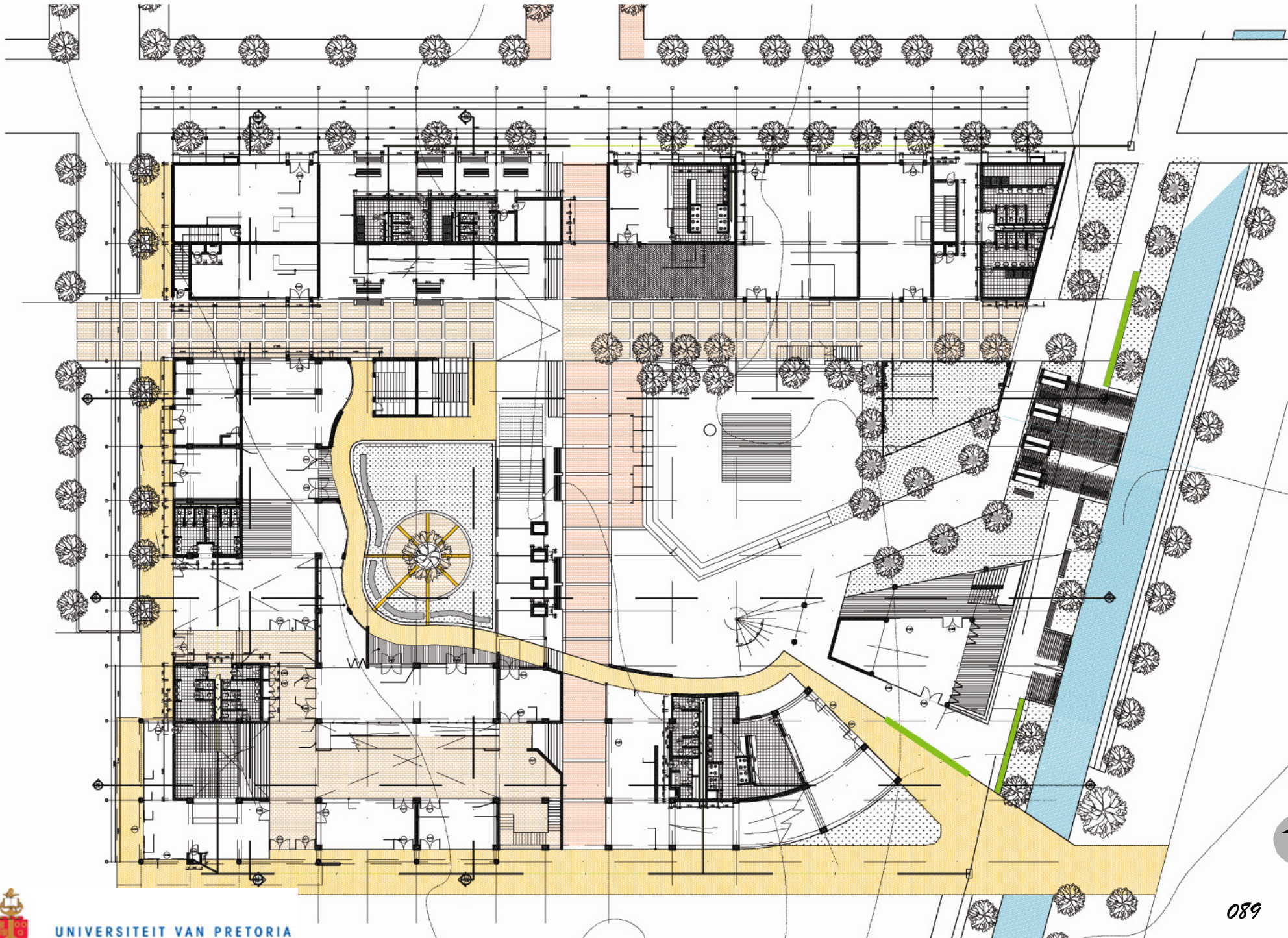
Lateral Circulation

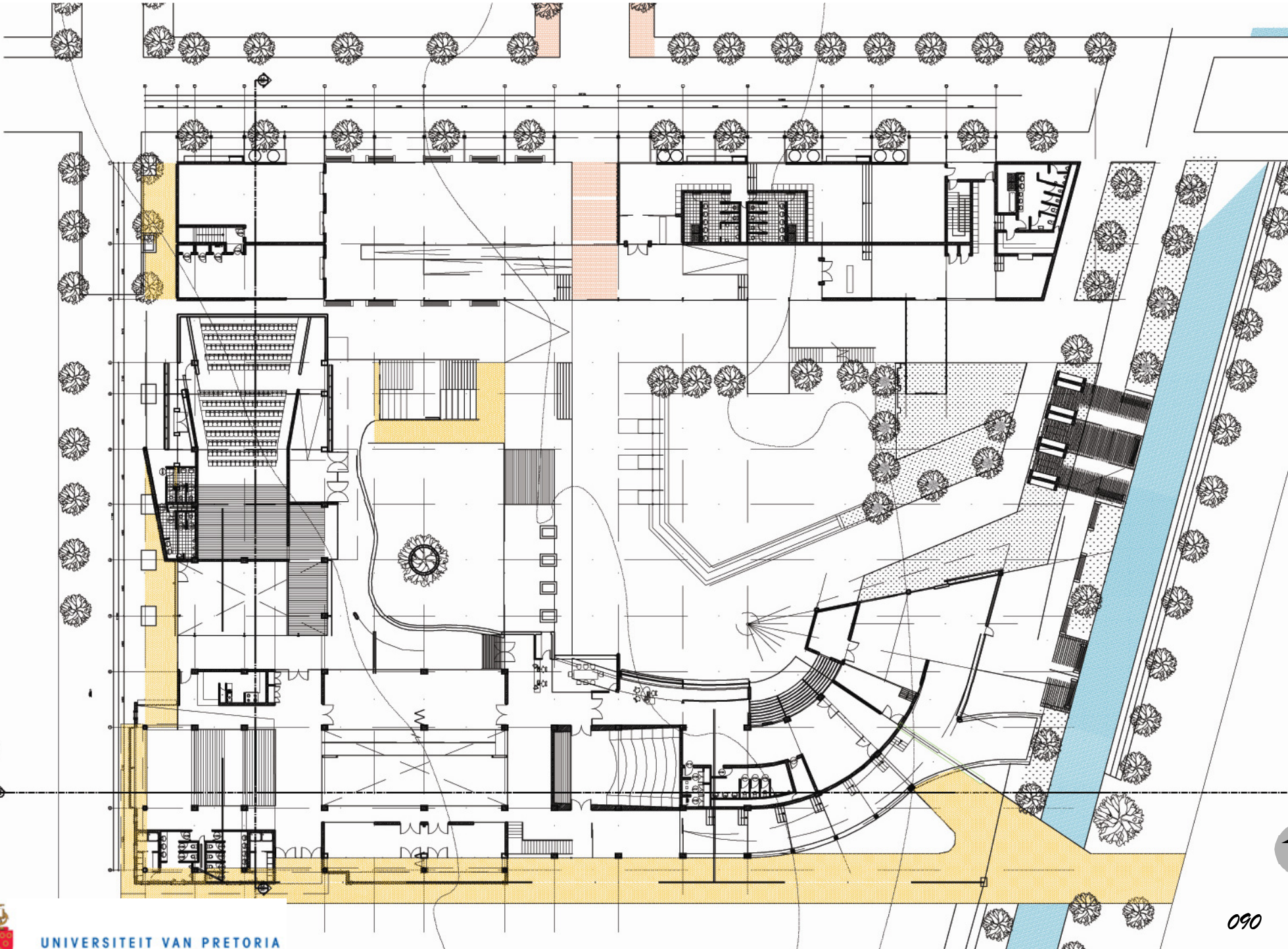


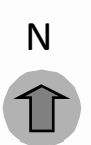
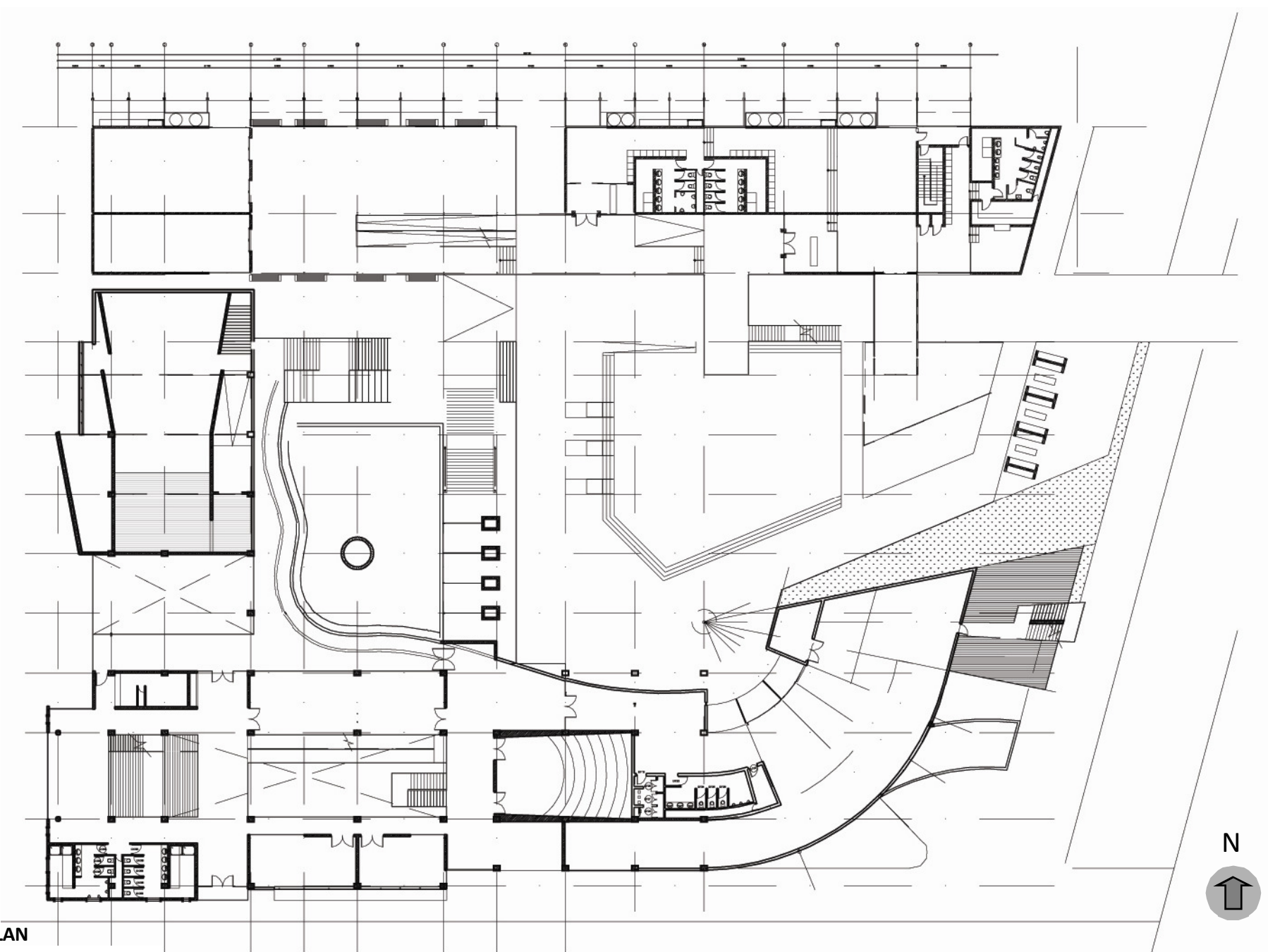


Lateral Circulation



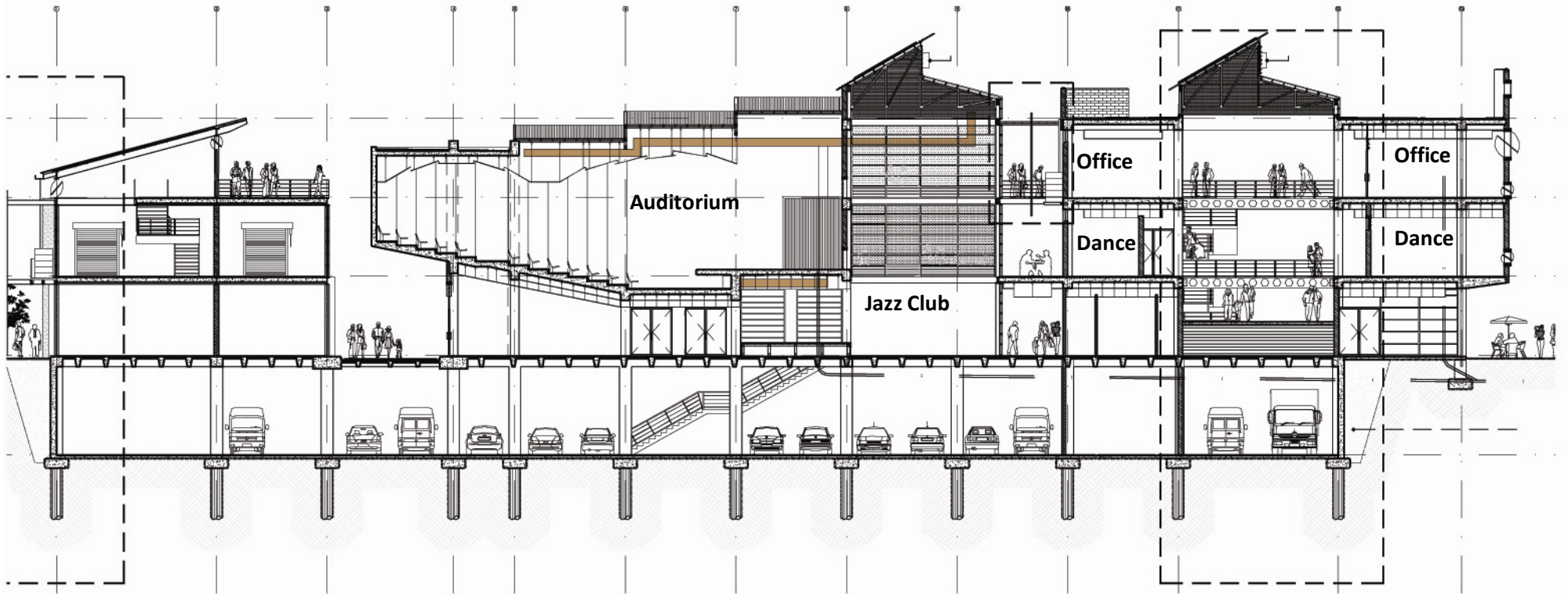






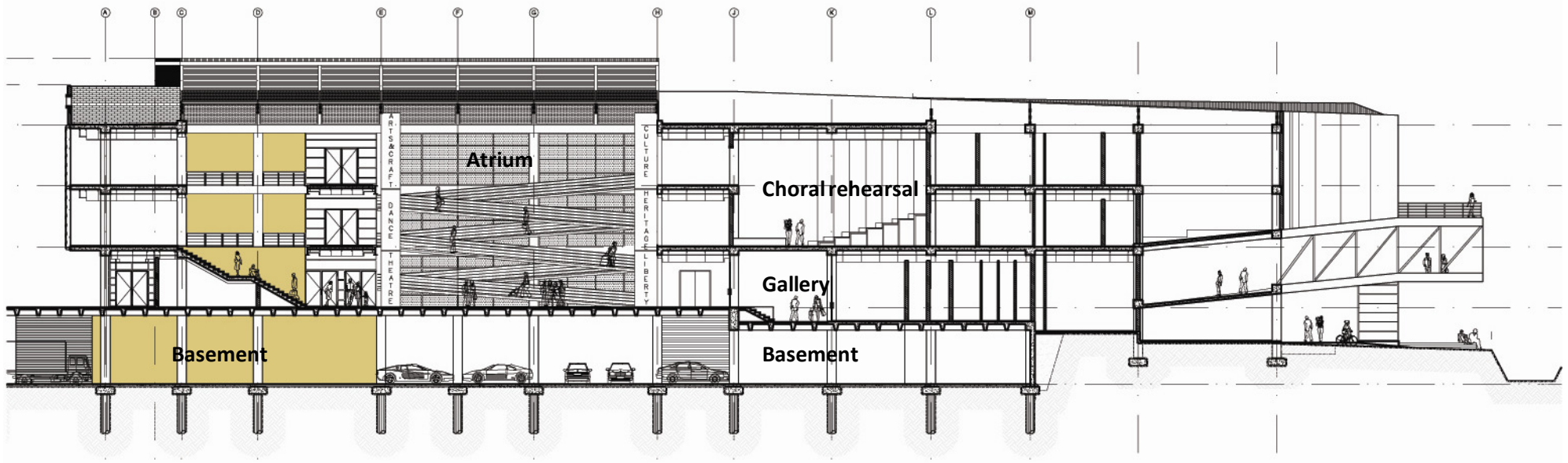
SECOND FLOOR PLAN





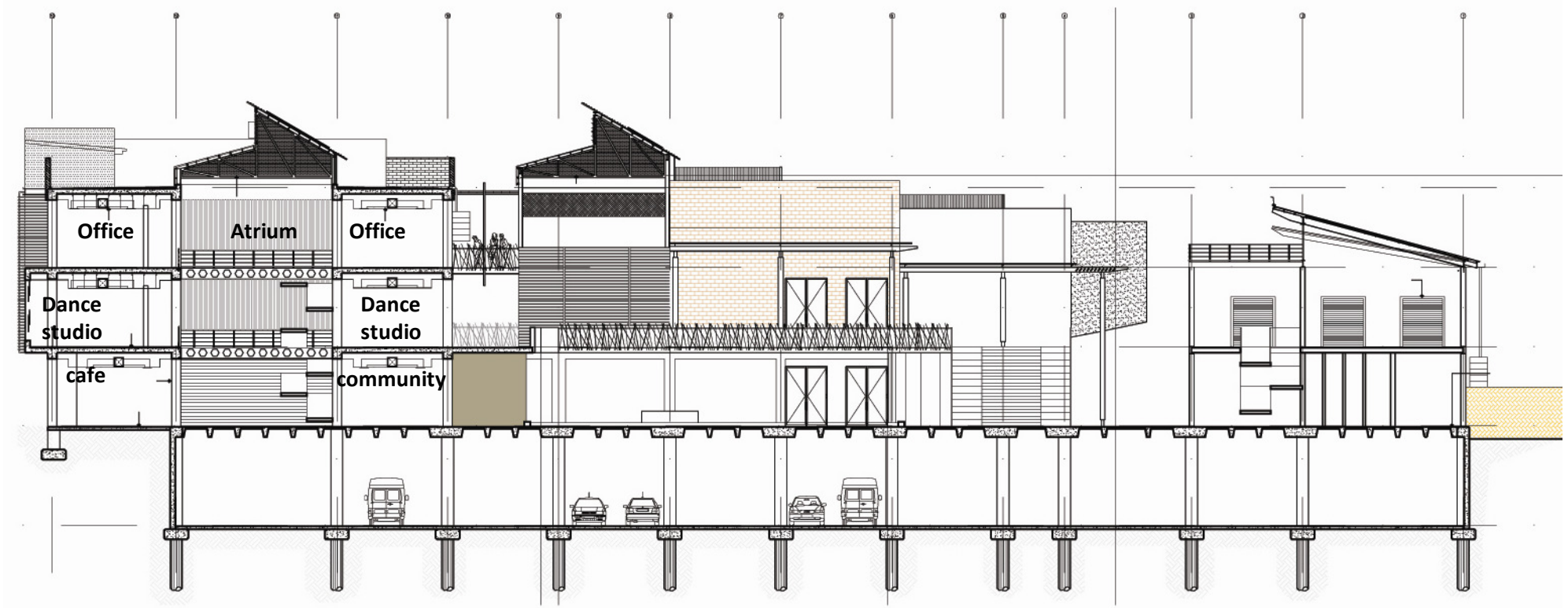
SECTION A-A





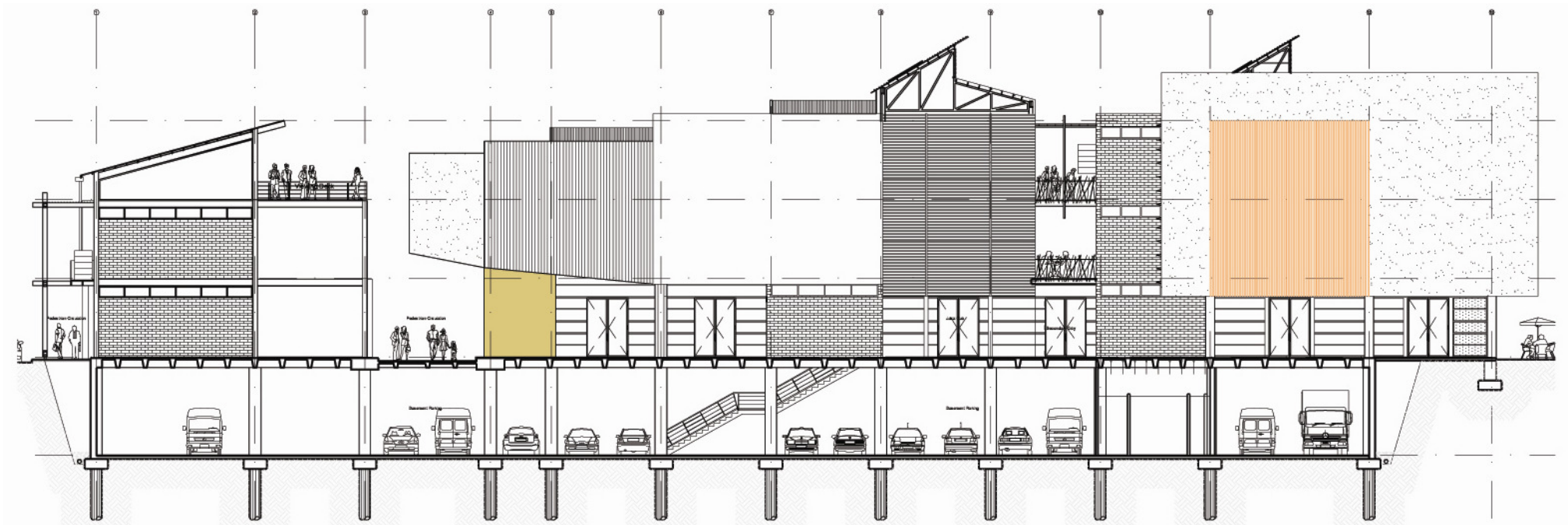
SECTION B-B





SECTION C-C

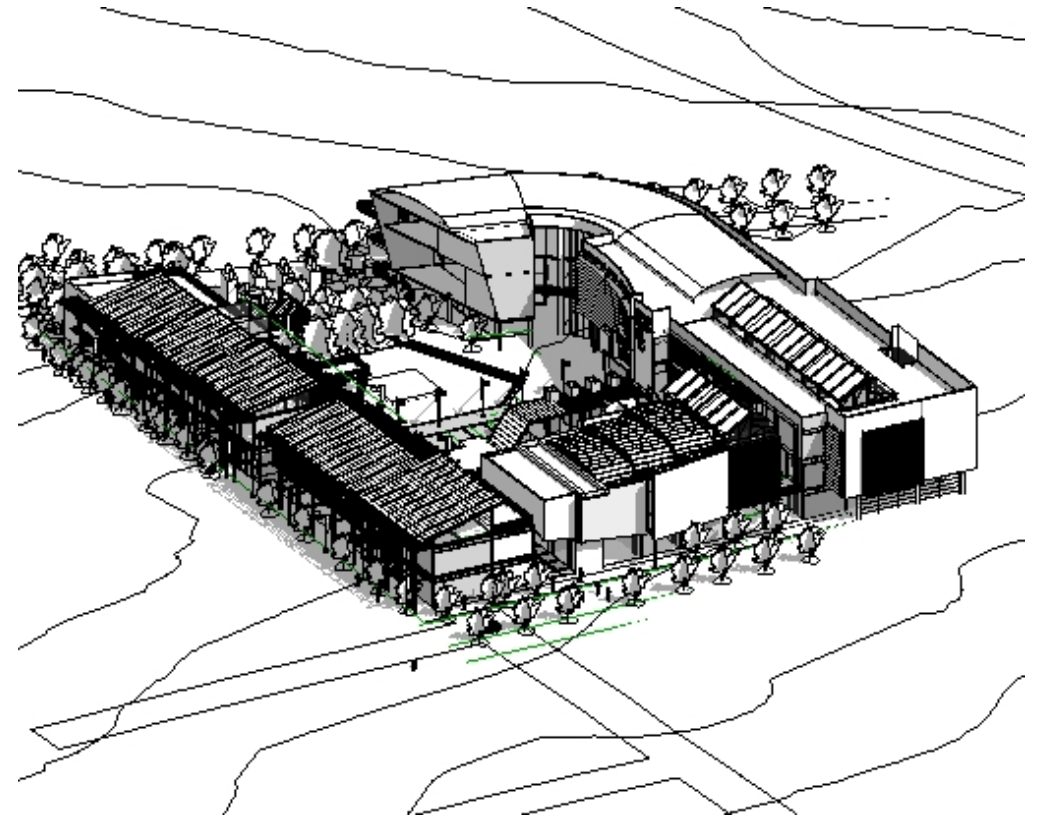
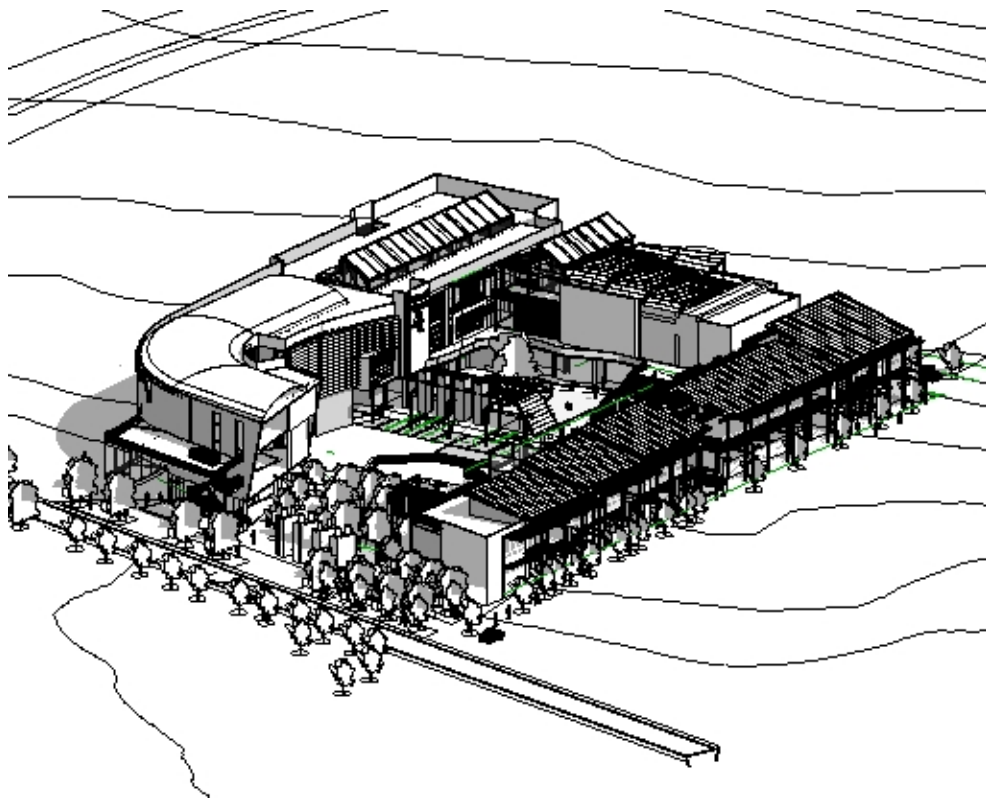


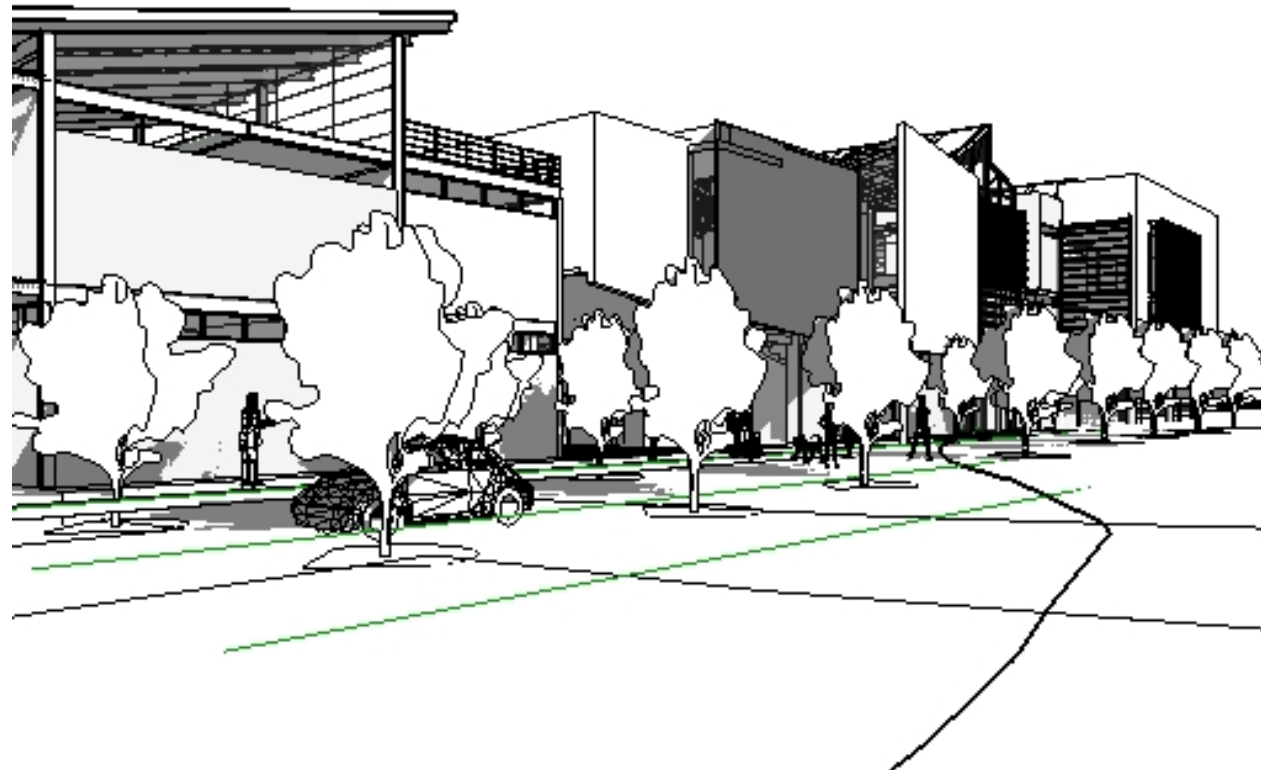
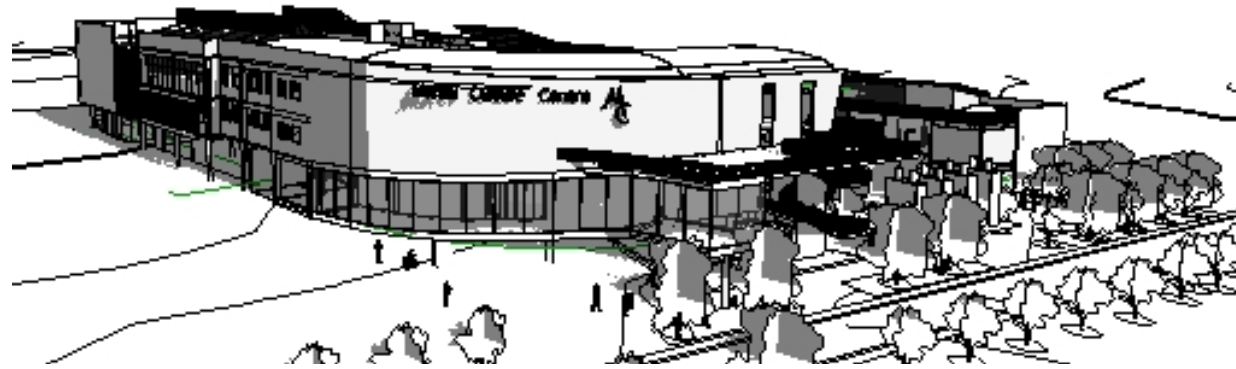


WEST ELEVATION



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHIYA PRETORIA





Internal courtyard

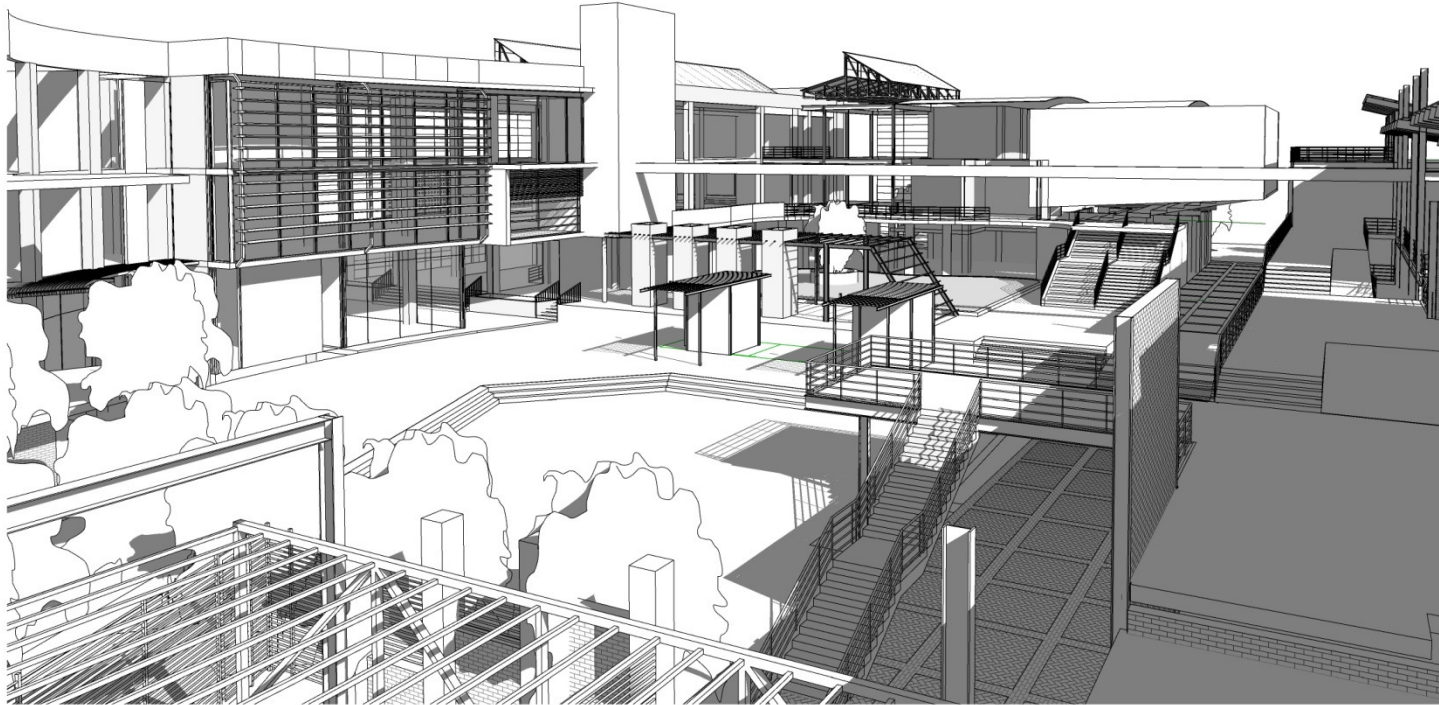


Fig 7.01 Image shows the interior platform

Retail component

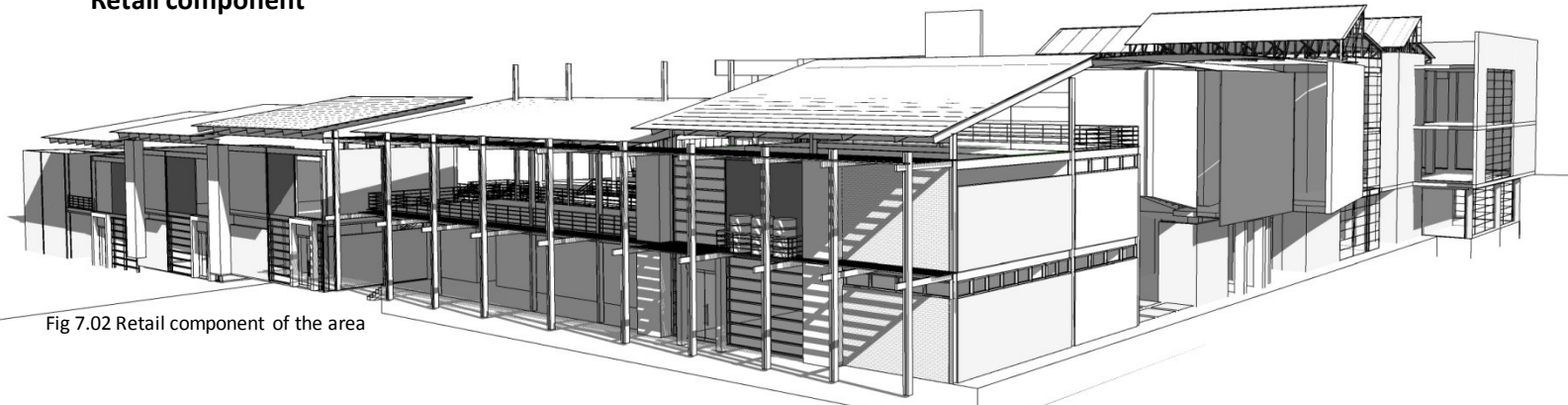


Fig 7.02 Retail component of the area

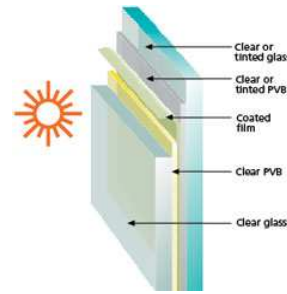
09

TECHNICAL REPORT



9.1 Material Selection

Glazing CoolVue



- Heat gain reduced by 50%
- Filters 99.5% UV Radiation
- Locally Manufactured

Roof material Rheinzink



- 90% recyclable
- Low Co2 Emissions in production
- No Toxic coating
- Natural material
- Low embodied energy

Polycarbonate Multiwall



- Energy efficient
- Filters 99.9% UV Radiation
- Locally Manufactured
- Heat gain reduced

Insulation Thermocoustex



- Energy efficient
- Acoustic and Thermal properties
- 100% recyclable
- Low embodied energy
- Locally Manufactured

Wall Material
Facebrick



- Manufacturing process creates jobs
- Locally Manufactured
- Long life cycle

Masonry construction
Recyclable Bricks



- Manufacturing process creates jobs
- Locally Manufactured
- Locally recycled

Wall Coating 1
Aqua Coat Paint



- No VOC Emissions
- Improved Thermal properties
- Non Toxic
- Manufactured Locally
- Resistant to weather

Wall Coating 1
In Situ Concrete



- Manufacturing process creates jobs
- Locally Manufactured
- Long life cycle
- Low embodied energy

Structure
Concrete



- Manufacturing process creates jobs
- Locally Manufactured
- Long life cycle
- Low embodied energy

Sunscreen
Recycled Sunscreen



- No VOC Emissions
- Improved Thermal properties
- Non Toxic
- Manufactured Locally
- Resistant to weather

9.2 Integrated building system

The building uses an integrated system in order to comply with sustainable design protocol. It uses structural, mechanical and electrical systems that integrate to facilitate sustainable use of energy, and minimize cost

Air

Natural cross ventilation

HVAC (Air supply and extraction)

Ventilation chimneys

Passive heating and cool

Thermal Mass

Thick solid walls on the west elevation

Auditorium utilizes these walls for acoustic purposes

Natural Lighting

Atrium to bring in light

Large spanning glazing

Sufficient shading on the north, east and west elevations

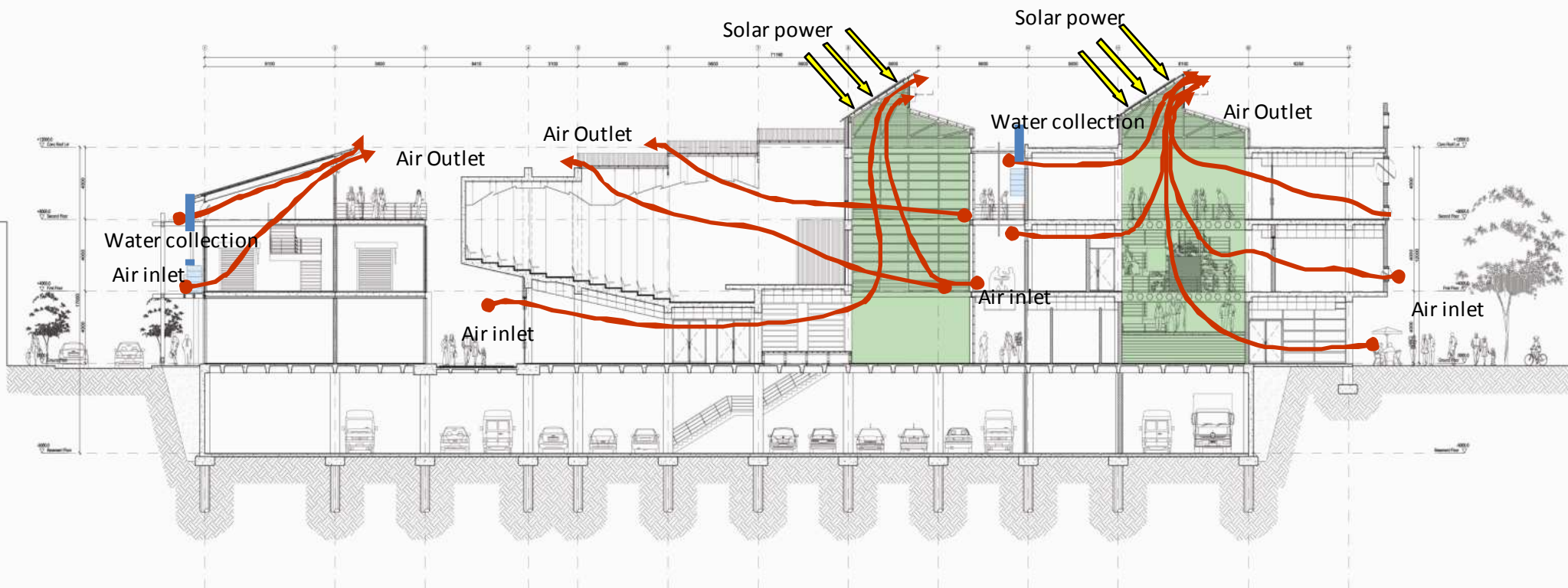
Light through roof defused

Water

Storm water Harvesting

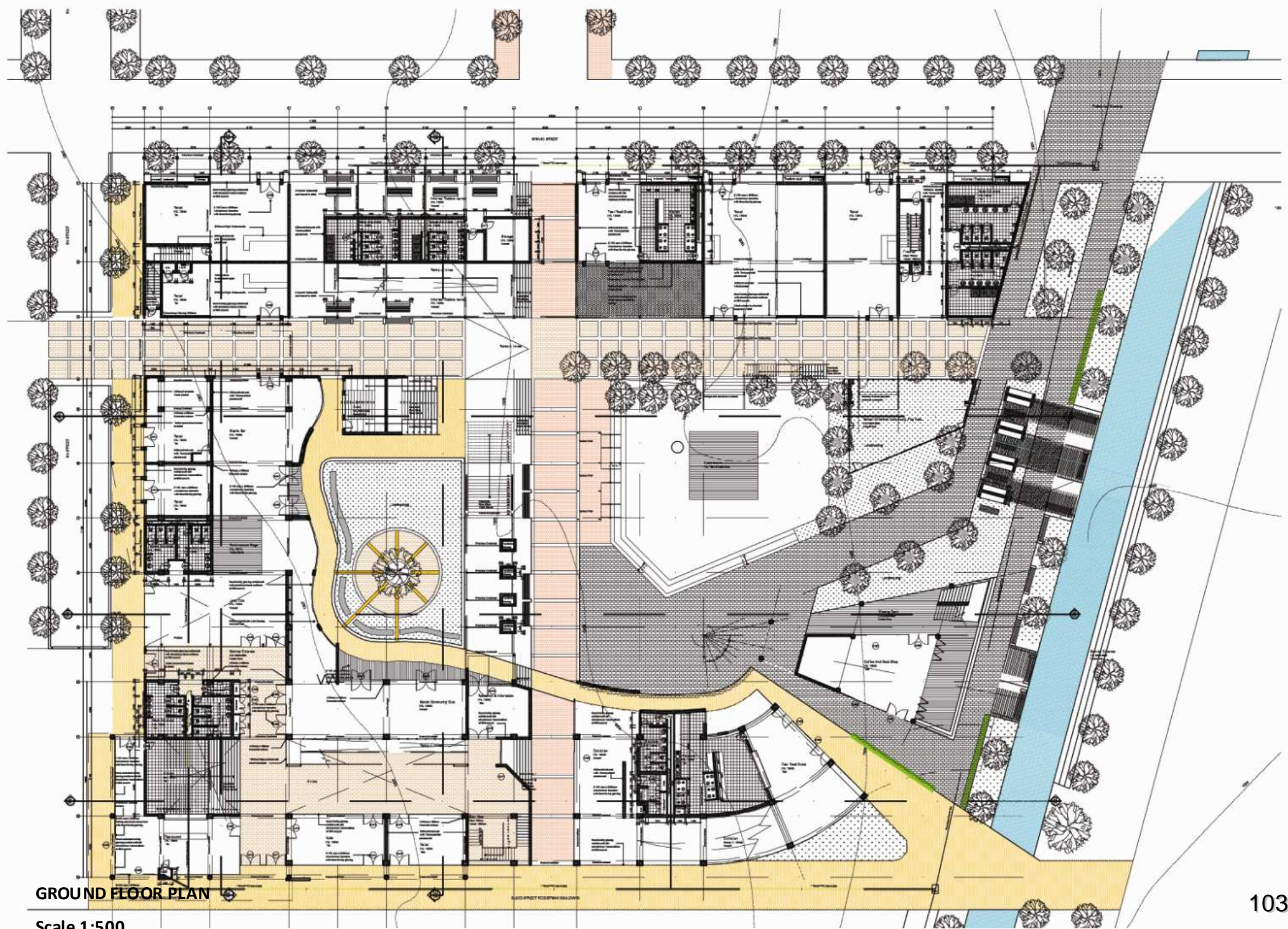
Electricity

Photovoltaic cells¹



Integrated system

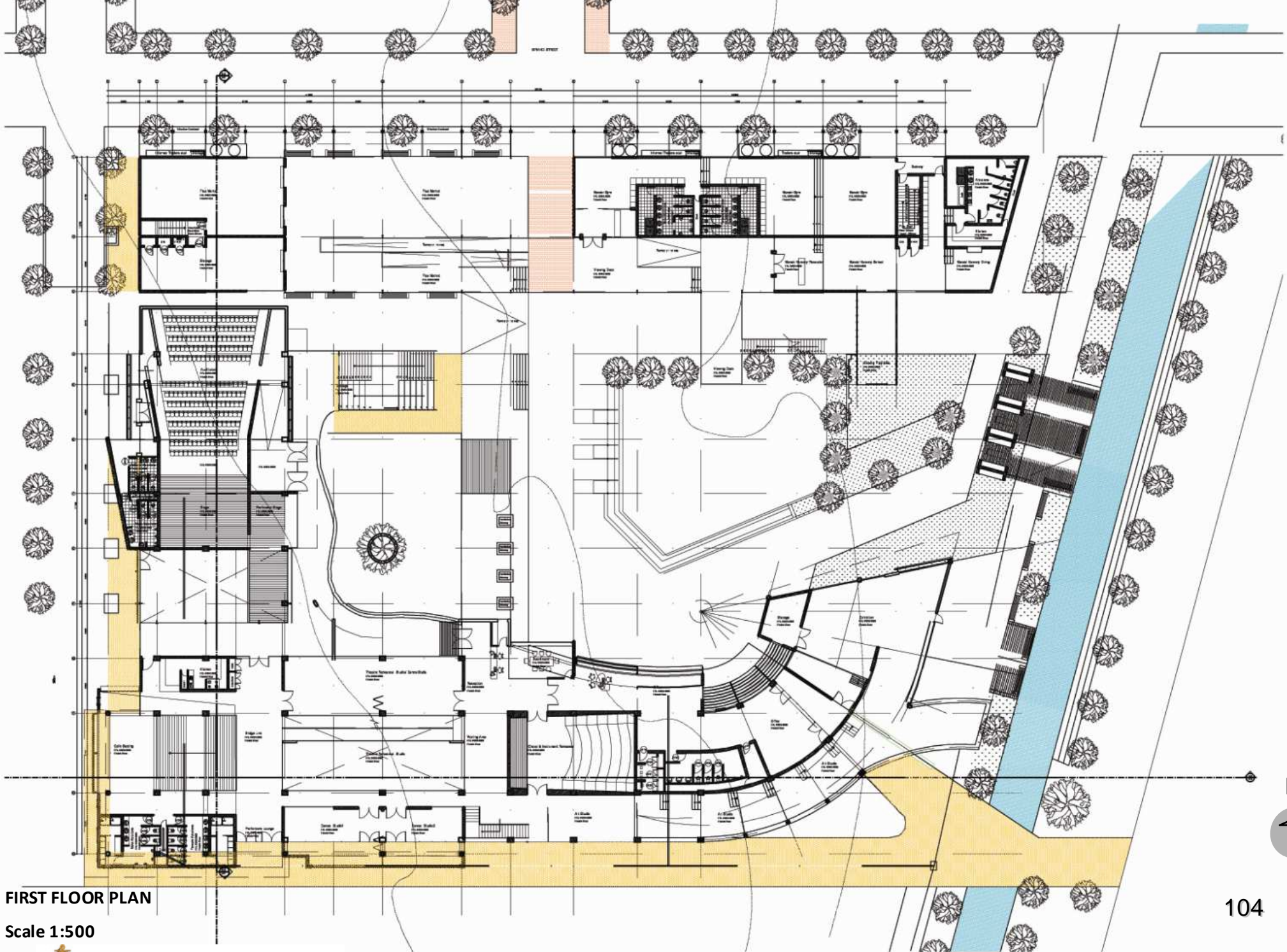
Scale 1: 250



GROUND FLOOR PLAN

Scale 1:500

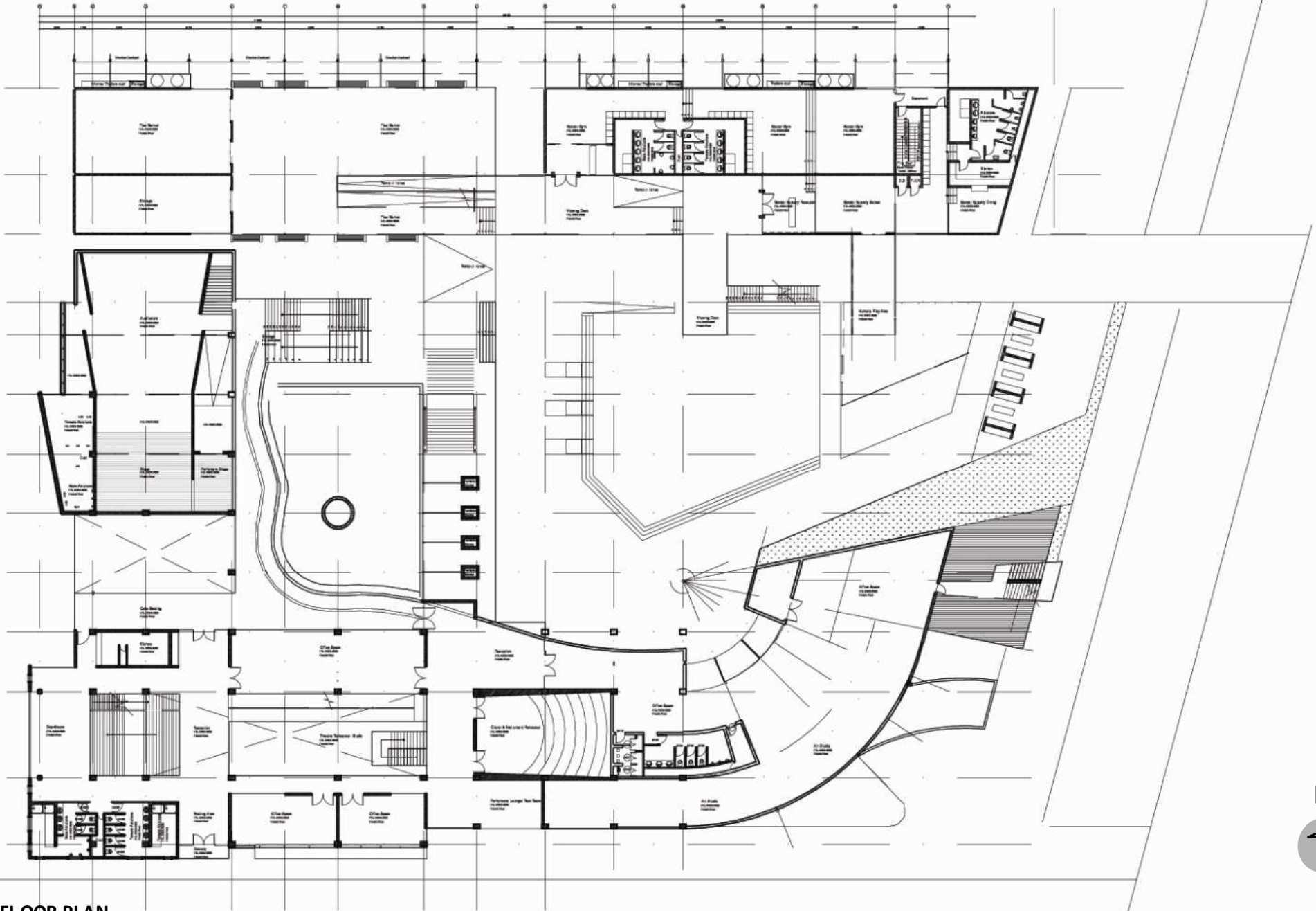




FIRST FLOOR PLAN

Scale 1:500

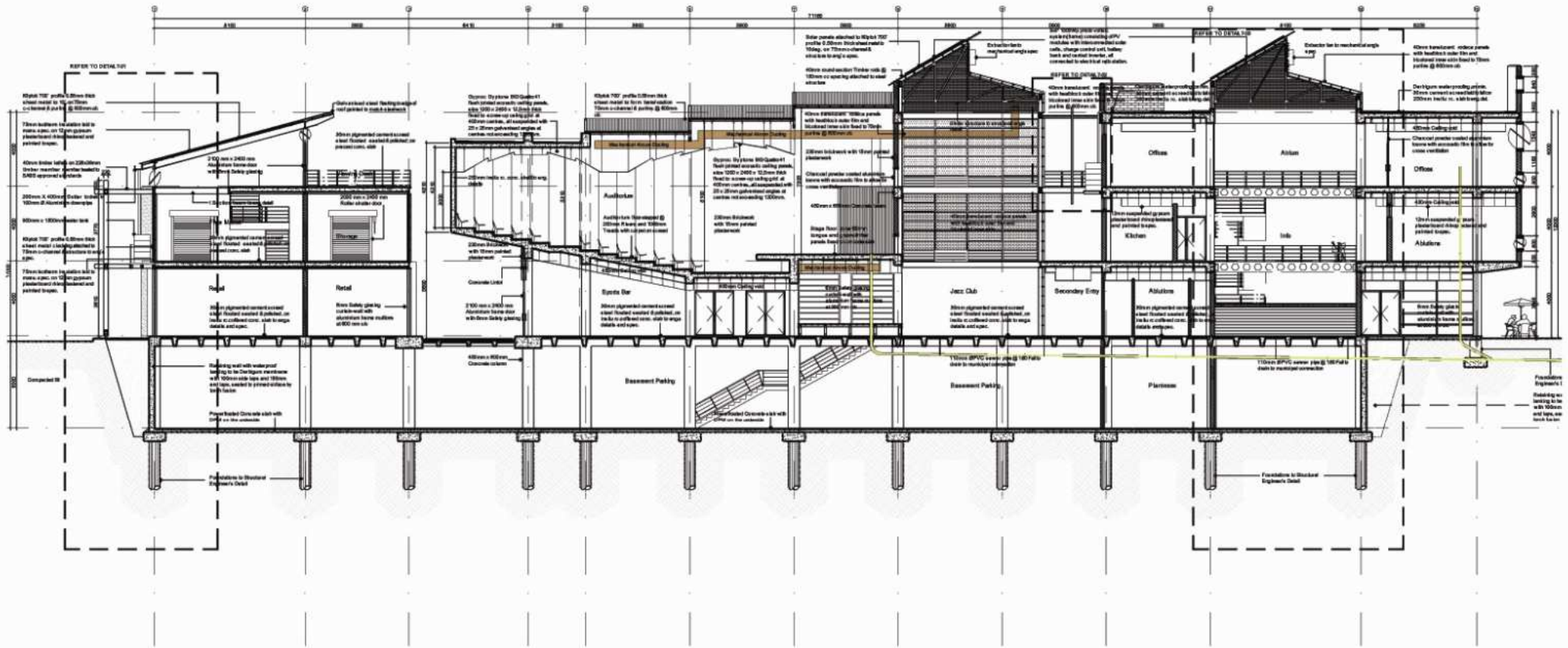




SECOND FLOOR PLAN

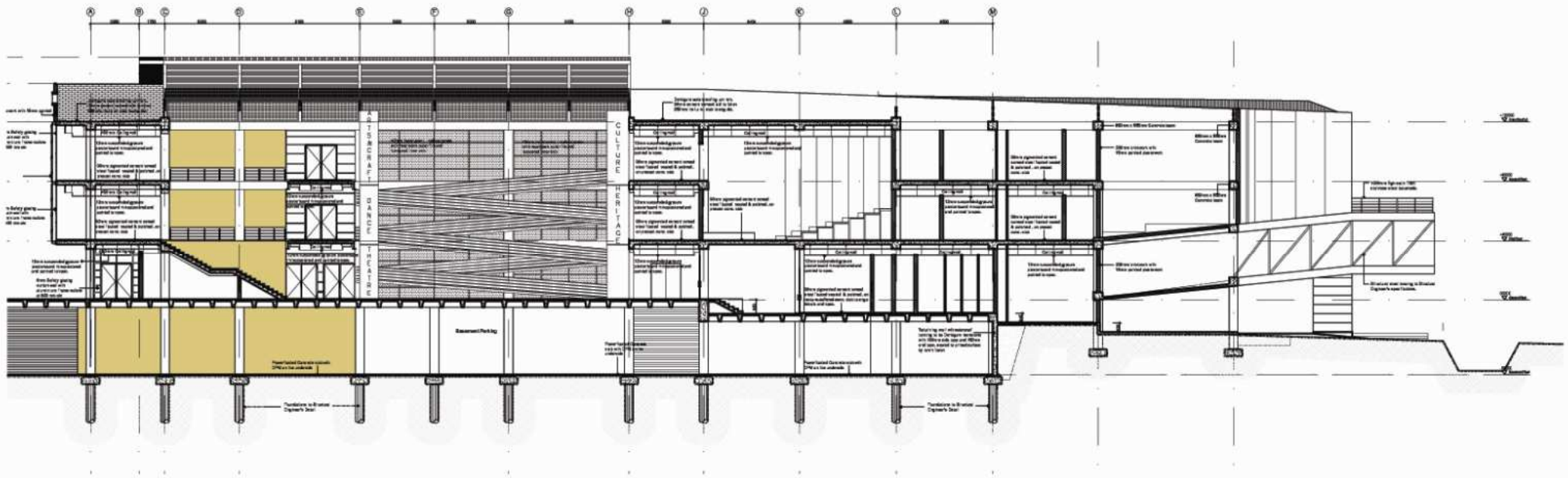
Scale 1: 500





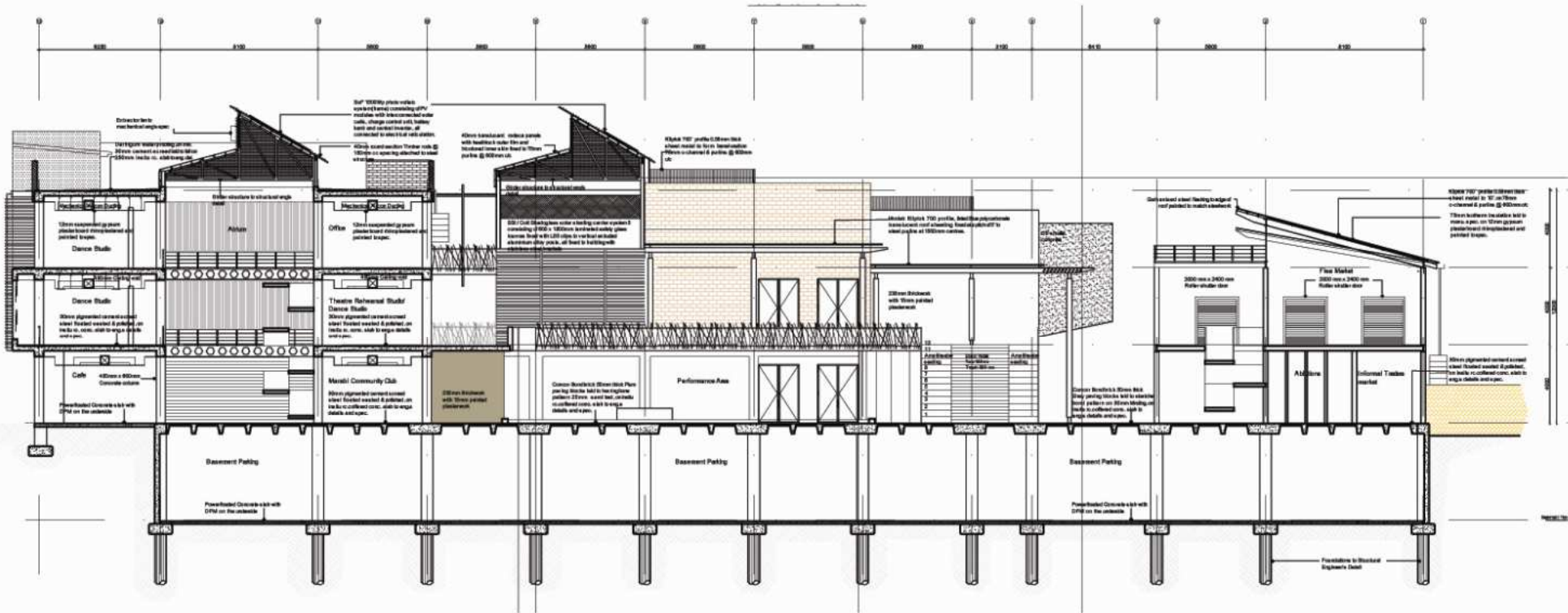
SECTION A-A

Scale 1:250



SECTION B-B

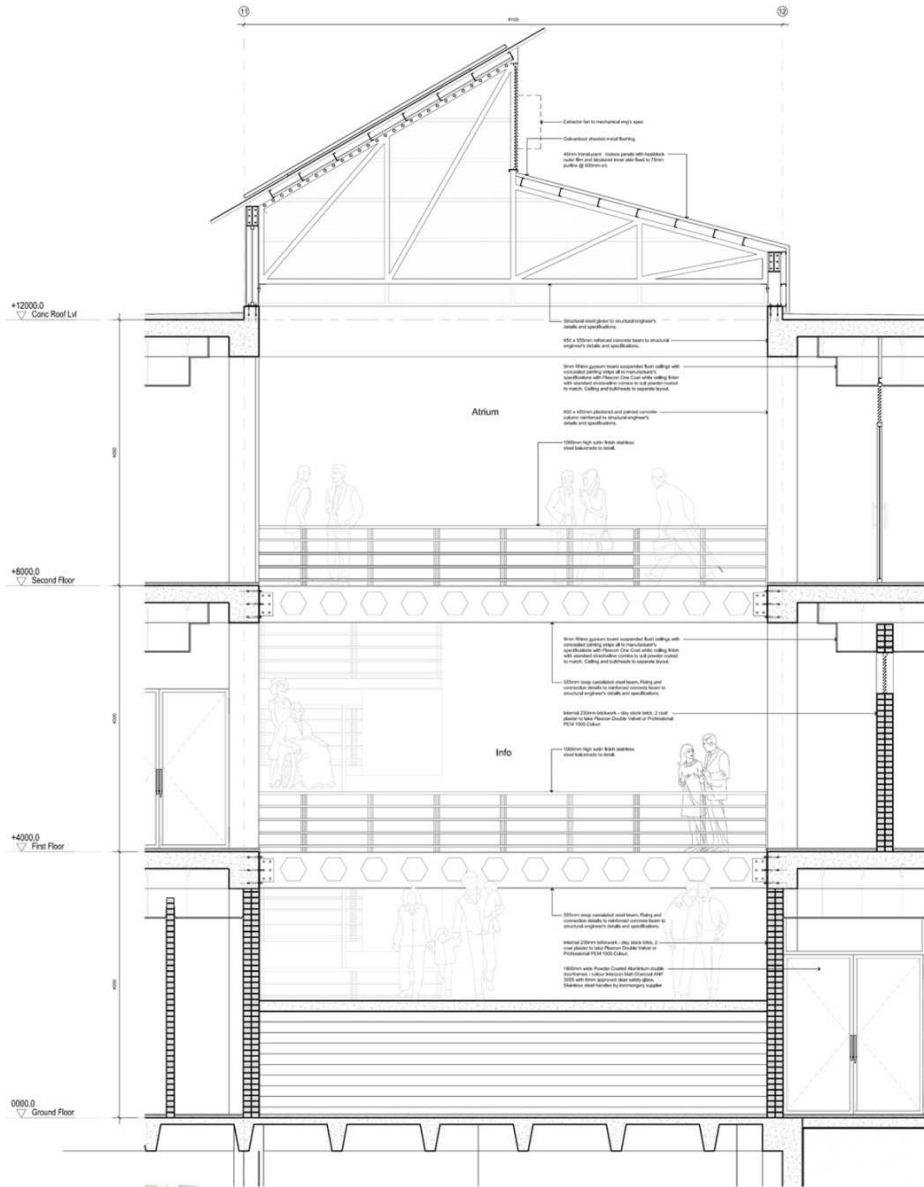
Scale 1:250



SECTION C-C

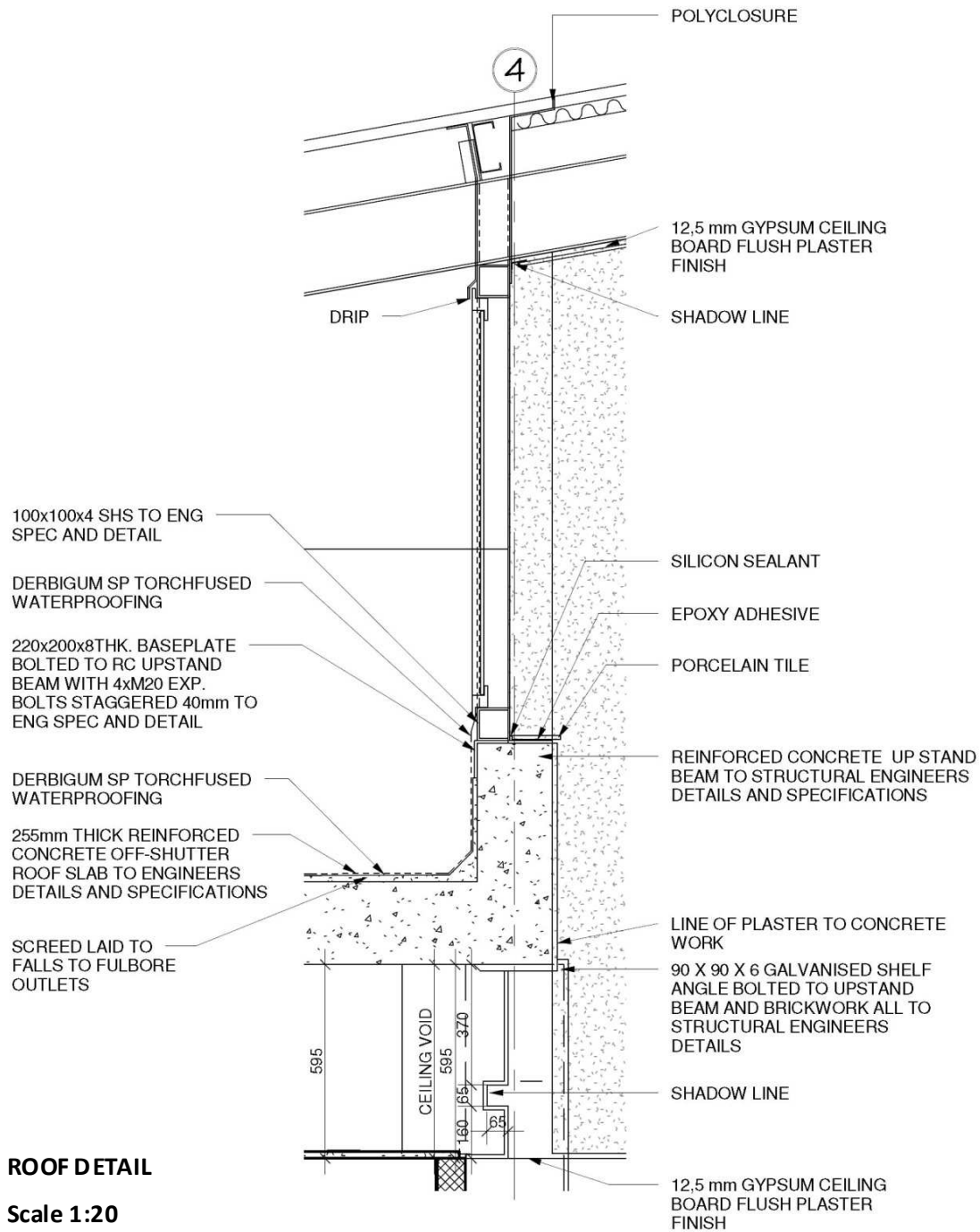
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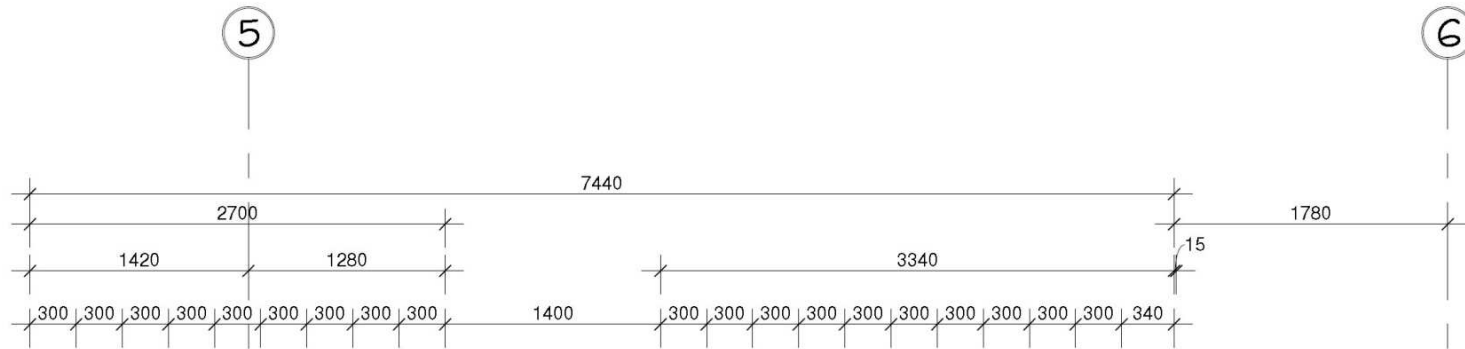
ATRIUM DETAIL

Scale 1:50



ROOF DETAIL

Scale 1:20



BALUSTRADE TO BE 1000mm ABOVE BALCONY FFL.

APPROVED EXTERNAL TILING OR DERBIGUM SP TORCHFUSED WATERPROOFING SCREED LAID FALLS TO FULBORE OUTLETS

30mm SCREED

255mm THICK REINFORCED CONCRETE IN SITU FLOOR SLAB ENGINEERS DETAILS AND SPECIFICATIONS

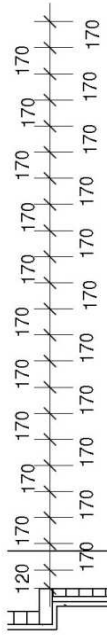
STAIRCASE
 300mm TREADS
 170mm RISERS
 1000mm HIGH STAINLESS STEEL BALUSTRADE

POST TO DETAIL IF REQUIRED BY STRUCTURAL ENGINEER

5
306

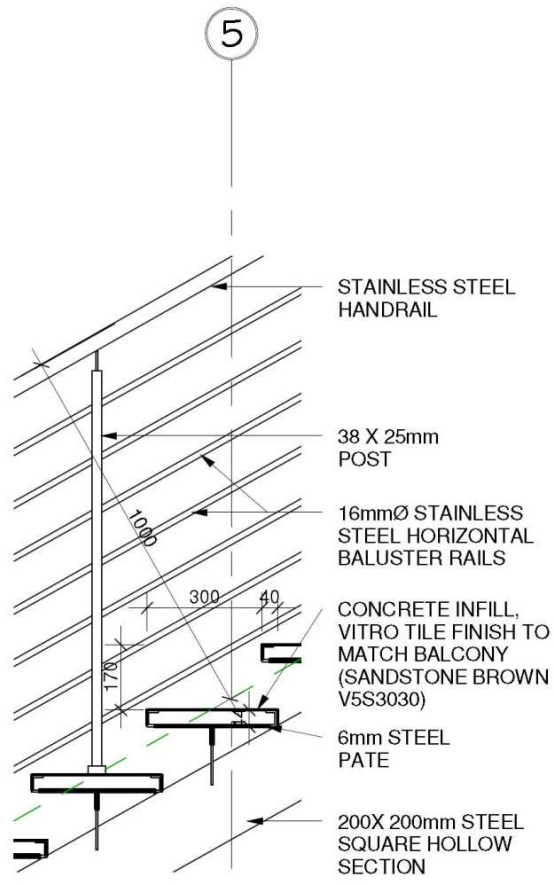
PAVING

30mm SCREED



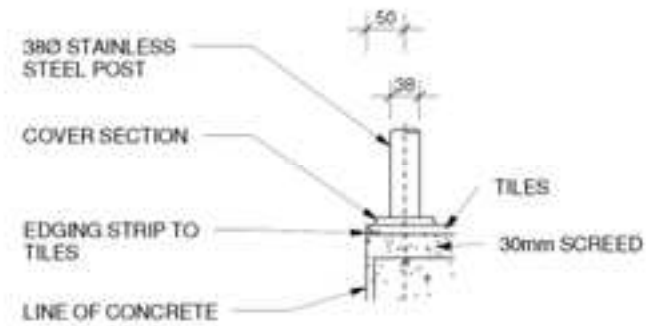
STAIR DETAIL

Scale 1:50



BALUSTRADE DETAIL

Scale 1:20



BALUSTRADE FIXING DETAIL

Scale 1:10

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