



**THE SOCIAL REHABILITATION OF YOUTH SUBSTANCE ABUSERS WITHIN THE BUILT ENVIRONMENT: A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN.**

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A Dissertation submitted in fulfilment of the  
Requirements for the degree of Master of Architecture to  
The School of Built Environments and Development Studies  
University of KwaZulu-Natal  
Durban, 2014

# ABSTRACT

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The issue of youth substance abuse within the context of South Africa, and more closer to home, Durban, is of great concern regarding the further social development of the generation and the lives, dreams and ambitions that are apart of today currents society. The research carried out in this dissertation is aimed at understanding what the contributing factors are to youth substance abuse and furthermore investigating strategies of social rehabilitation and reintegration for youth problem drug users.

The research will be examined through a theoretical framework in which the information acquired can be processed in context with the topic and sub topic, relevant to an architectural discourse. The theories that will be used to examine the literature are social construct theory, porosity theory, and lens theory of environmental perception. These theories represent a specialised scope that addresses the social and architectural responses, as well as the social implications within the context of youth substance abuse.

The literature goes on to further explore appropriate architectural environments that benefit well-being and aspects of social rehabilitation. The specific aspects of the environments are explored for application within the design phase and how they may facilitate specific functions within the typology, and their impact on the occupants.

Society and the constructs within it have influences on youth substance abuse and in many cases facilitate it; however the constructs of rehabilitation and society can be shaped by the built environment, and thus architects and designers. There is a social responsibility that comes with the understanding of these constructs, which this dissertation aims to explore.

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## DECLARATION

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I declare that this dissertation is my own, unaided work and carried out exclusively by me under the supervision of Mr. Mthembeni Mkhize. It is being submitted for the degree of Master in Architecture in the University of KwaZulu-Natal. It has not been submitted before for any degree or examination in any other University.

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Simon J Bothma

30<sup>th</sup> of May 2014

# DEDICATION

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‘Man is a singular creature. He has a set of gifts which make him unique among the animals, so that unlike them he is not a figure in the landscape, he is a shaper of the landscape.’ – Jakob Bronowski

This dissertation is dedicated to the social sustainability of future generations.

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# ACKNOWLEDGEMENTS

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The research and effort put into this dissertation would not be possible without the many loving and supportive people within my life. This would have not have been achievable if it were not for them.

To my mother and father, thank you for bringing me into the world with a balanced moral foundation, and what it really means to be loved and supported. I am eternally grateful for what you have done for me.

To my sister, thank you for always being the conceptual backing board to throw my ideas at. I hope to be the same for you in your further academic ventures.

To my friends and colleagues, thank you – Clemintina, Charl, Bianca, Brandon, Luke, Lauren, Ashleigh, Lucien, Rodney, Glen, Mark, Dylan, Woogy, Ashton, Majola, Kamban, Earl, Bridgette, Enrico, Daniel, Trish, Brett, Dean, Zane, Cornel, Inez, Tyron, Faizal, Emma, Jimmy, Ingrid, Warren, Natalie, Guy, Kanji, Jason, Joanne, Alison, Shaun, Karen, Dave, Ian, Corolla, Rose, Belinda, Sheila, Vince, Damian, Ange, Ryan, Preston, Rowan, Chris, Kyle, Zeno, Anne, Kyle ben, Juan, Lawrence, Yavo, and Tinu.

To my supervisor, Mthembeni Mkhize, thank you for your guidance and supervision.

To the Master's class of 2014, thank you.

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Table 1 – Summary of primary problems, aims, objectives and questions.

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## Appendix 1 –

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# 1.0 INTRODUCTION

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## INTRODUCTION

Youth substance abuse and its related concepts of social exclusion and delinquency are detrimental to the development of the youth in the country. The following chapter will begin to explore how the topic of youth substance abuse can be researched in context to an architectural discourse. The research will state the background issues deriving the root of the social problem, the motivation behind the research, as well as include the parameters of the research and limitations. The research question is stated to define the fundamental notions driving the research, and finally the formulation of a hypothesis is produced which the research will aim to test.

## 1.1 BACKGROUND

The youth in society are crucial to the development of the country and in the social infrastructure designed to help achieve an overall efficient society. The fear is that once the individual can no longer maintain their social standard within the built environment, they no longer feel a part of society and begin to resort to substance abuse (Pahl, T. 2006). This abuse could result in them harming themselves as well as others around them.

Social rehabilitation in a sense is the process of taking ones individual social standard and attempting to reintegrate them back into mainstream society where they feel that their social needs and relationships are fulfilled (White and Mojer-Torres, 2010). In this case the concern is with the social rehabilitation of the youth substance abusers in South Africa, and more closer to home, Durban. Social rehabilitation of these youth would need to occur once the individual has resorted to substance abuse and been absorbed into its social circles (Rehm, J. 2006). For social rehabilitation to have a positive impact on an individual's life they would need to understand the consequences of such choices. This process is not something that can be forced onto the

individuals mind but rather make powerful and strong suggestions through systems, spaces and environments whereby they can progress themselves. (Rehm, J. 2006)

In society individuals are surrounded by people who are all performing different functions as a means to live their lives. Society is made up of these people and is further being shaped by the youth of the current generation, but society it is also comprised of the spaces they perform these functions in. It could be said that there is a direct relationship to their behaviour whilst performing these functions and the space they're occupying. What is interesting is the relationship when the characteristics of a space affect humans and their well-being in that space. If this space or environment has an impact on human emotion and feelings, then it could be designed in such a way as to aid social rehabilitation. (Brownell.P 2010)

Social rehabilitation for the youth is important because it shows that humans transform and grow under a certain influences just like the built environment. The people intended for social rehabilitation would be youths caught in the social circles of substance abusers or moving with momentum into such a lifestyle. An integration of different youth personalities and backgrounds will help facilitate this transition of social rehabilitation in the built environment.

## **1.2 MOTIVATION / JUSTIFICATION OF STUDY**

The motivation of this study is to research further into youth substance abuse and the social or physical environment that allows or promotes this to happen. Investigations into how the immediate environment could assist in preventative measures in avoiding youth substance abuse will also be addressed.

A secondary motivator for this the study is to demonstrate how architecture can be a tool in facilitating a solution to a social problem, as well as its relationship to social rehabilitation. Also to express that the built form can as a result of an architectural design and theoretical analysis,

accommodate facilities that could aid in the youths social rehabilitation standards. The research is undertaken as an initiative to promote and secure in the long-run better environments, society, communities and families.

The main issue with regard to youth substance abuse is for them to gain a clear understanding of society and, that what they are promoting as a lifestyle choice is not one that is conducive to an efficient society and foremost not conducive for themselves. Further, the motivation will be to demonstrate how the built form can support reintegration and social rehabilitation processes. The built form can assist in promoting the community, social diversity and remove the conceived perceptions against youth substance abusers.

This architecturally can be achieved through modifying the architectural characteristics associated with places of social rehabilitation or “upliftment”. It is often said that ex- prisoners do not see the need to live outside of prison hence why they continually commit crime in order to have shelter and a plate of food on a daily basis, some convicted prisoners do not see it as worthwhile to be out in society because of the lack of acceptance from their immediate communities and their inability to find employment (Correctional Services 2001). The same could be said about youth substance abusers wanting to avoid social constructs and reassuring the notion that their choices and consequences need to be fully understood.

A facility is required that will enlighten the youth and give them skills in which they can live positive and moral lives. Therefore an acceptance from the individual of the life they want to live should be stated, and the community being fully convinced that they have been uplifted and are able to accept them back into society.

## **1.3 PROBLEM STATEMENT, AIMS AND OBJECTIVES**

### **1.3.1 Research Question**

The main question driving the research is one that explores what environmental factors (social, physical) facilitate youth substance abuse? How can the environment be architecturally designed to aid in social rehabilitation strategies for youth substance abusers?

### **1.3.2 Statement of the research problem**

Substance use by young people is of major concern in South Africa. Alcohol, tobacco and cannabis are the substances that are most commonly used. Most of those who use illegal drugs, such as cannabis, will usually have first used alcohol and/or tobacco. (Parry, C. 2002).

For all young people, not only does substance abuse carry significant health risks, but it can also be associated with serious, and often devastating, social problems. These include crime, violence, mental health issues, personality disorders, learning problems and can also result in accident or injury. (YRBS, 2002)

The youth are faced with many challenges regarding the development of a fairly new country. From education, to community and social participation, there is a constant concern for the development of the youth in this country (Brook, J. 2005). Substance abuse by youth individuals within the built environment occurs in transitional spaces with minimal surveillance, creating environments that facilitate the use and abuse of substances. This research will investigate the problems or issues that are buried within society and the environment it produces, that influence the youth into situations whereby they resort to substance abuse. The main key problem within this study is that, the youth are slipping out of the construct of society and community, and in some cases this results in harm to others. This in turn has a negative impact on their individual personalities and makes them very vulnerable within the social realm.



An investigation into preventive measures would obviously be an ideal case and the most efficient, however to predict social behavior patterns in relation to these issues, they would need to be monitored over a period of time which by then the social dynamics could already have shifted. Therefore an investigation into rehabilitation methods will be addressed and in so doing facilitate in preventative measures, as well as the effect of building form in the built environment should be analysed in order to cater for the appropriate needs of social rehabilitation.

### **1.3.3 Overall Aims and objectives**

- The primary aim is to socially rehabilitate youths from a previous life of substance abuse and reconnect/ reintegrate them with society and the social realm.
- The secondary aim is to implement community involvement and social participation within the social rehabilitation process of youth substance abusers, as well as in the built forms design.
- The tertiary aim is to implement different architectural spaces and environments that can facilitate in the social rehabilitation of youth substance abusers.

The main aim is to identify the issues of youth substance abuse in the context of social rehabilitation. Once this is done there is an understanding as to what sort of social rehabilitation process is required. This is aided through the assistance of architectural spaces, and the objective here is to research further, and assess the impact that architectural space plays on human well-being and social rehabilitation.

- The primary objective is to implement social ambition and a further belonging in society for previous youth substance abusers.
- The secondary objective is altering society's perception of social rehabilitation and previous youth substance abusers.
- The tertiary objective is to incorporate specifically designed architectural spaces into built environments that promote human well-being and social prosperity.
- To create conducive built forms in the built environment where the community can participate in exposing these individuals to different parts of society which they are not accustomed to, and which they could possibly embrace and use as a tool in their own personal rehabilitation process.

Ultimately to provide ideas and ways to socially uplift and rehabilitate the youth and help individuals realise that positive social integration will create an efficient society. The objective is to assess how the built environment has an impact on this rehabilitation and how these individuals can participate in the social framework of the community.

### 1.3.4 Table Summary

	PROBLEM	AIM	OBJECTIVE	QUESTION
1.	SUBSTANCE ABUSE BY YOUTH INDIVIDUALS IS SOCIALLY DESTRUCTIVE AND HINDERS FURTHER SOCIAL DEVELOPMENT OF THE INDIVIDUAL.	THE PRIMARY AIM IS TO SOCIALLY REHABILITATE YOUTHS FROM A PREVIOUS LIFE OF SUBSTANCE ABUSE AND RECONNECT/ REINTEGRATE THEM WITH SOCIETY AND THE SOCIAL REALM.	THE PRIMARY OBJECTIVE IS TO IMPLEMENT SOCIAL AMBITION AND A FURTHER BELONGING IN SOCIETY FOR PREVIOUS YOUTH SUBSTANCE ABUSERS.	WHAT ENVIRONMENTAL AND SOCIAL FACTORS INFLUENCE YOUTH SUBSTANCE ABUSE?
2.	SUBSTANCE ABUSE BY YOUTH INDIVIDUALS IMPACTS ON THE IMMEDIATE SOCIAL CONTEXT OF COMMUNITY AND SMALLER SOCIAL GROUPS. (CRIME, ECONOMIC DIFFICULTIES..ETC.	THE SECONDARY AIM IS TO IMPLEMENT COMMUNITY INVOLVEMENT AND SOCIAL PARTICIPATION WITHIN THE SOCIAL REHABILITATION PROCESS OF YOUTH SUBSTANCE ABUSERS, AS WELL AS IN THE BUILT FORMS DESIGN.	THE SECONDARY OBJECTIVE IS ALTERING SOCIETY'S PERCEPTION OF SOCIAL REHABILITATION AND PREVIOUS YOUTH SUBSTANCE ABUSERS.	HOW CAN SOCIAL REHABILITATION STRATEGIES AND THE BUILT FORMS DESIGN, CHANGE SOCIETYS EXPECTATION OF YOUTH SUBSTANCE ABUSERS?
3.	SUBSTANCE ABUSE BY YOUTH INDIVIDUALS WITHIN THE BUILT ENVIRONMENT OCCURS IN TRANSITIONAL SPACES WITH MINIMAL SURVEILLANCE, CREATING ENVIRONMENTS THAT FACILITATE THE USE AND ABUSE OF SUBSTANCES.	THE TERTIARY AIM IS TO IMPLEMENT DIFFERENT ARCHITECTURAL SPACES AND ENVIRONMENTS THAT CAN FACILITATE IN THE SOCIAL REHABILITATION OF YOUTH SUBSTANCE ABUSERS.	THE TERTIARY OBJECTIVE IS TO INCORPORATE SPECIFICALLY DESIGNED ARCHITECTURAL SPACES INTO BUILT ENVIRONMENTS THAT PROMOTE HUMAN WELL-BEING AND SOCIAL PROSPERITY.	HOW CAN ARCHITECTURAL ENVIRONMENTS PROMOTE SURVEILLANCE AND SOCIAL REHABILITATION STRATEGIES FOR YOUTH SUBSTANCE ABUSERS THROUGH THE BUILT FORMS DESIGN?

Table 1 – Summary of primary problems, aims, objectives and questions. (Author, 2014)

## 1.4 SETTING THE SCOPE

### 1.4.1 Hypothesis

Social rehabilitation for the youth is aided through a combination of the built and natural environments, specifically designed architectural spaces, and through a series of systems that benefit the well-being of the individual, and in return help achieve an overall efficient society where everyone can gain an understanding. This understanding of the social realm and the individuals within it will help the individual to find ambition and meaning within themselves, in order to live a prosperous life.

#### **1.4.2 Research scope and limitations**

The purpose of this research project is to clearly define those who will need to undergo forms of social rehabilitation and what were the contributing factors. As well as, researching, the limits of the impact of the social and physical environments on social rehabilitation.

The research will not be investigating new ways of rectifying the current social rehabilitation facility protocol or substance rehabilitation protocol. The built environments form has an effect on the behaviour and the type of individual being produced. The design of the facility is intended to lower the rate of youth substance abuse and to ensure that the individual has an understanding of the importance of society and their validity in a developing South Africa.

Department of social development for one, has drawn the country's attention to the recognition that past policies have had a detrimental impact on the present generation of youth and this has affected their ability to live fulfilling lives, realise their potential, and participate meaningfully in the social, political and economic activities of the society. (Makiwane/ Kwizera, 2009)

The study will deal with youth substance abusers who have found themselves moving within that lifestyle and seeking guidance. The process of social rehabilitation and its implementation is specific to the overall substance rehabilitation process, and does not deal with physical withdrawals or rehabilitation which would need to be considered in the initial stages of the overall rehabilitation process. The research does not deal with designing new rehabilitation facilities or rehabilitation centres, or stipulating how they should be run as institutions. The research does not deal with politics, race and gender.

### 1.4.3 Definition of terms

- **Social rehabilitation:** A process whereby an individual's social status is developed in a positive way that would not only benefit them and their social integration, but the society in which they are a part of.
- **Built environment:** Refers to the human made surroundings in which human activities take place, ranging from scale of buildings to parks, neighbourhoods, and cities.
- **Rehabilitation facility:** A place where individuals can go in order to receive help To rid themselves of their previous bad behaviour, bad habits and their way of life whether drug and alcohol, psychological, or life skill related.
- **Built form:** The combination of elements pertaining to a physical built structure that when combined together create architecture.
- **Social Realm:** Refers to the world in which humans and their societies live and function, a world where there are categories, labels and value.
- **Wellbeing:** Can be defined as a good or satisfactory condition of existence. A state characterized by health, happiness, and prosperity (dictionary.com).

### 1.4.4 Stating the Assumptions

- Social rehabilitation of youth substance abusers will be the primary focus
- Social rehabilitation will be aided through architectural space.
- Individuals are treated to become better people and ultimately achieve better societies and communities.

### 1.4.5 Dissertation Structure

#### MINDMAP:

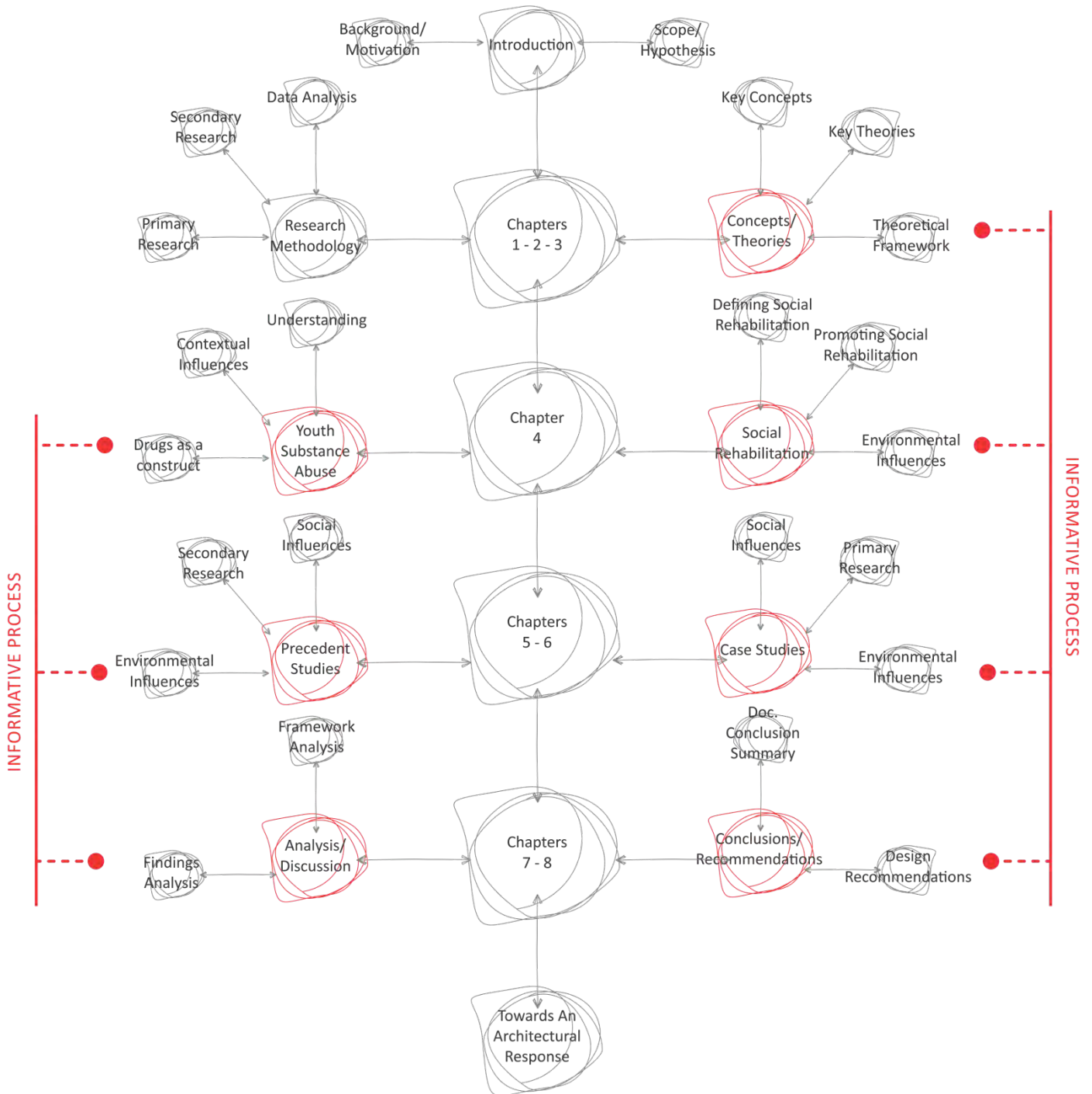


Figure 1 - Dissertation structure mind map.

## **2.0 RESEARCH METHODOLOGY**

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### **INTRODUCTION**

This section is divided into two main groups of research techniques and methods used to gather data: primary and secondary research data. Primary research includes original research from case studies, in-depth interviews and questionnaires, photographs and sketches. Secondary research includes library research and desk top research (internet). The research questions will be used to guide the research so that relevant research data is gathered to assist in social rehabilitation strategies of youth substance abusers.

### **2.1 Primary Data**

#### **2.1.1 Case studies**

Case studies will be conducted by critically analysing the, substance abuse rehabilitation and recreational youth centres in Durban, South Africa. The case studies will be conducted on each identified site and include observations of the people, the functioning and the materials of the intervention. The case studies will provide a thorough understanding of the challenges faced in the social rehabilitation process and help in achieving an appropriate architectural response.

#### **2.1.2 Data Collection Methods**

Quantitative questionnaires and interviews and questionnaires will be conducted. This will allow for social rehabilitation strategies for the youth to be explored and understood from various perspectives. This will facilitate answers to key questions and the need for social rehabilitation. The questionnaire will be drawn up from the relevant findings gathered from the literature review so that the areas uncovered can be explored in context with the relevant information. The thorough analysis of the findings will identify the strengths and weaknesses of the existing built environment and, its influences in terms of youth substance abuse. In-depth

interviews will be conducted with the opinions of experts in healthcare and youth development fields.

### **2.1.3 Observations, photographs and Sketches**

The context of a substance abusing environment and the existing social dynamic will be documented through photographed and sketched media so as to gather data on the youth and their development within the built environment. The photographs and sketches will be used to interpret the data gathered from the case studies and the interviews to highlight the best approaches to creating a social rehabilitation environment in the design of a social rehabilitation centre for the youth.

## **2.2 Secondary Data**

### **2.2.1 Library studies**

Library studies will include books, journals, reports, documents and academic papers and the use of the internet to find information on social rehabilitation and substance abuse, as well as identify international recreational and rehabilitation centres for the youth. Library studies will include identifying the relevant plans of the case studies.

### **2.2.2 Precedent studies – specific library studies**

Precedent studies on social rehabilitation strategies for the youth will be applied and implemented on social rehabilitation and recreational centres for the youth in South Africa and internationally. The data gathering of the precedent studies is similar to the over-all approach of the previously mentioned case studies though, of course, the precedent study is conducted through library research.



## **2.3 Methods Employed in Data Analysis**

The data analysed throughout the literature will be done so through confirmatory methods as opposed to exploratory methods of analysis. Confirmatory methods would suggest that the information acquired is done so with direct intent and meaning towards proving the hypothesis, where exploratory methods would suggest that the research identifies aspects which coincide or overlap with one another, and these incidences are then made clear to the researcher. Confirmatory data analysis predicts these overlapping incidences, and using the tools of significance, confidence and interference are able to evaluate the data, as opposed to the gathering of data.

The analysis of the data collected will also be done through aspects of the theoretical framework consisting of primary concepts and theories discussed in the next chapter.

## 3.0 THEORIES AND CONCEPTS

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### INTRODUCTION

The following chapter will begin to introduce the primary theories and concepts which the data collected will be analysed through. The concepts and theories are implemented within this stage of the research, to analyse all the data collected within the context of the topic and subtopic of youth substance abuse and social rehabilitation, but also so that they may be applied in the architectural design phase where elements of the theoretical framework are made relevant in the research. The concepts and theories that develop the theoretical framework are as follows:

### 3.1 THEORIES

#### 3.1.1 Lens theory of Environmental Perception

A crucial aspect of the environment is how it is perceived and its use to navigate spaces between objects. This is a process influenced with a number of problems as most research seems to suggest that an individual's awareness and perception of their immediate environment is limited in a variety of ways.

Environmental psychologists suggest that perception of an environment is different to object perception because:

- Object perception is about the properties of simple stimuli, whereas environment perception is about large-scale, more complex environments.
- The observer of the environment is usually a part of the system being perceived and certainly moves within it, rather than being a passive outside observer.

- Often the observer has a clear purpose in the environment. In the more naturalistic approach of environmental psychology participants are often investigated whilst doing their "natural behaviour" where and whenever they are doing it, as opposed to simply taking part in a psychologist's experimental game.

Lens theory of environmental perception is one of a few almost exclusively environmental psychology theories. The suggestion here is that we as humans have an exploratory perceptive system. That is to suggest that perception is not automatic, but that learning and experience play an important part of an individual's perception (Brunswik, 1956, 1969). The environment emits perception receptors in a "scattered" formation. The metaphor here is that the individual is the "lens" that focuses the receptors by selection and recombination of the scattered influences. The result of the recombination is perception, which is then tested in some way against reality. (Brunswik, 1956, 1969)

Brunswik suggests that individuals gain a greater and efficient understanding of the environment as they continue to process it. Various features of the social realm increase and decrease in value to the individual, the same stimuli may be perceived differently by different people, due to their personal experience, individual cultural experiences and expectations. (Brunswik, 1956, 1969)

This theory is important as it investigates the psychological and mental recognition of how an individual senses experience a space for them to develop a perception to help understand their environment. This, needs to be remembered when relating back to rehabilitation and the effect that the built form, natural environment and architecture has on human well-being.

### **3.1.2 Social Construct - Theory**

A social construct is anything that exists as a product of human social interaction to categorise or label the social realm. Social constructs are said to be the result of social facts, things that are true of our social world or human existence, as opposed to natural facts, which are thought

to exist outside of our human existence. Examples of social constructs are such things as governments, money, language, race, gender and nationality. (Jackson, Penrose, 1993)

Social Construct Theory is concerned with the ways we think about and use categories to structure our experience and analysis of the world. (Jackson, Penrose, 1993)

The notion of Nature vs Nurture is also relative to social construct theory as, the Nurture approach would say that rather than genetics or inborn traits, social ideas and categories as well as stereotypes, are socially constructed, and then accepted as reality, despite the facts.

The Nature Approach argues that traits are inborn and fixed at birth. The Nature approach would suggest that Genetics or Nature determines people's characteristics and intelligence, rather than their social environment.

Overall Social Theorists believe that:

- That categories can be real.
- Accept the fact that social ideas are variable and subject to reinterpretation or change as new information is revealed. (Thomas.J.Biersterker, 1996)
- The objective is not to expose the falseness of social constructs, but to expose the falseness of our unquestioning acceptance of these constructs and their purpose at all. (Jackson, Penrose, 1993)

### **3.1.3 Porosity - Theory**

Porosity can be described as an unplanned, chaotic conurbation in which spaces and buildings meld and interpenetrate. Therefore, porosity refers to the absence of spatial boundaries and divisions between phenomena, one thing permeating and moving through another, the merging of old and new, interior and exterior, and the diffusion of public and private. (Holl. S. 2002)

Porosity is the infinite law of the built environment, reappearing everywhere. The pedestrian can change direction in seconds and the pedestrian is not blocked by large urban constructions without entry or exit. This freedom of pedestrian movement can be envisioned in different ways and through different forms, in the built environment. (Holl. S. 2002) for larger urban projects made up of several buildings, porosity becomes essential for the vitality of street life. Porous Urbanity offers choice of movement, making navigation of the metropolitan maze difficult and the chance of losing oneself. Porosity defines movement and accessibility without the use of spatial boundaries. (Sotirios.D, 2005) For Example, movement in peri-urban areas can be defined by the authoritative positions in that area and not by the spatial restrictions. Permeability, providing optional means of spatial penetration, is often used as a substitute term for porosity.

## **3.2 CONCEPTS**

### **3.2.1 Social Inclusion – Concept**

Social inclusion encompasses fundamentals that impact on an individual's sense of belonging, recognition, and acceptance in society as well as contributing to the economic, social, cultural and political agendas of the social realm. To socially include would be to recognise and value diversity, and instil feelings of belonging by increasing social equality and participation from varieties of social groups.

Issues of social inclusion and acceptance along with individual diversity have a direct impact on the individual and how they interact with current society, or more so how they fit in. If an individual is to feel fully included within their current social context, then that context must cater for the social needs of the individual, and allow them to express themselves without social stigmatisation or judgment.

### **3.2.2 Social Reintegration – Concept**

Social reintegration can be defined as any process with the intent of avoiding the social exclusion of individuals and in this context, former youth drug users. Social reintegration processes approach issues that are not drug associated, such as housing, education, vocational training, employment as well as rebuilding personal networks and relationships, and reducing discrimination. Social reintegration is a fundamental part of the treatment process and it can be applied independently of treatment. Practically, the transformations between individuals as well as societies over long periods of time, define what type and level of social reintegration is desirable.

Social reintegration can be described as motivating the human, social, economic and institutional capital of individuals with the over-all goal of guaranteeing that all members of society have equal opportunities to participate fully in the social realm.

### **3.2.3 Nurturing Environment - Concept**

Environments that foster successful development and prevent the development of psychological and behavioural problems are usefully characterised as nurturing environments. Primarily they these environments physically minimise biologically and psychologically toxic events that effect human well-being. Secondly, they promote positive social behaviour, including self-regulatory behaviours and all of the skills needed to become productive adult members of society, as well as monitor and limit opportunities for problem behaviours.

## 4.0 LITERATURE REVIEW

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### 4.1 YOUTH SUBSTANCE ABUSE

#### 4.1.1 INTRODUCTION

Youth substance abuse is a very sensitive issue and requires a deep understanding, in order to make a justified assessment of the social implications it has on society. The following literature will be investigated in an attempt to research the problems, the risks, and influences society poses on the substance abusing youth, as well as the result and the consequence of these actions on society and community. The information is drawn from a study conducted by Charles Parry and Judith Brook on behalf of the Alcohol and Drug Medical Research Unit, Medical Research Council of South Africa. The literature will help facilitate rehabilitative strategies in the design phase by understanding the basic fundamentals of the problem.



Figure 2 - youth substance abuse within the built environment. ([www.colombiareports.co](http://www.colombiareports.co))

#### 4.1.2 THE PROBLEMS IN SOCIETY

Youth and teens who abuse substances on a regular basis are more likely to engage and be compelled into acts of violence (Brook JS, 2006). It has been found that youths who partake in criminal agendas appear to be inclined to abusing substances. A study conducted found that youths within the criminal justice system were more likely than their adult equivalents to test positive for the use and misuse of substances (Parry CDH, 2004). Youth accidents and injury in many cases stem from the abuse of certain substances, this places implications on the rest of society and can sometimes end in road fatalities as well as aggressive natures towards others (Maruping M, 2006).



Figure 3 - Substance abuse related accident. ([www.globalpost.com](http://www.globalpost.com))

Youths who choose to partake in the abuse and misuse of substances, are more inclined to make poor decisions regarding their sexual activity as opposed to those who do not partake in substance abuse, such as unplanned pregnancies and unprotected sex (Flisher A, 2008). This too can be related to the contraction of sexually transmitted diseases such as HIV, enforcing the notion that substance abuse impacts decision making skills promoting further sexual risk (Brook JS, 2006).

A broad study conducted in Cape Town in 2004 discovered a strong relationship between alcohol abuse and poor academic attendance over a period of 24 months (Parry CDH, 2004). Studies have further proved sustained mental and psychological side effects that substance abuse has on the juvenile mind. Symptoms of appetite disorder, depression, concentration



development and cognitive functioning are all related to the use of substances such as alcohol, heroin, cocaine, marijuana and what is locally known as 'sugars' (Brook JS 2005). Studies abroad have also found strong relationships between the use of marijuana and schizophrenia, as well as the use of methamphetamines and other psychiatric tendencies (Hall W 2006, Chong M-Y, 2006)

#### **4.1.3 THE RISK IN THE SOCIAL REALM**

Youth substance abusers and their impact on society are as a result of the influential characteristics found in the community, school, and recreational environments made available. Peer pressures and aspects from social networks also disrupt family and parental attitudes which have a further impact on the individual's personality, as well as their physical and mental health status in relation to the abuse of substances.

Major influences from both society and the immediate community, have a direct relationship to the availability and readiness of abusive substances within the neighbourhood context. The readiness and access to abusive substances at the neighbourhood level increases the chances of youth substance abuse (Brook JS, 2005). The previous statement relates to theories of porosity and the absence of spatial boundaries in the community. This reduces surveillance and allows transition areas for abuse to occur. Social acceptance of the abuse of substances such as alcohol and other drugs through mainstream media promotes youth substance abuse and condones similar behaviour (Strizhakova, Y 2006). In the neighbourhood and community contexts, where the youth are exposed to public acts of substance abuse, youth substance abuse is more likely to succeed. (Parry, CDH 2004)

School and the academic atmosphere can be positive reinforcers against the abuse of substances when they make clear the impact that substance abuse has on the individual, as well as promoting surveillance and general awareness in this regard. The presence of substances within the school environment promotes their usage amongst the youth,

furthermore poor attitudes towards school and the academic system have been related aspects of substance abuse amongst youth individuals (Parry CDH, 2001).



Figure 4 - Police having to investigate the school system to make an impact on the number of delinquent and substance abusing youth cases. (<http://citizen.co.za>)

The youth are more prone to substance abuse attitudes when parental or family figures within the home environment abuse substances themselves, and are more compelled to partake in substance abuse behavior than those with a stable, non-substance related home environments. Youth individuals who are exposed substance abuse behaviours in the home are more inclined to replicate it further on in their lives and the social realm (Brook JS, 2006). Parental supervision and time put into developing family relationships between parents and children, has a direct relationship between youth and their probability of substance abuse (Brook JS, 2006). Young individuals without a stable and fostering home environment are more inclined to pursue other peers with similar housing circumstances in order to condone their substance abusing behaviour (Brook JS, 2006). The availability of substances within an individual's immediate group of friends or peers directly increases their chance of abusing such substances (Brook JS, 2006, Parry CDH, 2004). Primarily it is often reported that young people who use substances, both legal and illegal, do so for recreational purposes. Peer pressure is a major motivator in this

respect and leads to peers spurring on or encouraging friends to further partake (Brook JS, 2006).

Youth substance abuse has been related to the association of gangs and other delinquent social groups, and often requires the use of substances to be classified as an affiliate. As mentioned before, peer pressure is of a main influence in the context of youth substance abuse, however personal traits such as delinquency and poor decision making skills are just as accountable and influential (Brook JS, 2005). A favourable attitude towards the use and abuse of drugs implies that the individual perceives the act as positive. Youth individuals that are more concerned about long term life goals as opposed to the short term, are more likely to not partake in youth substance abuse (Robertson BF, 1997).

#### **4.1.4 THE RESULT ON THE INDIVIDUAL**

Young people who consistently abuse substances often experience a variety of problems, including academic difficulties, health-related problems, mental health problems, poor peer relationships, and involvement with the juvenile criminal justice system. As a result, there are also consequences for family members, the community, and the entire society.

Declining grades, non-attendance in school, and increased potential for dropping out of school are problems related to adolescent substance abuse (Hawkins, Catalano, and Miller, 1992). Cognitive and behavioural problems experienced by alcohol and substance-using youth may have implications on their academic performance, and also present learning difficulties for their classmates (Bureau of Justice Statistics, 1992). As well as an impact in the academic environment there is also a toll on the physical well-being of an individual. Injuries due to accidents, physical disabilities and diseases, and the effects of possible overdoses are among the health-related consequences of youth substance abuse. A disproportionate number of youth involved with alcohol and other drugs face an increased risk of death through suicide, homicide, accident, and illness.

Many substance-abusing youth engage in behaviour that places them at risk of contracting HIV/AIDS or other sexually transmitted diseases. This may include the actual use of psychoactive substances, such as those that are injected, or behaviour resulting from poor judgment and impulse control while experiencing the effects of mood altering substances.

Youth substance abuse can result in mental health problems such as depression, apathy, withdrawal, and other psychosocial disorders which are commonly linked to substance abuse among adolescents. Substance-abusing youth are at higher risk than nonusers for mental health problems, including depression, conduct problems, personality disorders, attempted suicide, and suicide. Marijuana use, which is prevalent among youth, has been shown to interfere with short-term memory, learning, and psychomotor skills. Motivation and emotional development also may be influenced (Bureau of Justice Statistics, 1992).

Substance abusing youth often are isolated from and stigmatised by their peers. Adolescents using alcohol and other drugs also often disengage from school and community activities, depriving their peers and communities of the positive contributions they might otherwise have made. In addition to personal difficulties, the abuse of alcohol and other drugs by youth may result in family crises and endanger many aspects of family life, sometimes resulting in family dysfunction. Both siblings and parents are profoundly affected by alcohol and drug involved youth (Nowinski, 1990). Substance abuse can drain a family's financial and emotional resources (Bureau of Justice Statistics, 1992).

The social and economic implications on the individual and family related to youth substance abuse are destructive social elements. They result from the financial losses and distress suffered by alcohol and drug-related crime victims, increased burdens for the support of adolescents and young adults who are not able to become self-supporting, and greater demands for medical and other treatment services for these youth (Gropper, 1985). As a result of the socio-economic situations many individuals turn to crime to support the addiction. There is an undeniable link between substance abuse and delinquency. Arrest, adjudication, and intervention by the juvenile justice system are eventual consequences for many youth involved

in alcohol and other drug use. It cannot be claimed that substance abuse causes delinquent behaviour or delinquency causes alcohol and other drug use. However, the two behaviours are strongly correlated and often bring about school and family problems, involvement with negative peer groups, a lack of neighbourhood social controls, and physical or sexual abuse (Hawkins, 1987, Wilson and Howell, 1993).

Possession and use of alcohol and other drugs are illegal for all youth. Beyond that, however, there is strong evidence of an association between alcohol and other drug use and delinquent behaviour of juveniles. Substance abuse is associated with both violent and income-generating crimes by youth. This increases fear among community residents and the demand for juvenile and criminal justice services, thus increasing the burden on these resources. Gangs, drug trafficking, prostitution, and growing numbers of youth homicides are among the social and criminal justice problems often linked to adolescent substance abuse.

#### **4.1.5 CONCLUSION**

In summation, the literature reviewed reveals the impact that youth substance abuse has on the individual, as well as the implications it places on society. These implications, clash with notions in social construct theory and their means to guide an efficient society, therefore forming the fundamental basis for social exclusion for these individuals.

The research shows that youth substance abuse is linked to a multitude of influences, from personal and family, through to social constructs such as school and community and how they facilitate the problem. These influences relate to lens theory of environmental perception and how one interprets individual variables within the environment, (whether physical or social) to achieve an over-all perception. It is important to note that whether the perception is positive or negative in the context of substance abuse, it is completely honest and true of the individual.

Finally, the consequences of youth substance abuse are derived from the initial problems and influences, and reveal the results this has both on the individual and their social environment. Shattered academic opportunities, family dysfunction, delinquency and poor socio-economic

status are all possible realities for the youth problem drug user. Again these consequences impact ideas in social construct theory.

As mentioned, the family environment, as well as individual characteristics, plays a significant role in possible substance abuse and misconduct. These along with other related influences will be explored in the next section.

## **4.2 A SUBSTANCE ABUSING CONTEXT**

### **4.2.1 INTRODUCTION**

The next body of research will address social notions in explaining youth substance abuse and antisocial behaviours, as well as investigating their initial precursors and the influences that facilitate them. This is done to define a social framework in which substance abuse develops. The literature then further attempts to set a model of social contextual influences in order to understand the in depth relationship between the social context, lifecourse stages and levels of analysis (Hawkins, 1992). Individual characteristics are explored as primary influences due to their vulnerability within a substance abusing environment. Finally proximal influences such as family, community and school are considered in a further model and investigated. These influences are further developed in the model to gain a better understanding of the social contextual relationship.

The research within this section has been analysed to gain a greater understanding in the initial precursors to substance abuse behavior. This has been done so that they can be addressed in the social rehabilitation process and the related functions within the built forms design.

#### 4.2.2 SOCIAL NOTIONS IN EXPLAINING YOUTH SUBSTANCE ABUSE BEHAVIORS

Youth substance abuse has a direct relationship to delinquency and criminal activities (Jessor, 1991, Patterson, 1992). It can therefore be noted that the following information is relevant in the context of youth substance abuse and general anti-social behaviour, especially the understanding that these aspects are developmental in nature, and progress from minor to more severe acts of delinquency (Elliott, 1989, Loeber and LeBlanc 1990, Patterson 1993).

Elliott and colleagues (1989, p. 8 189) found that "Minor delinquency comes first, followed by alcohol use, serious delinquency, and serious drug use."

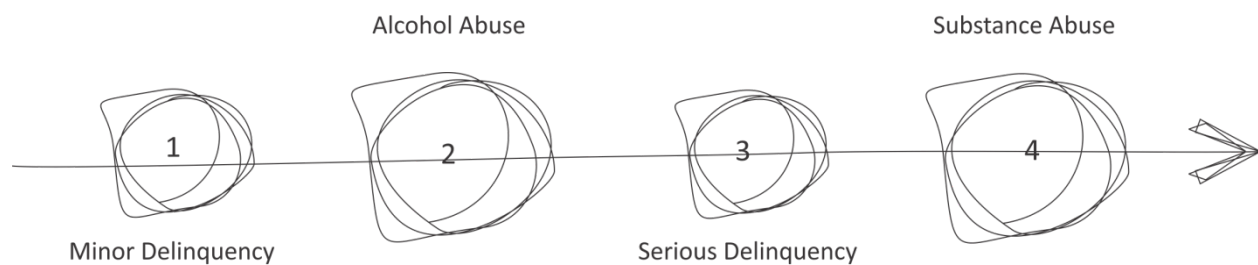


Figure 5 - Longitudinal process of substance abuse and delinquency relationship. (Author 2014)

The developmental progression of such behavior implies that an individual that has succumb to the natures of youth substance abuse, has not done so without previously partaking in other delinquent activities or anti-social behaviours. It can therefore be stated that prolonged delinquency and antisocial acts, promote further youth substance abuse (Sampson and Laub 1993).

Current research has discovered that issues related to anti-social behavior and substance abuse cannot be completely defined by the mediocre influences during the teen years or adulthood, it can now be stated that the most influential period during an individual's life that may later promote delinquency and substance abuse, is childhood (Moffitt 1993). This finding then suggests that delinquency and substance abuse during adolescence and further adulthood, stems from childhood misconduct and anti-social behavior (Moffitt 1993; Patterson 1993). Due

to childhood being the most influential period for later anti-social behavior, theorists now state that the initial family processes are of a main influence in the progression of later substance abuse and delinquency (Akers 1994, Patterson 1992, Moffitt 1993).

A number of findings show that adults and parents promote anti-social behavior and childhood mis-conduct when:

- There is poor parental supervision.
- There is a lack of discipline for inappropriate behaviour.
- The parents neglect or abuse their children.
- Parents fail to support social activities and conventional behavior (Conger, 1992, 1993, Hawkins, 1992).

These studies then suggest the importance of family in the early life course stages and the implications it may later have on substance abuse. Therefore taking these aspects into account now means they later need to be implemented in the social rehabilitation phase. The concepts of family, inclusiveness as well as proper conduct for misbehavior are all models that when implemented will support the process.

There is current thought to imply that the family and the initial processes during childhood have shared or reciprocal characteristics, and in so doing impact on proper parenting skills as well as childhood discipline (Conger and Rueter 1995, Lytton 1990, Thornberry, 1991, Vuchinich, 1992). This notion then portrays the family intentions clashing with those of the child's, both having negative effects on each other. It is noteworthy to remember that the shared or reciprocal influences exist in other social contexts such as school and community, and not just in the immediate family. These influences are further promoted when associated with delinquent peers and other forms of anti-social influence (Elliott, 1989, Hawkins, 1992).



In a study conducted by Sampson and Groves (1989), community influence and participation as well as parental involvement in social networks, has been proven to decrease youth delinquency and thus substance abuse, motivating adult presence within communities to reduce anti-social influences (Richters and Martinez 1993). This statement highlights aspects in porosity theory. The melding of spatial boundaries between community and families helps achieve a better surveillance and presence (S.Holl, 2002). Community participation and involvement facilitates in reassuring the individual of the choices they are making, and by doing so the possibility of a future using substances. The supportive community aspect not only needs to be recognised from the early childhood influences but in the social rehabilitation phase as well.

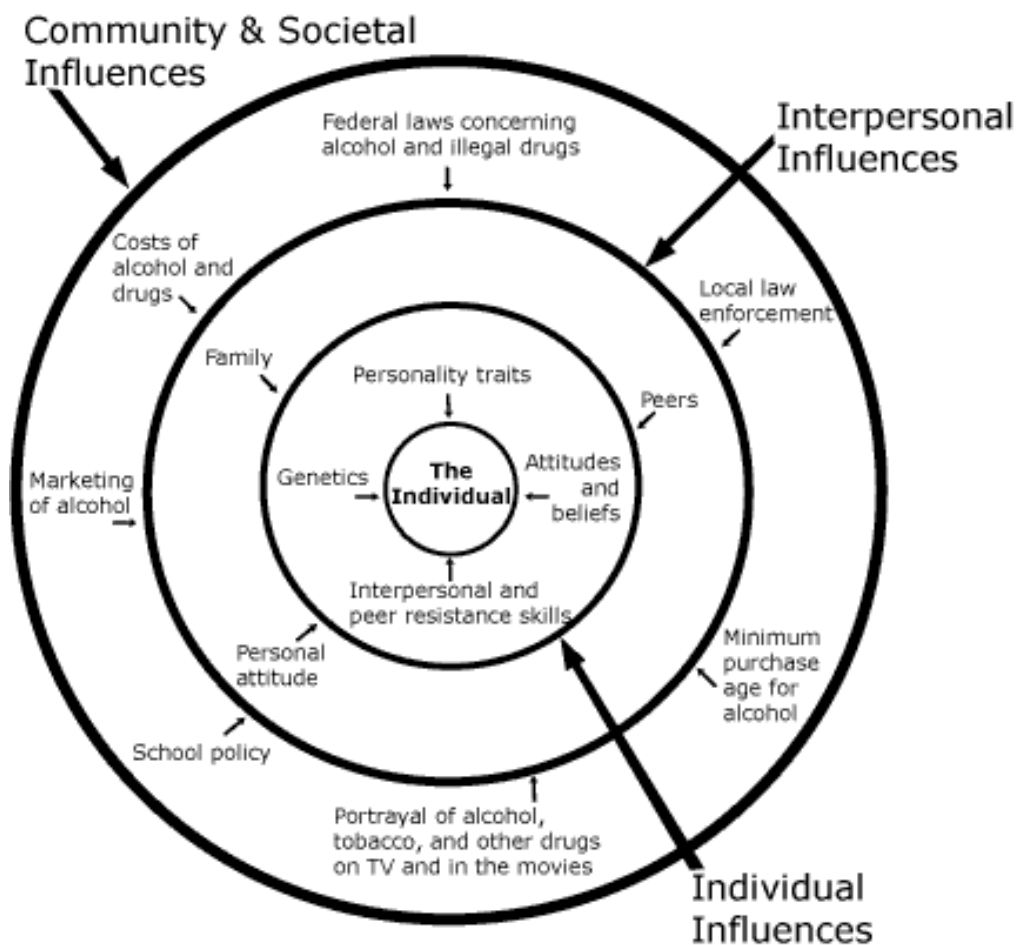


Figure 6 - Model of influences related to substance abuse. ([www.knowledgex.camh.net](http://www.knowledgex.camh.net))

The research thus far has made clear of the importance that social contextual influences have on delinquency and youth substance abuse, furthermore it has formulated an approach to the development of anti-social behavior in youths who abuse substances:

- Anti-social behavior progresses with time.
- Later anti-social and delinquent behavior stems from early childhood misconduct.
- Initial influences founded in family relationships.
- Reciprocal or shared influences within the family.
- Reciprocal or shared influences in school, community and in association with peers.

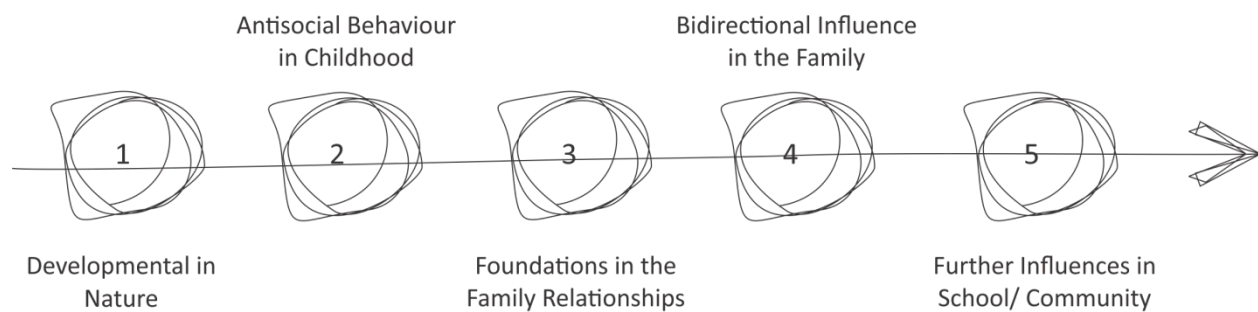


Figure 7 - Developmental nature of the main notions related to substance abuse. (Author, 2014)

#### 4.2.3 A SOCIAL-CONTEXTUAL MODEL OF YOUTH SUBSTANCE USE AND ABUSE

To develop an accurate model that represents the social contextual influences impacting on youth substance abuse, the previous notions mentioned would need to be considered, from the developmental nature of anti-social behavior, right through to the influences from school and community respectively (figure 7). These behavioural dispositions are created early on in childhood years and manifest through to adulthood (see life course stages in figure 8). The social framework influencing youth substance abuse recognises community, larger groups in society, and the family as an integrated web influence. Within the influential web, reciprocal and shared behaviours between individuals and their immediate social contexts should also be

noted as key areas where anti-social behavior may stem from, as well as different areas of interpretation from the individual, from biological and emotional mechanisms to cognitive analyses.

Within this study of the model, a few areas are considered relevant and made clear in figure 8, through the formulation of a model of risk towards youth substance abusers. The influence of substances early on in childhood years is proven to have detrimental effects later on into adulthood, and seeks to be a noteworthy area for social contextual development.

Important to note that the current model can include further life course stages and levels of analysis, however with youth substance abuse, the early life course stages and influences carry more relevancy. As mentioned before, delinquent peer influences as well as misconduct problems in early childhood years are all indicators of possible later anti-social behaviour, highlighting the relationship between delinquency and youth substance abuse (Hawkins, 1992).

Therefore it should be noted that the information used to develop the model was retrieved from both delinquent and substance abuse literatures. Personal characteristics of the individual play an important role in the interpretation of the social contextual influences, and therefore show that the immediate social context and an individual's behaviour have a direct relationship with one another.

Primarily considered are individual characteristics and levels of analysis involving biological processes, emotional response, and cognitive functioning, which are then placed within the more general model.

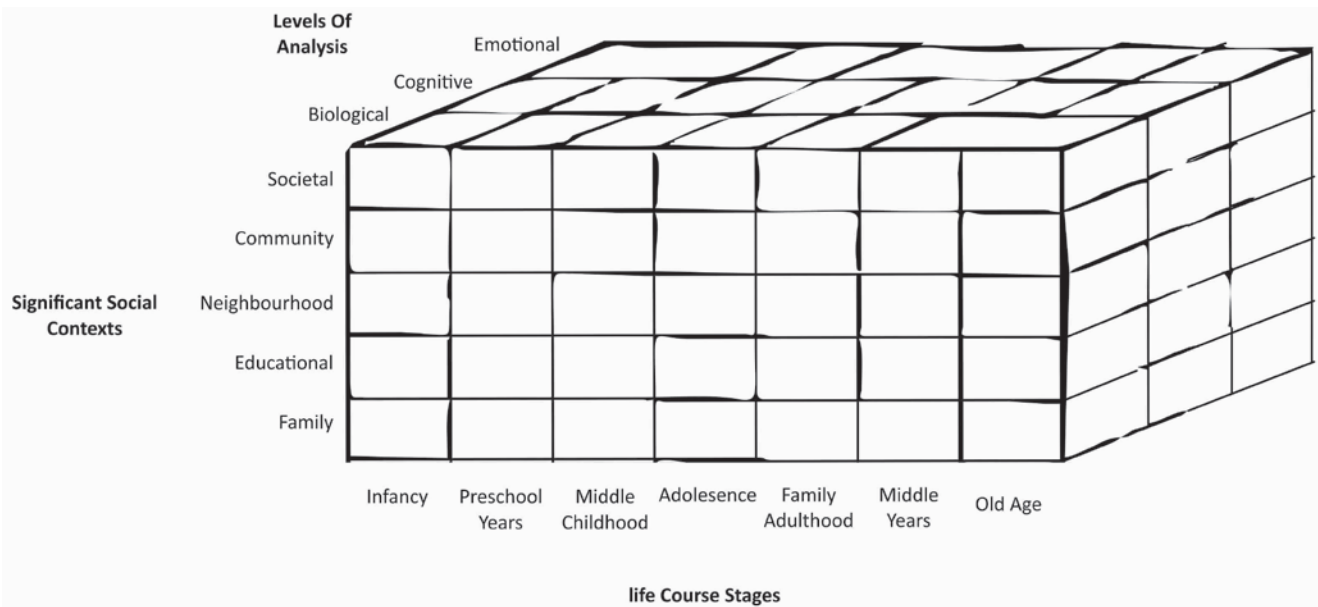


Figure 8 - Developmental model specific to individual influences and interpretations. (Sourced from: D,Conger. Re-illustrated by Author, 2014)

Figure 9 makes clear of the main social contexts which seem to be the most influential in terms of antisocial behavior, and later substance abuse. Namely, the family, school and community which also includes influences from association with delinquent peers (Chassin, 1993; Hawkins,1992).

A general outlook of the overall influences and areas of risk, for youth substance abusers is highlighted within the model in figure 9. The model takes into account the developmental approach of substance abuse as shown in figure 7. Initially the model depicts that substance abuse during the adolescent years is due to childhood misconduct and its developmental progression later on in the life course stages (Hawkins, 1992). The model in figure 9 then further portrays that conduct problems in both early childhood and later on in the life course, stem from the initial social context of the family. The social contextual influences found in the family produce shared and oppositional behaviors, which further promote anti-social behavior as well as disrupt family relationships and activities. Furthermore the anti-social behavior and misconduct within the individual is related to larger social groups of school and community,

which are made clear in the model. The variety of social contexts and their influences on the individual are later imposed on the family, reassuring the statement that an integration of social contexts becomes a web of social contextual influences.

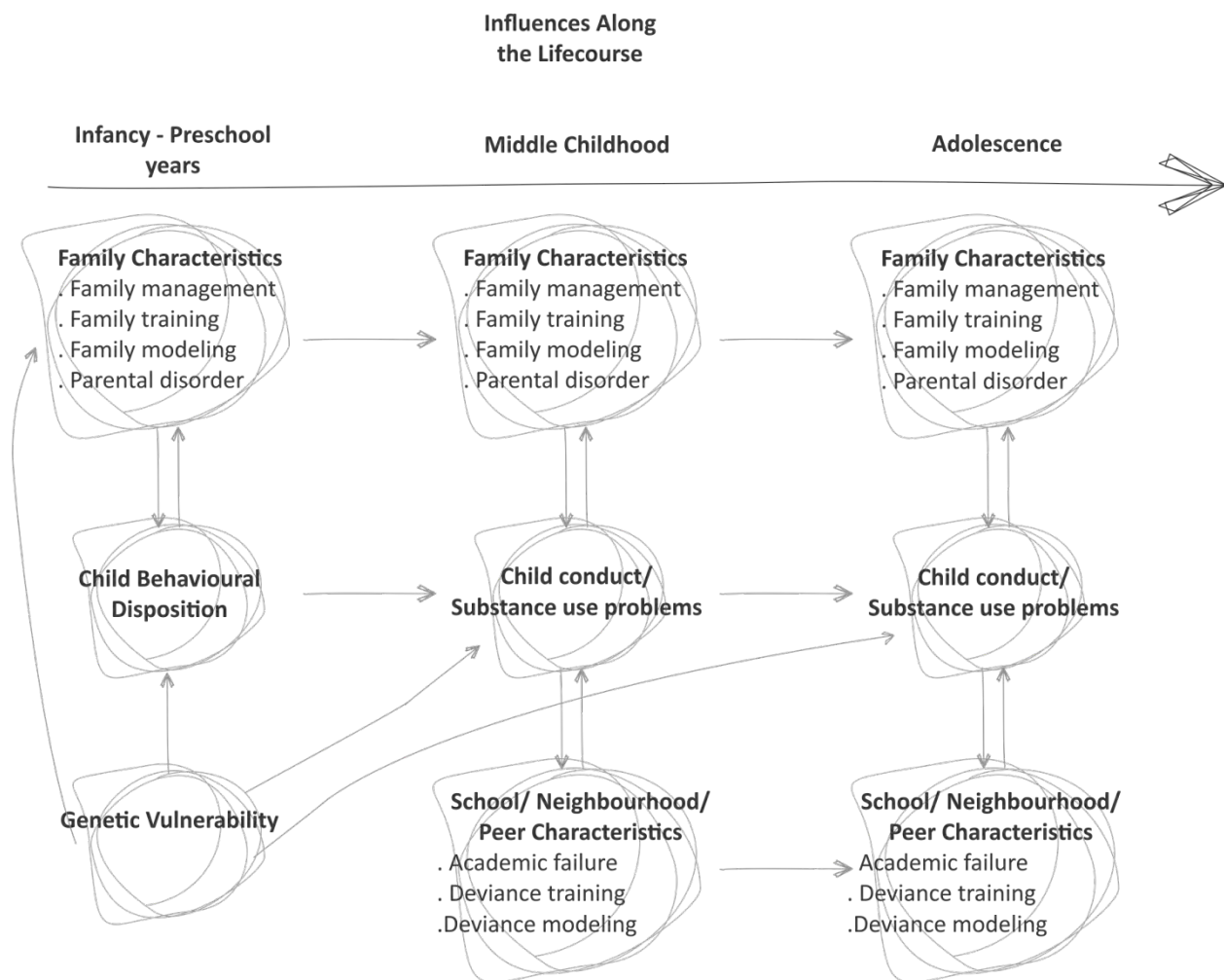


Figure 9 - Developmental model specific to more external/social influences. (Sourced from: D,Conger. Re-illustrated by Author 2014)

#### 4.2.4 CONCLUSION

The main thread within the influences from social notions is one of the family unit as well as community and its complex layering of relationships, and how they become a support structure

for the individual. This touches on areas of social construct theory in which they are self-supporting. Communities and families support each other. It can be seen from the literature just reviewed that without these relationships and support networks, of family and community, it is easy to make poor decisions within the social realm that will have negative influences in a substance abusing context. The foundation of these relationships needs to be rebuilt within the social rehabilitation process for the individual to understand fully the decisions they make and the result of those decisions.

The development of the social contextual model (figures 8 & 9), defines the dimensions which directly affect substance abuse and their progression. The Model helps to express certain areas of influence and their relationship to each other, this then provides a better understanding of the influential variables. However, this is a theoretical model and cannot account for instances in social contexts and levels of analysis, where individual environmental perception differs from the general theoretical perception. General theoretical perception would suggest an automatic response, which contradicts lens theory of environmental perception which continues to perceive the environment to maintain an accurate perception.

In summation, the loss of opportunity/ambition in an individual is likely to result in antisocial behaviors such as depression may lead to possible substance abuse through negative emotional states. Social environmental aspects within the social realm, have a relationship with these emotions, and are vulnerable to substance abuse, delinquency and other forms of misconduct. Therefore emotional un-stability in this context is likely to lead to substance abuse as a form of negative reinforcement.

Biological processes have a direct relationship to learning and behavior and have always been argued as an inherited genetic disposition and proven in some cases. This fact then means that environmental influences are just as important in relation to human behavior. Substance abuse behavior is affected mostly by environmental influences in the family and the reciprocal impact this has on other siblings and parents. Moffit(1993), notes that areas of social disadvantage

such as poverty are more susceptible to a substance abusing environment. Our Biology affects our environmental perception, this is supported by lens theory of perception in that all individuals perceive in a different unique way.

Aspects of cognition are directly related to an individual's environmental perception and, thus there behavioural predispositions as well. However these cognitive processes can also be used to move past antisocial behavior. Cognitive processes with others and their interactions can affect the social experience and possible substance abuse. Cognitive processes are more of a reflection of the home environment rather than a perception, and the likelihood of substance abuse would relate back to social experience. Social contexts affect social experiences, and therefore cognitions related to misconduct and substance abuse.

The research into proximal influences identifies the main contributors as being school, family and the community. Social experiences in these groups can develop delinquent and substance abusing behaviours over time. Also note that the reciprocal influences between parents and child also impact the community. Substance abuse in the family environment sets a positive tone for the child to imitate as well as being influenced through the families antisocial behaviour. Low income areas are more susceptible to substance abuse through high crime and delinquency rates, thus increasing social reinforcement of these acts in such areas. School to the antisocial child will be difficult due to the social experiences and interactions required to make friends and have a positive academic environment. This again develops the basis for social exclusion. Peer influences play a huge part in substance abuse behaviour through peer pressure as well as their positive reinforcement. This appears to be the primary influence for the child after the home environment, this is due to the reciprocal behaviour between the peers and the individual. One supports the other.

### **4.3 SOCIAL REHABILITATION FOR YOUTH SUBSTANCE ABUSERS**

#### **4.3.1 INTRODUCTION**

The following information will reveal that, social rehabilitation intends to maintain treatment through employment strategies and avoid relapse through a complete perspective of an individual, with the over-all aim of social inclusion. More so, social rehabilitation is a fundamental part of full recovery from substance abuse, and its scope is broader than traditional substance rehabilitation. The research further explores the relationship between recovery and rehabilitation and how the two are defined, recovery being a construct within rehabilitation. Social barriers are identified for problem drug users and defined in two ways, personal barriers and structural barriers. These barriers directly address forms of social exclusion. Activities into addressing social barriers are explored from vocational training to appropriate housing environments.

This research is undertaken to gain a better understanding of the concept of social rehabilitation for youth substance abusers, and how these components can be implemented and addressed in the typology of a social rehabilitation centre for the youth in Durban.

### **4.4 DEFINING SOCIAL REHABILITATION**

#### **4.4.1 SOCIAL REHABILITATION AND RECOVERY**

The process of recovery from problematic youth substance use is defined by voluntarily sustained control over substance use which promotes health and wellbeing as well as participation in the rights, roles and responsibilities of society. The recovery process relative to youth substance abuse can then be defined under certain areas that need to be addressed. Namely:



1. Health, (mental and physical)
2. Family and social support
3. Adequate housing and healthy environments
4. Colleague-based support
5. Employment
6. Vocational skills and education
7. Community integration
8. Finding ambition and purpose in life.

Important to note, three of these areas such as, safe housing and healthy environments, employment, and vocational skills and education are globally recognised as areas to develop with regard to youth substance abusers and their social rehabilitation. These areas can all be interpreted as constructs within the main social construct that is society, for as these develop in the individual so does the likelihood of social inclusion.

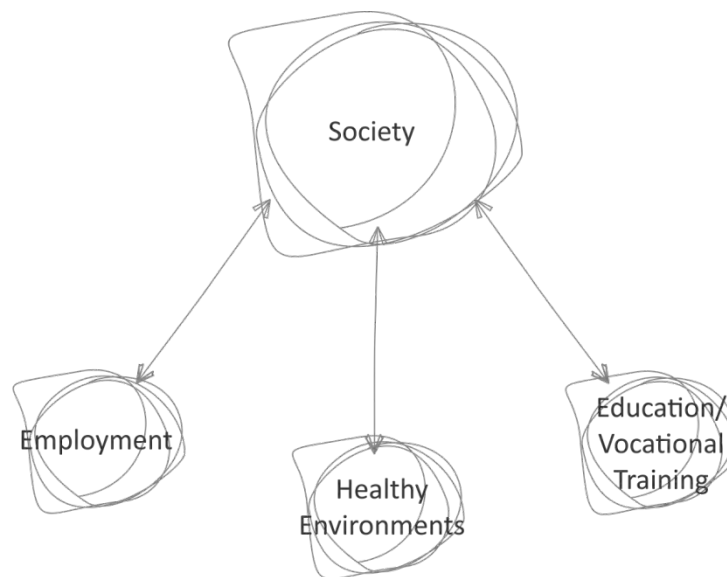


Figure 10 - Sub constructs (employment, healthy environments, education) within main construct of rehabilitation supporting the main concept of society and social inclusion. (Author, 2014)

The difference between social rehabilitation and recovery is dependent on the interpretation of the notion of 'recovery'. Traditionally it promotes self-restraint against substance abuse, and it can almost be interpreted as an isolated process from social rehabilitation. However, recently the notion of 'recovery' includes other aspects, some of which have to be achieved in order to receive a full social rehabilitation (White and Mojer-Torres, 2010). Therefore it can be deduced that recovery is a fundamental aspect of an individual's over-all social rehabilitation.

Nonetheless, rehabilitation as well as recovery has a broader scope, which can take into account aspects such as maintenance of drug use, physical health, mental condition and social relationships.

#### **4.4.2 IDENTIFYING SOCIAL BARRIERS FOR PROBLEM DRUG USERS**

There is a positive indication to suggest that the achievement of employment based programs within social rehabilitation contexts, can promote employability, and indirectly assist substance abuse rehabilitation. However, the completion of such programs does not assure that work can be found or maintained within the broader social context.

Within the current social context there are minimal legal issues that discriminate against substance users, however several barriers towards social inclusion of substance users, and have been made noteworthy in a number of publications. (Effective Interventions Unit, 2001; Klee, 2002).

The barriers of social inclusion can be defined as either structural or personal:

- i) Personal barriers can include aspects of poor education, minimal work experience, low levels of understanding, poor physical or mental health, criminal activities, as well as inadequate housing environments, erratic lifestyles, and limited ambition:

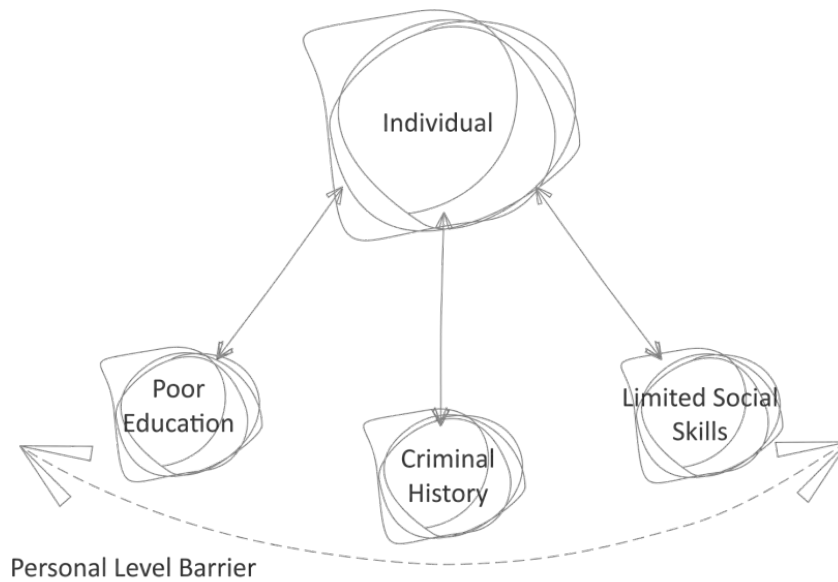


Figure 11 -Personal barriers illustration. (Author, 2014)

- ii) Structural barriers can include compulsory daily treatment, interrupting employment routines, inappropriate times of substance treatment related services, such as facilities that are incompatible with employment times, and a lack of integration and coordination between individuals needs and what society needs from them.

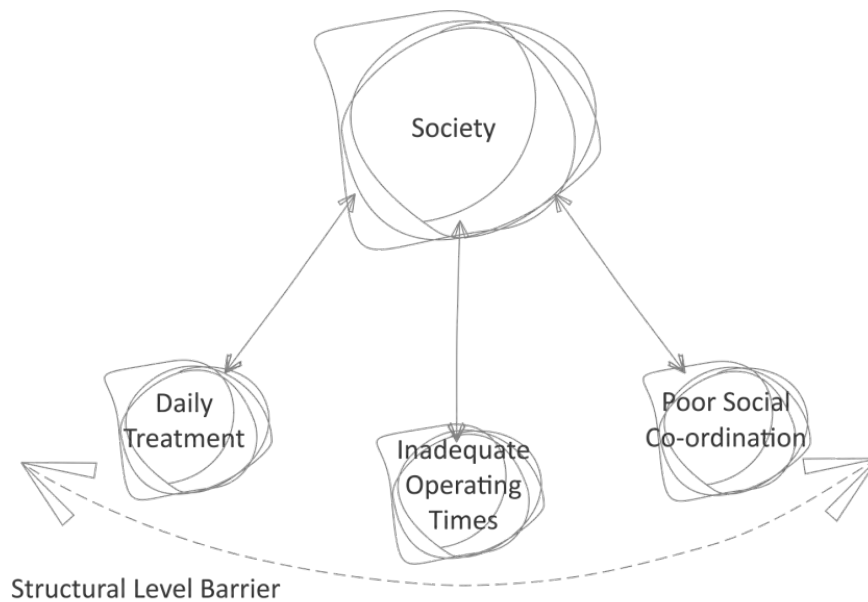


Figure 12 - Structural barriers illustration. (Author, 2014)

These personal and structural barriers are implications on the individual in the current employment market, and allow for minimal opportunities for workers with poor education and limited employment skills. The recent global recession (European Commission, 2009), indicated that many previous substance users will be in an even more severe position within the employment market when trying to attain employment, due to their insufficient skills and training.

#### **4.4.3 SOCIAL REHABILITATION ACTIVITIES TO ADDRESS BARRIERS**

Current findings on unemployed people, (not only drug users) suggest that programs focusing on a wide range of issues are more beneficial than those that only focus on employment. This is suggestive of the approach that will be initiated in the intervention towards an efficient social rehabilitation, which will address many of the barriers previously described:

- Drug treatment intends to focus on the physical and mental issues related to substance abuse and can also address other areas by providing services such as vocational training and education. Drug treatment is the first and initial part of the rehabilitation phase, however it should be noted that within the scope of this study physical drug treatment should be understood, but will not be implemented within the typology of the social rehabilitation centre.
- Housing support facilities provide provisional accommodation as well as access to other forms of infrastructure such as counseling, substance abuse treatment, and social activities, a sense of community, as well as education and training.
- Education and (vocational) training can be offered in a range of environments and facilitate to motivate the individuals resources and human 'capital' essential to achieve social rehabilitation.

- Employment initiatives create a foundation of support for individuals in the employment market, as well as job opportunities for those who are unemployed and searching for work in the current employment context, thus they also address barriers such as low confidence.
- General policy is required to focus on structural barriers, by motivating integration and management, as well as addressing practical issues that previous substance abusers users may face.

#### **4.4.4 CONCLUSION**

In summation, the literature reviewed has helped to define and identify areas in which rehabilitation can be addressed through the aspects of recovery capital. These areas of capital can be related back to notions in social construct theory, and the way in which these personal constructs (education, training, housing..etc.), achieve an overall efficiency for the benefit of the entire system. Thus, as the individual achieves goals within personal constructs, so to can the construct of society benefits as well. The research also makes clear the wider scope of recovery and rehabilitation and in doing so their valued importance within the typology of a social rehabilitation centre.

The literature has shown that society and the individual both pose implications on their likelihood of recovery and treatment, as well as portraying how society views problem drug users, namely through areas of employment and social expectation. Barriers for social exclusion are divided into two groups, personal and structural respectively. Personal areas are those of individual deficit, such as poor or limited education and inadequate housing environments. Structural refers to the social system, and how it confines opportunities for problem drug users to receive treatment and still contribute to society at the same time. These notions relate back to areas in both social construct theory and environmental perception theory. In social construct it refers to the unbalancing between personal and societal constructs, and in terms of

lens theory of environmental perception, that all these constructs are interpreted individually to form an accurate perception of what the rehabilitation process should address.

Finally research into how these barriers can be addressed is investigated, and that addressing a variety of social inclusion issues is far more beneficial for the individual than merely addressing livelihood or employment (Meadows, 2008).

The analysis into the activities that address these barriers begins to develop a framework in which social rehabilitation can be implemented, thus justifying effort put into appropriate areas of rehabilitation. These areas can be seen as smaller constructs directly affecting the bigger construct of rehabilitation, and more so the biggest construct of society and social inclusion.

Approaches into promoting areas of social rehabilitation and addressing the barriers previously mentioned, will be focused on in the next section.

## **4.5 APPROACHES TO PROMOTE SOCIAL REHABILITATION**

### **4.5.1 INTRODUCTION**

In the following body of literature, aspects from education and housing, to community reinforcement and ultimately altering the overall perception of drug users will be addressed within the context of social rehabilitation and social inclusion. The aim is to gain a greater understanding of the processes that are fundamental to rehabilitation, so that later they can be considered and incorporated into the typology of a social rehabilitation centre for the youth. Majority of these aspects have been used to motivate employment market involvement as a fundamental of social rehabilitation for youth problem substance abusers.

#### **4.5.2 GENERAL REHABILITATION**

The term rehabilitation within the context of social rehabilitation, is defined by the actions that are implemented on individuals with impairments, whether physical, mental or emotional, and how they impede on these individuals to fully partake in social norms, such as maintaining employment as well as managing social and personal relationships (Scottish Executive, 2007). It can therefore be stated that employment based rehabilitation strategies for youth substance abusers, can be categorised under the context of social rehabilitation.

Employment based rehabilitation strategies such as education and training, are implemented in order to develop an individual's personal attributes and characteristics, which may further assist in them gaining employment and maintaining it later on in the social realm, after the rehabilitation process is complete. These attributes are referred to as human and social capital respectively (Becker, 1964, Koo, 2007, p. 1036). The success of these employment based rehabilitation strategies is largely dependent on the immediate social context of the community, as well as the current housing implications of the individual.

The development and rehabilitation of an individual's human and social capital, promotes positive social norms and slowly integrates them back into the society. This integration helps to maintain basic fundamentals of housing and employment as well as create meaningful relationships with other individuals and the community.

#### **4.5.3 HOUSING**

Housing and the immediate dwelling environment of an individual has an intricate relationship with an individual's well-being, social and economic status, and by association whether or not they use or abuse substances. These aspects relative to the individual are all related and usually stem from similar socially disadvantaged backgrounds (Pleace, 2008). Housing and a stable home environment have been proven to facilitate employment and assist in positive human well-being (Ferguson, 2004).

Within the context of youth substance abuse, there are a number of ways in which housing support becomes a struggle to achieve, such as finding a deposit and rent subsidy. Social rehabilitation and employment based rehabilitation strategies, aim to challenge this notion through the development of human and social capital, of youth substance abusers. This is done so that once the individual has been fully rehabilitated, and they are unable to return to a positive dwelling environment, they can create their own with the skills developed during social rehabilitation. This aspect of housing and its relationship to the recovery of youth substance abusers would need to be accommodated in the social rehabilitation phase through forms of transitional housing.



Figure 13 - Example of transitional housing within rehabilitative environments.  
([aslathedirt.files.wordpress.com](http://aslathedirt.files.wordpress.com))

It has been stated by Somers and colleagues (2007), that there is proof to suggest that, consideration of housing for youth substance abusers has had beneficial effects on a number of social variables, such as maintaining an occupation and the development of social networks.



#### **4.5.4 COMMUNITY REINFORCEMENT APPROACH**

Community and supportive social networks within the context of youth substance abuse and related issues, aims at managing and treating problem behaviours of individuals through the community reinforcement approach (CRA). The support from the community can be achieved in a number of ways, through basic skills training and education, to counselling and substance related therapy (Higgins, 1993). A critical assessment of the effectiveness of the CRA approach was conducted by Roozen (2004), and found that there were positive outcomes, especially within the context of youth substance abuse, and management towards their rehabilitation.

The previously mentioned statement highlights the importance of community and what a network of support can achieve. Community and its influence on the social rehabilitation of the individual can help facilitate a full recovery, as well as promoting forms of social inclusion and reintegration.

#### **4.5.5 VOCATIONAL TRAINING**

Vocational training includes a number of activities which focus on employment based rehabilitation strategies, and aim to promote work discipline, self-esteem and improve social skills for youth substance abusers. The overall intention is to develop a set of skills in which the individual can specialise in, to further their employability in society. Skills development within the context of vocational training is usually implemented through substance rehabilitation centres or government run programs. The comprehensive employment support program is an example of a successful vocational training initiative conducted in the United States, which includes occupational support, employment initiatives, case management as well as substance therapy and counseling (Staines, 2004).



Figure 14 - Typical examples of vocational training in industry, textiles, workshop and agricultural related skills, with the overall goal of employment and social inclusion. (Composed: by author 2014, sourced from: [cdn.mg.co.za](http://cdn.mg.co.za), [farm4.staticflickr.com](http://farm4.staticflickr.com), [lwfjerusalem.org](http://lwfjerusalem.org), [www.undp.org](http://www.undp.org))

Important to note is that vocational training programs are successful and improve employability, however success in this regard is mostly dependent on the individual and their immediate social context, as well as the development of their human and social capitals during the rehabilitation phase. Although training may be successful, it does not guarantee employability (Foley and colleagues, 2010).

#### **4.5.6 EDUCATIONAL TRAINING**

Youths who are subject to substance abuse, more often than not receive poor education due to lack of attendance in school and the implications that substance abuse has on the developing brain and mind (Brook, J 2005). Education within the context of social rehabilitation for youth substance abusers is aimed at properly developing basic literary and mathematic skills, to give the individual a fundamental academic platform from which to develop.

As mentioned before, specific skills training will be implemented in the vocational training phase, however to achieve necessary employment in any occupation, individuals require a basic education, as well as assisting individuals to partake in other social norms.

Education as well as vocational training will be integral parts of the social rehabilitation program for youth substance abusers. These aspects of rehabilitation will be implemented through a number of seminars and classes, as well as work experience placements and a variety of industrial and non-industrial skills training, to further the individual's chance of employability and future success in the social realm.



Figure 15 - Example of typical educational environments. (<http://4.bp.blogspot.com>, <http://finland.fi>)

#### **4.5.7 VOLUNTEERING AND TEMPORARY WORK EXPERIENCE PLACEMENTS**

Work experience placements and employment volunteering, have become valuable aspects of social rehabilitation, and in the context of youth substance abuse it promotes individuals work place discipline and self-confidence in order to complete a certain task (Hasluck and Green, 2007). It becomes a platform for the individual in which they can prove to themselves, and the employer that they are able to maintain and conduct successful employment in the work environment.

It is important to note from the perspective of the employer, that the process of work experience placements and volunteering require resources such as time, management and co-ordination, which should be taken into account when individuals wish to partake in this phase of rehabilitation. This part of the rehabilitation is focused at preparing the individual to take on a specific position in the work environment, with their vocational training as the fundamental basis for development. Hasluck and Green (2007), state that there is some proof to imply that this phase of rehabilitation involving volunteering and work experience yields positive results of employment for individuals struggling with former substance abuse related issues.



Figure 16 - Practical working experience opportunities. ([www.schuetz.net](http://www.schuetz.net))

#### **4.5.8 RETRAINING AS DRUG WORKERS**

Many former substance abusers who have completed successful rehabilitation are often called upon for their experience and their ability to connect with others in rehabilitation. These individuals are able to make a beneficial impact on those currently in rehabilitation and usually begin as volunteers, or those wanting to develop a career in substance abuse treatment and counselling. Doukas and Cullen (2011), found that in the United States, ex substance abusers were first brought in to substance related treatment programs in the mid 1970's, and were employed under the title of 'paraprofessionals'. They further found that the employment of these individuals promoted the credibility of treatment as well as the motivation of the individuals undergoing rehabilitation.

#### **4.5.9 CONCLUSION**

In summation the approaches to promote social rehabilitation are done so with the ultimate intent of reintegrating previous youth substance abusers into society through means of employment, education and general quality of life.

Housing and a healthy home environment have been shown to have a direct effect on an individual's quality of life, and therefore vitally important to consider within the context of youth substance abusers and their social rehabilitation. Transitional housing would need to be implemented within the typology of the youth rehabilitation centre with the fundamental notion that a safe, healthy and secure home environment is conducive to a full recovery and further more stable employment in the social realm.

Investigations into the effect of community reinforcement within the rehabilitation process have shown that the surrounding community can be a valuable asset. Communities form smaller societies within the bigger construct that is national and global society. Therefore, within the typology of a social rehabilitation centre, the surrounding community is their constant reminder of the social realm. This aspect of the community and the individual's interpretation of community during this process will need be considered into the design. Housing and community both touch on theories of porosity and how the absence of spatial boundaries represents several areas of transition. Therefore within the intervention, spaces, boundaries and functions should be made clear as to provide proper surveillance and general flow of process.

Vocational training is a fundamental of the rehabilitation process and is aimed at providing the individuals with a skill set in which he/she can use in order to achieve employment and over all reconnect with society. These skills are often specialised and within the immediate context of their social realm. Important to note is that programmed approaches to vocational training prove most efficient with regard to later employment, (ie: counseling, job search, case management, etc.). Also employability is first and foremost subject to the individual whether it motivation or skill based. Clearly vocational training will play a major roll within the typology of

the social rehabilitation centre as well as the community. Vocational training touches on aspects of social construct theory in the way the world is categorised and labeled, and that playing a part in society benefits the individual as well as the over-all construct.

Education, used here as a term to describe a knowledge and understanding. It is a fundamental within the social realm to have basic education, so that all within the world can have a general understanding of one another and the efficiency of day to day life. Within the context of social rehabilitation basic education is provided as part of the process, (reading, writing, arithmetic), as well as an understanding. The understanding of why the individual must embrace society, why they need to contribute to society and mostly to attain an ambition which will keep them motivated through their life course.

The research has made clear the value that temporary work experience placements have on former substance abusers during their social rehabilitation. The opportunity to gain workplace experience as well as change the perception of former users is made available to the individual. These opportunities help to increase the likelihood of later employment in the social realm, without completely exposing the individual to the new realities and challenges of the job market.

In summary, social rehabilitation is about increasing the human, social, economic and institutional capital of vulnerable individuals with the ultimate aim of ensuring that all members of society have the same opportunity to participate fully in societal life.

## **4.7 THE IMPACT OF THE ENVIRONMENT ON SOCIAL REHABILITATION**

### **4.7.1 INTRODUCTION**

The following literature will attempt to investigate what aspects of environment have an impact on the process of social rehabilitation, as well as general quality of life and human well-being. This section is divided into two parts, namely elements of the natural environment that affect rehabilitation, as well as characteristics of the built environment. Aspects from light and ventilation in the natural environment, through to colour and space making in the built environment are addressed within the context of social rehabilitation of youth substance abusers. This is done so in order to analyse what aspects of the environment can be integrated into the typology of the social rehabilitation centre for the youth, which would ultimately facilitate the process.

### **THE NATURAL ENVIRONMENT**

#### **4.7.2 NATURAL LIGHT AND VENTILATION BENEFITS FOR PATIENTS AND WORKERS**

The benefits of natural light and ventilation in rehabilitative facilities is reduced lighting and heating costs, as well as improved physiological and psychological influences for both patients and staff. Studies show that natural light and daylighting, along with proper cross ventilation in a building, can reduce the mental and physical strain of patients, doctors, and nurses.

“Daylighting offers a sense of spirituality, openness, and freedom from the prison-like confinements and intensity that characterise windowless spaces” (Verderber 1983).

The benefits of natural light and ventilation coupled with the feeling of openness extend to the staff, visitors, and patients. Studies also indicate that ventilation and proper daylighting can lower a facility’s operating costs due patient’s faster recovery. The spatial quality from windows has also been noted as having a therapeutic characteristic by providing rustic views and natural

light, therefore an environment becomes more therapeutic with more spatial quality (Vischer 1986; Verderber 1983).

Medical facility staff can also benefit from better lighting. Studies have been completed on the performance of night shift nurses under bright lights. By shifting the circadian (24 hour) rhythms of the nurses with the use of brighter lights, nurses were able to improve the number of correct answers given in a generalised questionnaire, as well as decrease the time to take the test (Dilouie 1997). The night shift nurses demonstrate the effects that brighter lights have on institutional facility workers and show the positive effects of better lighting conditions in these buildings.

Artificial light is not an adequate substitute for natural light for physiological reasons. Sunlight is natural and has direct correlation to the growth of humans and living things. Exposure to constant artificial light is unnatural (Mahnke, F 1996: p. 117). The excessive amount of artificial light has been found to cause light stress amongst people. Light is one of the most important environmental demands in controlling the bodies function (Mahnke, F & Mahnke, R 1987: p. 52).

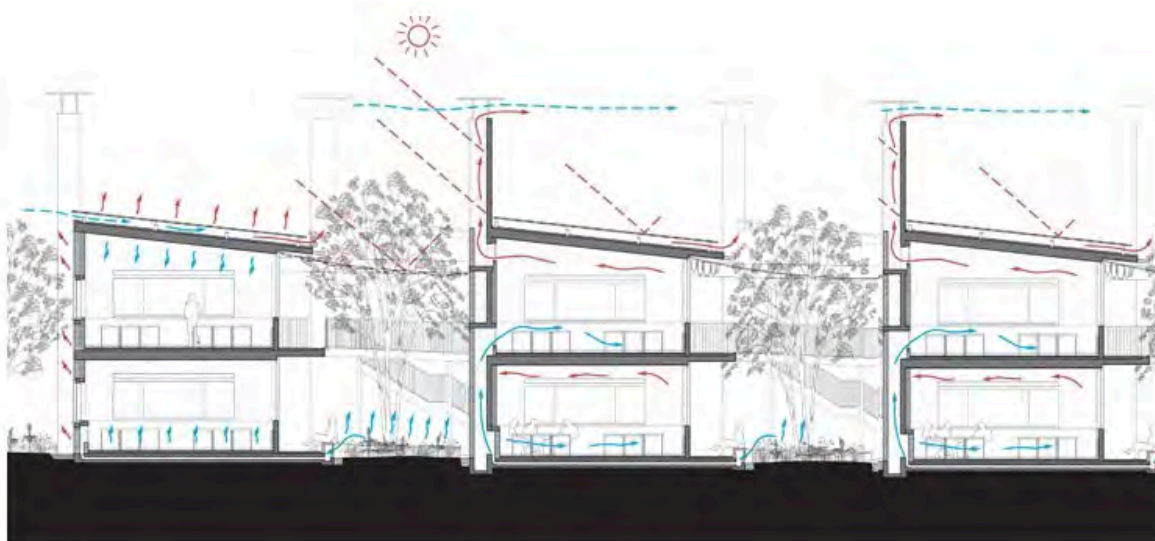


Figure 17 - Example of basic natural light and ventilation, strategies and principles.  
([www.carboun.com](http://www.carboun.com))



#### **4.7.3 THE HEALING PROPERTIES OF LANDSCAPES AND GARDENS**

The relationship between humans and nature has been recorded back to early parts of civilization and most likely many years before that. The Bible shows the interpretation with the birth of mankind taking place in the Garden of Eden. Historical and scientific research has shown that early civilizations valued nature, plants, trees and landscapes and learnt the importance of embracing this relationship for a prosperous life. What is important to note here, is that this relationship and the value mankind places with it has not diminished.

At the most fundamental level, humans have always been an integral part of the environment of earth in which interactions and experiences occur every day, therefore one can see how the relationship with the natural environment (plants, trees, landscapes, water) became so important to humans. The natural environment has aspects in both urban and rural settings with include a multitude of green spaces, courtyards, squares, gardens and plains of which some are naturally occurring and others man made. The concept of gardens and nature within architecture has been explored, meanings and functions have changed over time, however they are still fundamentally important to individuals and the environment (Robbins: 2001; 637- 659).

##### **Plant Usage and its Impact Wellbeing**

Before the 1960's gardens, plants and landscapes were thoughtfully integrated into healthcare systems and hospitals for the therapeutic reasons, however with economy and globalisation at the time rapidly increasing, these spaces were lost. It is, important to note however, that within the USA recently the Department of healthcare has urged that the integration of more therapeutic gardens and natural elements be incorporated in an attempted to widen the healing scope and therefore reduce patients time in healthcare and rehabilitation facilities (Beal:2004; 58-53).



Figure 18 - Example of therapeutic garden in hospital context.  
([www.healthcaredesignmagazine.com](http://www.healthcaredesignmagazine.com))

In about 1985 there was a general rise in the interest of the effect of the natural environment on humans healing processors, well-being and state of mind. There was a dramatic increased awakening to the role that gardens and landscapes could play in the rehabilitation process (Larson & Kreitzer: 2005; 1-2). A Study conducted in 1984 by Rodger Ulrich, showed that post surgery patients who had access to a window and a view of nature needed less drug treatment and recovered quicker than those not exposed to nature (Ulrich: 1984; 420-421).

As a result of this study and those that followed, healthcare, rehabilitation and wellness centres realised the need to incorporate the natural environment into their processes (Larson & Kreitzer: 2005; 1-2). According to the Joint Commission for the Accreditation for Hospital Organisation (JCAHO) states “Patients and visitors should have opportunities to connect with nature through outside spaces, plants, indoor atriums and views from windows” ([www.jcaho.org](http://www.jcaho.org)).

## Principles of Healing Gardens and Therapeutic Landscapes

As far as gardens are concerned within the built environment, they relate to 'landscape architecture', and how it can derive rehabilitative and healing landscapes as well as therapeutic gardens (Larson & Kreitzer: 2005; 2). The term 'Healing' or 'therapeutic' garden is associated with gardens that have been designed in such a way, as to help heal or provide therapy from an ailment or traumatic injury. Healing is a vastly broad term and for this context of social rehabilitation it is not designed purely to cure illness or disease, but to contribute and improve the individual's over-all well-being and state of mind. (Larson & Kreitzer: 2005; 2)



Figure 19 - Example of typical healing garden. (blog.lib.umn.edu)

McDowell & Clark-McDowell (1998) stated that healing or therapeutic gardens must value and celebrate the broader human relationship between nature and human spirit, and not just our relationship with plants, trees and landscapes. From this, McDowell (1998) derives six general principles when considering the design of a healing or therapeutic garden. They are:

- 'A significant entrance' should be welcoming and embrace the individual into the space.
- Water should be used for its spiritual relevance, physical and the psychological affects it has on an individual.
- Dynamic use of colour and light in the garden spaces, either natural or man-made, as it helps to increase the emotion of 'comfort' and 'content' in the individual
- Natural features should be integrated such as rocks, wood, screens, natural fences, sound and wind, as they become grounding points and have a calming effect.
- Form and sculpture can also be integrated into the garden to enhance the spirit or experience.
- Garden features used should attract wildlife and provide a certain level of animal diversity.

Larson & Kreitzer (2005) stated that, the most fundamental aspect of therapeutic or healing garden is that it should "comfort the soul" and renew the spirit (Larson & Kreitzer: 2005; 4). However, 'Therapeutic landscape design' is designed to have a specific affect and outcome, targeting a certain ailment or medical issue. Therefore this type of specialised garden design, working in conjunction with the medication prescribed helps to aid the individual to full a recovery (Larson & Kreitzer: 2005; 2). With such a determined outcome these gardens follow a strict set of principles:

- Variety of space
- An abundance of green material
- Encouragement and promoting of exercise
- Providing positive directions and thoroughfares
- Minimising intrusions and ambiguity (Cooper-Marcus & Barnes: 1999).





Figure 20 - Example of healing garden with a symbolic entrance. ([www.portmoody.ca](http://www.portmoody.ca))



Figure 21 - Example of healing garden with different areas of water and earth. ([www.dellchildrens.net](http://www.dellchildrens.net))



Figure 22 - Example of healing garden with plants for different uses. ([www.mnn.com](http://www.mnn.com))

Through reading this section one is able to understand the importance of landscapes and gardens within a healing environment, as this aids in the overall healing process of an individual. It is important to know the type of 'healing' that the person requires and therefore the garden will be designed accordingly. Gardens have similar properties to the green parks and spaces whereby they encourage a positive psychological experience of the space and therefore aid in the individuals wellbeing.

## **THE BUILT ENVIRONMENT**

### **4.7.4 PLACES OF INTERACTION AND LEARNING**

The following body of literature will be looking at the creation of places within the built form. The issues being addressed relate to how the individual interacts and perceives a place, and how this perception is linked to their memories and emotions. This research deals with how places affect people as well as their psychological perception of the place, and its impact on the individual. The research further states the type of receptors required to evoke certain feelings within a place. This information is vital in understanding social rehabilitation strategies and towards the design of a social rehabilitation centre.

The way in which an individual perceives and interacts with a space or place is linked to their memories, history and experience of other places, as well as the way in which people interact with each other in the social realm and how they understand the use of places (Farbstein & Kantrowits 1978: p. 2). People interact within places using their five senses, they touch, see, smell, taste and hear the place. They respond to light and dark, and experience colours, shapes, material textures and are able to orientate themselves within a space. The places that are created contain activities which define the type of function and invite a feeling therefore creating experiences (Farbstein & Kantrowits 1978: p. 180). Canter reinforces this point, "The way in which we conceptualise places forms and plays an integral part of our interactions with them" (Canter 1977: p. 13).

The goal of creating a new environment is the creation of a place. The place narrates the function and definitions of the space, the perception, structure and the location, so as to define and clarify the identity of that place. "A place is the result of relationships between actions, conceptions and physical attributes. It follows that we have not fully identified the place we know or behaviour is associated with or which people hold of that behaviour in that physical environment" (Canter 1977: p. 158).

In order to describe the spaces in a given place it is important to understand the people using that place, their perceptions and functionality. The places created should evoke the nature of the spaces and relate to each other showing how their characteristics can lead them to be combined in a complete structure. The goal when creating a place within the built environment is how they relate to the perceptions and functions of spaces which the various individuals may have (Canter 1977: p. 167). Augustin reinforces this point "The design of a physical place influences the mental state of the people in that space, shaping their attitudes and behaviour" (Augustin 2009: p. 1).

The literature just reviewed is to help understand what constitutes to the creation of positive, rehabilitative places, as well as the basic human necessities a place can accommodate. The way in which a place smells, the colours, and the textures, can have a profound impact on person's behaviour in a space (Farbstein & Kantrowits 1978: p. 8).

Individuals relate to place and space, through receptors in their nervous system these senses acknowledge environmental influences through emotions (Augustin 2009:p. 15). Individual's emotions control the social and environmental experiences which help a person grow and develop (Augustin 2009: p. 12). The place and associated spaces within the built environment can therefore improve a person's mindset through social and environmental interaction. The general rules applying to place making would be:

- Creating a place that is appropriate to the function of that space;
  - A place that encourages communication and interaction between the users of that place;
  - A place where people feel comfortable because they are given a psychological sense of perceived security or a controlled environment;
  - A versatile place which will be flexible for its users to change and accommodate their needs
- (Augustin 2009: p. 15)
- People draw energy from their physical environments to encourage them to do or participate in an activity, within that space (Augustin 2009: p.135).

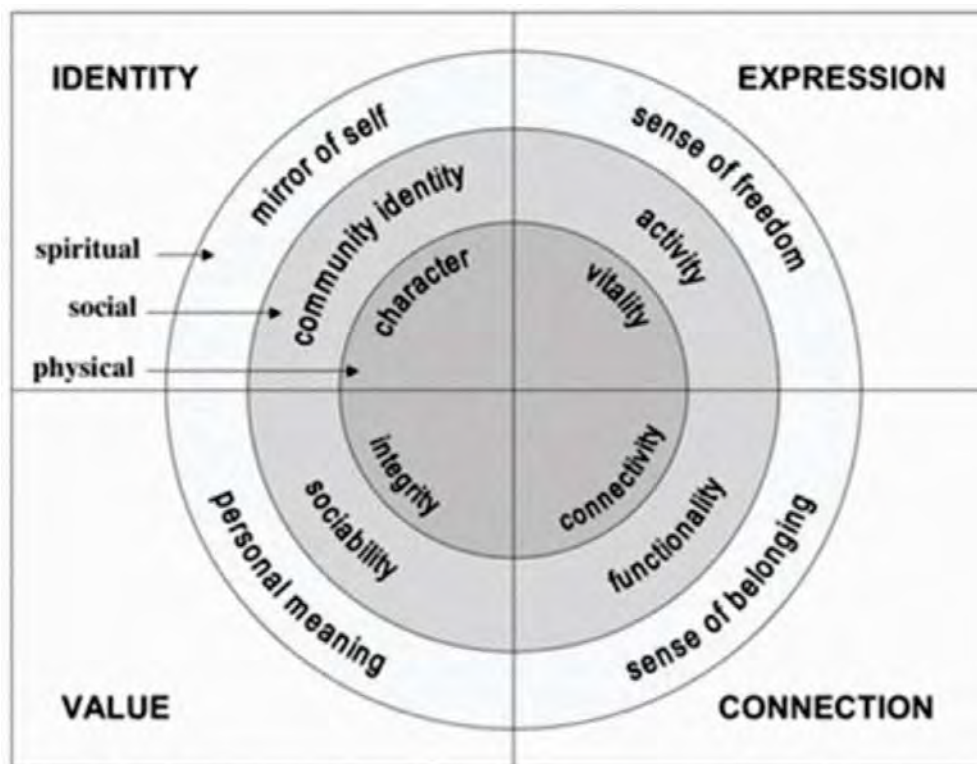


Figure 23 - Example of holistic place making principles. ([www.arch.ksu.edu](http://www.arch.ksu.edu))



#### 4.7.5 COLOUR IN REHABILITATION ARCHITECTURE

This section of the research will be dealing with the effects light, colour and texture have on the on the people using the spaces. “Light and colour are major factors in the built environment. Their impact influences a person’s psychological reactions and physiological well-being, research has proven that light and colour affect the human organism on both visual and non-visual basis” (Mahnke, F & Mahnke, R 1987: p. 1).

Light and colour have a relationship with eachother which brings out a dynamic energy. The energy created affects the bodies function and influences the mind and emotion state of the individual. The way in which people respond to light colour directly influences both their psychological and physiological state (Mahnke 1996: p. 97).



Figure 24 - Example of colours and contrast in nature creating place. (<http://i.dailymail.co.uk>)

The colours within a built form can lead to under stimulation or overstimulation depending on the combination (Mahnke 1996: p. 27). This effect can lead to a dramatic change in medical condition of an individual and their psychiatric or mental state. Under stimulation can lead to

symptoms of restlessness, irritation and difficulty in concentration (Mahnke, F & Mahnke, R 1987: p. 5). When colour is used unreasonably it can cause over excitation which leads to distractions and fatigue (Mahnke 1996: p. 23). Thus, the variation of colours can have psychological benefits.

Though having major variations can be confusing, unpleasant and monotonous. Colours create a reaction and stimulation on a person's personality. Introverted people are more easily stimulated and an extroverted person would require more intensive measures to stimulate them. The basic colour hues help to dictate people's characters. The colours such as red, orange, yellow, green, blue and purple have shown reactions in peoples moods (Mahnke, F & Mahnke, R, 1987: p. 10).

- Red is perceived to be more exciting, stimulating and having more of a hierarchy as it grabs the attention and overrules the other hues.
- Orange the more reassuring agent within a space and inspires energy softer than red and does not have emotional associations.
- Green a more relaxing and has a psychological withdrawal symptoms from stimulus. This colour offers tranquillity and natural feel.
- Blue gives a feeling of calm and comfort to satisfy an individual and psychologically represents a relaxing feeling.
- Purple is more regal and exclusive and it is physically and psychologically most opposed.



Figure 25 - Basic colour hues and their impact on well-being. (<http://tehowners.com>)

The main purpose of colour and the combinations used in the built environment is to reflect the mood and aesthetics of a space. Aesthetics are crucial to the mental well-being of an individual, due to the fact that individuals are extremely aware of their surroundings, colours, textures and materials. Spaces that are left dull and lifeless can be compared to some traditional type rehabilitation facilities.



Figure 26 - Example of traditional rehabilitation facility. ([upload.wikimedia.org](http://upload.wikimedia.org))

The dullness of these institutions and colourless interiors do not encourage people to live and benefit within those places therefore making the experience unpleasant (Mahnke, F & Mahnke, R 1987: p. 64). Mahnke makes a reference to the ability of light, “It has been found that sunlight or the natural global solar radiation has a profound effect on the human organism” (Mahnke, F & Mahnke, 1987: p. 43).

The presence of colour on exteriors inspires people to give positive assessments on the buildings functions. This notion is linked to the light effect on life. Light affects the eyes response and the skin tissue of a person and therefore the amount of light exposure and variation for a human being is closely tied to the origins of humanity (Mahnke 1996: p. 102).



Figure 27 - Colourful light exteriors creating a positive welcoming effect. (image.architonic.com)

#### **4.7.6 MATERIALS AND THEIR EFFECT ON WELL-BEING**

"On the whole, people do not look at architecture, not at materials. They breathe it in. It provides an atmosphere, not a pictorial scene" (Day: 1990; 113).

Space and the characteristics it encompasses, are not the only aspects which affect human emotion, behaviour and perception within the built environment. Materials play a huge part in this through an individual's sensory perception, which is linked to environmental experience as mentioned previously. All materials have their own unique properties and thus experiences.

Timber is a natural organic material sourced from the earth, therefore people relate timber in the built environment with warm comforting feelings, as well as associating it to 'life' due to its organic nature. Bricks are similar in nature, however they have an interactive appeal due to texture and form, and are supported again through sensory perception and spatial experience. Steel and metals on the other hand are very refined and cold in nature, associated with industrial environments. Concrete and plastics are similar in their molecular composition, in the way they mould or form into most shapes with minimal structural limitations. These materials can be compared in such a way as to imagine a uniform design, one in concrete and the other in steel. Immediately each perception identified from both forms is clearly unique, thus have different spatial experiences and resulting emotions.

"Materials are raw ingredients of art, but they affect our emotions", therefore if a passive building design was completed in brick, stone or timber the building would more than likely be perceived in a positive warm way, as opposed to the same design finished in concrete, where it would be interpreted as cold or isolated (Day: 1990; 112-113). The previous statement identifies the important effects materials have within the built environment, and how they can be used to facilitate forms of rehabilitation and social inclusion.





Figure 28 - Building and interior spaces with timber to uplift and expose comforting space in a natural environment. ([www.hualingxj.com](http://www.hualingxj.com), [images.smh.com.au](http://images.smh.com.au))



Figure 29 - Building and interior spaces with brick having an interactive and warm impact. ([assets.yellowtrace.com.au](http://assets.yellowtrace.com.au), [archdaily.net](http://archdaily.net),)



Figure 30 - Building and interior with steel giving and industrial colder feeling to the space. ([assets.dornob.com](http://assets.dornob.com))

Through this research one can see that there are architectural spaces which are more prone to emulating a more 'positive feeling' than others. As architects, it is important to understand and incorporate these environments into design. It is not only the spaces which are important but the materials and textures of the space as well. Similar to the spaces, the more 'natural the state' of the building material the more positive these environments will appear to an individual.

#### **4.7.7 PROMOTING HEALTH IN ARCHITECTURAL ENVIRONMENTS**

Winston Churchill once stated “... we shape our buildings; and they shape us” (Alexander: 2002; 372)

It is globally understood that consciously and subconsciously, people interpret spaces and environments that affect their state of body and mind. However there is misperception between the relationship of an individual's health and their immediate environment. According to Day (2002), the term 'health' is often defined to the exclusion of issues restricting life energy, physical fulfilment and the 'state-of-the-soul' dimension (Day: 2002; 181).

Alexander (2002) states that an individual's interpretation of environmental experiences directly effects their emotions, as well as building form having an impact on ones well-being or social behaviour. He also puts forward that proper influence from the physical environment paired with an aspect of living structure, will help to promote an individual's freedom of spirit can become either weak or can even be destroyed (Alexander: 2002; 372).

According to the Journal of Alternative and Complementary Medicine (2004), specific elements of environmental design can either help or obstruct the healing process of individuals. However, the environment can also generate a large impact on and individuals health through the influence of function, behaviours and interactions of the individuals (Journal of Alternative and complementary medicine: 2004; S71-S83). Social and rehabilitative environments and

buildings they function in need to be designed to promote a certain level of social connectivity, through social interaction and assimilation. By doing so it creates and develops relationships and reduces the stress levels allowing individuals to relax and socialise (Reynolds: 1990; 101-110).



Figure 31 - Example of healthy architectural environments. (cloudfront.net, [www.egm.nl](http://www.egm.nl))



#### 4.7.8 CONCLUSION

In summation the research has revealed how, and what aspects of the natural and built environments, when impacted on the social rehabilitation process produce positive results. With regard to the natural environment, natural light and ventilation have proven to be valuable attributes to consider, within the context of social rehabilitation and substance abuse for both the individual needing treatment, and the staff members assisting these individuals. Natural light and ventilation have a direct relationship to spatial quality and thus the well-being of the individual.

Gardens and landscapes have had a definitive relationship with mankind for many years throughout history, this has developed a spiritual 'respect' which humans embrace for its therapeutic benefits that contribute to overall well-being and state of mind. Healing gardens and therapeutic landscapes will be used in the typology of a social rehabilitation centre to promote spiritual vitality and positive state of mind. Once again this aspect of the natural environment relates to Lens theory of environmental perception, and how the interpretation of individual elements within the environment allows the individual to derive an accurate and appropriate perception for both their recovery and quality of life.

Within the context of the built environment, the individuals perception of a space has a direct effect on the way that individual feels or behaves, as well as their cognitive processes. These spaces have the ability to provoke feelings of emotion and nostalgia within the individual, which relates to a memory or personal attribute they associate the space with, thus the perception of these spaces is crucial to its functionality and intention. The spaces created within the social rehabilitation centre, will be aimed at defining and portraying their function as well as creating a sense of welcoming and learning, which directly impacts the individual and their personal recovery. These aspects of the environment touch on environmental perception theory, but also porosity theory and the way in which spaces merge with each other and form distinctive boundaries of functionality and context.

Light and more prominently, colour, has been shown to have a direct and influential relationship to the psychological responses and general well-being of an individual within a certain space. Combinations of colours and different variations in a space have also shown further psychological benefits through means of stimulation. Colour and its incorporation into the typology of a social rehabilitation centre will address psychological states of mind pertained to the function of a space, whilst considering the impact on the individual in that space. Colour and its interpretation in architecture, draws on theories of environmental perception and how aspects of colour and variation are interpreted. This is done so in order to give the individual an appropriate and current perspective of the immediate environment so that the pertained functions of space can be carried out.

Materials and their textures have been proven to have a direct impact on environmental experience and therefore affecting behaviour, general well-being and cognitive processes. Within the typology of a social rehabilitation centre, the choice of materials needs to be considered in relation to function and over all intention of a space. This consideration means that the architect accounts for the impact materials and textures have on the rehabilitation process, as well as the perception of spaces and environments within the typology. Materials and their relationship to human well-being draw from notions in Lens theory of environmental perception that is, to interpret individual variables in the environment for a more accurate perception in which the individual can relate.

Ultimately these aspects covered within the built and natural environments are done so with the intent of incorporating them holistically into the social rehabilitation centre. This holistic incorporation is aimed fully at the individual and the over-all environmental experience they encounter whilst experiencing treatment within the intervention.

## 5.0 PRECEDENT STUDIES

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### 5.1 INTRODUCTION

The literature thus far has highlighted the importance of substance related rehabilitation and more so the environments in which it is facilitated. Through aspects of social inclusion, and a nurturing environment to theories in environmental perception and constructs of society, the research has justified a framework in which the following examples can be examined.

The precedent studies will be conducted with the analysis of the previous literature in mind and how these examples relate to the topic and building typology. The precedent examples will first analyse the general characteristics of each project and then look deeper into the typology and how it deals with the existing social context in which it is situated, and the way in which the building responds to the individual, the family and community. This analysis into the social context is supported by notions in social construct theory that suggest, the labelling and categorising of aspects within the social realm such as community and family, is a fundamental support structure for the over-all construct of society and its efficiency

The environmental context of each example will be examined as to how these typologies and their specifically designed environments respond to the needs of the individual, as well as have an impact on them. The analysis of the environmental context is supported by ideas within environmental perception theory as well as the concept of social rehabilitation. The understanding of specifically catered environments, and how they impact the individual and their over-all well-being is important when assessing buildings of this typology.

The analysis of these examples and the research acquired is done so to provide a greater understanding on rehabilitation type buildings, so that the typology of the social rehabilitation centre can be informed through practical and informative design.

## 5.2 REHABILITATION CENTRE GROOT KLIMMENDAAL

### 5.2.1 INTRODUCTION

Project: Rehabilitation Center Groot Klimmendaal

Location: Arnhem, Netherlands

Architect: Koen Van Velsen

Size: 14,000 sqm

Constructed: January 2010

Funded: Government/Public

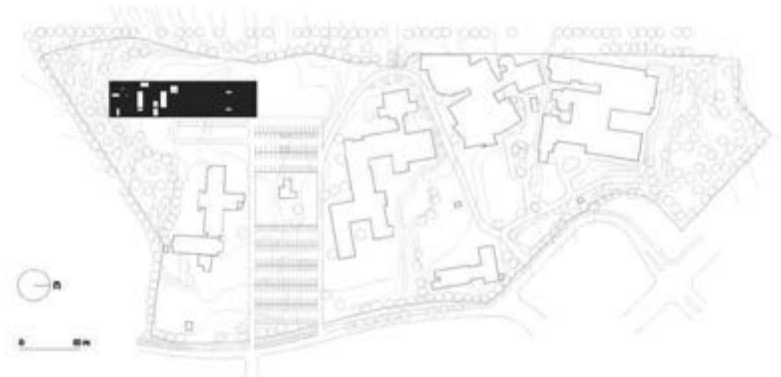


Figure 32 - Site Plan Groot Klimmendaal. (<http://openbuildings.com>)

The Rehabilitation Centre, Groot Klimmendaal (figure 33, 34) is located in a dense forested area in the eastern part of the Netherlands. The building has a small footprint to the overall coverage of the site, but the design still allows for 14000 square meters of functional space. The project aims to merge in with its surroundings to create a sense of peace and relaxation. The rehabilitation centre is the first step towards a greater master plan which aims to evolve the site into a public park filled with low-rise public buildings including a school and residents block. Nature is a strong aspect to the master plan and the design attempts to bring the natural environment inside to the individuals that occupy the spaces.



Figure 33, 34 - Groot Klimmendaal exterior views. ([www.openbuildings.com](http://www.openbuildings.com))

### 5.2.2 THE SOCIAL CONTEXT

The social context and its impact on the individual are considered in the building by functions that relate to the rehabilitation process. Spaces are set up so that the offices are on the ground level, clinical and recreational areas are located above, as well as further recreational spaces on the roof. The program allows for much more than the typical rehabilitation center. Patients and their families have full access to sports facilities, fitness areas, a swimming pool, restaurant as well as a theatre. The clientele is not restricted to patients and their families, community organisations often use the spaces such as schools, theatre groups, and a variety of community clubs and committees.



Figure 35, 36 - Interior social spaces. ([www.dezeen.com](http://www.dezeen.com))

Due to the broad range of functions and inhabitants, the project is located centrally within the community. The philosophy behind facilities being used by locals is that the patient, who is placed at the centre of the community, gradually begins to feel reintegrated and feel a part of the construct of society. The concept behind the design is first and foremost care and therapy, not through detachment and seclusion, and by designing the building and its spaces to become part of the surroundings and the community it is able to do so. The process for this project included a strong collaboration between architects and the client. The idea that a positive, physically stimulating environment is beneficial to the rehabilitation of its patients was a core idea in the design. A strong sense of community and environment help to create spaces that are both positive and aspiring. The design also addresses sustainability on the social and economic level as it allows for a vast variety of potential future uses of the building. This social economic consideration within the planning depicts the building as one large social construct in which smaller constructs of individuals, families and the community use to promote social integration and inclusion for its users.

With the ground floor functioning as a market or a plaza, where the patient can work and interact with the community, this building has radically changed the way in which the client provides its care through a program of integration that focuses on what the patient can achieve. The elements of the structure stand as a metaphor of the landscape that will continue to be revived as future phases go on to transform the cluttered and poorly planned campus, into a pleasant life-promoting public park.

### **5.2.3 THE ENVIRONMENTAL CONTEXT**

The building's architecture helps blend into its green environment in such a way that the sharp new form can hardly be identified despite its large volume and modern design. Towards the South the fully glazed first floor opens up through five tooth shaped protrusions towards the forest and extrudes five meters into the air above a little slope. Towards the opposite direction the architect has broken up the compact massiveness of the building through a widely

projecting upper floor resting on slender stilts, which now roofs a mighty porch roof above a small forecourt. This polar opposite approach to form design on opposite ends of the building suggests an environmental perception, that each end encompasses a different dynamic for the occupant. Another characteristic detail of the new building is the vertically structured façade panels made of golden-brown anodized aluminium.



Figures 37, 38 - North and south ends of the building expressing different form related to function. ([www.dezeen.com/](http://www.dezeen.com/) Rene de wit)

This building helps to define and promote the idea of ‘therapeutic’ glass where the sunlight is ever-present, bringing residents as close to nature as they might ever hope to be whilst creating an appropriate environmental perception. The overarching characteristic of this glass rehabilitation centre is in direct contact with nature, a landscaping decision that places this building in an idyllic forest environment.

Voids throughout the centre allows for natural light to creep into the deeper spaces of the building. The long narrow design also allows for beautiful natural views to the forest in many areas of the building. The premise for this design is that connections to nature and the natural environments are beneficial to the mood, and in return, the well-being of the patients. Healthy design invites its users to maintain a healthy, physically active lifestyle. The Groot Klimmendaal building does an appropriate job in addressing the design problem and creating a connection to nature.



In this building, this difference from clinical type facilities is expressed in how the architect refused to adopt the conventional mode of navigation for a healthcare building. A traditional long corridor with suspended grid ceilings and bump rails, replaced by a series of more humane circulation spaces with no dead ends, which offer slow and fast routes across the plan, giving the individuals choices within the environment they perceive to be their own.

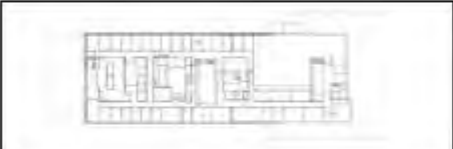
PLAN	CIRCULATION	LEVEL
		1
		2
		3
		4
		5

Figure 39 - Plans showing circulation and movement throughout each floor.  
([openbuildings.com/buildings/rehabilitation-center-groot-klimmendaal](http://openbuildings.com/buildings/rehabilitation-center-groot-klimmendaal))

Full height glazing along the central space connecting the various different internal elements of the building ensures an almost seamless continuity between interior and exterior. This continuity when perceived by the individual promotes the idea of longitudinal process similar to that of rehabilitation. The meandering facade in the restaurant results in a building in between



trees and invites the forest inside. The surrounding nature has a strong visual and fixed presence everywhere in the building and it allows the user to revalidate whilst walking. As mentioned before a combination of large and small voids and light wells ensure a spatial connection between different levels and allow natural daylight into the building. This natural light also promotes the subtle colour variations within the building that enlivens the interior and has an impact on the well-being of the individual.



Figure 40 - Various colours and light wells used in spaces to create a sense of calm and rejuvenation. ([www.dezeen.com/Rene de wit](http://www.dezeen.com/Rene%20de%20wit))

## 5.2.4 CONCLUSION

The rehabilitation centre in Groot Klimmendaal is ultimately a building that is set within the natural environment and embraces its context, both social and environmental, for the benefit of the individual and their own personal rehabilitation.

The social context in which the building sits and how it responds to this context is crucial to the buildings over-all efficiency. The design promotes and incorporates aspects of community and family in the rehabilitation process, through means of recreational and sport activities to slowly help reintegrate the individual back into society. Due to this fact the rehabilitation centre has been placed in the centre of the community for connectivity and social presence.

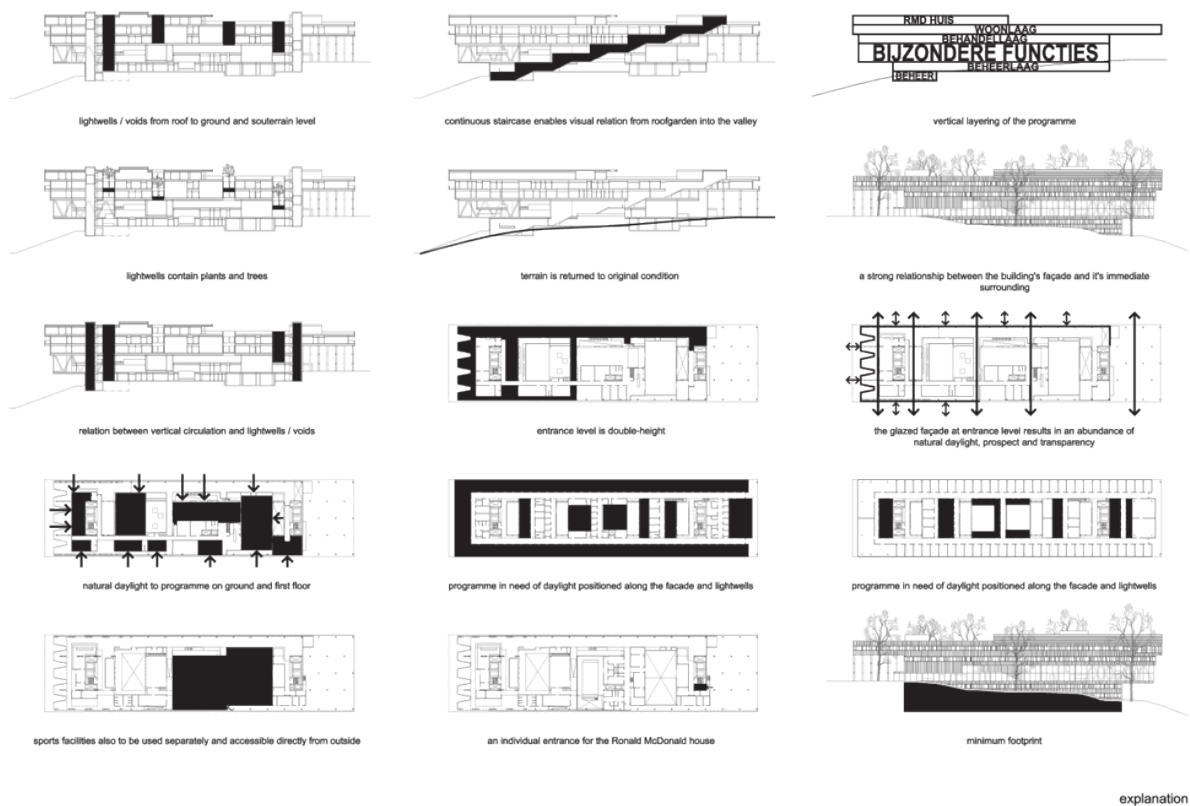


Figure 41 - Showing various aspects of the architecture from light, section and massing to circulation. ([www.openbuildings.com](http://www.openbuildings.com))

The environmental context of the building dictates how the general mass of 14000 metres squared, blends into its natural environment through choice of materials and playfulness in form, so as not to impact on the already existing environmental and social contexts. Natural light is a main component within the building and is facilitated into spaces through means of voids or light wells running through the centre of the structure. This natural light improves moods for patients and staff, and promotes a generally healthy environment. A healthy environment is also promoted in the way that the architect has arranged the circulation, far more open with variation of direction, as opposed to the clinical long, double loaded corridor in traditional type facilities.

In summation the Groot Klimmendaal rehabilitation centre functions as intended, as a reflection of its environmental and social contexts. Aspects of community and family are considered and how they impact the individual and their rehabilitation, as well as the immediate environment of nature, choice of materials, colour and light, which all have a direct impact on the occupants of the building.

## 5.3 SISTER MARGARET SMITH ADDICTION TREATMENT CENTRE

### 5.3.1 INTRODUCTION

Project: Sister Margaret Smith Addictions Treatment Centre

Location: Thunder Bay, Ontario, Canada

Architect: Montgomery Sisam Architects Inc.

Size: 20,400 sqm

Constructed: 2009

Funded: Private



Figure 42 - Sister Margaret Smith Addictions Treatment Centre. ([www.archdaily.com](http://www.archdaily.com))

The Sister Margaret Smith Addictions Treatment Centre provides residential and non-residential services for the treatment of addictions including drug, alcohol, gambling as well as eating disorders among others. The Centre has been designed to support the Core Values of the St. Joseph's Care Group which are, compassionate and holistic care, dignity and respect, inclusiveness, truthfulness and trust. Inspired by these values, the design creates a clear sequence of spaces which offer a variety of relationships to the exterior landscape.

### 5.3.2 THE SOCIAL CONTEXT

This project provides residential and non-residential services for the treatment of addictions, including drug and alcohol, gambling and eating disorders, among others. The residential program is divided into 15 beds for females, 15 beds for males and 10 beds for youth, including children as young as 13 years. The residential programs and non-residential programs have separate entrances to protect the privacy of each and the attached social implications. Non-residential programs include private and group therapy rooms, gymnasium, spiritual room, crafts room and administration. The youth residential component provides accommodation for both young men and women in the same space. It is laid out so that the bedrooms open directly into the living area. This has been done to provide care and protection to adolescents, who are prone by their very condition to inappropriate and compulsive behaviour. It further gives the feeling of a large communal house for the duration that they are undergoing treatment.



Figure 43 - Social thoroughfares with circular light wells above. ([www.archdaily.com](http://www.archdaily.com))

The building was strategically located on a larger campus of care and the campus walkability model increases access to activities and creates opportunities for greater interaction with the community. It also allows for the sharing of resources through thoughtful design of the building footprint, and the design being mindful of the site ecology.

### 5.3.3 THE ENVIRONMENTAL CONTEXT

The healing quality of natural light and the environment has been a prime consideration throughout the design. The organising spine of the building called the Hall of Recovery is where clients are introduced and oriented to this dignified, calm and welcoming setting.

The building has been arranged around two landscaped courts respectively. One for residential clients and the other for non-residential clients respectively, both courts provide a safe environment and are used for various therapeutic programs. The spiritual space has been designed in a circular form to be respectful of the traditional community, who make up a large portion of the client population. The client was very eager to embrace the principles of sustainable design from the beginning, particularly as they relate to their mission to provide holistic care. It was understood early on that a healthy building environment can be an essential part of the healing process and that the environmental approach equates to compassionate care for all.



Figure 44 - Ground Floor Plan. ([www.archdaily.com](http://www.archdaily.com))

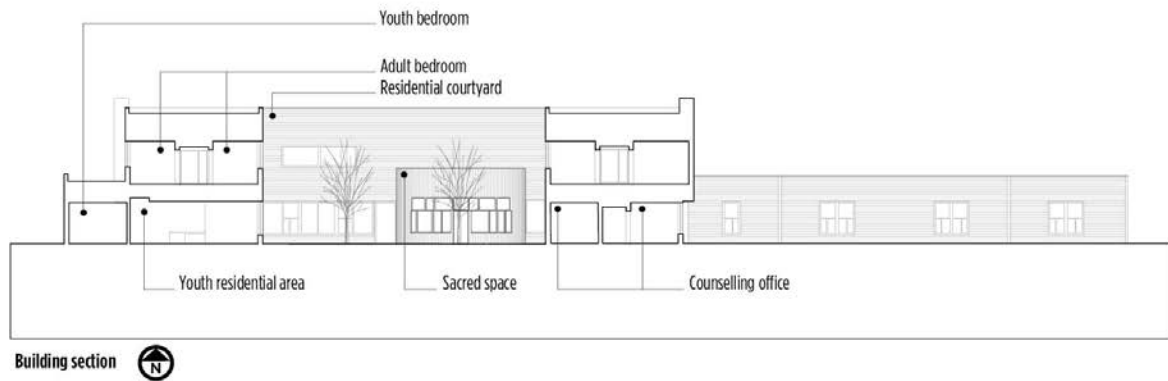


Figure 45 - Diagrammatic section. ([www.archdaily.com](http://www.archdaily.com))

The project embodies a few key sustainable design strategies:

- Ample glazing to provide daylight and access to views
- Building footprint that respects the site ecology
- Water reduction through intelligent landscaping and selection of low-flow fixtures
- Energy reduction through the use of a high-performance air tight envelope and advanced building technology.

The project's holistic sustainable intentions are most evident at the main hall of the building known as the Hall of Recovery which organises the three main components of the program in a dignified, calm, welcoming and comforting setting. Three large round roof windows, providing streams of natural light, represent the Windows of Hope, one for each of the mind (therapy rooms), body (gymnasium) and soul (spiritual space).





Figure 46 - Recreational court and largely glazed window areas on building facade.

([www.archdaily.com](http://www.archdaily.com))

The building has been specified with double and triple-glazed low-e value windows within a superior building envelope to optimize energy performance. Wall assemblies and roof assemblies with high R-values were specified and occupancy and daylight sensors were incorporated. A high albedo roof, which complies with energy star requirements, reduces the heat island effect. Creating a place of true healing meant that light and air were highly considered during the design process.

The building was designed around two courtyards as mentioned before, to allow light to penetrate to over 75% of regularly occupied spaces. In conjunction with a shallow floor plate and interior glazed partitions, this allows over 90% of regularly occupied spaces to have views to the outdoors. The building features a radiant floor heating system throughout, and 100% fresh air displacement ventilation. FSC-certified wood and low-VOC products were specified in keeping with the goal of creating a healing environment.



#### **5.3.4 CONCLUSION**

The Sister Margret Smiths Addiction Treatment Centre provides an over-all holistic environment and way of healing for those troubled with addiction and other forms of dependency issues. The intervention offers both residential and non-residential programs in spaces which promote connectivity to the exterior environment and community.

The social context within the project is addressed through the individual within the program. Males, females and youths are all treated within the same facility to help replicate and repair the family model, which in many instances is a precursor to addiction and substance abuse. This family model also promotes interaction and assimilation amongst patients to help further benefit their rehabilitation process. Important to note however, that these times of interaction and community are controlled, as the architecture throughout the intervention does cater specific spaces for specific groups.

The environmental context of the building sits in an open natural environment and promotes the idea of natural light throughout to signify a calm and content environment. The building has two major focal points within the design, namely the two courtyards for residential and non-residential clients respectively. The project includes many sustainable based principles due to its overall intention of a healthy and holistic healing environment. This is also carried through the building by means of choice of low-voc materials, and appropriate glazing pertaining to functional spaces.

## 5.4 CONCLUSION

In Summation the Groot Klimmendaal rehabilitation centre and the Sister Margret addiction treatment centre, perform well for their intended purposes of holistic rehabilitation and social assimilation. These examples approach the social context of the individual with complete inclusivity and opportunity within the constructs of community and family. This notion is supported in social construct theory through the interactions of different social groups, and the understanding of issues between them to achieve an over-all social efficiency and inclusivity.

In relation to the environmental context, these examples both embrace the concept of nature and visual connections to the exterior landscape. The idea that the natural environment and its use in architecture benefits the well-being of the occupant, is promoted throughout whilst still being respectful of the functions pertained within the building and how it would impact on the individual. Both examples are aware of the environmental perception of the individual, therefore each aspect of the architecture from material and colour, to views and light are considered for the benefit of the rehabilitation process. Notions such as this are used in lens theory of environmental perception, and how each aspect of the environment the user perceives individually, in order to maintain an accurate and current perspective of the overall environment.

The comparative research and analysis between these projects will be used to further analyse case studies within the next chapter, and to assist in the formulation and brief of the social rehabilitation centre.

## 6.0 CASE STUDIES

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### 6.1 INTRODUCTION

The literature and examples examined have highlighted the importance of substance related rehabilitation and more so the environments in which it is facilitated. Through aspects of social inclusion, and a nurturing environment to theories of environmental perception and constructs of society, the research has justified a framework in which the following examples can be examined.

The case studies will be conducted with the analysis of the previous literature as well of the precedents in mind, and how they relate to the topic of youth substance rehabilitation and building typology. The analysis will first investigate the general characteristics of each project, then look further into the facility and how it deals with the existing social context in which it is situated, and the way in which the building responds to the individual, the family and community. This analysis into the social context is supported by notions in social construct theory that suggest, the labelling and categorising of aspects within the social realm such as community and family, is a fundamental support structure for the over-all construct of society and its efficiency.

The environmental context of each example will be examined as to how these typologies and their environments respond to the needs of the individual, as well as impact on the rehabilitation process. The analysis of the environmental context is supported by ideas within environmental perception theory as well as the concept of social rehabilitation. The understanding of specifically catered environments, and how they impact the individual and their over-all well-being is important when assessing buildings of this typology.

The analysis of these examples and the research acquired is done so to provide a greater understanding on rehabilitation type buildings, so that the typology of the social rehabilitation centre can be informed through practical and informative design.

## 6.2 NELSON MANDELA CHATSWORTH YOUTH CENTRE

### 6.2.1 INTRODUCTION

Project: Chatsworth Youth Centre  
Location: Chatsworth, Durban  
Architect: AUB Projects  
Constructed: 2003  
Funded: Private/Community



Figures 47, 48, 49 - External views of youth Centre and entrance (Digest of South African Architecture, 2004/2005: 78, and author, 2014)

The Nelson Mandela Chatsworth Youth Centre (Figure 47, 49) began as an initiative for the youth after a devastating accident in the area in 2001 involving many youth related deaths and injuries. The Centre Stands as an example of what a community can achieve in addressing public issues of the youth through safe, healthy, recreational and learning environments (Cooke, 2005: 25). The tragedy in 2001 made clear the lack of positive space in which the youth could interact and develop within the community (Reilly, 2004: 27). However with the help of Nelson Mandela, Mercedes and Nandos, the facility now helps to initiate social skills, and responsibility of the youth within the area.

Important to note that the scope of the facility is rather wide and deals with all issues of youth development in the area, from substance abuse counselling and trauma counselling, to partaking in additional educational activities as well as sports and recreation.

The main key notion behind the facility is to create a beacon within the landscape of Chatsworth where all youth issues may be addressed, and where the youth can pro-actively engage with one another and express themselves.

### **6.2.2 THE SOCIAL CONTEXT**

Chatsworth is located in the Durban south area and is predominantly Indian due to the group areas act of apartheid. Chatsworth has approximately 80 schools within its borders and for many of the individuals attending there is little or no after school program with parents working during the day. This lack of supervision during the day allows youth to experiment in anti-social behaviour, substance abuse and other delinquent activities (Reilly, 2004: 27).

The youth centre sits in a prime location within the Chatsworth community, close to local amenities and transport networks, and was made available by the local municipality (Reilly, 2004: 27). The added benefit of the centres location allows the youth to socially integrate on controlled terms with constant interaction from the community and other recreational and social groups. The social construct of the youth centre being labelled as one supportive unit amongst its individuals, is far more beneficial than labelling youths with separate constructs such as 'learning impaired' or 'drug addicts'. Constructs such as this promote a division of social groups and thus a division of support, which opposes the notion of one supportive community unit.



Figure 50 - Aerial photo of the Chatsworth Youth Centre grounds. ([www.maps.google.co.za](http://www.maps.google.co.za))

In the initial stages of the project, the community was heavily involved in the briefing and development of the accommodation. Members of the community were called upon for their input on the educational and skills based components that would be implemented within the centre, this along with the creation of lively, vibrant social spaces help make the centre an integral part of the community as well as a valued social asset. Through community participation from the initial stages, the centre promotes social inclusion to the full extent, creating awareness about youth issues and realising the need to socially include the youth within the community. Social inclusion within this context provides better surveillance and a tighter supportive community where social issues of the youth can be directly addressed. The design of the building needed to respond to the immediate social needs of the community and thus provide appropriate spaces for the required functions. The immediate context of the intervention allowed it to be embraced by the youth, rather than it being similar to school or compulsory institutions in which they feel compelled to attend. This approach helps the individual realise within themselves, the desire to attend and develop in facilities such as this.

A major concern in the way the facility is being run at the moment is the issue of the original trust and the duties to which they needed to attend. It was made clear through discussions with Clive Pillay, (Event director and co-ordinator, Chatsworth youth centre) that since the opening of the centre in 2003 the management of the facility and maintenance has not been adequate. Issues of theft within the area as well as vandalism have had an impact on the facility and thus on how efficiently it functions within the community. According to Clive, majority of this petty theft is a result of individuals needed to find some way to sustain their habits of addiction and delinquency. Important to note however is that the facility is undergoing a change in management, which can hopefully bring the youth centre back to its original social status.



Figure 51 - Areas of vandalism in Chatsworth youth centre. (Author, 2014)

The facility attempts to socially recognise and integrate individuals from all areas of life and backgrounds. This is done through the philosophy of the Arts of Living Upliftment Program, in which individuals refocus and analyse themselves in context of the social realm around them. This philosophy of refocusing ones place in society helps the individual prepare for challenges and obstacles they may face later on in life, as well as in their current lives. The philosophy also promotes a balance of lifestyle and thus the youth partake in sports, recreation and other leisure activities conducted through the facility in order to further the premise of social inclusion. The youth centre offers all activities, counselling and programs free in order to ensure that all that wish to participate may do so.



### 6.2.3 THE ENVIRONMENTAL CONTEXT

The environmental context of the building and how it is perceived by the visitors and community, facilitate to maintain the social dynamics of the facility. The incorporation of social spaces, colour choice, pattern design and landscaping are all done so to promote positive youth interaction and social development.

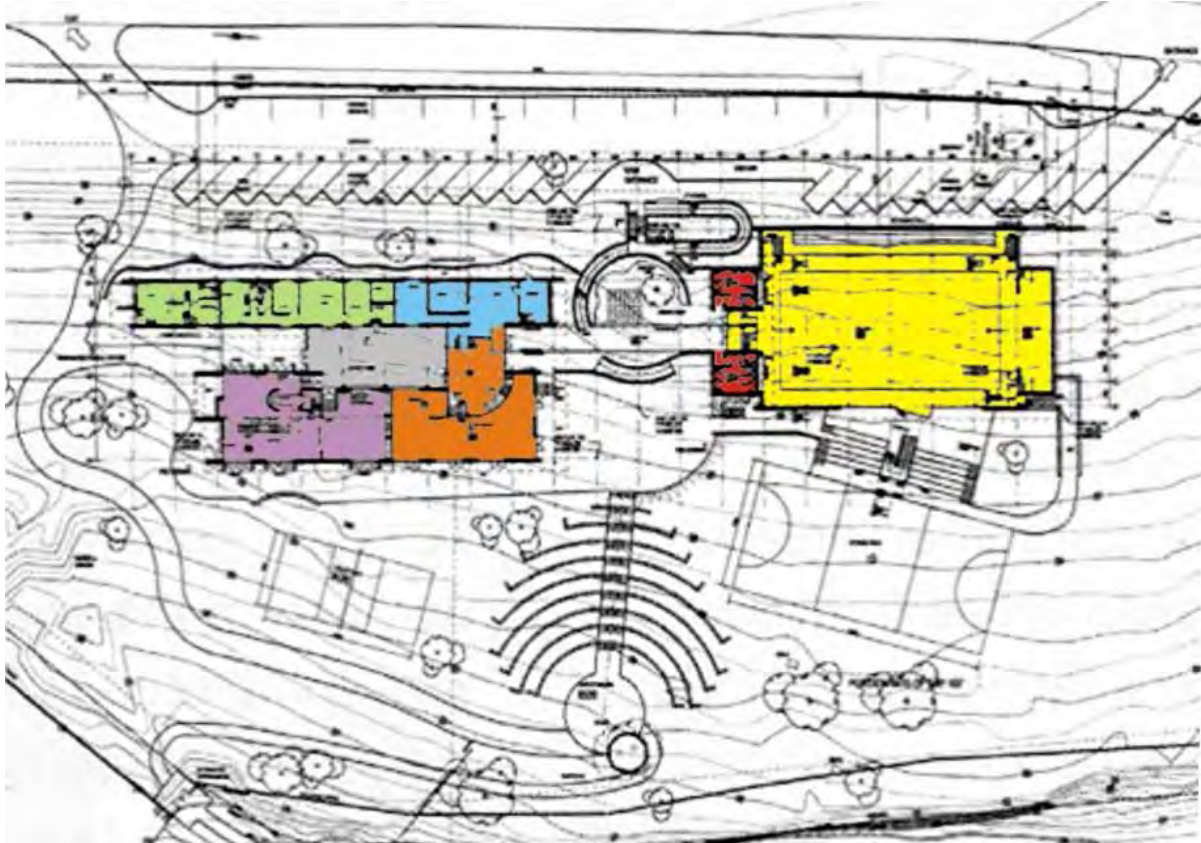


Figure 52 - Floor plan of Chatsworth youth centre. (Sanders, 2010: 147)

The ground floor plan shapes the building into two main components with a central entrance area acting as a transition space between functions. The main sports and recreation hall is depicted in yellow with adjoining bathroom facilities in red. A mezzanine level above the bathrooms also allows spectators to view from an elevated level. The primary learning and education spaces are represented in orange and purple, and also have a mezzanine level on the first floor to maximise efficiency of space. The administration offices are represented in green,



looking onto an internal courtyard depicted in grey. The kitchen and café' areas are represented in blue.

The design and choice of materials invite an abundance of natural light and ventilation due to large glazed facades and clere-storey lighting. The steel roof system and large structural bays allow for open spaces on the ground floor plan (figure 54) in which recreational activities and programs can take place. The combination of colours, materials, lighting and views are all done so in careful consideration to the functions pertained within. The primary social areas include aspects of colour and light to promote interaction and vibrancy, as well as views to the landscaped gardens. The facility hosts a number of activities such as volleyball, wrestling, badminton, basketball, as well as being a centre for counselling towards substance addiction. The general perception of the spatial quality invites and promotes a social dynamic which is positive to social development. The experience of the learning and educational spaces is one of a nurturing environment through choice of materials and colour.



Figure 53, 54 - Colourful mural in social space and glazing in learning space. (Author 2014)

The remaining space on site is used to provide social spaces where the youth can interact and engage with one another through sporting events or performances. Outside the main multi-purpose hall in is an outdoor basketball and netball court with a grandstand provided for

supporters (figure 55). The site also includes an outdoor open air theatre where performances are held for the community, and a place where the youth can express themselves freely. On entering the facility from the parking above, the individual is brought into a circular space to which the hall lies on one side, and the offices and learning spaces on the other. This circular space is decorated with a memorial wall dedicated to the lives lost in the tragedy in 2001. The space allows individuals to reflect as well as connect with other individuals, whilst moving through to other spaces in the building. This concept of decorated art throughout the facility is carried through to the gardens to enhance spatial experience as well as to justify continuity between interior and exterior.



Figure 55, 56 - Views of sporting grandstand and open air theatre. (Author 2014)



Figure 57, 58, 59 - Views of mural and sculptural art spread throughout the facility. (Author 2014)

As mentioned before the building comprises of two main parts, a multipurpose hall and the administration and education component, which includes an array of different study environments in which youth can socially interact. The multi-purpose hall is used for large community meetings and indoor sport activities. The clere-storey roof structure allows for natural ventilation of the space and allows natural light to pour throughout the building. The building makes clear its intended functions to the user through means of perception of environment and form, allowing the individual to navigate the building appropriately.



Figure 60, 61 - Views of steel roof structure and technical joinery. (Author 2014)

The large steel roof has had a positive impact on the functionality of space, however individuals have noted that the acoustic properties of the structure are poor and at times of inclement weather it is difficult to understand what has been said in some spaces during learning times. This is also due to opened meshed areas just below the roof line allowing natural ventilation in. The learning spaces in the educational component of the building have mezzanine levels which cater for smaller focus groups. There are clashes of social issues of privacy here between groups and the facilities cannot be used to their full extent due to these related issues.





Figure 62 - View of social mezzanine level above primary learning space. (Reilly, 2004: 29)  
The facility makes clear its intended function through form and choice of materials, as careful

Design intent was used, when considering the perception of the centre to the youth within the community. The learning spaces naturally were well thought out with regard to colour and spatial experience as to not over or under stimulate the individual. The colours used in these spaces range from subtle beige to a jade green, emphasising a calm and nurturing environment. The spatial quality is further increased through aspects of light and natural ventilation to maintain an appropriate environment for the pertained function.

The Nelson Mandela Youth Centre initiates environmental awareness programs for the community, making clear the importance for a sustainable future. Recycling ventures and litter pickups are part of the institutions initiative to clean up the area as well bring the community together through a shared motivation. The facility in this context acts as a community catalyst, bringing all individuals of the community together to emphasise a supportive and caring network.

#### **6.2.4 CONCLUSION**

The Nelson Mandela Chatsworth Youth centre became an architectural solution to a social problem after the community realised the lack of positive space within the area for youth development.

The building and its site location promote it as a social beacon within the community. Close to amenities and with constant community integration the facility is able to achieve an all-round positive social presence. The community and their participation throughout the process, define the building as an integral part of the social dynamics that take place within the area. This aspect of the facility promotes the concept social inclusion and an awareness of all youth related issues. In terms of social construct theory, the staff at the facility as well as the community approach youth issues and development through one supportive network. The idea being, that through one united community all issues can be dealt with, as opposed to treating individuals or their related issues separately.

The environmental context of the building and the spaces which are created are done so with intent towards a pertained function. The exterior facades and form of the structure give a sense of welcoming and diversity. Colours, patterns, as well as mural and sculptural art are spread throughout the premises, allowing the individual to perceive the environment as cultural and recreational, a space in which they can feel comfortable and free. The interior spaces are vibrant and lively representing the character of the youth in the area and further encompassing social inclusion.

The building responds well to its immediate social and environmental contexts, however issues of concern are maintenance and up keep of the structure. Issues of theft and vandalism cannot be ignored, and how this may jeopardise the efficiency of the building and its intended social purpose.

## 6.3 THE CEDARS REHABILITATION FACILITY

### 6.3.1 INTRODUCTON

Project: The Cedars Rehabilitation Facility  
Location: Scottburgh, Durban  
Constructed: 2001  
Funded: Private



Figure 63 - The Cedars Treatment centre. (Author, 2014)

The cedars addiction treatment centre is located just outside the south coastal town of Scottburgh with treatment programs to aid in alcohol and chemical dependency. The original property belonged to Mr.J.Cooke, who was one of the few farmers that originally settled in Scottburgh and later helped develop it. His farmhouse is now the site for the Cedars treatment facility and sits in a therapeutically landscaped environment where individuals can recover and reflect in a natural and tranquil setting. The facility and staff pride themselves on professionalism and social integrity which helps to promote an environment of trust, honesty and nurturing care for individuals in order to realise the full potential of their recovery. The philosophy of the facility is that encouraging individuals in a safe, healing and therapeutic environment, they are able to explore their own personal precursors to addiction, their compulsion to do so, as well as being confident in making positive life changing decisions.



Figure 64, 65 - External views of The Cedars Treatment centre. (Author, 2014, [www.thecedars.co.za](http://www.thecedars.co.za))



Figure 66 - Site plan of The Cedars treatment facility. ([www.maps.google.co.za](http://www.maps.google.co.za))

### **6.3.2 THE SOCIAL CONTEXT**

The cedars substance addiction treatment centre approaches programs and treatment through a holistic and spiritual framework, which works in co-operation with a 12 step program affiliated with Alcoholics anonymous and Narcotics Anonymous. The individuals are given the opportunity to reflect on themselves and how they seek to find happiness and freedom through treatment, being able to “live life, on life’s terms” without the dependence of drugs or alcohol. The Cedars facility places the term addiction as a dominant construct within these individuals’ lives. The facility aims to challenge this construct of “addiction” as it impacts on the individual’s emotional status as well as their personal relationships, and can induce fear, paranoia, hostility, social exclusion and ultimately complete social demise.

The 12 steps of recovery program when implemented by individuals is targeted at this construct of addiction, and aims to break it apart so that the individual can come to understand a

prosperous and more promising way of life. Through the last 11 years of the facility's existence, and the effort put into understanding addiction as a disease and how it operates, counselors are able to take each person confidently through the program in which they can experience their own rehabilitation and social value.

As mentioned before the facility aims to treat addiction as a separate construct of society and in this way the individual gains a better understanding of their recovery. The facility then describes addiction as an influence which makes the individual powerless to their own devices. Decision making and rational thinking are compromised by the compulsion of addiction and therefore inconsistent with personal attributes and ambitions. The facility aims to reconnect the individual with these ambitions from their previous social norms through community supportive therapy. Once the individual is able to regain their ambition and realise that on a personal level, they can then fight addiction and make choices for themselves. Another aspect of addiction that Cedars recognises that is relevant in society is the urge to lie and deceive themselves justifying their own compulsion.

The initial primary treatment methods upon reaching the facility, is first a 28 day cleanse from which the individual detoxes and clears their system from all substance related toxins. After the initial treatment the individual can begin the psychological part of the recovery through the philosophy embodied in the original 12 step N.A. and A.A. programs. This phase of the rehabilitation is ultimately to achieve abstinence, improved lifestyle and personal growth. Each individual in the facility is assigned their own personal counselor who guides them through their own personal rehabilitation. This promotes further the concept of social inclusion and social reintegration throughout the program, recognising that a complete rehabilitation is achieved through self-actualisation. Majority of the counselors leading the programs are previous addicts who have been through the facility. This is done so that individuals can connect and share experiences on a social level, as well as relate to the challenges and obstacles faced in recovery.



The secondary treatment phase within the cedars rehabilitation program aims to promote positive emotional behaviour, vitality and spiritual well-being. This is done by integrating a range of social dynamics within the cedars community and getting individuals prepared for the realities of the social realm. Individuals are encouraged to begin to develop a social routine and partake in the activities in the nearby town of scottburgh. Work experience placements as well as social ventures into the town are all encouraged to help socially reconnect the individual, however they controlled and only do so when they are personally prepared. Secondary treatment phase allows individuals more time for self-exploration and personal reflection about their treatment and the possibilities of the future. These possibilities may include further education or a change in employment for which the centre offers guidance.

Relapse is a major aspect to an individual's recovery and is a constant concern for staff and individuals alike, as it is a major setback in personal rehabilitation. However, The Cedars approach to relapse and its prevention is an understanding and respect for personal process. The cedars have developed an integrated relapse prevention program for individuals battling with aspects of relapse and influence, emphasising further the concept of social inclusion and rehabilitation.

The facility has six senior counsellors at all times as well as a qualified social worker and medical nurse who are all permanently employed. All staff have a high degree of respect for the individuals in attendance and carry professionalism about what they do. As mentioned before majority of the staff have been through the facility and their own 12 step programs to which they can relate to all individuals. This aspect of the facility provides a wide range of social experiences and dynamics which promote the overall rehabilitation standard of the facility.

### **6.3.3 THE ENVIRONMENTAL CONTEXT**

The facility as mentioned before sits on the outskirts of Scottburgh in an open landscape environment surrounded by trees, gardens, and views that stretch to the horizon. The

immediate environment is one detached from the influences of the built environment and densely populated areas, promoting a natural and nurturing setting.



Figure 67 - Ground floor plan of The Cedars treatment facility. (Author, 2014)

The Main entrance to the facility is marked with a red arrow (figure 67) and connects the individual from the entrance porch to the main foyer off the drive way. On entering the facility the individual is greeted with a double volume foyer off which other functional spaces reside. The main administration office is marked in green off which three smaller counselling rooms sit, shown in yellow. Opposite from the main office is the group therapy room which is also marked in yellow. As the individual moves through the main foyer on the right hand side in blue respectively is a three sleeper bedroom and attached bathroom. On the left hand side in red is the main social space for individuals to relax and interact. In the centre of the structure sits the stairwell and from there passes through to the dining room shown in orange respectively. Off the dining room lies the main kitchen and back porch areas. The facility also includes a medical room and dispensary as well as several store rooms. The overall perception when moving

through the building is very fragmented in terms of spaces and pertained functions, however passive in terms of circulation. This fragmentation of space keeps each function separate and is interpreted in that way, clearly defining therapy spaces from recreational spaces.

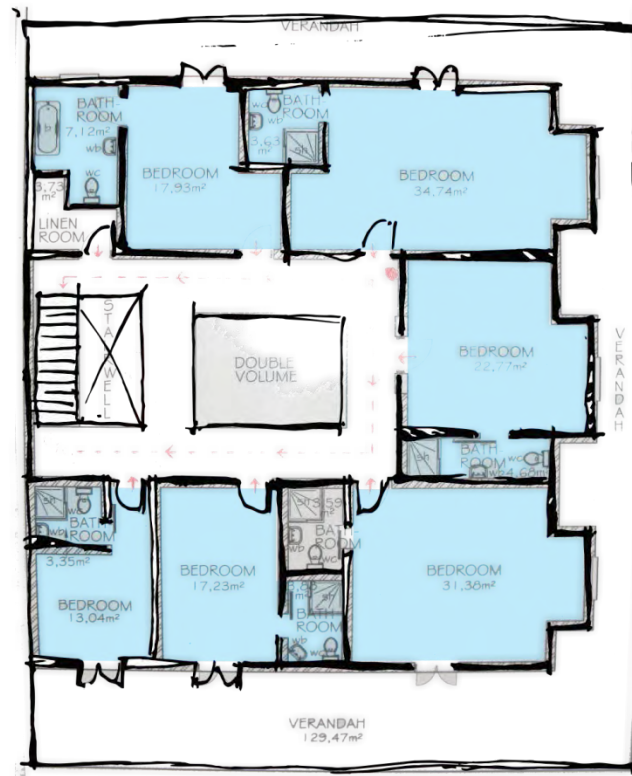


Figure 68, 69 First floor plan of The Cedars treatment facility and outside cottage. (Author, 2014)

The complete first floor (figure 68) of the facility is dedicated to inpatient residence shown in blue respectively, and is strictly limited to females. All rooms sleep between two to four persons and have attached en suite bathrooms and access to balcony's, ensuring the facility's policy of constant supervision, support and inclusion. The outside cottage is dedicated as the men's residence and sleeps approximately fifteen persons. The cottage (figure 69) also houses a gym and garage shown in grey, as well as a pump house to maintain the water harvesting tanks. The cottage has a kitchen and balcony that also open out onto serene views.

The Bedrooms as previously mentioned are always occupied with two or more persons. The facility adopts a strict policy on separation and social exclusion, and by facilitating social integration through inpatient treatment they are able to do so. Keeping a constant supervision between individuals has a positive impact on their rehabilitation however it also helps them deal with issues in society, such as conflict resolution, etc. All bedrooms have aspects of light and natural ventilation as well as access to a balcony or porch. Neutral colours are used throughout give a sense of a calm setting and nurturing environment.



Figure 70, 71 - Inpatient bedrooms and living area. (Author, 2014, [www.thecedars.co.za](http://www.thecedars.co.za))

The living space (figure 71) is the main social area where individuals can interact and socialise outside of a formal therapeutic setting. Patients are able to relax, read, reflect and feel free in a

comfortable environment. The living space also has direct access to a smoking balcony which overlooks the gardens and surrounding landscape. Adjacent to the living room are the kitchen and dining room spaces where patients can prepare small meals for themselves as well as take in the main meals of the day prepared by kitchen staff. The dining room (figure 73) can seat the full occupancy of the facility and further allows individuals to socially engage with each other.



Figure 72, 73, 74 - Views of the garden spaces and dining room. (Author, 2014, [www.thecedars.co.za](http://www.thecedars.co.za))

The Cedars manages to comfortably accommodate all its occupants and their social needs in the calm therapeutic environment which was originally a farmhouse. The facility also makes use of the rest of the site and grounds in the context of rehabilitation and recovery. This is achieved through a therapeutic garden (figure 74) which provides opportunity for walks and outdoor therapy sessions. A range of connected pergolas provide a covered, over grown walkway which intersects at a central point and terminates in a small arch. The facility is hosts a swimming pool and small sports court for individuals to enjoy and partake in.

#### **6.3.4 CONCLUSION**

The cedars addiction treatment facility encompasses a complete holistic and spiritual experience for both patients and visitors. The facility is able to do this through its immediate environmental context and as well as the social policies involved during the rehabilitation process.

The facility and the program recognise the social issues and implications ex addicts and users face through rehabilitation and later social integration. It aims to challenge society's expectations of ex addicts through an integrated community supportive network. First and foremost the cedars community of staff and patients embrace the concepts of social inclusion and rehabilitation. There is an awareness of singling out, or excluding certain types of addictions and individuals, similar to social construct theory the facility embraces the entire concept of addiction and aims to treat in that way, instead of attempting to breakdown the smaller constructs within it. Extending the notion in social construct theory is the support from the immediate community of Scottburgh, and the work experience and community integration opportunities. Similar to how the community of Cedars came to support the individual, so does now the bigger construct of community come to support the facility.

The overall environmental perception of the building is one of a nurturing and natural environment. The site location and its immediate context have a direct impact on the individual through the individual's perception of the environment. The fragmentation of the interior spaces helps to distinguish the different functions of the facility and is supported through lens theory of environmental perception and how the individual is constantly monitoring their environment to maintain an accurate perception.

The Cedars treatment facility performs well for its intended function through a structured and developed social program with regard addicts and rehabilitation, as well as through manipulation of its environmental context and landscape.

## 6.4 CONCLUSION

The case studies visited were done so with the intention of gaining a better understanding for the way in which substance rehabilitation related facilities are managed and structured, both socially and environmentally.

The Cedars treatment facility, although not originally designed as a clinical treatment facility has done its best to adapt to the residential farmhouse style of the original building, as well as embrace the social protocols implemented by staff and counsellors. The cedars treatment facility socially relies on the immediate community of Scottburgh to enforce a network of rehabilitative support, through awareness and social inclusion. Similarly the Nelson Mandela Chatsworth Youth Centre looks towards the immediate community for support not only in social issues, but recreational and cultural aspects as well. This is achieved through community integration and inclusion from the onset of the project, making the community and the individuals within it a fundamental in the efficiency of the intervention.

Through the exploration of these examples the analysis of the environmental context has become a critical aspect in the way these facilities perform. The Cedars within its serene and nurturing environment embraces the concept of social rehabilitation through a holistic perspective reinforced by the landscape. The interior spaces and functions although not originally designed for this type of facility manages to appeal to the immediate needs of the individual and their personal recovery. The Chatsworth Youth centre in comparison is a facility specifically designed for its intended function towards social development of the youth within the community. Colours, murals, sculptures, pattern design, as well as general spatial quality have all been considered for the benefit of the occupant and the intended function of the space.

The facilities examined portray the type of spaces, functions and general architectural environments which are required when dealing with social rehabilitation, development and

inclusion. The social and environmental contexts of the intervention dictate how effective the building will be when addressing the issues it was designed for. This information is vital in formulation and in understanding the development of a social rehabilitation centre for youth substance abusers within the greater Durban area.



## 7.0 ANALYSIS AND DISCUSSION

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### 7.1. INTRODUCTION

The literature reviewed thus far has been done so in relation to the key concepts and theories mentioned in previous chapters. This is done to provide a theoretical framework in which the information and data acquired can be processed. The purpose of the theoretical framework is important because it helps to formulate a set of notions and principles which apply to the architectural and social responses of the intervention.

The following chapter will then begin to examine and summate all the previous literature acquired, as well as the data collected in the precedent and case studies within the context of the theoretical framework. The development of the theoretical framework will then be used in analysing the findings acquired from the quantitative questionnaire. The findings discussed in relation to the theoretical framework are done so to synthesise the information in a way that it may apply to the rest of the research in context.

The purpose of this chapter is to identify all aspects of the theoretical framework and how they are relevant in formulating an architectural response to youth substance abuse and their social rehabilitation.

## **7.2. ANALYSIS THROUGH THEORETICAL FRAMEWORK**

As previously stated the theoretical framework consists of the key concepts and theories mentioned in the previous chapters. Namely social construct theory, lens theory of environmental perception, porosity theory, and concepts of social reintegration, social inclusion and a nurturing environment, were all used in analysing the previous literature and developing the framework.

The initial literature has defined the impact that youth substance abuse has on the individual, as well as the implications it places on society. Implications such as this, oppose aspects in social construct theory and their means to develop an efficient society, as well as form the fundamental basis for social exclusion for problem drug users. Through this then social inclusion of the individual seems further unattainable through socio-environmental influences and porous communities. The primary constant within the influences is one of the family and community, with its intricate layering of relationships, and how they become a support structure for the individual. This further relates to areas in social construct theory in which they are self- supporting for the benefit of the overall system.

Substance abuse behavior is affected mostly by environmental influences in the family and the shared impact it has on other siblings and parents. Areas of social disadvantage such as poverty and high crime rates are more likely to facilitate a substance abusing environment. The individual's personal genetic characteristics impact their own environmental perception, this is supported by lens theory of perception in that all individuals perceive in a different unique way. Aspects of cognition and understanding are directly related to an individual's environmental perception and, therefore their behavioural predispositions as well. However these cognitive processes can also be used to move past antisocial behaviour.

The literature reviewed in regard to social rehabilitation has helped to define and identify areas in which rehabilitation can be addressed through the aspects of recovery capital. These areas of

capital can be related to notions in social construct theory, and the way in which an individual's personal constructs (education, training, housing, etc.), achieve an overall efficiency for the benefit of the entire system as well as promote social inclusion. The barriers individuals are faced with in relation to their social rehabilitation from a substance abusing lifestyle can be derived from personal aspects as well as from society. This relates back to areas in both social construct theory and environmental perception theory. In social construct it refers to the unbalancing between personal and societal constructs, and in terms of lens theory of environmental perception, that all these constructs are interpreted individually to form an accurate perception of what the rehabilitation process should address.

Aspects to promote an individual's social rehabilitation such as housing and community both touch on theories of porosity and how the absence of spatial boundaries represents several areas of transition. Therefore within the intervention, spaces, boundaries and functions should be made clear as to provide proper surveillance and general flow of process. Vocational training is another fundamental of the rehabilitation process and is aimed at providing the individuals with a skill set in which he/she can use in order to achieve employment and over all reconnect with society. This relates to notions in social construct theory in the way the world is categorised and labelled, and that playing a part in society benefits the individual as well as the over-all construct.

As mentioned in the literature the immediate environment, whether natural or built, where rehabilitation processes and strategies take place has a direct impact on the individual. The context of the natural environment draws from areas in Lens theory of environmental perception, and how the interpretation of individual elements within the environment allows the individual to derive an accurate and appropriate perception for both their recovery and quality of life. The spaces created within the intervention, will be aimed at defining and portraying their function as well as creating a sense of welcoming and learning, which directly impacts the individual and their personal recovery. These aspects of the environment relate to environmental perception theory, but also porosity theory and the way in which spaces merge

with each other and form distinctive boundaries of functionality and context. Colour and its interpretation in architecture, draws on theories of environmental perception and how aspects of colour and variation have an impact on the individual. This is done so in order to give the individual an appropriate and current perspective of the immediate environment so that the pertained functions of space can be carried out. Materials and their relationship to human well-being also draw from notions in Lens theory of environmental perception that is, to interpret individual variables in the environment for a more accurate perception in which the individual can relate.

The case study and precedent examples approach the social context of the individual with complete inclusivity and opportunity within the constructs of community and family. This notion is supported in social construct theory through the interactions of different social groups, and the understanding of issues between them to achieve an over-all social efficiency and inclusivity.

The analysis of the framework through the literature makes obvious the importance of society and the constructs in which we use to categorise it. Constructs in society and rehabilitation can be used to aid in recovery, social inclusion and further integration back into social norms. The environment in which rehabilitation and related processes takes place needs to be considered fully in relation to the individuals own perception and interpretation as it has a direct impact on human well-being and thus their personal recovery.

### 7.3 FINDINGS

A quantitative questionnaire (appendix 1) was sent to 3 rehabilitation institutions as well as a youth development facility, within the greater Durban area, one of which being SANCA (South African National Council against Alcohol and Drug Abuse). Of the four organisations 24 questionnaires were returned and completed from which to analyse. A selected few questions will be discussed with their findings in context of the theoretical framework. This is done so to process the findings within the context of the initial literature and in formulating an approach towards the social and environmental contexts of the typology and subtopic. Some of the questions were as follows:

(Question 1) “On a scale from 1 to 5, how do you/your facility, address the youth with regard to substance abuse and related issues? (1: Passively, 5: Assertively)”

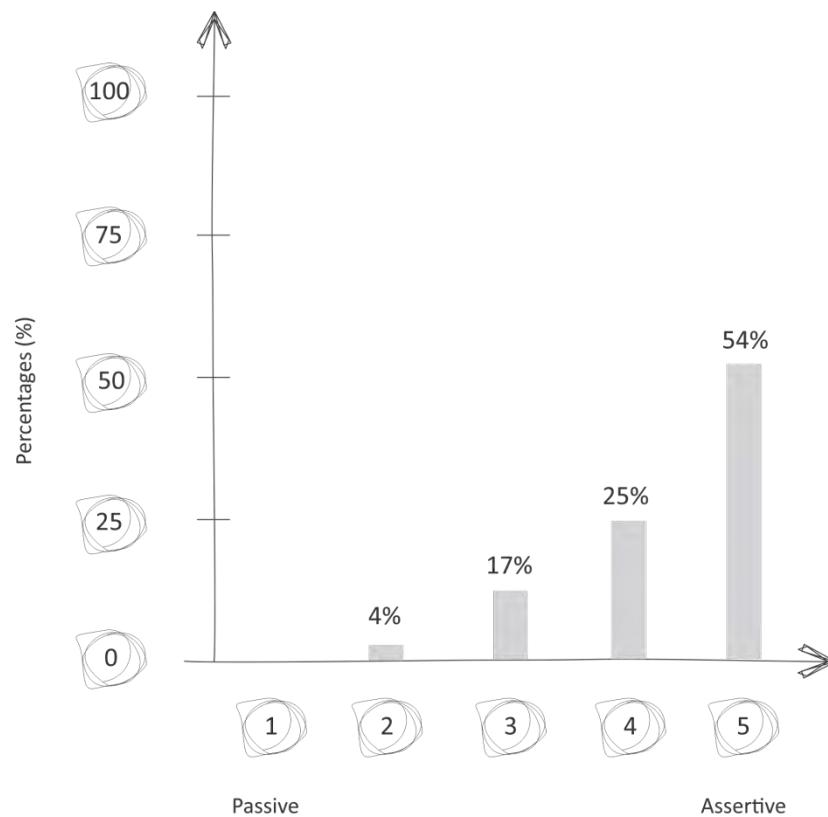


Figure 75 - Graph illustrating how assertively medical/counselling/ rehabilitative facilities, approach substance abuse and the related issues. (Author, 4014)

The aim behind the specific research of this question was directed at assessing the current social response of medical clinics, counselling facilities, and rehabilitation facilities towards individuals requiring assistance to recover from substance related addiction. All the facilities and individuals that responded to the questionnaire were involved in aspects of substance abuse and rehabilitation, however some facilities varied in the approach they took to addressing these individuals. Majority of the facilities and individuals approached within this context had a forward and assertive approach towards treatment and counselling of individuals (approximately 79% [4/5], figure 77). Other facilities and institutions that weren't as direct on their approach either offered some form of counselling, as well as referrals to more specialised facilities that could help. This is also due to the typology of these buildings and the scope of their functionality within the built environment.

The findings suggest that in most cases when a medical facility, counselling and youth development facility, or formal rehabilitation facility is approached with individuals involved in substance abuse and rehabilitation, there is generally a positive response in facilitating their recovery. Aspects such as this in society, are supported in social construct theory in that the professional or facility approached recognised and labelled the individual as an addict, as this is accepted by the individual then the further constructs of rehabilitation can be explored for the benefit of the individual and their personal recovery.

(Question 9) “Do you/your facility/Treatment program insist on any form community or family support during the rehabilitation process? Yes / No, Why? ”

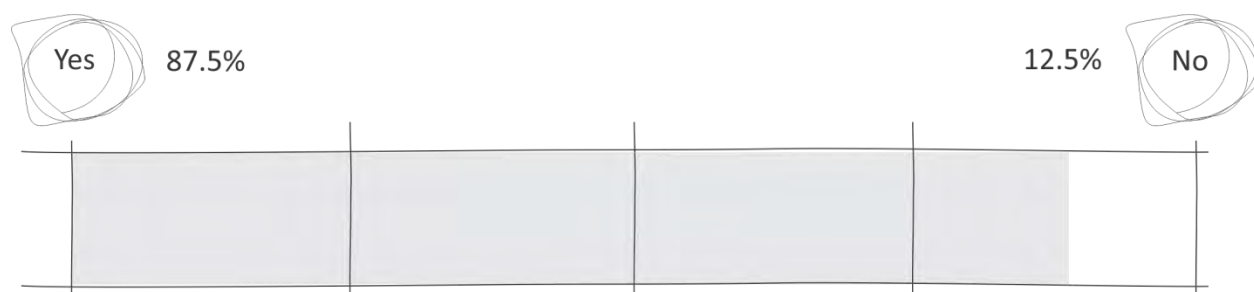


Figure 76 - Graph illustrating results on family/community participation during rehabilitation process. (Author, 2014)

The information gathered with regard to family and community support during the rehabilitation process makes clear the importance they have on the individual and their recovery.

As previously mentioned the family and community which the individual is surrounded by, has multiple influences towards substance abuse and antisocial behaviour. These influences vary, however in the context of rehabilitation they can be used to promote overall social rehabilitation and social inclusion within the individual. The results have made clear the opinions of professionals involved in youth substance abuse cases, and how they too promote aspects of community and family involvement during the recovery process. More specifically the family is one aspect which through its multiple relationships, develops a social and emotional support structure for the individual, whilst community involvement during the recovery process is used to slowly reintegrate the individual back into society and social norms.

This involvement during recovery relates to areas in social construct theory and the categorising and labelling of constructs such as family and community, and realising their involvement in the process is beneficial for the construct of rehabilitation as well as the concepts of social inclusion, social rehabilitation and a nurturing environment.

(Question 10) “Does the facility or treatment program assist with reintegration back into the community? Yes / No, Why? ”

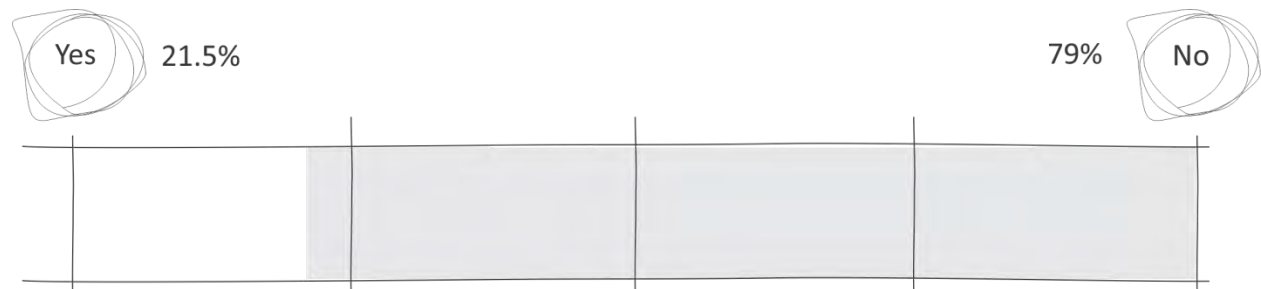


Figure 77 - Graph illustrating results on community reintegration assistance. (Author, 2014)

The research gathered from this investigation assesses whether or not the facilities explored assist with reintegration strategies back into the community. As mentioned in previous literature this would constitute aspects such as work experience placements, job assistance or even assisting in acquiring appropriate housing for the individual, once their rehabilitation is completed.

The findings suggest that within the greater Durban area, community reintegration strategies are not applied to their full extent. This is due to the number of individuals within the area requiring rehabilitation, as well as the resources made available by the medical, counselling and rehabilitation facilities.

Support in facilitating in community integrations relates to areas in social construct theory as well as concepts of social inclusion. In terms of social construct theory, if the individual is assisted in community integration by a professional or facility, then society and community recognise the individual and the related constructs of rehabilitation through a formalised and structured process. Community integration then furthers the relationships and social networks the individual creates once rehabilitated, thus promoting social inclusion and more so their overall social rehabilitation.



(Question 16) “Within the context of treatment and rehabilitation, on a scale from 1 to 5 (1: not important, 5: very important) how would you/ your facility rate the importance of the immediate environment and spatial quality in which the process takes place? And, how would you rate it in your facility again from 1 to 5? ”

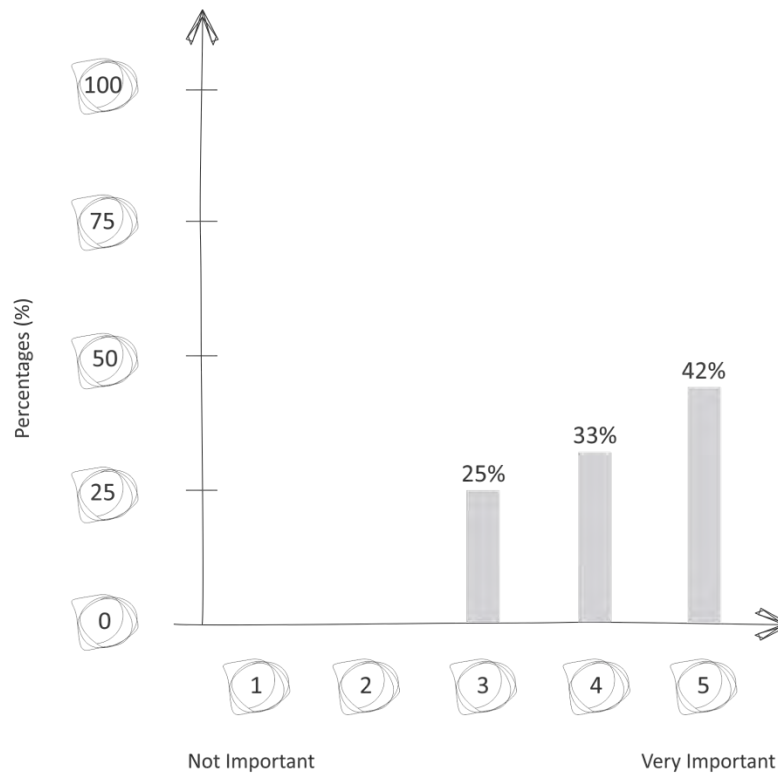


Figure 78 - Graph illustrating results on importance of spatial quality during the rehabilitation process. (Author, 2014)

The information acquired within this question is to understand the current perspective of professionals involved in medical, counselling and rehabilitation facilities, on the importance of spatial quality during the rehabilitation process.

The results show a surprising value on the importance of spatial quality and its impact on the individuals from the perspective of the professionals. This suggests that there is an awareness on the importance on spatial quality, however it should be noted that majority of facilities

admitted to not considering this aspect to its full extent and the benefit it has on the individual, essentially having room for improvement with regard to the spatial quality of the facilities.

The spatial quality and its impact on the individual relates to notions in theories of lens environmental perception as well as concepts of a nurturing environment and social rehabilitation. In terms of environmental perception the individual is constantly addressing their immediate environment in terms of their rehabilitation thus reassuring their nurturing environment for the benefit of a full recovery.

(Question 20) “In your experience, have you found that individuals that receive help to gain further employment or education during treatment, has helped assist in rehabilitation methods and further social inclusion after recovery, Yes / No, why? Is this considered in your facility/treatment program?”

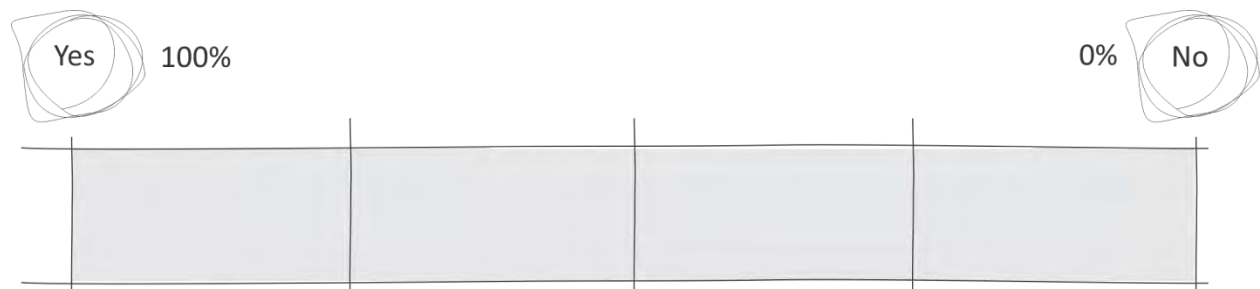


Figure 79 - Graph illustrating whether education, training, and job assistance during the rehabilitation process is beneficial to the individual and their recovery and social inclusion. (Author, 2014)

The information acquired from healthcare and counselling professionals with regard to social and educational training during the rehabilitation process, aims to identify whether these training strategies are beneficial for the individual and their overall recovery.

The results make clear in a completely one sided manner that aspects of vocational training, educational training, as well as work experience during the rehabilitation process, have a positive impact on the individual and their social rehabilitation, in the opinion of the professionals involved. This finding then justifies that these aspects of rehabilitation are valid within the social rehabilitation context, and more so can be included into the typology of the social rehabilitation centre.

This finding of including these aspects during the rehabilitation process draws from areas of social construct theory as well as concepts of social rehabilitation and social inclusion. In terms of social construct theory the individual is given the opportunity to gain an understanding of the constructs of education and training and further employment, which are critical in partaking in society as well as contributing to its overall efficiency. This contribution and understanding of society further promotes social inclusion and thus social rehabilitation.

#### **7.4. CONCLUSION**

The analysis of the literature through the theoretical framework as well as using the framework as a comparison to the findings has facilitated in synthesising the information and allowing it to be applied to the formulation of the intervention.

The analysis through the framework has identified what aspects in the social rehabilitation process, as well as in the environment and how they coincide and support aspects of the theoretical framework. The theories that support the framework are made relevant in the literature so that they can be applied to the formulation of the typology. The findings in context with the theoretical framework have justified strategies and approaches that will be taken when dealing with the social and environmental responses of the intervention towards the benefit for the individual. This has been done in accordance with the opinions of professionals in the related field.

## 8.0 CONCLUSIONS AND RECOMENDATIONS

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### 8.1 CONCLUSIONS

The literature reviewed has revealed the influence that youth substance abuse has on the individual, and how it affects society. Furthermore it has shown that youth substance abuse is linked to a number of influences, from personal and family, through to social constructs such as school and community and how they facilitate the problem. The common denominator is one of family and community and its complex layering of relationships, and how they become a support structure for the individual. The development of the social contextual model has helped to define the areas which directly affect substance abuse and their progression. The Model also expressess certain areas of influence and their relationship to each other, this then provides a better understanding of the influential variables.

The individual plays an integral part in the addiction and dependence process, and it is not merely withdrawal from the drug that needs to be achieved but, also from the related lifestyle as well. The problem is defined within the individuals own interpretation of the drug, social experience and whether it is a physical or psychological desire.

The literature reviewed has helped to define and identify areas in which rehabilitation can be addressed through the aspects of recovery capital. The research also shows how social barriers can be addressed, and that addressing a variety of social inclusion issues is far more beneficial for the individual than merely addressing livelihood or employment.

Approaches to promote social rehabilitation are done so with the ultimate intent of integrating previous youth substance abusers into society through means of employment, education and general quality of life. Housing and a healthy home environment have been shown to have a direct effect on an individual's quality of life, and therefore vitally important to consider within the context of substance abusers and their social rehabilitation. The effect of community

reinforcement within the rehabilitation process has shown that the surrounding community can be a valuable asset. Vocational training is a fundamental of the rehabilitation process and is aimed at providing the individuals with a skill set in which he/she can use in order to achieve employment and over all reconnect with society. These skills are often specialised and within the immediate context of their social realm. Social rehabilitation is about increasing the human, social, economic and institutional capital of vulnerable individuals with the ultimate aim of ensuring that all members of society have the same opportunity to participate fully in societal life.

The research has revealed how, and what aspects of the natural and built environments, when impacted on the social rehabilitation process produce positive results. With regard to the natural environment, natural light and ventilation have proven to be valuable attributes to consider, within the context of social rehabilitation and substance abuse. Healing gardens and therapeutic landscapes will be used in the typology of a social rehabilitation centre to promote spiritual vitality and positive state of mind.

Within the context of the built environment, the individuals perception of a space has a direct effect on the way that individual feels or behaves, as well as their cognitive processes. The spaces created within the social rehabilitation centre, will be aimed at defining and portraying their function as well as creating a sense of welcoming and learning, which directly impacts the individual and their personal recovery. Light and more prominently, colour, has been shown to have a direct and influential relationship to the psychological responses and general well-being of an individual within a certain space. Combinations of colours and different variations in a space have also shown further psychological benefits through means of stimulation. Materials and their textures have been proven to have a direct impact on environmental experience and therefore affecting behaviour, general well-being and cognitive processes.

Ultimately these aspects covered within the built and natural environments are done so with the intent of incorporating them holistically into the social rehabilitation centre. This holistic

incorporation is aimed fully at the individual and the over-all environmental experience they encounter whilst in treatment within the intervention.

## **8.2 RECOMENDATIONS**

The literature covered thus far in the literature review, case studies and precedent studies has been done so in order to develop an architectural response to the problem of youth substance abuse within the greater Durban area. The following information has been taken from all the research covered and will attempt to synthesise it into design recommendations as well as social protocols in relation to rehabilitation that will be instilled in the typology of a social reconnection centre. These recommendations are as follows:

### **8.2.1 SOCIAL REHABILITATION**

- Social rehabilitation will be addressed through aspects of recovery capital such as, housing, education, and skills training, through appropriate architectural space.
- Social rehabilitation will address personal and structural barriers with regard to an individual's social inclusion into society.
- Housing and healthy environments are to be considered throughout the design for the benefit of human well-being.
- Community and family will be included in the rehabilitation process as well as into the functioning of the typology through appropriate recreational facilities and architectural space.
- Vocational and educational training will form part of the rehabilitation process through appropriate and functional design of space.
- Work experience and job assistance from the facility will form part of the social rehabilitation process.

### **8.2.2 IMPACT FROM THE ENVIRONMENT ON REHABILITATION**

- Natural light and ventilation should be considered throughout the design to promote human well-being.
- Landscaped gardens and natural features are to be considered throughout the design to promote healthy environments and spiritual vitality.
- Functionality and design intent are to be considered throughout the design to promote the spatial quality of the structure for the benefit of the occupants.
- Light and colour variation will be considered throughout the design to promote environmental stimulation or de-stimulation where appropriate.
- Material and textures are to be considered throughout the design and their impact on human well-being.
- Clear spatial boundaries and definition of functions are to be considered throughout the design so that pertained function and intent of space can be clearly identified.

### **8.2.3 APPROACHES IN DEVELOPING TYPOLOGY**

- The building and typology should promote surveillance amongst its occupants and visitors as well as 24 hour functionality.
- The building should provide a multiple use of functions to further promote community integration and further social inclusion.
- The building needs to accommodate a variety of accommodation typologies for inpatient treatment, and then their further training or skills development.
- The building should be made able to adapt and change to suit its current social context, promoting further social sustainability and full usage of the building for its entire life course.

#### **8.2.4 CRITERIA FOR SITE SELECTION**

- The site should be semi-detached from the built environment to control community and social influences.
- The site should have aspects of the natural environment to promote healing and spiritual vitality.
- The site should allow for controlled community access to promote social inclusion.
- The site should not be too far from to a main road to allow for transport and accessibility.
- The site should serve as a catalyst for social interaction within the community.
- The site should promote a holistic environment absent of noise pollution or other negative environmental influences.

#### **8.2.5 APPROCHES TO ACCOMMODATION SCHEDULE**

The accommodation schedule should consider the following spaces and their pertained functions, within the formulation of a social rehabilitation centre for the youth in Durban:

- Therapy spaces
- In-patient housing/ Accommodation
- Social spaces
- Workshop/ Training spaces
- Educational/ Learning spaces
- Recreational spaces
- Community shared facilities
- Office/ Administration spaces
- Outdoor/ Landscaped spaces



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##### **Sharkey, (2012)**

- David Michael Sharkey, (2012), SOCIAL INTERACTION AND WELL-BEING IN ARCHITECTURAL ENVIRONMENTS. The Design of a Multi-Use-Facility, University of Kwa Zulu Natal, Durban, South Africa.

##### **Shazi, (2010)**

- Manqoba Allan Shazi, (2010), THE EXPLORATION OF THE RELATIONSHIP BETWEEN SOCIAL REINTEGRATION PROCESSES AND THE BUILT FORM: A Proposal for a Reentry Rehabilitation Centre for Released Ex-Prisoners, University of Kwa Zulu Natal, Durban, South Africa.

#### **9.3 WEBSITES:**

- <http://aslathedirt.files.wordpress.com>
- <http://citizen.co.za>
- [www.openbuildings.com](http://www.openbuildings.com)
- [www.colombiareports.co](http://www.colombiareports.co)
- [www.globalpost.com](http://www.globalpost.com)
- [www.knowledgex.camh.net](http://www.knowledgex.camh.net)
- [www.fredonia.edu](http://www.fredonia.edu)
- [www.undp.org](http://www.undp.org)

- [www.carboun.com](http://www.carboun.com)
- [www.dezeen.com](http://www.dezeen.com)
- [www.archdaily.com](http://www.archdaily.com)
- [www.wikipedia.com](http://www.wikipedia.com)
- [www.maps.google.co.za](http://www.maps.google.co.za)

## 10.0 APPENDICES

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### APPENDIX 1

Research Instruments-  
Quantitative Questionnaire  
Research Details:

The questionnaire is directed at professionals involved in rehabilitation/health care/ or youth Development. It will assess the current standards with regard to youth, substance abuse, and social rehabilitation within the context of the greater Durban Area:

Respondent Details:

Years of experience in the related field: \_\_\_\_\_

Position held: \_\_\_\_\_

Facility associated with: \_\_\_\_\_

#### Questions:

**1.** On a scale from 1 to 5, how do you/your facility, address the youth with regard to substance abuse and related issues? (1: Passively, 5: Assertively)

Additional comments:

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**2.** What is the average age of substance abuse cases? (In your experience)

A) 10 – 12    B) 13-16    C) 16-18    D) 18-21    E) 21 and over

Additional comments:

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**3. How many programs/treatments are available to assist with drug and alcohol abuse in your facility? If none, how many referrals to other institutions from your facility?**

Additional comments:

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**4. What are these treatments/ programs/ facilities? (By name)**

Additional comments:

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**5. How many social workers/counselors are available for the number of youth in attendance for rehabilitation/ treatment/ or seeking counseling?**

A) 1:1          B) 1:3          C) 1:5          D) 1:10          E) 1:20

Additional comments:

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**6. How long is the average rehabilitation process? (In your experience)**

A) 1 week - 1 month          B) 1 month – 2 months          C) 2 months – 4 months  
D) 4 months – 6 months          E) 6 months – 1 year

Additional comments:

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**7. In your experience, what are the most commonly abused substances? (Including alcohol)**

Additional comments:

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**8. Which of these substances most commonly seek treatment? (In your experience)**

Additional comments:

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**9. Do you/your facility/Treatment program insist on any form community or family support during the rehabilitation process? Yes / No, Why?**

Additional comments:

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**10. Does the facility or treatment program assist with reintegration back into the community?**

Yes / No, Why?

Additional comments:

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**11. Do any individuals return for further assistance after the initial rehabilitation process? (To the same facility/treatment program) Yes, / No Why?**

Additional comments:

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**12. In your experience, what percentages of rehabilitated users relapse?**

A) 1%-5%                      B) 5%-10%                      C) 10%-15%                      D) 15% or more

Additional comments:

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**13.** Again in your experience, what percentages of these ‘relapsed’ users return to the same facility for further treatment/counseling?

A) 80% - 100%

B) 60% - 80%

C) 50% - 60%

D) 40% - 50%

Additional comments:

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**14.** Does the facility/ or treatment programs encourage outpatient and inpatient interaction during counseling/rehabilitation process? Yes / No, Why?

Additional comments:

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**15.** Does the facility/ or treatment programs encourage social interaction between individuals during counseling/ rehabilitation process? Yes / No, Why?

Additional comments:

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**16.** Within the context of treatment and rehabilitation, on a scale from 1 to 5 (1: not important, 5: very important) how would you/ your facility rate the importance of the immediate environment and spatial quality in which the process takes place? And, how would you rate it in your facility again from 1 to 5?

Additional comments:

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**17.** In your experience, have you found the use of colour and colour therapy within architecture and the built environment to assist in rehabilitation methods and therapeutic healing, (calming mindsets, stress free environment, etc), Yes / No, why? Is this considered in your facility/treatment program?

Additional comments:

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**18.** In your experience, have you found the use of materials and texture within architecture and the built environment to assist in rehabilitation methods and therapeutic healing, Yes / No, why? Is this considered in your facility/treatment program?

Additional comments:

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**19.** In your experience, have you found the use of gardens, plants, landscapes within architecture and the built environment to assist in rehabilitation methods and therapeutic healing, Yes / No, why? Is this considered in your facility/treatment program?

Additional comments:

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**20.** In your experience, have you found that individuals that receive help to gain further employment or education during treatment, has helped assist in rehabilitation methods and further social inclusion after recovery, Yes / No, why? Is this considered in your facility/treatment program?

Additional comments:

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\_\_\_\_\_THANK YOU\_\_\_\_\_

## DESIGN PRESENTATION

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NORTH FACADE//

## THE SOCIAL REHABILITATION OF YOUTH SUBSTANCE ABUSERS WITHIN THE BUILT ENVIRONMENT:

### A proposed youth social rehabilitation centre for Durban

The issue of youth substance abuse within the context of South Africa, and more closer to home, Durban, is of great concern regarding the further social development of the generation and the lives, dreams and ambitions that are apart of today currents society.

The research carried out in supporting this project is aimed at understanding what the contributing factors are to youth substance abuse, and furthermore investigating strategies of social rehabilitation and reintegration for youth problem drug users.

Social construct theory, porosity theory, and lens theory of environmental perception, form the theoretical framework that supports the design. These theories represent a specialised scope that address the social and architectural responses, as well as the social implications within the context of youth substance abuse and the built environment.

The project will ultimately enable the sustainable reintegration of previous youth substance abusers, by developing individual and social self esteem, through rehabilitative support, secure housing, social skills, education and artisanal training.

Nature influences the design by connecting all spaces and functions to it, as well as the development of a modulated courtyard, in which varying degrees of networking can occur. This promotes a public to private gradient which better connects or separates functions according to their degree of privacy. These aspects help to explore appropriate architectural environments that benefit well-being, aspects of social rehabilitation, and employment based rehabilitation strategies.

Society and the constructs within it, have influences on youth substance abuse and in many cases facilitate it, however the constructs of rehabilitation and society can be shaped by the built environment. This project attempts to enable an understanding of these constructs for a socially responsible future.



CENTRAL COURTYARD//

## A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN



## THE SOCIAL REHABILITATION OF YOUTH SUBSTANCE ABUSERS WITHIN THE BUILT ENVIRONMENT:

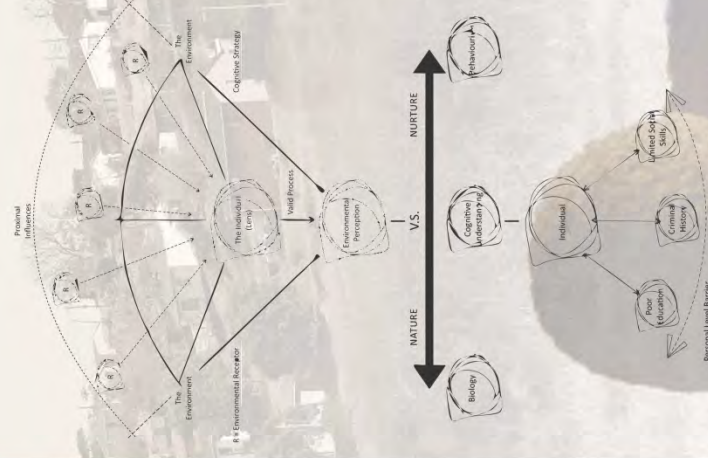


## A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN



### PROBLEM STATEMENT-

- FOR ALL YOUNG PEOPLE, SUBSTANCE ABUSE CARRIES SIGNIFICANT HEALTH RISKS, AS WELL AS SERIOUS SOCIAL PROBLEMS. THESE INCLUDE CRIME, VIOLENCE, MENTAL HEALTH ISSUES, PERSONALITY DISORDERS, LEARNING PROBLEMS AND CAN ALSO RESULT IN ACCIDENT OR INJURY. (YRBS, 2002)
- SUBSTANCE ABUSE BY YOUTH INDIVIDUALS WITHIN THE BUILT ENVIRONMENT OCCURS IN TRANSITIONAL SPACES WITH MINIMAL SURVEILLANCE, CREATING ENVIRONMENTS THAT FACILITATE THE USE AND ABUSE OF SUBSTANCES.



### THEORETICAL FRAMEWORK-

#### LENS THEORY - ENVIRONMENTAL PERCEPTION

- THE ENVIRONMENT EMITS PERCEPTION RECEPTORS IN A "SCATTERED" FORMATION. THE INDIVIDUAL IS THE "LENS" THAT FOCUSES THE RECEPTORS BY SELECTION AND RECOMBINATION OF THE SCATTERED INFLUENCES. THE RESULT OF THE RECOMBINATION IS PERCEPTION, WHICH IS THEN TESTED IN SOME WAY AGAINST REALITY. (BRUNSWIK, 1956, 1969)

#### SOCIAL CONSTRUCT - THEORY

- A SOCIAL CONSTRUCT IS ANYTHING THAT EXISTS AS A PRODUCT OF HUMAN SOCIAL INTERACTION TO CATEGORISE OR LABEL THE SOCIAL REALM. SOCIAL CONSTRUCT THEORY IS CONCERNED WITH THE WAYS WE THINK ABOUT AND USE CATEGORIES TO STRUCTURE OUR EXPERIENCE AND ANALYSIS OF THE WORLD. (JACKSON, PENROSE, 1993)

#### POROSITY - THEORY

- POROSITY IS DESCRIBED AS AN UNPLANNED, CHAOTIC CONURBATION IN WHICH SPACES AND BUILDINGS MELD AND INTERPENETRATE. POROSITY REFERS TO THE ABSENCE OF SPATIAL BOUNDARIES AND DIVISIONS BETWEEN PHENOMENA, ONE THING PERMEATING AND MOVING THROUGH ANOTHER, THE MERGING OF OLD AND NEW, INTERIOR AND EXTERIOR, AND THE DIFFUSION OF PUBLIC AND PRIVATE. (HOLL S. 2002)

### CONCEPTUAL FRAMEWORK -

#### SOCIAL REINTEGRATION - CONCEPT

- SOCIAL REINTEGRATION CAN BE DEFINED AS ANY PROCESS WITH THE INTENT OF AVOIDING THE SOCIAL EXCLUSION OF INDIVIDUALS AND IN THIS CONTEXT, FORMER YOUTH DRUG USERS.

#### SOCIAL INCLUSION - CONCEPT

- SOCIAL INCLUSION ENCOMPASSES FUNDAMENTALS THAT IMPACT ON AN INDIVIDUAL'S SENSE OF BELONGING, RECOGNITION, AND ACCEPTANCE IN SOCIETY AS WELL AS CONTRIBUTING TO THE ECONOMIC, SOCIAL, CULTURAL AND POLITICAL AGENDAS OF THE SOCIAL REALM.

#### NURTURING ENVIRONMENT - CONCEPT

- ENVIRONMENTS THAT FOSTER SUCCESSFUL DEVELOPMENT AND PREVENT THE DEVELOPMENT OF PSYCHOLOGICAL AND BEHAVIOURAL PROBLEMS ARE USEFULLY CHARACTERISED AS NURTURING ENVIRONMENTS.

### PROJECT RATIONALE-

- WHAT - • ENABLING SUSTAINABLE REINTEGRATION OF PREVIOUS YOUTH SUBSTANCE ABUSERS,
- WHY - • BY DEVELOPING INDIVIDUAL AND SOCIAL SELF-ESTEEM
- HOW - • THROUGH REHABILITATIVE SUPPORT, SOCIAL SKILLS, SECURE HOUSING, EDUCATION AND ARTISANAL TRAINING.



## KEY PRECEDENTS-

### REHABILITATION CENTRE GROOT KLIMMENDAAL-

LOCATION: ARNHEM, NETHERLANDS  
ARCHITECT: KOEN VAN VELSEN  
SIZE: 14,000 SQM, JANUARY 2010



### SISTER MARGARET SMITH ADDICTION -TREATMENT CENTRE

LOCATION: THUNDER BAY, ONTARIO, CANADA  
ARCHITECT: MONTGOMERY SISAM ARCHITECTS INC.  
SIZE: 20,400 SQM, 2009



### THE CEDARS - REHABILITATION FACILITY

LOCATION: SCOTTBURGH, DURBAN  
CONSTRUCTED: 2001

### ENVIRONMENTAL CONTEXT

- THE CENTRE IS LOCATED JUST OUTSIDE SCOTTBURGH WITH TREATMENT PROGRAMS TO AID IN ALCOHOL AND CHEMICAL DEPENDENCY. THE FACILITY IS IN A THERAPEUTICALLY LANDSCAPED ENVIRONMENT WHERE INDIVIDUALS CAN RECOVER IN A NATURAL SETTING.



- NATURE IS A STRONG ASPECT AND THE DESIGN ATTEMPTS TO BRING THE NATURAL ENVIRONMENT INSIDE TO THE INDIVIDUALS.

### ENVIRONMENTAL CONTEXT

- LOCATED IN A DENSE FORESTED AREA, THE PROJECT AIMS TO MERGE IN WITH ITS SURROUNDINGS TO CREATE A SENSE OF PEACE AND RELAXATION.

### SOCIAL CONTEXT

- THE PROJECT IS LOCATED CENTRALLY WITHIN THE COMMUNITY. THE PATIENT, WHO IS PLACED AT THE CENTRE OF THE COMMUNITY, GRADUALLY BEGINS TO FEEL REINTEGRATED AND FEEL A PART OF THE CONSTRUCT OF SOCIETY.



### ENVIRONMENTAL CONTEXT

- NATURAL LIGHT AND THE ENVIRONMENT HAS BEEN A PRIME CONSIDERATION THROUGHOUT THE DESIGN. THE ORGANISING SPINE IS WHERE CLIENTS ARE INTRODUCED TO THIS, CALM AND WELCOMING SETTING.

## KEY CASE STUDIES-

### NELSON MANDELA CHATSWORTH YOUTH CENTRE

LOCATION: CHATSWORTH, DURBAN  
ARCHITECT: AUB PROJECTS  
CONSTRUCTED: 2003

### ENVIRONMENTAL CONTEXT

- SOCIAL SPACES, COLOUR CHOICE, PATTERN DESIGN AND LANDSCAPING PROMOTE POSITIVE YOUTH INTERACTION AND SOCIAL DEVELOPMENT.



### SUSTAINABLE CONTEXT

- IT WAS UNDERSTOOD EARLY ON THAT A HEALTHY BUILDING ENVIRONMENT CAN BE AN ESSENTIAL PART OF THE HEALING PROCESS AND THAT THE ENVIRONMENTAL APPROACH EQUATES TO COMPASSIONATE CARE FOR ALL.

## THE BRIEF-

### CLIENT : DEPARTMENT OF SOCIAL DEVELOPMENT

#### URBAN DEVELOPMENT BRIEF

DEPARTMENT OF SOCIAL DEVELOPMENT HAS CALLED FOR INTERVENTION TOWARDS THE DEVELOPMENT OF A NEW SOCIAL DEVELOPMENT PRECINCT WITHIN THE DURBAN SOUTH AREA.

THE CATALYST WILL BE A SOCIAL REHABILITATION CENTRE FOR YOUTH, FOCUSING ON THE ABUSE OF SUBSTANCES IN ACCORDANCE WITH THE NATIONAL DRUG MASTER PLAN (NDMP).

THE PRECINCT WILL INCLUDE BUILDINGS TO AID IN:

- LOW COST HOUSING MANAGEMENT
- SOCIAL/ TAX GRANTS
- SASSA PAY OUT OFFICES
- HOME AFFAIRS OFFICES
- MUNICIPAL MANAGEMENT
- LIGHT INDUSTRY
- SOCIAL HOUSING
- MIXED USE/ RETAIL

THE PRECINCT IS ALSO TO INCLUDE AN URBAN/ LINEAR GREEN PARK. THE CREATION OF RECREATIONAL SPACES AND PARKS ARE TO AID IN SOCIAL INTERACTIONS.

#### SITE BRIEF

DEPARTMENT OF SOCIAL DEVELOPMENT HAS CALLED FOR INTERVENTION TOWARDS THE SOCIAL REHABILITATION OF YOUTH SUBSTANCE ABUSERS.

- THE INTERVENTION ITSELF WILL BE PRIMARILY FOCUSED ON SOCIALLY REHABILITATING TROUBLED YOUTHS FROM A PREVIOUS LIFE OF SUBSTANCE ABUSE THROUGH EMPLOYMENT BASED STRATEGIES WHICH SEEK TO PROMOTE FURTHER SOCIAL INCLUSION AND REINTEGRATION.

- THE DEVELOPMENT IS INTENDED TO SOCIALLY UPLIFT THE IMMEDIATE COMMUNITY THROUGH DEVELOPMENT STRATEGIES ASSESSED FROM THE IMMEDIATE SOCIAL NEEDS.

- COMMUNITY FACILITIES ARE TO BE PROVIDED BOTH RECREATIONAL AND COMMERCIAL IN WHICH LOCAL STAKEHOLDERS MAY INVEST AND CONTRIBUTE TO THE ECONOMIC SUSTAINABILITY OF THE INTERVENTION.

## ACCOMMODATION SCHEDULE

### HOUSING/ ACCOMMODATION: 200 PERSONS (3065msq)

REF NO	ACCOMMODATION	AREA(msq)	TYPE	REF NO	ACCOMMODATION	AREA(msq)	TYPE
1	GENERAL OFFICE	250	FU	24	DORMITORIES	900	FU
2	WAITING AREA	50	SUP	25	LIVING/ STUDY AREAS	500	FU
3	TOILETS	30	SUP	26	SPECIAL BEDROOMS	500	FU
4	KITCHEN	10	SUP	27	BATHROOMS	180	SUP
5	ARCHIVE ROOM	10	SUP	28	SENIOR OFFICES	150	SUP
6	DISABLED TOILET	5	SUP	29	STORE ROOMS	60	SUP
7	STORE ROOMS	10	SUP	30	LOBBY/ VISITING	150	CORE
8	PRINT ROOM	5	SUP	31	KITCHEN + STORES	125	FU
				32	DINING HALL	500	FU

### VOCATIONAL TRAINING: (1530msq)

REF NO	ACCOMMODATION	AREA(msq)	TYPE	REF NO	ACCOMMODATION	AREA(msq)	TYPE
9	WORKSHOPS (X3300)	900	FU	33	LEARNING SPACES	600	FU
10	STOREROOMS	100	SUP	34	STORE ROOMS	60	SUP
11	CHANGEROOMS	60	SUP	35	SENIOR OFFICES	50	SUP
12	FOYER/LOBBY	150	SUP	36	TOILETS	40	SUP
13	SENIOR OFFICES	20	SUP	37	MEETING ROOM	30	FU
14	GALLERY SPACE	150	FU	38	STAFF ROOM	50	FU
15	SERVICE YARD	150	FU	39	PRINT/ COPY	5	SUP
				40	STUDY SPACES	200	FU

### COMMUNITY SHARED FACILITIES: (1420msq)

REF NO	ACCOMMODATION	AREA(msq)	TYPE	REF NO	ACCOMMODATION	AREA(msq)	TYPE
16	HOSPITALITY/CAFE	200	FU	41	INPATIENT (GROUP)	200	FU
17	PHYSICAL REHAB	150	FU	42	INPATIENT (PRVT)	225	FU
18	RETAIL/ TRADE	200	FU	43	SOCIAL WORKER OFFICE	50	SUP
19	EMPLOYMENT CENTRE	220	FU	44	BATHROOMS	40	SUP
20	COMMERCIAL OFFICES	500	FU	45	MEDIC BAY/ NURSE	180	FU
22	OUT: TREATMENT	220	FU				
23	TOILETS	50	SUP				

TOTAL ACCOMMODATION : 8015 msq

+ 10% CIRCULATION : 9000msq

## ENVIRONMENT

SIMON BOT HWA - 208509005



# SITE CRITERIA/ SELECTION-

## GLOBAL SCALE

# THE SOCIAL REHABILITATION OF YOUTH SUBSTANCE ABUSERS WITHIN THE BUILT ENVIRONMENT

## NATIONAL SCALE

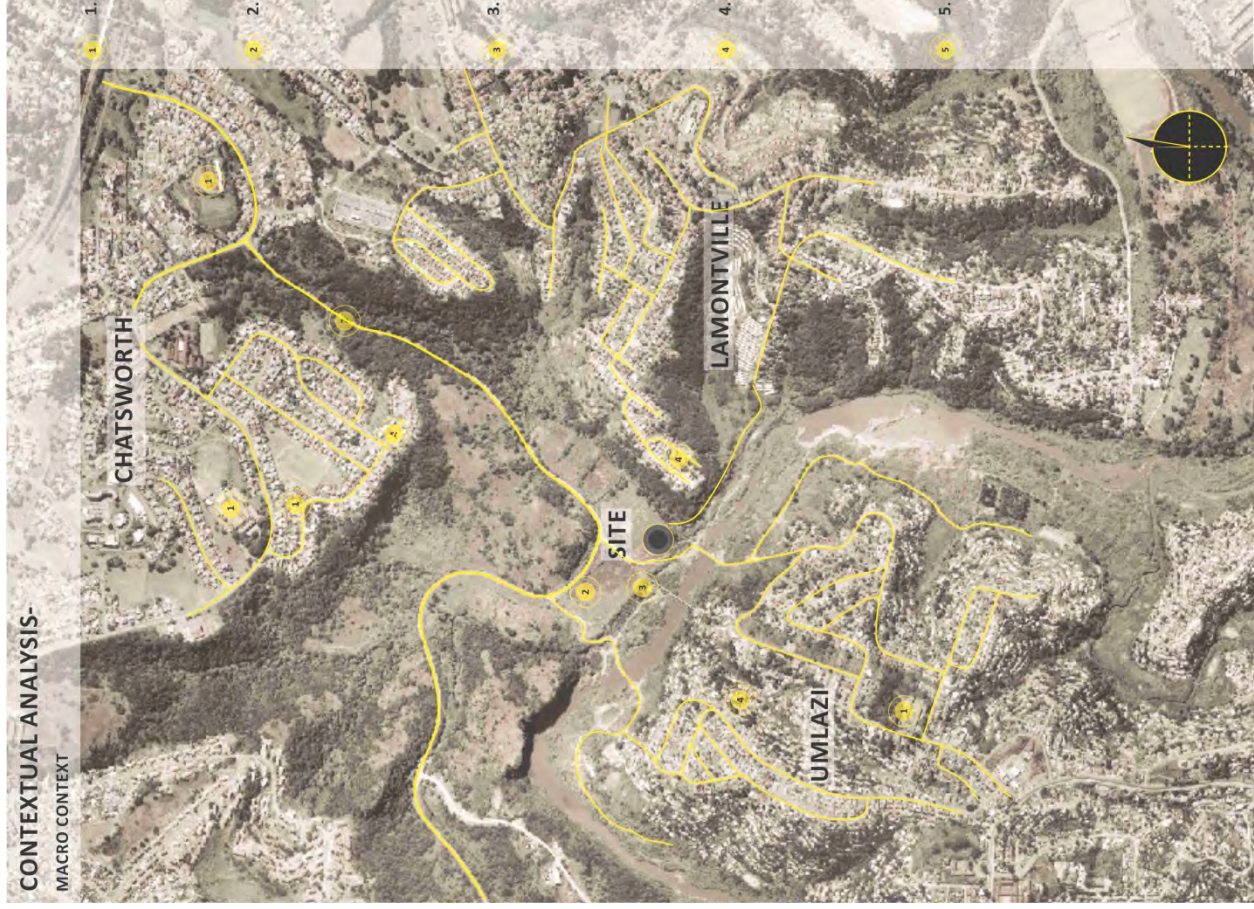
## PROVINCIAL SCALE



SITE - CRITERIA/RECOMMENDATIONS	SITE 1 - BALLARAT RD. SEAVIEW //	SITE 2 - SILVERGLEN DRV. CHATSWORTH/ LAMONTVILLE	SITE 3 - HAVENSIDE RD. CHATSWORTH
<ul style="list-style-type: none"> <li>SEMI-DETACHED FROM THE BUILT ENVIRONMENT</li> <li>WITHIN THE NATURAL ENVIRONMENT TO PROMOTE HEALING AND SPIRITUAL VITALITY.</li> <li>THE SITE SHOULD ALLOW FOR CONTROLLED COMMUNITY ACCESS</li> <li>THE SITE SHOULD TO ALLOW FOR PUBLIC TRANSPORT</li> <li>THE SITE SHOULD PROMOTE A HOLISTIC ENVIRONMENT</li> </ul>	<p><b>PRO:</b> NATURAL ENVIRONMENT WITH OPPORTUNITY IN IMPACTING IMMEDIATE SOCIAL CONTEXT.</p> <p><b>CON:</b> POOR EXISTING SOCIAL FABRIC AND OPPORTUNITY POOR COMMUNITY MEDIATION AND INFLUENCE.</p> <p><b>CON:</b> THE SITE IS NEGLECTED BOTH SOCIALLY AND ENVIRONMENTALLY AS WELL AS BEING IMPACTED BY INFLUENCES FROM THE BUILT ENVIRONMENT WITH REGARD TO SUBSTANCE ABUSE.</p>	<p><b>PRO:</b> WITHIN THE NATURAL ENVIRONMENT AND CLOSE TO COMMUNITIES SEEKING REHABILITATION AND FURTHER SOCIAL OPPORTUNITY.</p> <p><b>PRO:</b> OPPORTUNITY IN THE IMMEDIATE SUBURBS. DETACHED FROM BUILT ENVIRONMENT INFLUENCES AND POTENTIAL FOR POSITIVE SOCIAL CATALYST.</p> <p><b>PRO:</b> NORTH ORIENTATED SITE ON LEVEL LAND WITH A POSITIVE IMPACT ON THE IMMEDIATE SOCIAL CONTEXT, AND SITUATED WITHIN A NATURAL ENVIRONMENT PROMOTING POSITIVE SURVEILLANCE.</p>	<p><b>PRO:</b> POSITIVE/ DYNAMIC SOCIAL FABRIC IN IMMEDIATE CONTEXT AND IN NEARBY AMENITIES</p> <p><b>PRO:</b> IMMEDIATE OPPORTUNITY FOR HAVENSIDE COMMUNITY AND POSITIVE CONNECTIVITY AROUND SITE.</p> <p><b>PRO:</b> BENEFICIAL IMPACT ON THE IMMEDIATE SOCIAL CONTEXT, CONTROLLED PERIMETER AND A POSITIVE NATURAL ENVIRONMENT.</p>
<ul style="list-style-type: none"> <li>COMMUNITY OPPORTUNITY</li> <li>COMMUNITY CONNECTIVITY (TRANSPORT)</li> <li>DETACHMENT FROM BUILT ENVIRONMENT</li> <li>SOCIAL RECOGNITION</li> </ul>	<p><b>PRO:</b> THE SITE HOLDS OPPORTUNITY FOR THE SURROUNDING RESIDENTIAL CONTEXT AND FURTHER DEVELOPMENT OF THE NEARBY CEMENT QUARRY. POTENTIAL FOR A POSITIVE SOCIAL CATALYST.</p> <p><b>CON:</b> THE SITE LACKS IN SURVEILLANCE AND PERIMETER PERMEABILITY RESULTING IN POOR COMMUNITY MEDIATION.</p>	<p><b>CON:</b> SEVERE IMPACT ON NATURAL ENVIRONMENT AND PROMINENTLY SERVES ONE COMMUNITY.</p> <p><b>CON:</b> LIMITED CONNECTIVITY VIA SINGLE ROAD OFF SILVERGLEN DRIVE.</p> <p><b>CON:</b> LARGE HILLS SURROUNDING SITE PROMPTING NEGATIVE SHADING, PERIMETER PERMEABILITY MAY RESULT IN POOR COMMUNITY MEDIATION.</p>	<p><b>CON:</b> LIMITED CONNECTIVITY DUE TO TOPOGRAPHICAL POSITIONING.</p> <p><b>CON:</b> BUILT ENVIRONMENT INFLUENCES NEARBY AND POTENTIAL AS A CATALYST TO BE LOST WITHIN THE FABRIC OF THE COMMUNITY.</p> <p><b>CON:</b> SITE SITUATED ON A SOUTH FACING SLOPE WITH EDUCATION FACILITY ABOVE FACILITATING POOR COMMUNITY MEDIATION.</p>
<ul style="list-style-type: none"> <li>SITE ORIENTATION</li> <li>TOPOGRAPHY</li> <li>NATURAL FEATURES</li> <li>IMMEDIATE SOCIAL CONTEXT</li> <li>COMMUNITY CONTROL</li> <li>NATURAL SURVEILLANCE</li> <li>PERIMETER PERMEABILITY</li> </ul>	<p><b>PRO:</b> NORTH ORIENTATED SITE ON LEVEL LAND WITHIN A POSITIVE NATURAL ENVIRONMENT.</p>		



## CONTEXTUAL ANALYSIS- MACRO CONTEXT

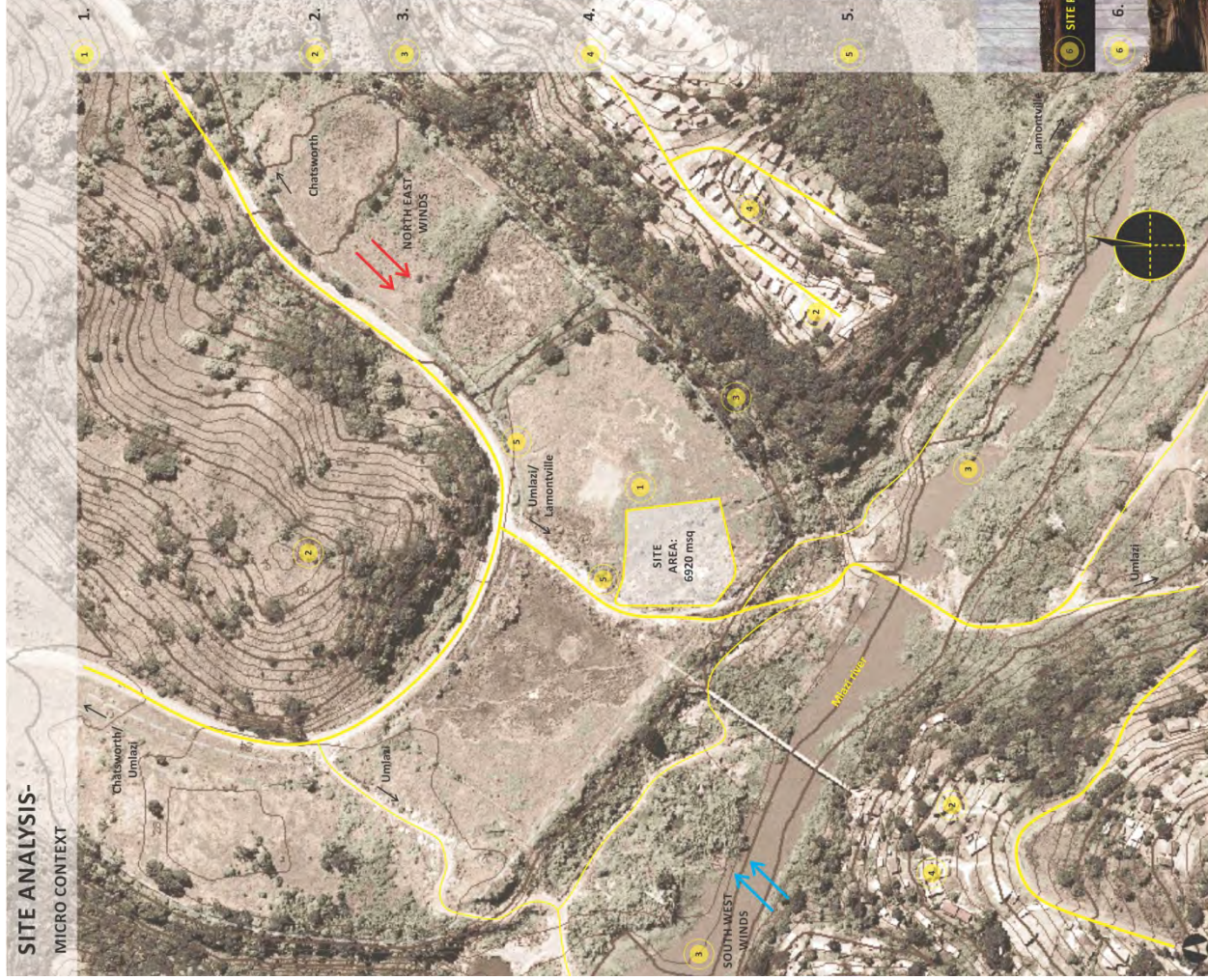


- ### ANALYSIS-
- #### COMMUNITY OPPORTUNITY
- RETAIL - SMALL BUSINESSES AND STAKEHOLDERS
  - RECREATION - SPORTS FACILITIES/ SOCIAL GATHERING
  - EDUCATION - SENIOR SCHOOLING/ EXTRA LESSONS/ NIGHT SCHOOL
  - HOUSING - ROP HOUSING SCHEMES IN NEARBY COMMUNITIES OF UMLAZI AND LAMONTVILLE
- #### COMMUNITY CONNECTIVITY
- VEHICULAR - SILVERGLEN DRIVE IS A MAIN THROUGHFARE BETWEEN THE SHALLCROSS AND HAVENSIDE COMMUNITIES AS WELL AS TO HIGGINSON HIGHWAY. A DIRT ROAD OFF SILVERGLEN CONNECTS THE UMLAZI AND LAMONTVILLE AREAS TO THE SITE BRIDGING THE UMLAZI RIVER.
  - PEDESTRIAN - FOOTPATHS AROUND THE SITE SHOW CONNECTIONS FROM THE UMLAZI AND LAMONTVILLE AREAS INTO CHATSWORTH AS WELL AS PEDESTRIAN FOOTBRIDGE OVER THE RIVER.
- #### SOCIAL RECOGNITION
- LITTER - THE SITE IS CURRENTLY ZONED AS PUBLIC OPEN SPACE. THE SITE HAS ACCUMULATED MASS AMOUNTS OF LITTER.
  - SPORTS - INFORMAL SOCCER PITCH CLEARLY REPRESENTED ON SITE. YOUTH RELATED ACTIVITY.
  - THOROUGHFARE - PEDESTRIAN CONNECTION THROUGH SITE ON RIVERBANK AND INTO SURROUNDING COMMUNITIES.
- #### BUILT ENVIRONMENT DENSITY
- UMLAZI - UNIT FIVE IN UMLAZI IS PRIMARILY THE CLOSEST TO SITE.
  - LAMONTVILLE - CONNECTED THROUGH UMLAZI UNIT FIVE HOWEVER THE PERIPHERY OF THE PRECINCT OVERLOOKS THE SITE FROM THE SOUTH EAST.
  - HAVENSIDE - CONNECTED VIA SILVERGLEN AND SERVING MANY OTHER COMMUNITY CONNECTIONS.
- #### CONTEXTUAL DIVERSITY
- ECONOMICAL - THE SURROUNDING SUBURBS ARE ABUNDANT WITH INFORMAL AND FORMAL TRADE. OPPORTUNITY TO INVEST IN THE PRECINCT WILL OF A POSITIVE IMPACT WITHIN THESE COMMUNITIES.
  - SOCIAL - TRADE WILL ATTRACT MORE SOCIAL GROUPS TO ASSIMILATE WITHIN THE PRECINCT CREATING OPPORTUNITIES FOR PEOPLE TO LEARN FROM ONE ANOTHER.
  - ENVIRONMENTAL - THE CURRENT ENVIRONMENT IS LITTERED AND NEGLECTED. THE INTERVENTION WILL SEEK TO MAINTAIN ITS NATURAL ENVIRONMENT AS MUCH AS POSSIBLE PROMOTING CONSERVATION.





## SITE ANALYSIS- MICRO CONTEXT



## ANALYSIS-

### SITE ORIENTATION

**SOLAR** - THE SITE IS ORIENTATED TOWARDS A NORTH WEST DIRECTION.

**CLIMATE** - THE SITE IS IN A VALLEY CAUSING MOST WINDS ARE DIRECTED BY THE TOPOGRAPHY AND CHANNELING AND TEMPERATURE EFFECTED BY THE UMLAZI RIVER.

**POSITIONING** - WITHIN THE VALLEY ON THE PERIPHERY OF THREE MIDDLE TO LOW INCOME SUBURBS.

### TOPOGRAPHY

**CONTOURS** - 2M CONTOUR LEVELS. THREE MAIN RIDGES OVERLOOK THE SITE IN THE VALLEY.

### NATURAL FEATURES/ ENVIRONMENT

**LANDSCAPE** - TREES ARE PRESENT ON THE PERIPHERIES OF THE SITE. THIS CREATES DIFFERENT ENVIRONMENTS ON SITE APPEALING TO DIFFERENT FUNCTIONS OF THE DESIGN.

**WATERWAY** - THE UMLAZI RIVER GENERATED FROM FURTHER INLAND PASSES THE SOUTH END OF THE SITE AND MOST OF THE PRECINCT.

### IMMEDIATE SOCIAL CONTEXT

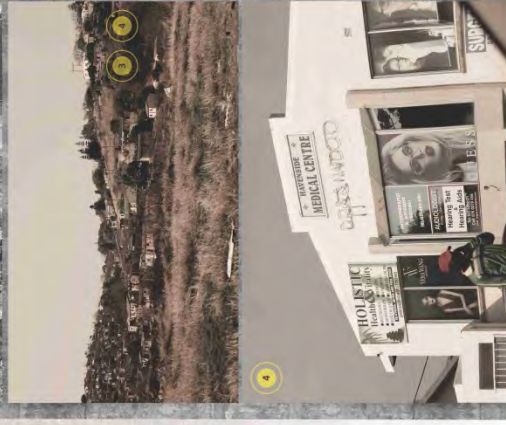
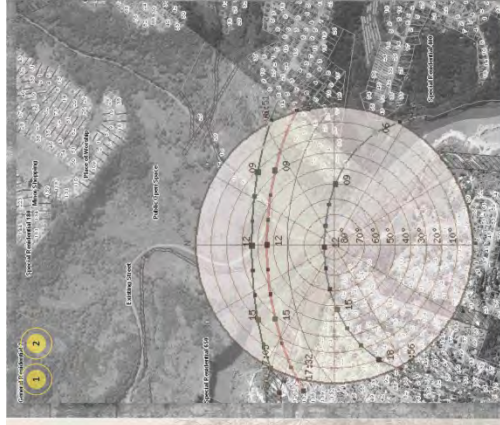
**RDP** - UMLAZI UNIT FIVE AS WELL AS THE ADJACENT RIDGE OF LAMONTVILLE ARE CONSISTENT WITH LOW COST HOUSING DEVELOPMENTS.

**RECREATION** - SOCIAL DEVELOPMENT FOUND A NEED FOR YOUTH RECREATIONAL FACILITIES TO HELP ENGAGE WITH LIFE COACHING AND GENERAL SOCIAL DYNAMICS.

**HEALTH** - THE MACRO CONTEXT HOLDS NO MAJOR CLINIC FACILITIES. OPPORTUNITY TO DEVELOP HEALTH CARE.

### PERIMETER PERMEABILITY

**PERIMETER** - ALL EDGES OF SITE ALLOW FREE MOVEMENT. SOUTH EDGE LEAST PERMEABLE DUE TO HILLSIDE AND GROUND LEVEL RELATIONSHIP.



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## URBAN FRAMEWORK-

### ENVIRONMENTAL IMPACT ASSESSMENT

1. GREEN SPACE - SITUATED IN PUBLIC OPEN SPACE SHOWING THE EXTENT OF THE GREEN ZONE.



THE SITE ALTHOUGH DEVELOPED IN GREEN SPACE BECOMES A DENSITY POINT FOR THE SURROUNDING THREE COMMUNITIES THROUGH REDUCING SPRAWL ON THE PERIPHERIES.

2. 100yr FLOOD LINE - THE BLUE AREAS SHOW THE 100yr FLOOD PLANE IN RELATION TO ADJACENT RIVER.

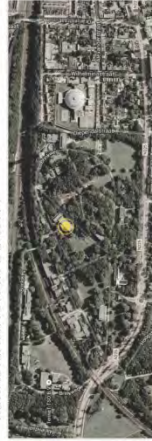


THE SITE IS SITUATED ABOVE THE 100yr FLOOD LINE MAKING DEVELOPMENT POSSIBLE AND ENSURING THE FURTHER SUSTAINABILITY OF THE PROJECT

### OPPORTUNITIES / CONSTRAINTS

1. LANDSCAPE - THE IMMEDIATE NATURAL LANDSCAPE OF TREES AND HILLS INFLUENCE THE DESIGN TO CONSIDER THE NATURAL CONTEXT.
  - LINEAR PARK
  - 30m X 60m WALKABLE PLOTS
  - LOW RISE SCALE / REDUCE NEGATIVE SHADING
2. TOPOGRAPHY - THE SURROUNDING HILLSIDES WHICH SUPPORT THE COMMUNITIES AND FORM THE VALLEY, NATURALLY IMPACT THE IMMEDIATE CLIMATE IN FORMS OF SOLAR AND WIND CHANNELING.
3. COMMUNITY - THE PRECINCT SITE IS SITUATED BETWEEN THREE SUBURBS AND NEEDS TO ADDRESS THEM RESPECTIVELY.
  - CONSIDER FORM AND ORIENTATION
  - CONSIDER CONTEXT

### REHABILITATION IN DENSITY

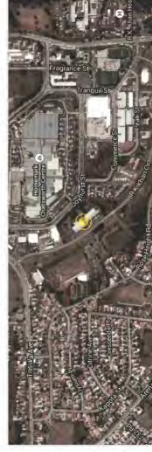


REHABILITATION CENTRE GROOT KILMENDAAL IN PARK WITHIN DENSE URBAN ENVIRONMENT



SANCA REHABILITATION CENTRE IN DURBAN.

4. CONNECTIONS - EXISTING ROADS AND INFRASTRUCTURE ARE FREQUENTLY USED AND NEED TO BE CONSIDERED NOT TO DISRUPT THE COMMUNITY.
  - CONSIDER EXISTING CONNECTIONS (VEHICULAR).
  - CONSIDER PEDESTRIAN ROUTES.
  - CONSIDER BOTH VEHICULAR AND PEDESTRIAN BRIDGES INTO UMLAZI.
  - TRAFFIC LAY-BY'S OFF SLIVER GLEN.
5. ENVIRONMENT - THE PRECINCT SITE IS ABUNDANT IN NATURAL VEGETATION AS WELL AS A DEVELOPING BUILT ENVIRONMENT.
  - CONSIDER CONSERVATION WITHIN DESIGN PARAMETERS
  - CONSIDER RDP TYPOLOGY ON SITE PERIPHERY
6. WATERS EDGE - THE PRECINCT SITE IS LOCATED ALONG THE UMLAZI RIVER.
  - CONSIDER URBAN PARK WATERS EDGE DYNAMIC
  - CONSIDER RELAXED BUILDING LINE AGAINST RIVER BOUNDARY



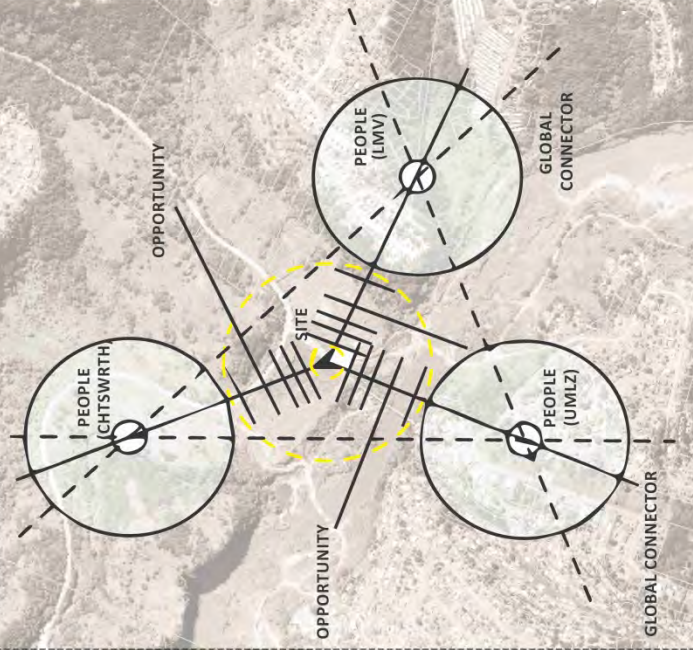
CHATSWORTH YOUTH CENTRE WITHIN DENSE URBAN AND RECREATIONAL ENVIRONMENTS.



SISTER MARAGRET SMITHS ADDICTION TREATMENT CENTRE IN CANADA.

## URBAN MECHANICS-

### GLOBAL CONNECTOR



## SITE MECHANICS-

### PUBLIC FACILITIES

### ADMINISTRATION

### HOUSING

### COUNSELLING TREATMENT

### VOCATIONAL TRAINING

### EDUCATION

### DESIGN DRIVERS

- PUBLIC ACCESS AND CONNECTIVITY ON HIGH TRAFFIC EDGES.

- PUBLIC ACCESS ON HIGH TRAFFIC EDGE.

- PRIVATE ACCESS, VIEWS TO NATURE/ LANDSCAPE.

- PRIVATE ACCESS, VIEWS TO RIVER, LINK TO OUTDOOR THERAPY SPACE.

- SEMI-PUBLIC EDGE, VEHICLE ACCESS, LOADING BAY/ SERVICE YARD.

- PRIVATE ACCESS, VISUAL CONNECTIONS/ PEDESTRIAN AND NATURE.

1. CONNECTING ALL SPACES, FUNCTIONS AND ACTIVITIES TO NATURE.

2. DEVELOPING A MODULATED COURTYARD TO ENABLE VARYING DEGREES OF NETWORKING AND INTERACTION

3. ESTABLISHING A GRADIENT FROM PUBLIC TO PRIVATE TO BETTER CONNECT AND SEPARATE FUNCTIONS ACCORDING TO DEGREES OF PRIVACY.



1. PEOPLE - DIFFERENT GROUPS OF PEOPLE IDENTIFIED IN RELATION TO ONE ANOTHER.



2. POSITION - SITE IDENTIFIED IN RELATION TO EXISTING GROUPS OF PEOPLE.



3. CONNECTIVITY - IDENTIFYING CONNECTIONS IN RELATION TO THE PEOPLE AND SITE POSITION.



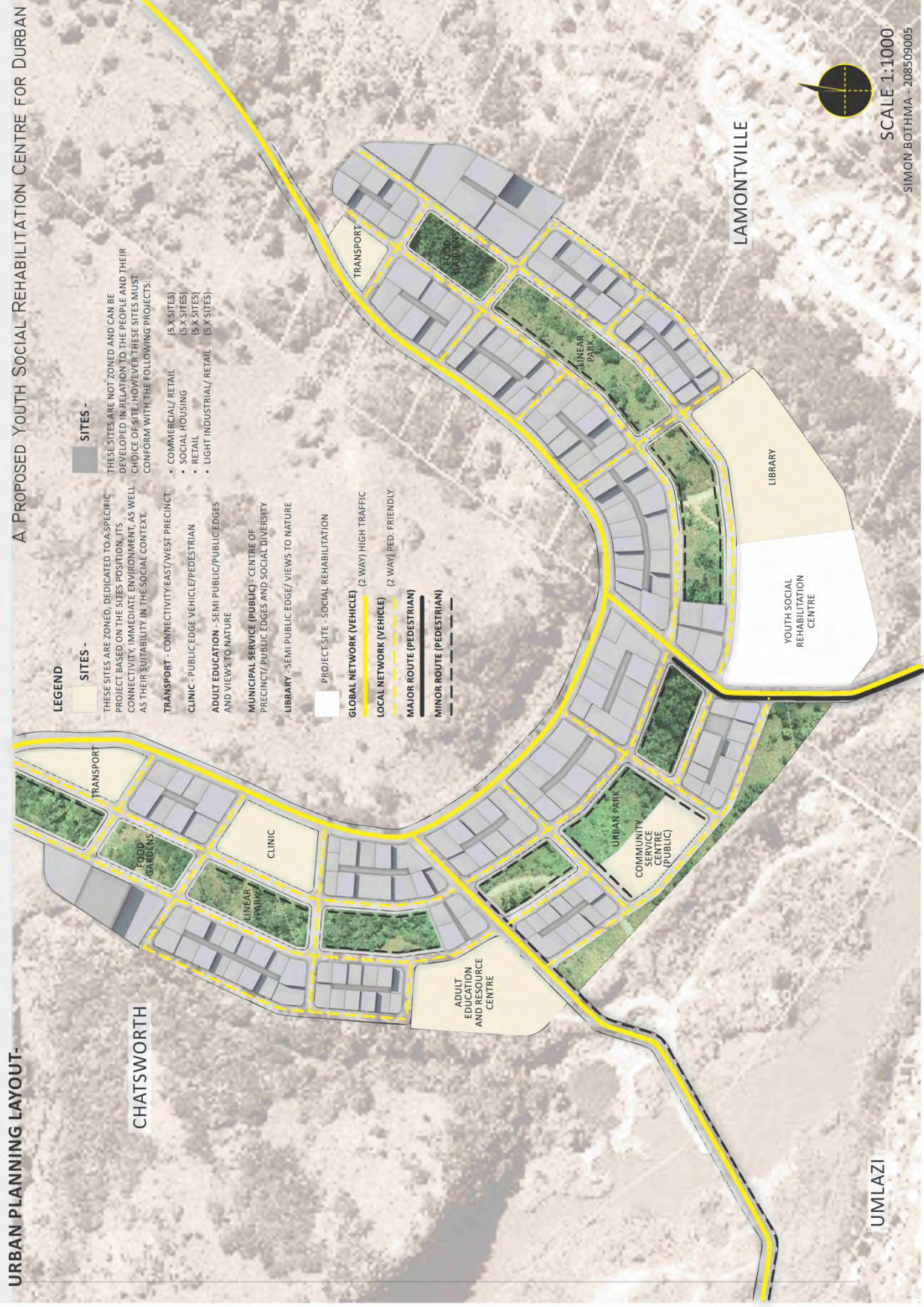
4. OPPORTUNITY - IDENTIFYING OPPORTUNITY FOR DEVELOPMENT ALONG GLOBAL CONNECTORS IN RELATION TO THE PEOPLE AND SITE POSITION.





# URBAN PLANNING LAYOUT-

# A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN





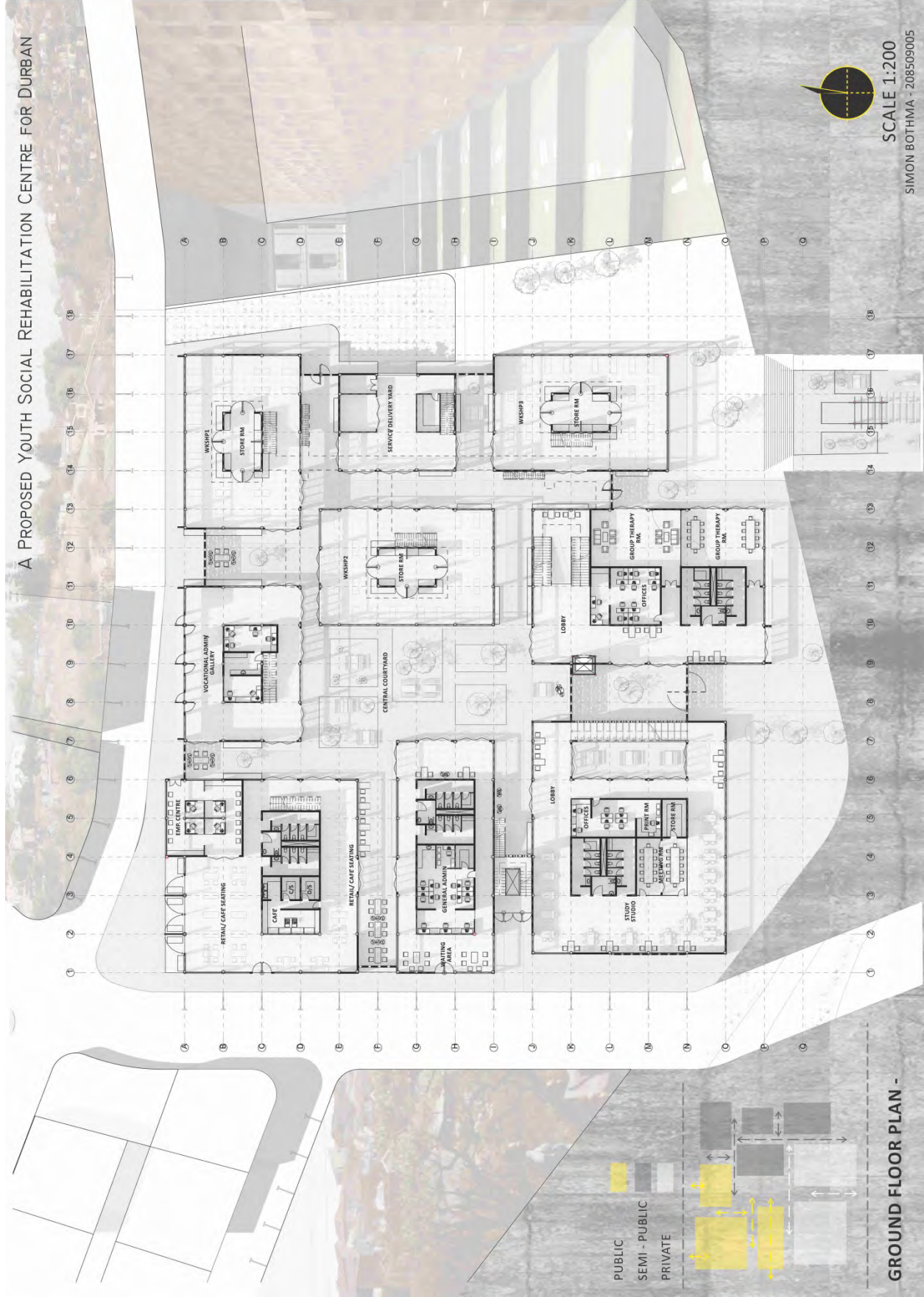
A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN



SCALE 1:500  
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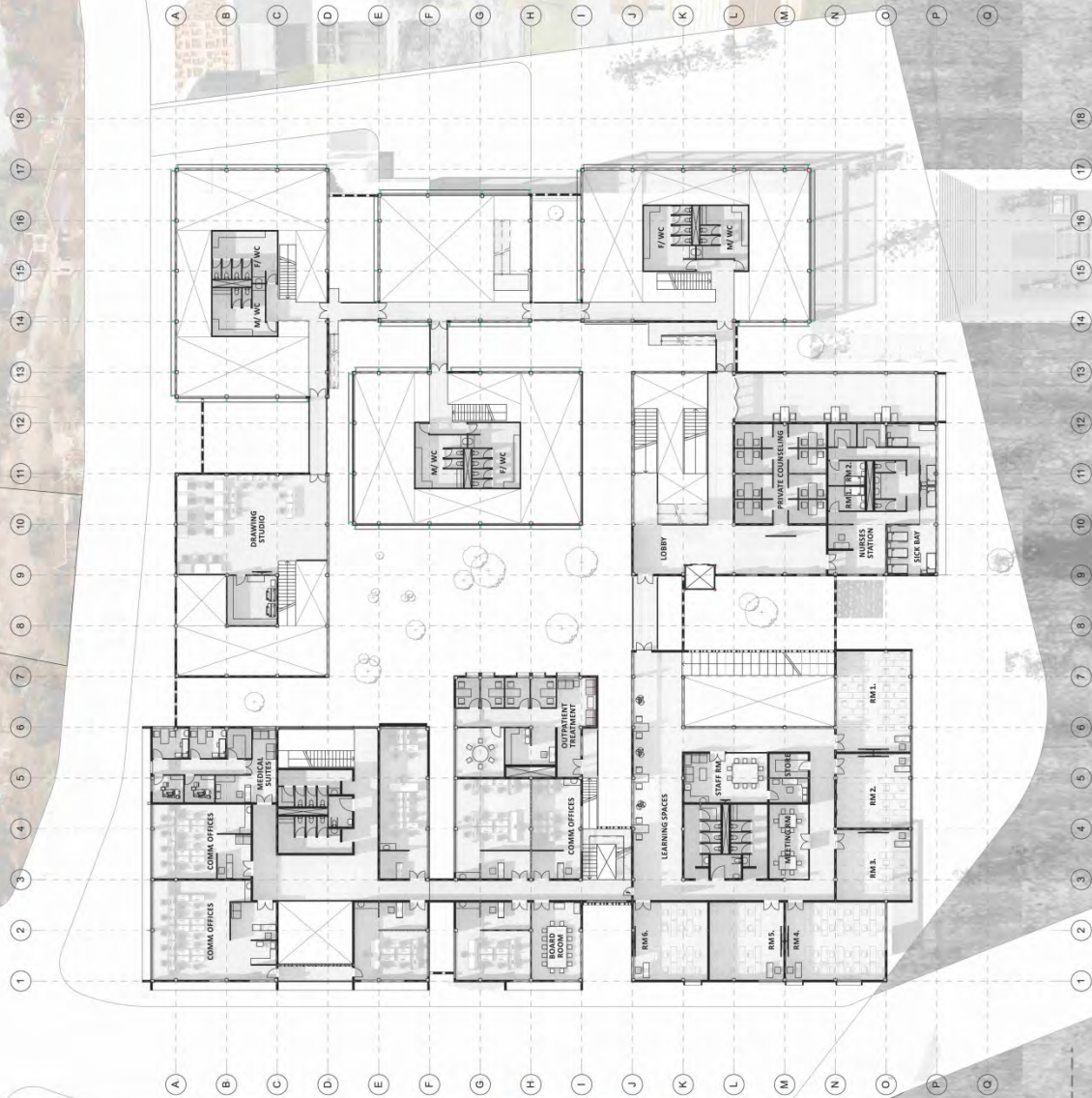
SITE PLAN -

# A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN





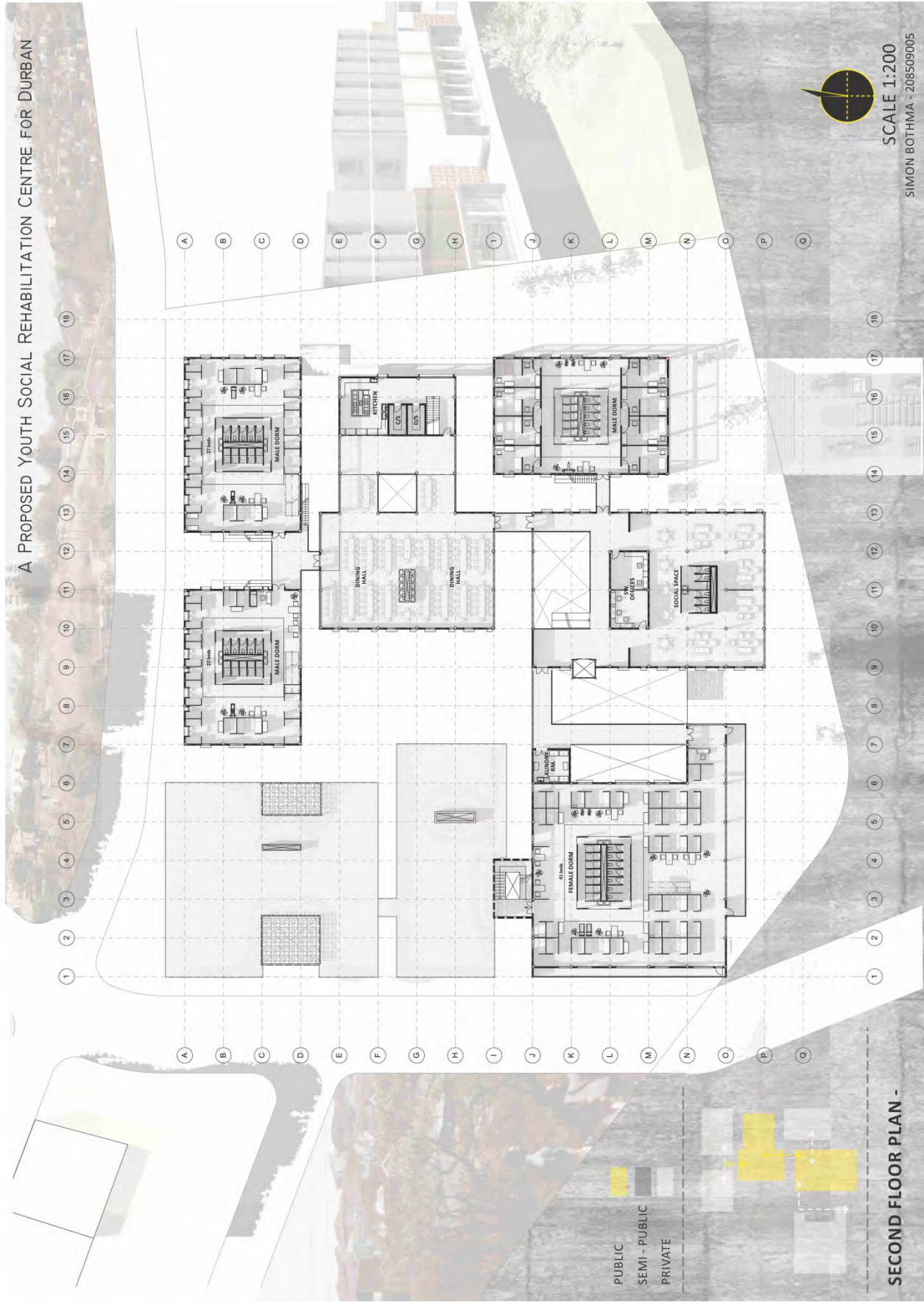
# A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN



SCALE 1:200  
SIMON BOTHMA - 208509005

FIRST FLOOR PLAN -

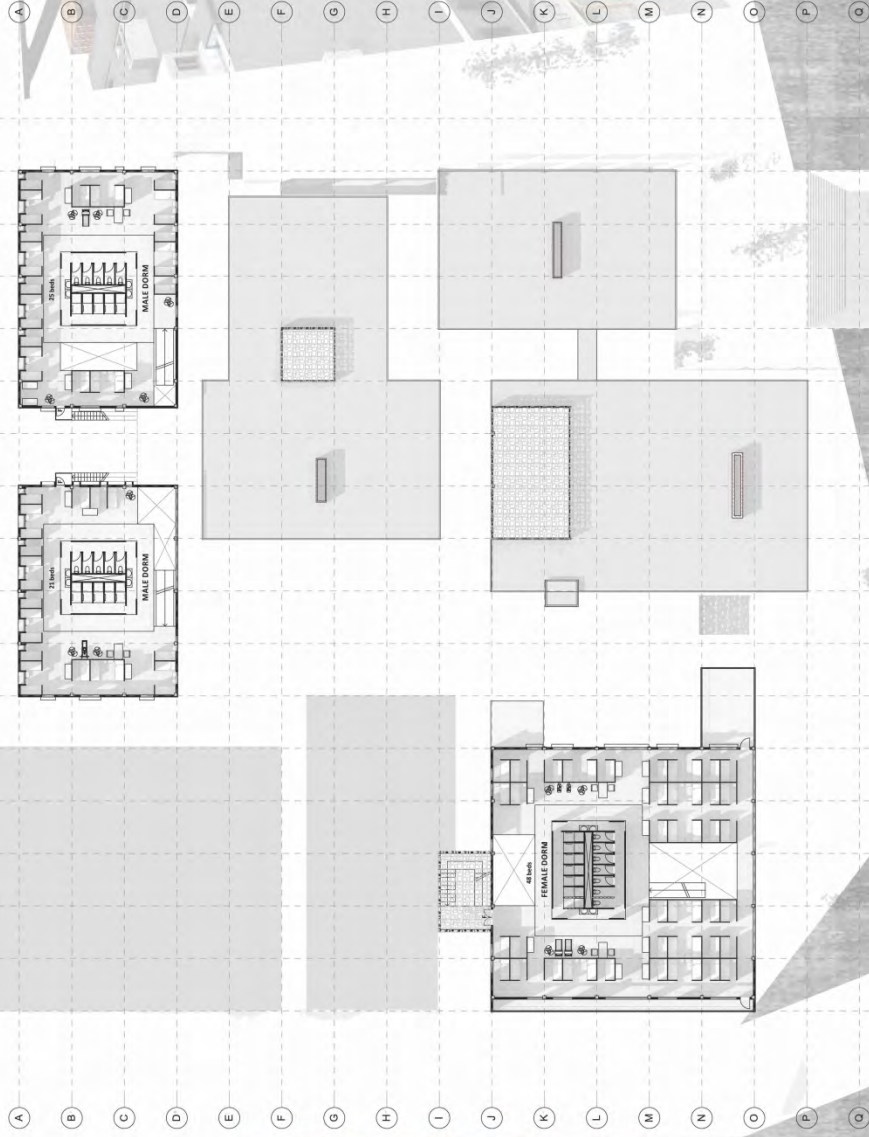
# A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN





# A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



PUBLIC  
SEMI - PUBLIC  
PRIVATE

THIRD FLOOR PLAN -



SCALE 1:200

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## SECTIONS -



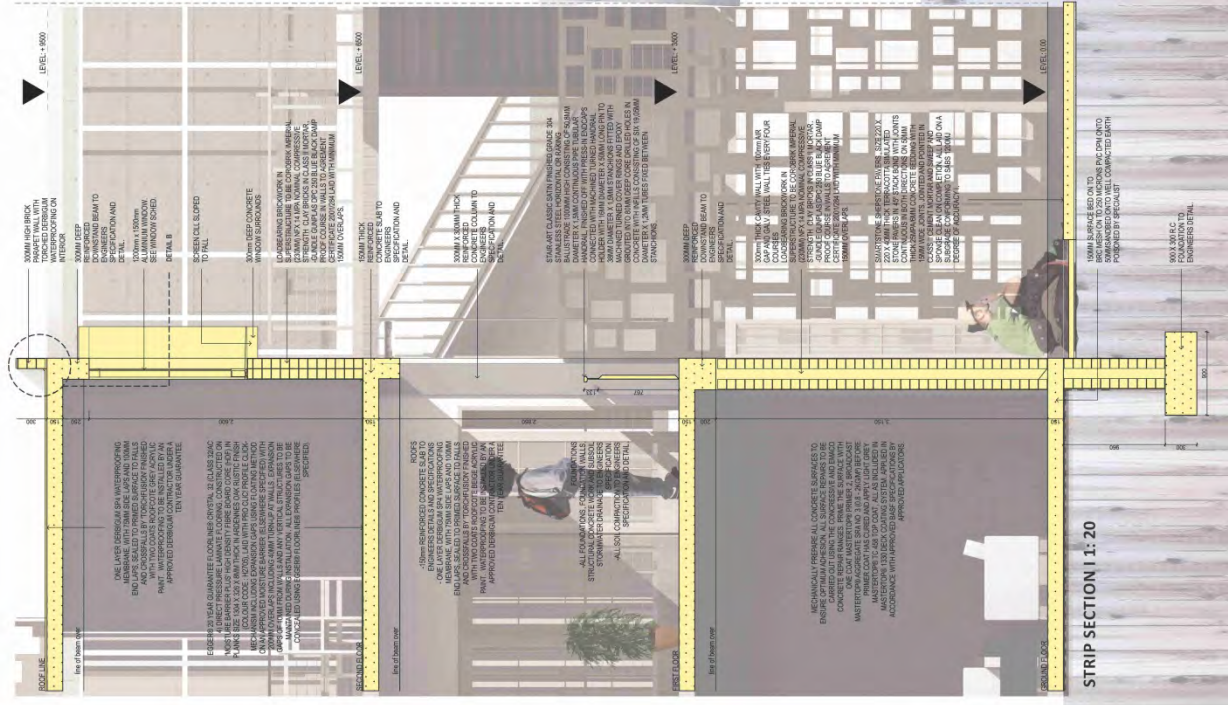
SECTION A 1:200



SECTION E 1:100



PLAN/SECTION -



STRIP SECTION I 1: 20







ELEVATIONS/ PERSPECTIVES-



PERSPECTIVE/ CENTRAL COURTYARD



PERSPECTIVE/ THERAPY GARDEN



WESTERN ELEVATION 1:200



PERSPECTIVE/ WORKSHOP SOCIAL SPACE



SOUTHERN ELEVATION 1:200

A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN



# ELEVATIONS/ PERSPECTIVES-



A PROPOSED YOUTH SOCIAL REHABILITATION CENTRE FOR DURBAN



# TECHNICAL DRAWINGS -

