# TRANSITIONAL LIVING CAMPUS

## Maintaining a Substance-free Living Environment

**By**

ABDOALI ZUZER LOKHANDWALA

**A REPORT**

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## CERTIFICATE

This is to certify that the Design Dissertation titled -**TRANSITIONAL LIVING CAMPUS: Maintaining a substance free living environment** is the bonafide work of the student **Abdoali.Zuzer.Lokhandwala** from Final Year B. Arch of AIKTC School of Architecture and was carried out in college under my guidance.

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Name of the Student: Abdoali Lokhandwala

Roll No: 14A416

Date: 3rd November 2018 Place: New Panvel

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## 1. ABSTRACT

Amid the social and medical harms of the twentieth century, drug abuse stands above everything as on one of the most devastating and expensive. Virtually all addictive drugs boost the reward system of the brain by flooding it with the neurotransmitter dopamine. The produced euphoria and the heightened pleasure can be so compelling that the brain wants that feeling back over and over again.

***"You don't get over an addiction by stopping using. You recover by creating a new life where it is easier to not use. If you don't create a new life, then all the factors that brought you to your addiction will catch up with you again."***

This research paper is an attempt to study on drug abuse, behaviour of the abuser and the spatial behaviour of an individual with the habit of drug abuse/ addiction and how architecture can enhance the process of rehabilitation. These identifications form the basis for articulating a design strategy concerning architectural involvement in restoring and relieving their mind and soul. The research paper focuses on strategies and solutions to help the addicts to overcome their addictions through therapeutic architecture.

The research paper focuses mainly on three objectives.

1. To help the patients to recover from psychological, mental, and physical problems caused due to substance drug abuse.
2. To help the addicts to live a normal life by being accepted in the society and being independent.
3. To create awareness and educating the people about the ill-efforts of alcoholism and substance abuse on the individual, the family and the society at large.

This report consists of a theoretical study regarding relation of architecture and mind through therapeutic architecture and also enhances the scope and possible ways through which architecture can provide possible solutions for better rehabilitative measures.

**The main aim of this thesis proposal is to assist alcoholic and drug dependant people by providing rehabilitation measures. The project strives to provide rehabilitative measures in a very innovative, open and guided approach combining research, probable solutions and better design.**

# 2. TABLE OF CONTENTS

## 2.1. Introduction

A drug is any substance which can cause a temporary psychological or metal change in a body. There a numerous types of drugs such as alcohol, prescription drugs, over the counter drugs and street drugs like cocaine, heroin, etc. Substance use disorder can be explained as a chronic, non-communicable disease. A comprehensive treatment, delivered by trained professionals, belonging to various disciplines, in a variety of settings is required to treat such disorders

**"The mentality and behaviour of drug addicts and alcoholics is wholly irrational until you understand that they are completely powerless over their addiction and unless they have structured help, they have no hope." – *Russell Brand***

**Problems related to substance use:**

- Duties at workplace, school, and colleges or at home such skipping your tuition classes, low performance low in academics and staying alone foremost of the time. Are ignored by young drug addicts
- Indifferences in relationships of an individual such as fights with your family members or your partner are also caused by drug consumption.
- Change in behavioural attitude such as not being the same person when being with friends or family or partner.
- Getting into nasty fights for small issues and losing their temper is often seen in such cases
- Lack of motivation, feeling lethargic.
- Anxiety and Irritation

**The types of drugs generally consumed by the people through different methods are as follows:-**

- Alcohol
- Heroin
- Opium (including crude opium resin, opium pod husk'doda')
- Cannabis (as ganja, charas, hashish, bhang, marihuana)
- Other Opiates

| DRUG NAME | COMMERCIAL OR STREET NAME | HOW IT IS TAKEN | INTOXIFICATION EFFECTS | ADVERSE HEALTH CONSEQUENCES |
|---|---|---|---|---|
| Marijuana Cannabinoid | Dope, Pot, Joint, Grass | Smoked, Swallowed | Slowed thinking and reaction time, confusion, impaired balanced coordination | Cough, frequent respiratory infections, impaired memory and learning , increased heart rate, anxiety, panic attacks |
| Heroin | Smack, Chitta | Injected, Snorted, Smoked | Pain relief, euphoria, drowsiness | Nausea, constipation, confusion, coma, death, unconsciousness |
| Poppy Husk | Bhukki | Eaten with water | Slowed thinking and reaction time, confusion, impaired balanced coordination | Cough, nausea, constipation, confusion, coma, death, unconsciousness |
| Opium | Charas, Ganja | Snorted, Smoked | Slowed thinking and reaction time, confusion, impaired balanced coordination | Nausea, constipation, confusion, coma, death, unconsciousness |
| Wild Grass | Afeem | Licked, Taken orally with water | Increases heart rate and blood pressure, impaired motor skills , panic, aggression, violence, stimulation, loss of inhibition | Memory Loss, numbness, nausea, vomitting, loss of apetite, depression |

**Table 1. Types of Drugs and its effects**

## Solution to drug abuse

Prevention is one of the ways in which drug abuse can be dealt with. In fact it is one affliction that can be easily prevented according to medical experts and practitioners. Prevention programmes involving entities such as families, schools and the immediate communities are important in this regard. Media – especially the entertainment segment – also needs to understand its role in this context and play a positive role by resisting the urge to earn millions by romanticizing and glorifying drug abuse. It needs to highlight the damning consequences of drug abuse. It is important that the youth are made to feel that drug usage itself is harmful in every conceivable way and only then will they stop using them and prevent others in their peer group from doing the same.

Sustained treatment is the only option for people who have already gone down the road of drug abuse and are highly into it. The treatment for a drug abuser normally depends on the kind of drug that the person has been using. It is said that the best treatments normally emphasize on phenomena related to the individual's life. This includes areas such as medical, psychological and work-related needs as well as issues in relationships with other people in the person's life. The treatment sessions combine medication and behavioural therapy so that the victim of drug abuse gradually stops feeling the urge to do drugs. These treatment programmes also impart the skills and capability required in order to say no to drugs in the future, which is highly critical for a complete cure to drug abuse.

### 2.1.1. AIM

To assist alcoholic and drug dependant people of Punjab by providing rehabilitation measures through volunteers, professional and rehabilitation training programme

### 2.1.2. OBJECTIVES

- To make recovery available for the drug addicts/alcoholics through volunteers, professionals and rehabilitation training programme
- To support those who want to abstain from drugs/alcohol and want to reform themselves through this trust.
- To initiate work for the progress of physically, mentally, economically and socially disadvantaged persons.
- To make jobs available for the recovering addicts/alcoholics outside the rehabilitation centre.
- To help the addicts/alcoholics who are financially weak and who cannot afford treatment.
- To promote employment-oriented skills and programmes.
- To raise the profile of children of addicts in the public consciousness.
- To offer advice, information and fellowship to the addicts/alcoholics, families and children.
- To help people to look at life rationally and enable them to join the mainstream of life.
- To enhance the life chances and opportunities for addicts/alcoholics and their careers through the provision of effective, preventive and rehabilitative Health and Social Care Services.

### 2.1.3. SCOPE

- The proposed project will act as rehabilitation centre/de-addiction centre with all the necessary treatment and medication program for people of Punjab.
- It will also help develop the skills of the people being treated by providing workshops, training sessions and will also create job opportunities for them.
- It will provide a habitual experience for drug addicts and will break the monotony of built spaces.
- The centre will largely help in the growth of personal health of each individual.
- The centre may aim to provide rehabilitation measures for people between the age groups of 18-50 years of age.

### 2.1.4. LIMITATION

- My area of research will only limit to drug addiction/abuse problem of Punjab.
- The centre will be located near the western side of Punjab near the India-Pakistan border.
- The harsh climate may hamper the construction technology and construction materials.
- The centre will only treat people who are addicted to drugs such as opioids, alcohol and tobacco.

### 2.1.5. RESEARCH METHODOLOGY

- Studying the census of people addicted to drugs/alcohol in the state of Punjab.
- Conducting a survey of regions majorly affected by drug addiction/abuse problem.
- To study the about the different age groups, employment factors, physical health, mental health of the drug addicts.
- To study about the different types of drugs – its impacts on human body, its treatment and remedial measures.
- To study the various treatment measures used to treat drug addicts.
- The conduct a literature study of various government policies, rules and regulations for drug addiction related issues.
- Identification of case studies of prominent examples of rehabilitation centres in India and abroad.
- Conducting live case studies of rehabilitation centres/de-addiction centres in Punjab.
- Reading various articles, newspapers, books related to drug addiction problem in Punjab.
- To conduct a comparative study of various drug rehabilitation centres.

### 2.1.6. HYPOTHESIS

The Youth signify the most vibrant and dynamic sector of the population of any country. Thus being affected can directly cause problems to the nation. Drug addiction is now days become one of the major problems caused in a nation and there must be interventions to eradicate it.

An architectural intervention which provides a sense of rehabilitation to drug addicts can help to eradicate such grief problems from the nation. The project will help people fighting drug addiction a new way of living through programmes and spaces designed keeping in the mind principles which increase rehabilitative measures. The project will also help the patients in developing their skills and getting accustomed to the society through various lectures and workshops. The centre will also promote and create awareness about the physical, psychological and economic problems caused due to substance drug abuse.

This thesis focuses on a transitional home that will help people maintain a substance-free lifestyle and serve as a learning centre for families and these people. The goal is to design both a program and building as a prototype that can help people transition from a rehab treatment to going home. A new program type that will teach people how to maintain a substance-free life after they have the proper medical care at rehab, because the addiction does not go away immediately. It is hard for someone who has suffered from a substance abuse to go back into society and to stay clean. Relapse rates are very high and very common. I want to investigate underlying issues of what works and what doesn't work. I want to figure out how to start making relapse rates decline through architecture.

## 2.2. LITERATURE REVIEW

### 2.2.1 DEFINITIONS AND DESCRIPTIONS

**Residential** – A residential treatment rehab is one of the most common types of rehab. It is what most people think of when they think of a treatment program and some do not know that there are other types available. It is a place where patients stay for days, weeks or months receiving twenty-four hour supervision with medical and psychological care.

**Outpatient** – An outpatient program is one that allows patients to live at home and attend treatment meetings that are given at specific times either early in the morning or later in the afternoon. This allows patients to keep their jobs and be at home with their families. It is also cheaper than residential treatment since the patient is not living there. Outpatient treatment is often recommended to patients after they complete a residential treatment.

**Intensive Outpatient (IOP) and Day Treatment** – Intensive outpatient and day treatment are very similar to the outpatient treatment, but with a more intensive program. IOP and day treatment are for patients who do not fully need a residential treatment but are unable to be successful with outpatient alone. It is used as a mediator to step down into outpatient treatment.

**Inpatient** - Inpatient is an intensively watched treatment that mostly handles detoxification alone and refers patients to other rehabs to receive additional treatment elsewhere. This type of treatment is typically used for people with serious medical conditions or mental disorders.

**Opioid Treatment Programs (OTPS)** - Opioid Treatment Programs are treatments geared specifically to patients who abuse opioids such as heroin and prescription painkillers. Most of these treatment facilities offer replacement medications including methadone or suboxone, which are medications that help patients through detoxification as another form of pain medication. There is a lot of controversy in practicing this type of medication for detoxification, because essentially it is replacing a medication with medication.

**Therapeutic Communities (TCS)** – Therapeutic Communities often treat patients with long histories of addiction, involvement in crime, pregnant women and women with children. The treatment focuses on re-socializing with a lot of structure to help the clients become accountable, productive and responsible.

**Sober-Living Facilities** – Sober-living facilities is a type of transition after treatment, like a halfway house or sober home. It is still a supervised environment, but it is not a type of treatment. Many of the patients in sober-living facilities are recommended to be enrolled in outpatient treatment. The main objective for sober-living facilities is to help patients after treatment whom have either lost their jobs, dropped out of school or have been shut off from their families and have nowhere to go. Sober-living facilities help re-socialize the patients into society.

**Individual Treatment** – Individual treatment is one-on-one counselling with a licensed mental health professional. This type of treatment is an appointment based treatment in a private facility. The problem with this type of treatment is that it is hard to find mental health professionals that are knowledgeable about addiction. Since many are not qualified for addiction treatment, they cannot conduct in-depth psychotherapy unless they have specialized training. Individual treatment can however help patients recognize and understand their substance problem with giving advice on how to conduct a personal recovery without medical treatment.

## 2.2.2 ARTICLES BY OTHER AUTHORS AND INTERVIEWS

### Article No. 1

8/25/2018 A 24 x 7 National Toll Free Drug De-addiction Helpline Number 1XXX-XX-0031set up to help the victims of drug abuse

**Press Information Bureau**
**Government of India**
**Ministry of Social Justice & Empowerment**

13-March-2018 18:19 IST

**A 24 x 7 National Toll Free Drug De-addiction Helpline Number 1XXX-XX-0031set up to help the victims of drug abuse**

The Ministry of Social Justice and Empowerment is now undertaking a National level Survey in collaboration with Nationa Drug Dependence Treatment Centre, AIIMS, New Delhi. A Memorandum of Understanding (MoU) was signed in August 2016. The survey will provide national and state-level estimates of proportion and absolute number of individuals using variou drugs and suffering from substance use disorders.

The Ministry has issued an Advisory on 11.08.2016 to all the States/UTs on combating drug abuse which advises them t prepare an Action Plan which, inter-alia, includes conducting sensitization and preventive education programmes in schools an colleges throughout the year.

Till now, during the year 2017-18, National Institute of Social Defence (NISD) has conducted 127 capacity building programm imparting training to 4488 persons. They have also conducted 247 awareness generation programmes in various Schools an Universities/Colleges covering 23006 beneficiaries.

The last National Survey on the extent, pattern and trend of drug abuse was sponsored by Ministry of Social Justice an Empowerment and conducted by the United Nations Office on Drugs and Crime in the year 2000-2001. The report wa published in 2004. The Survey estimated that about 7.32 Crore persons in India were users of alcohol and drugs. Of these 8 lakh used Cannabis, 20 lakh used opiates and 6.25 Crore were users of Alcohol. The survey covered 40,697 individuals. Onl males within the age group of 12-60 years were part of the Survey.

National Institute of Social Defence (NISD), an autonomous organization under this Ministry, conducts capacity building programmes, sensitization and preventive education programmes in schools and colleges on regular basis. During the yea 2016-17, they conducted 54 capacity building & skill development programmes imparting training to 1332 persons. During th year 2016-17, they have also conducted 207 awareness generation programme covering 15516 beneficiaries.

Besides, the Ministry of Social Justice and Empowerment has undertaken the following initiatives:-

The Ministry has, in the year 2016, conducted an awareness generation programme, in collaboration with Society for th Promotion of Indian Classical Music and Culture Amongst Youth (SPIC MACAY), to create awareness in children and youtl about the harmful effects of substance abuse in 156 schools in 22 districts of Punjab covering about 52,800 students.



The Ministry organized two Regional Workshops during the year 2015-16, in collaboration with National Service Scheme (NSS), at Shillong and Indore. The Coordinators of NSS from all the North Eastern States, Odisha and West Bengal attended the Workshop at Shillong and NSS Coordinators from Madhya Pradesh, Chhattisgarh and Rajasthan attended the Workshop at Indore. The Programme was also attended by a large number of students.

The Ministry also uses print, electronic and social media for creating awareness. Information regarding ill-effects of alcoholism and drug abuse is also disseminated in regional languages through the All India Radio programme "Sanwarti Jayen Jeevan Ki Rahen" and also through advertisements in newspapers.

The Ministry celebrates the International Day against Drug Abuse and Illicit Trafficking on 26th June every year by holding functions and organizing exhibitions to sensitize the people about the ill effects of drug abuse. National Awards are also conferred to individuals and institutions in order to recognize the efforts and encourage excellence in the field of prevention of substance abuse.

The Ministry has set up a National Toll Free Drug De-addiction Helpline Number 1XXX-XX-0031 w.e.f. 07.01.2015 to help the victims of drug abuse, their family and society at large. The Helpline has been made functional on 24 x 7 basis w.e.f. March, 2017.

This Ministry implements a "Central Sector Scheme of Assistance for Prevention of Alcoholism and Substance (Drug) Abuse" under which financial assistance is provided to eligible Non-Governmental Organizations, Panchayati Raj Institutions, Urban Local Bodies etc. for, inter-alia, running and maintenance of Integrated Rehabilitation Centres for Addicts.

The de-addiction centres financially assisted by the Central Government in a State/UT depend on the number of proposal received from the State Government/UT Administration. As per the existing guidelines of the Scheme, the proposal for nev projects recommended through online portal of this Ministry by the State Governments/UT Administrations are placed befor the Screening Committee constituted in the Ministry for consideration. The Committee considers the proposal of those de addiction centres which are in existence for the last three years vis-à-vis their expenditure on de-addiction activities, thei memorandum of association/article of association etc. Other parameters, inter-alia, include ensuring equal geographical sprea and the centres mainly concentrating on de-addiction activities etc. Cases complete in all respects as per norms of the Schem are recommended for consideration of Grant-in-aid.

This information was given by Minister of State for Social Justice and Empowerment Shri Vijay Sampla in a written reply ir Lok Sabha today.

*****

**NB/Sanjay Kumar/jk/SJ&E-2/13-03-2018**

http://pib.nic.in/newsite/PrintRelease.aspx?relid=177380 2/3

The article talks about how the Ministry of Social Justice and Empowerment has undertaken a national level survey to find the state level estimates of proportion and absolute number of individuals using various drugs and suffering from substance use disorders.

It has advised all the states to fight the issue of substance-drug abuse by preparing an action plan and education programmes in schools and colleges.

It also talks about how the Ministry of Social Justice and Empowerment has undertaken measures to educate and create awareness about the harmful effects of substance abuse in college and schools

**Article No. 2**



# Drug abuse: Another Punjab study too pegged it at 70%

Even as it is busy shredding to pieces a study,which Congress general secretary quoted while saying that seven out of 10 youth in Punjab do drugs,another report based on a survey done on behalf of the state government in 2009 had also found that drug addiction in the state could be as high as 70 per cent.

The report,however,does not venture any finding on the extent of the problem in the state. It is not easy to study how much percentage of the total population is addicted to drugs.

It is a problem,which everyone wants to keep hidden as a stigma is associated with it, Verma said in the report.

But if we were to venture a guess,it could be as high as 70 per cent. If we consider alcohol intake alone,it could be 99 per cent in Punjab, he added.

Profiling the abusers,the IDC report concluded that agriculturists preferred alcohol,opium and bhukki,whereas the labour class preferred to use pharmaceuticals,capsules and injections. The scenario is shifting from natural to synthetic drugs – reason being easy purchase,less stigma,non violation of law and combination giving better high, states the report.

The study recommended a three-pronged approach for controlling the problem: demand reduction,supply reduction and institutional framework.

8/25/2018 Drug abuse: Another Punjab study too pegged it at 70% | The Indian Express

The earlier study,conducted by Prof RS Sandhu of the GNDU,was commissioned in 2006 by the then Punjab governor Lt Gen (retd) SF Rodrigues. Sandhu based his study on a sample size of 600 substance abusers from four districts  150 respondents from each district with 75 from a village and 75 from a city  were interviewed in order to know the rural-urban differences among the drug addicts.

The GNDU study had concluded that 73.50 per cent of the drug addicts belong to the age group 16-35 years. In the Punjab government s 2009 affidavit to the Punjab and Haryana High Court,this finding was mistakenly used to connote that 70 per cent of the youth of Punjab were addicted. The affidavit findings,in turn were quoted by Rahul Gandhi leading to a furore.

The article talks about the study which was undertaken by department of Health and Family Welfare in the border districts of Amritsar, Tarn Taran, Gurdaspur, and Ferozepur. The study found that 75.8% were from 16-35 year age group and 3% were from 6-10 year age group, 85.6% of the addicts were college going students and 37% were agriculturists and 27.5% were labourers. The report also stated that agriculturists preferred alcohol, opium and bhukki, whereas labourers preferred pharmaceuticals, capsules and injection types of drugs.

**Article No.3**

# How Punjab is fighting the drug menace

BY ISHANI DUTTAGUPTA, ET BUREAU | UPDATED: JUL 15, 2018, 12.47 PM IST

Post a Comment

The face of the young man is buried in the mud. The bright blue shirt on him stands out amid the pile of garbage near the body.

The photo tells the tragic and disturbing story of deaths of young men in Punjab due to drug abuse. Such images and videos have gone viral on social media over the last two weeks. One of the video shows a wailing mother beating her chest after discovering the body of her son. A syringe is still pierced in his arm, indicating the death was due to an intravenous intake of a deadly combination of drugs.

Drug addiction and its fallout have been plaguing Punjab for many years now. But, for the first time, a social and community movement seems to be building in the state against the menace.

The awakening can be linked to the 24 deaths the state saw due to drug abuse last month. The slogan, *maro ya virodh karo* (fight against drugs or die), was a spontaneous one that came out of the Tarn Taran district in the Majha region, the worst affected due to its shared border with Pakistan, a major source of supply.

RELATED VIDEO

*Watch: Is Punjab's war on drugs succeeding?*

**Related**

- We can't expect the drug problem to disappear in months: Punjab CM Amarinder Singh

**Big Change:**
The end of Five-Year Plans: All you need to know

The deaths made Chief Minister Captain Amarinder Singh announce all government employees would have to take a drug a test during appointment and before a promotion is awarded. The Aam Aadmi Party, which leads the opposition in the state, is also actively engaging with drug abuse victims and their families.

"We went across the state to motivate families of drug addicts," says AAP MLA and leader of Punjab Opposition Sukhpal Khaira. "But the state government is not doing enough to tackle the nexus between the powerful drug mafia and corrupt policemen."

## STATE ACTION PLAN

Dedicated drug helpline to be set-up

**More power to local police officials to make arrests and seizures**

List of drug smugglers, sellers and gangs to be made for targeted action

**Citizens to get rewards for tip-offs and support**

Fast-track courts to be set-up for drug offences

**Help of global NGOs such as Narcotics Anonymous to be sought**

Appeals to be made to prominent religious and cultural institutions for support

## ACTION TAKEN REPORT

Special task force set up under a senior police officer

**12,733*** arrested for drug offences

**2 lakh+** drug users receiving help and treatment

**4,201*** convicts and **5,911*** undertrials in prisons on drug-related charges

March 2018 - **Drug Abuse Prevention Officer project launched;** government employees and elected panchayat representatives to spread awareness

District-level buddy programme for **school and college students**

*March 2017 to December 2017

While the fight against the menace has to be multi-pronged, one area that needs more focus is encouraging addicts and their families to fight social stigma and seek help. This is what Delhi-based filmmaker Shilpi Gulati has tried to highlight in her recent documentary, Lock and Key. "I was personally moved by stories of families, especially women, who had the conviction and strength to bring their loved ones out of the grip of this epidemic. It is now time to talk about rehabilitation."

The chief minister says the efforts of the special task force, police and intelligence agencies have led to a decline in supplies of heroin and chitta (synthetic drug combination).

A senior Punjab police official says: "We have been successful in seizing supplies from other states and Pakistan, and have arrested a large number of peddlers and smugglers in recent months. As supplies are low, addicts are turning to dangerous cocktails and concoctions. Addicts are also unable to calibrate doses, leading to fatalities." The time is ripe for the state administrative machinery to rope in civil society, healthcare professionals and the police to reach out to addicts, he adds.

The state govt plans to roll out its action plan over the next few weeks to revamp rehab centres and also reach out to private players for help. Thousands of volunteers are being roped in.

Not everyone is convinced about the government's efforts. "The compulsory dope test for all government employees is nothing but a photo opportunity," says Jangveer Singh, media advisor to Shiromani Akali Dal president Sukhbir Singh Badal. "It will be a huge waste of government money. However, the recent rise in awareness about the issue and mothers of victims actually coming out and attacking drug peddlers and corrupt police officers are positive signs."

Many citizens have started venting their exasperation over the political blame game. JPS Bhatia, a psychiatrist who runs a de-addiction and rehabilitation centre in Amritsar, The Hermitage Rehab, says many drug-related deaths are unreported because families of victims are scared of the social stigma. "Rather than brushing such incidents under the carpet, families and friends of addicts should step forward and help."

Finally, there seems to be a thin glimmer of hope.

The article talks about the growing issue of substance abuse in Punjab and the deaths caused due to it. It also tells us about the different action plans taken up by governments and the about the actions taken against the drug peddlers by police and government authorities. It also states that due to decrease in supplies it is the right time to for state administrative machinery to rope in civil society, healthcare professionals an police to reach out to addicts. The article also tells us about the action plan which Punjab government has taken to revamp rehab centres.

**Article No. 4**

8/25/2018 Hindustan Times e-Paper - War against drugs: STF to launch 'buddy project' soon - 27 Jul 2018 - Page #35

# War against drugs: STF to launch 'buddy project' soon

HT Correspondent
ludhiana@hindustantimes.com

**LUDHIANA:** Aiming to put an end to drug abuse, the special task force (STF) will soon start the 'buddy project' to make students aware about the ill effects of drugs.

The project will cover all government and private schools and colleges of the state, said Punjab STF IG Promod Ban on Thursday during a review meeting of SDMs and police officers from five districts — Ludhiana, Jalandhar, Kapurthala, Hoshiarpur and SBS Nagar — regarding the drug abuse prevention officers (DAPO) programme. "The state government is committed to wipe out the menace of drug abuse and multi-pronged strategy has been adopted to accomplish the task," Ban said.

He added, "The buddy project will involve principals, teachers, students and their parents. The project is based on mutual interest and positive construction for a healthy and productive school and college environment." The IG said that the Punjab government was proactively working towards forming strategies to prevent youngsters from falling in the trap of drugs. "Drug abuse is a social issue and therefore requires joint efforts of different sections of the society," Ban said.

**ABOUT THE PROJECT**

The IG said the project will be led by class teachers and supervised by principals and DEOs. Teachers will be trained by a special team constituted by the state government, consisting of STF, psychology department officials, Punjabi University (Patiala) members and education department officials.

The article talks about the special task force that will soon start the 'Buddy Project' to make students aware about the ill effects of drugs. It states that this project will cover all government colleges and schools of Punjab. The project will involve principals, teachers, students, and their parents. It tells us about the strategies taken up by Punjab government to prevent youngsters from falling in the trap of drugs.

**Article No.5**

8/25/2018 Hindustan Times e-Paper - SC ASKS GOVT TO COMPLY WITH VERDICT ON DRUG ABUSE - 21 Aug 2018 - Page #17

# SC ASKS GOVT TO COMPLY WITH VERDICT ON DRUG ABUSE

**NEW DELHI:** The Supreme Court on Monday asked the Centre to take necessary steps to comply with its 2016 directions on the growing menace of drug abuse among children.

While deciding a PIL filed by NGO Bachpan Bachao Andolan of Nobel laureate Kailash Satyarthi, the apex court had in December 2016 issued several guidelines and asked the Centre to formulate within six months a national action plan to curb rising substance abuse among schoolchildren. It had also ordered a national survey to gauge the extent of the menace.

A bench of Chief Justice Dipak Misra and Justices A M Khanwilkar and D Y Chandrachud asked the ministry of women and child development to file a compliance report within four months.

The Centre had sought four months time for conducting a national survey on the issue of drug abuse and rehabilitation among the children. The NGO has alleged that the Centre has failed to comply with the judgement which was delivered in December 2016.

PTI

The article states that the Supreme Court asked the centre to take necessary steps to eradicate the drug abuse among children. The articles also tells us about the report to be filed by ministry of women child development on the issue of substance drug abuse

**Article No.6**

Hindustan Times e-Paper - A joint strategy to fight drugs - 23 Aug 2018 - Page #18

# A joint strategy to fight drugs

## Preventive and rehabilitative steps are long-term solutions

Punjab, Haryana, Himachal Pradesh, Uttarakhand, Delhi, Rajasthan and the Union Territory of Chandigarh have joined forces to fight what has been described in international media as a crisis more deadly than the 1980s Sikh conflict: Punjab's drug problem. Porous borders and proximity to international drug routes make these states most vulnerable.

ourtake

This new joint strategy and the recent regional conference on drugs to tackle the menace will have chief ministers meet every six months, with nodal officers meeting more regularly to share intelligence and information on ground realities. One thing is clear: Criminalising drug addiction is not a strong enough deterrent [the Narcotic Drugs and Psychotropic Act (NDPS Act)]. The best solution is effective rehabilitation facilities for addicts to recover and re-enter society, through what's known as Cognitive Behavioural Therapy. This is what the new 'Central/Common Secretariat', Panchkula, Haryana, should aim to establish in all the affected states. According the study 'Epidemiology of substance use and dependence in the state of Punjab, India' by the Postgraduate Institute of Medical Education & Research, one in six persons have been dependent on substance (the most commonly used illicit drug being opioids) in their lifetime. This could quickly spread.

This joint strategy could be a game-changer, with governments, police forces and experts from all states working together. But drug abuse is far more insidious than we think. Over a prolonged period, addicts lose cognitive control over their addiction. As a preventive, the need for an anti-drug environment is important across borders: addressing the drug problem in schools through awareness campaigns. The Himachal Pradesh High Court addressed the need to create mass awareness as part of the school curriculum. Addicts also need a conducive environment to reach out for help. So far, the de-addiction centres have had little impact. Awareness and employment drives are the only ways to ensure a long-term solution and the joint effort is a good start in what will be a long and painful fight against addiction.

times.com/epaper/viewer.aspx

The article talks about the joint measures taken up by Haryana, Punjab, Himachal Pradesh, etc. to join forces to fight Punjab's drug problem.it also states that criminalising drug addiction is not a proper solution, providing effective rehabilitation facilities for addicts and helping them re-enter society is one of the best solutions. The centre has also provided a new type of treatment known as the cognitive behavioural therapy which should be available in all the states.

## Article No. 7

**Punjab's drug menace: Secrecy renders women substance abusers 'invisible', stigma makes treatment near impossible**

India **Neha Singhal and Sumathi Chandrashekaran** Jan 24, 2018 22:35:51 IST

*"Pinjar banate kitte put maawan de, agg diye bhathiye*
*Kineyan di zindagi black karti, ni tu laal battiye,"*

*'Laal Batti'*, a contemporary popular Punjabi song that laments the loss of a generation to smack addiction

Much has been said and written about the Punjab drugs epidemic, both in India and abroad for the past several years. The focus on drug use in the state reemerged after Rahul Gandhi quoted a study from Guru Nanak University claiming that 70 percent of all youth in Punjab were addicted to drugs. In 2013, the state had the highest number of cases (42.2 percent) registered under the Narcotic Drugs and Psychotropic Substances (NDPS) Act in India, and in 2014, Punjab reported the highest number of convicts (3,972 out of a national total of 8,923) under the NDPS Act.

Addiction in the state is attributed to a complex network of factors, including its proximity to the India-Pakistan border, its vulnerability to the Golden Crescent, political apathy, disguised unemployment due to mechanised farming, and an influx of migrants, amongst others. Drug trafficking and peddling serve as sources of easy money; transporting half a kilo of heroin purportedly fetches anything between Rupees 50,000 to 1,00000. Officials admit that prison walls are porous too, with drug abuse in jails being particularly high.

One village that crops up each time in this puzzling narrative is that of Maqboolpura. Frequently described as 'the village of widows', Maqboolpura, on the outskirts of the city of Amritsar, is notorious because every family there is believed to have lost at least one male member to drug addiction. This is also symptomatic of the rest of Punjab, where the persons accused of, or directly affected by, drug use are usually men. Throughout this narrative, the women in Punjab are regarded almost always as 'victims' of the drug trade, as widows or orphans, but not as drug users themselves.

**Where are the women in this narrative?**

Despite the easy availability of drugs in Punjab, empirical data available on drug use seems to indicate that women appear to have resisted the urge to use drugs.

According to a study conducted by Vidhi Centre for Legal Policy, for over 2,000 men imprisoned in the Amritsar Central jail in 2016 under the NDPS Act, only 40 women had been charged under the act. Of the 40 women, only 10 had been drug users. The rest were accused of peddling.

In contrast, almost all the men jailed under the NDPS Act were accused of drug abuse. Of the 9,462 people enrolled with the Swami Vivekanand de-addiction Centre in Amritsar, only 33 were women. The data from the prisons and de-addiction centres also suggests that even if women are being used as drug mules or traffickers, few, if any, are falling prey to drug use.

Speaking to *Firstpost,* Dr Sandeep Bhola of the Kapurthala Civil Hospital said that many male peddlers who fell prey to drug use, would enrol in the Kapurthala de-addiction centre voluntarily, and hand over the reins of their drug business to their wives for the period of their stay at the centre. But the fear that their wives would yield to drug use themselves never seemed to have crossed their minds.

**Why are women not being seen as drug users?**

To understand why there was a patent absence of women in drug use statistics in Punjab, we conducted a series of interviews with judges, policemen, prison officials, doctors and social workers. Our questions about this startling gap between the number of male and female substance abusers, despite the easy availability of drugs in the state, were met with much incredulity. Responses indicated that the very notion of women indulging in drug abuse was unimaginable. The social disapproval of women indulging in drug abuse (and alcohol) was considered sufficient cause to discourage women from consuming drugs.

A study conducted by the United Nations Office on Drugs and Crime (UNODC) acknowledges that female drug use is particularly hard to capture, as evidenced by their under-representation in traditional drug surveys as well as treatment facilities. The study suggests that certain identifiable factors contribute to a lower prevalence of female drug abuse. For example, women tend to prioritise their families' needs over their own due to overwhelming family responsibilities, leaving drug dependence hidden and untreated. Societal disapproval, fear of exposure and lack of support further influence access to treatment, are other factors.

The interviews we conducted suggest that the lack of drug use amongst women could also be attributed to issues of socialisation and access. Drug use tends to be driven by peer influence. However, in Punjab, particularly in rural areas, women usually do not step out of their homes, which reduces peer influence, and by extension, access to drugs. In contrast, where women engage more with people outside their immediate family, access to drugs is easier.

Anecdotally, many interviewees said that women who studied in universities or lived in hostels or big cities were more susceptible to drug use than those who lived on farms or in villages. Dr Bhola said that "hidden" drug use was prevalent among female college students, but obvious use was greatest among female prostitutes in Punjab. This was so for various reasons: relatively easier access; little or no stigma attached to use (at least, not more than the stigma prostitutes already had to face); and fewer, if any, male relatives to be answerable to. Most crucially, perhaps, these women viewed drugs as an escape route from their professional/ personal lives.

It is also true that women entering the criminal justice system are as such far lower compared with men. As per data provided by the National Crime Records Bureau, women accounted for 5.1 percent of all cognizable crimes committed in 2016 across India. This feeds the general perception or belief that women are not likely to engage in criminalised activities like drug addiction or drug trafficking. As a result, they are not regarded as suspects, and are less prone to be questioned, detained or arrested in connection with cases involving drugs.

From the data and interviews, it is evident that drug abuse among women is met with intense social stigma. As the UNODC report suggests, female drug users are considered doubly deviant by society: people who use drugs are already considered deviant due to criminalisation, whereas women consuming drugs are seen to have further transgressed socially-accepted roles of wives, mothers and family nurturers.

Perhaps, it is true, as many speculate, that the combination of lack of opportunity and social reprisal has led to women desisting from drug use. But the opposite could be equally probable, that women are increasingly using drugs, but neither the criminal justice system nor the

rehabilitation machinery captures them as users. The startlingly low number of women seeking de-addiction could be because women are reluctant to seek treatment, for fear of exposing themselves as drug users. If this is the case, continuing to resist from accepting women as drug users (thus denying them appropriate treatment) may have long-term effects on the health of society itself, and interventions that do not keep women's realities in mind may fall short, if not fail altogether.

*The authors are senior resident fellows at the Vidhi Centre for Legal Policy*

Updated Date: Jan 24, 2018 22:35 PM

- The above article talks about why there is a substantial decrease in the women drug addicts as compared to its male counterparts.
- It also talks about the problems and issues faced by women who are addicted to drugs.
- It also talks about the stigma of getting noticed by society and fears of a women being noticed as a drug users.

### 2.2.2. INTERVIEWS

**How old were you when you first started using drugs?**

I was in around class 9, I guess, when I started using drugs. I started off with chemicals first

**How were you introduced to drugs?**

At an early age I was attracted to the glam life, and I Loved the pomp and show.
I wanted to party always, get in touch with young models. We saw females, the happening people and many other reasons. So, I was basically into the wrong company and this led me to drugs.

**Do you remember the day you started taking them?**

No I do not remember the day but one of the important days I remember is when I was really struck high

**Struck high? Can you elaborate?**

Actually at first I was scared of getting caught at home, so I used to take drugs in very small quantity. And I was also scared of getting addicted. So I thought if I do it less I will always keep it in control. *Pata nahi chala s**la kaab ye apne ko control karne laga.* Struck high!!!!! Yes I will elaborate.
What I mean was that, this particular day I remember is when I was first time hit badly. This was not the first time but the first time I had charas.

**Okay what was the first drug you used?**

That also I'm not very sure off, but all I remember is, I was into chemicals first.
Like diluters, iodex, many schd H tablets

**What are Schd H tablets?**

They are the most dangerous tablets and all the tablets which the govt. has ruled to be sold only on showing a doctor prescription are called schd H tablets……
Strong steroids, women menstrual tablets, and all which has high sulphuric chemicals they all are schd H drugs…

**Which drug did you eventually end up addicted to?**

Ok. So as Time passed, I grew up and met more and more experienced people. By now I was in class 11th and after around years in chemical my capacity to intake it had grown. So I now partied, went to clubs, discos, five star hotels… This is when I met many from the glam world, like DJ's, models, Tollywood stars, and more people, more drug addicts. This is when I was introduced to natural, as well as high stuff chemical like ecstasy and stuff. Now I am not sure if I am still addicted or not….

**How long were you on drugs?**

Around 10years I guess… at least. So according to that age, I started around when i was 13.

**What was it that made you want to keep taking the drugs?**

This is a very tough question. This if I knew I would have removed it… there is something which is very bad… The addiction is not just one effect… Many things happen… nature changes… when u take drugs, things are under your control. But when you don't, nothing is under your control. No will power. No fear

**Who knew about your problem when you were on drugs?**

At first, no one, then close friends, then all friends, then everyone outside, then family too.

**Where did you get the drugs from?**

Chemical is always available and is very easy to get. In your house, everywhere, stationary shop, pharmacy, paint shops, petrol pumps… But other natural drugs we got to of know slowly were from slums and anti-social areas. But at first it was "so called" friends who use to get it for me.

**Do you know where the dealers get the drugs from?**

Once when I was in college I became very frank with the peddlers, the sellers. Different drugs come from different places and different areas of India. Like in east India, grass (ganja) is from the North East, Sikkim, Mizoram and Nepal, Opium / brown sugar and stuff are from Phillip, Indonesia and other small islands. Similarly in north India, grass (ganja) is from Kashmir and Himachal and Opium is from Punjab, Pakistan and Afghanistan. So much more to it…Then there are other drugs like coke. Coke also comes from Rajasthan and Pakistan border. A lot of opium grows in Rajasthan as well.

**Would you say there is a serious drug problem among the youth?**

Yes. And if given an opportunity most of the people would take to drugs. It is there, deep and very deep, and nothing can be done. All one can do is keep their children away from it. But the modern world demands it.

**What happened in your case?**

No, that's the truth. At first no one pushes it into your mouth but you try to become happening and do this shit. You do it in control, but you never know when it gets all over you. That's in everyone's case. People say it's a bad thing, why try? But I will give an example. Someone has a bulldog as his pet. He took the dog out. Suddenly a cycle hit the dog by mistake, people will gather to shout at the cyclist. And den after some time a street dog comes under a car, but no one said anything to the driver. Why? It's all what you are. You have a support. If someone falls into it, it is because of the wrong company and temptation. When you are a kid you don't know what's good or bad… By the time you are a grown up… you are so addicted that you know it's bad but cannot leave it… You tell lies that you are no more into it but yet you do it. You cannot explain to anyone what you are going through.

The blood, what it does to your brains, the feeling of nerves bursting any moment.. So that's what it is all about. It doesn't matter what religion and society says, because all we know is they are too good people to be explained to.

Yes. We've seen it in students and all. Fun turns disastrous in the long run

**But didn't you have support at home or friends?**

By the time they knew it was late and over……..I was already addicted. I could not sleep if I did not dope anything. So I needed it every night.

**When you started to take the drug, how did it make you feel?**

No comments, different drugs have different feelings, makes u trip.

**When and how did you decide that you wanted to quit?**

When I got married, and soon my wife came to know about it. She did not say much and understood my problem and my pain.

I was in rehab for 3months and then once I came back I was totally taken care of by my wife. She really did her best. And I am still fighting with it, till now so I will not say I left it, but it's been around a year since I haven't doped.

**Any difference did you see in yourself?**

A lot. I have changed a lot in a good manner, like, healthier stuff. But bad things are that I still cannot sleep at night, even if I sleep I get up every hour. I get into depression faster and cannot face it. Previously when I used to get angry, sad, whatever, I used to dope. But now I cannot, so I don't know how to face it. This is why I cry and shout even at small things. I cannot take the pain. My brain pinches, I get blows on my head… inside my head, and my nerves literally start moving… and beating like heart does… I have noticed that a nerve comes out from my forehead and blood flow goes at high speed, I think. That's why I can feel it pumping. This is when I have so much of temptation and this hurts, feels like, if I will not have it then I'll die.

**Do you feel confident not to do drugs again?**

No I am not sure. That's what I said before as well. I will not say that I left it, but I will say it's been a year since I haven't had it.

A year after leaving the habit you say you are not sure. Just how deadly is this?
The temptation is still the same. No changes, so I am just fighting with it, literally every single day.

**What is the attitude of the community towards drug abuse?**

People do not treat the addicts well. The society is not trying to help. They talk bad about you. But I have noticed that the addicts are cleaner at heart than the so called society. I still remember in Delhi, how we used to play with the beggars and street dogs after we were high. How I use to bring the street dog to my bed and sleep with the pup. People called us psycho, but we called them cold human body with no soul. And I feel drugs are something which takes you to extremes.

**Do you think more needs to be done in the community to bring drug awareness to the fore?**

Awareness is already there. What I feel is that people should learn to kill the cause. We are treating the diseased, not the disease. If people control their children, do not give them so much of exposure at an early stage then things might changes

## 2.2.3. CASE STUDIES

### 1. National Drug Dependence Treatment Centre, Ghaziabad

**Introduction**

The Drug Dependence Treatment Centre, AIIMS was established in the year 1988 and was functional from the premises of the DeenDayal Upadhyay Hospital, New Delhi. In 2003 it was upgraded as the National Centre (National Drug Dependence Treatment Centre) and is fully operational from its new premises in Ghaziabad, Delhi-NCR since April 2003.

**Image 1.View NDDTC, New Delhi**

The National Drug Treatment Centre, Ghaziabad (NDDTC), AIIMS has been established as the apex centre for treatment of drugs and substance abuse disorders in the country. It provides a state of art model for de-addiction treatments. This centre has full range of specialists & facilities. The NDDTC is situated on 10 acre beautiful campus near CGO Complex at Ghaziabad, Delhi-NCR. It is presently having 50 bedded treatment facilities with expansion plan for the future.

**In-Patient Services**

- The centre has a well-equipped 50-bedded hospital.
- The hospital has provisions for admitting patients with all kinds of substance use disorders.
- There is also provision for treatment of those with special needs such as women drug users, adolescent drug users, drug users with dual-diagnosis (substance use disorder along with a psychiatric illness) etc.
- The hospital is adequately staffed with round the clock availability of doctors, nurses as well as paramedical staff.
- During the inpatient stay the patients receive comprehensive care and treatment from staff trained in medical, nursing, psychological and social-services background.
- The admission is purely on a voluntary basis and only with the consent of the patient.

- The hospital is strictly a no-smoking zone.
- The hospitalisation charges are approximately Rs. 37/- per day (to be deposited at the time of admission for 15 days, i.e. a sum of Rs. 550/-). For poor patients, these charges can be waived-off.

**Master plan**

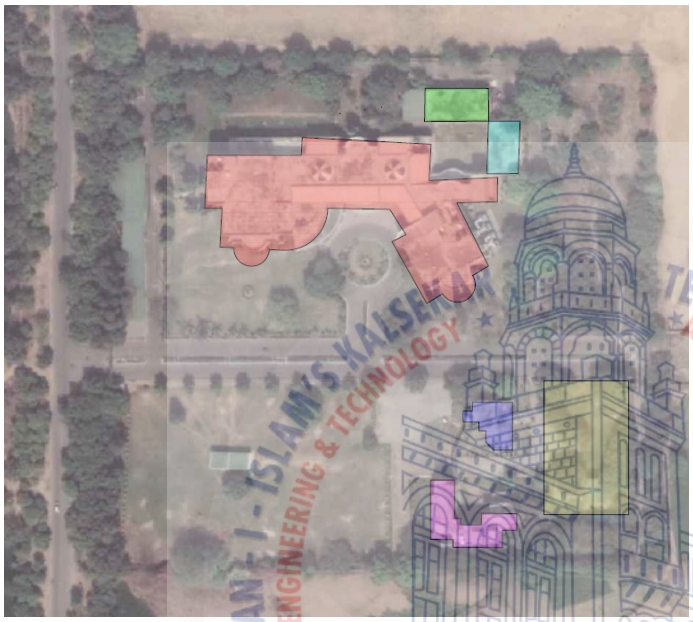


**Figure 1.Master Plan**

-DRUG REHABILITATION CENTRE
-ELECTRICAL ROOM
-FIRE SAFETY ROOM
-MESS
-HOSTEL
-NURSERY

**Floor plans**

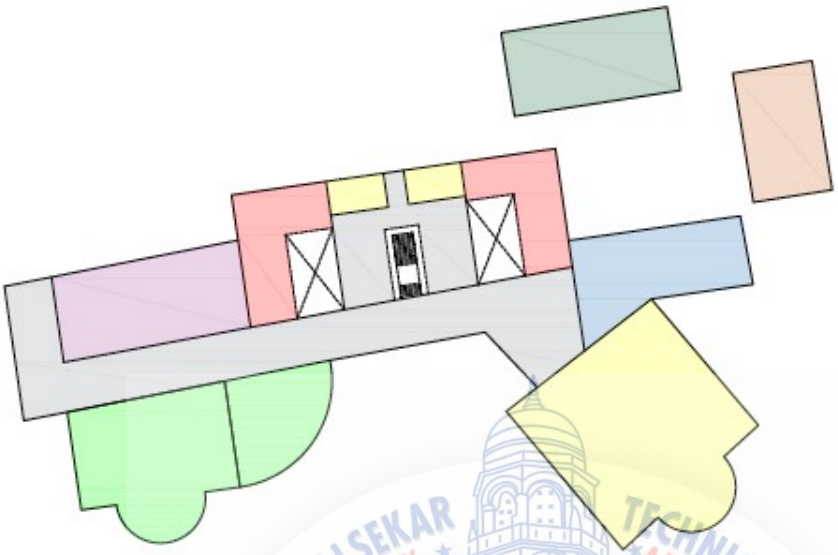


**Figure 2.Ground Floor Plan**

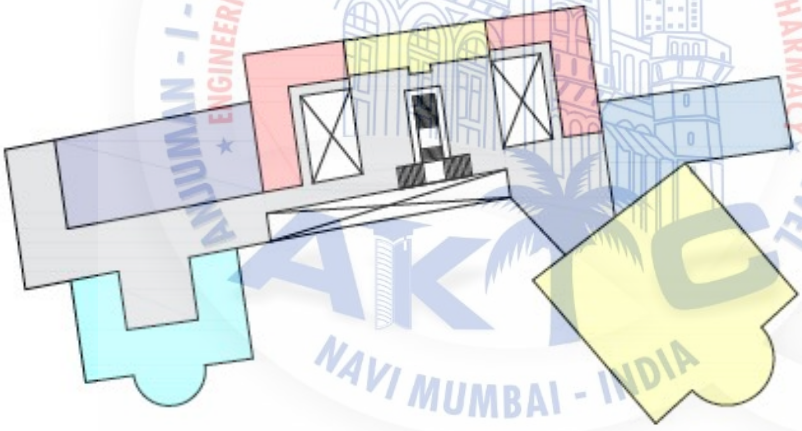


**Figure 3.First Floor Plan**

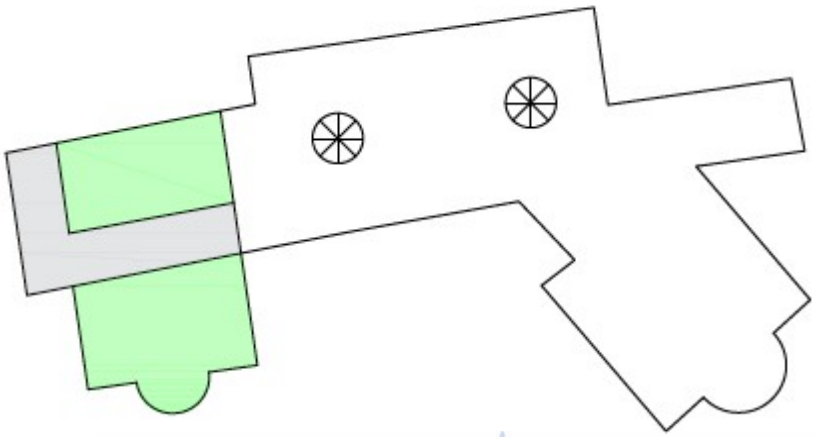


**Figure 4.Second Floor Plan**

**Index**

-RECEPTION AND ADMINISTRATION
-OPD
-RESIDENTIAL WARD
-SEMINAR HALL
-LIBRARY
-DAYCARE
-LECTURE HALLS
-PHARMACY
-DOCTORS LOUNGE
-CORRIDORS

**Space Program**

**Ground Floor**

- Reception
- Record Room
- Store Room
- Pharmacy
- Laboratory
- Mess
- Hostel
- Nursery
- Electrical Room
- Fire Safety Room
- Day-care
- Residential Ward

**First Floor**

- Library
- Professor Cabin (10 Nos)
- Lecture Rooms (2 Nos)
- Medicine Unit
- It Department
- Research Room
- Doctors Lounge
- Day-care
- Meeting Room
- Residential Ward

**Second Floor**

- Professor Room
- Chief Room
- Clerk Room
- Meeting Room
- Accounts Department

## 2. Muktangan rehabilitation Centre, Pune

**Introduction**

Late Dr. Anita Awachat and Dr. Anil Awachat founded Muktangan Rehabilitation Centre on August 29th, 1986. Today, it has achieved the status of being one of the best institutes in the field of Drugs & Alcohol de-addiction and is the only institute with ISO 9001:2008 certification.

Muktangan has a capacity to cater to over 120 residential clients. Its treatment module is of 30 days residential stay and on completion of the same, there is a regular follow up, for which the centre has a strong network of follow up centres all over Maharashtra.

Every year over 1200 clients take residential treatment at Muktangan Rehabilitation Centre and over & above many clients facilitate from the Out Patient Department at our centre located in Yerawada, Pune.

**Image 2.Main Entrance**

**Image 3.Ar. Shirish Beri**

DESIGNED BY AR.SHIRISH BERI

"Shouldn't our design respond to the behavioural psychology of the users?"

"Can our designs include this immeasurable dimension of the human spirit that will rejuvenate us and integrate with the wholeness of life?"

**Theme of the structure.**

- The main principle of Muktangan is each and every patient is same.
- Hence the wards are designed like dormitories so all the patients live together in an equal manner.
- There is a single dining hall for all the patients to eat together.
- All the patients have to wear white colour simple clothes so that there is no discrimination.
- It also believes in keeping Transparency between counsellors and patient thus providing transparent counselling rooms.
- It has a central space for interaction and between patients from different week module.

**Building morphology:**

- Structure of building
- Welcoming entrance
- Irregular skyline
- Higher wwr seen

**Image 4.Views of Muktangan Rehabilitation Centre**

**Image 5.View of Amphitheatre, Yoga Hall, Central Courtyard**

| SR.NO | CATEGORY | ACTIVITIES |
|---|---|---|
| 1 | CORE FUNCTIONS | COUNSELLING ROOM,GENERAL WARD,CO-ORDINATOR, YOGA/MEDITATION ROOM,WARD AND THERAPY HALL |
| 2 | RECREATIONAL SPACE | U.G TANK WITH SEATING ABOVE, STAGE AND AMPHITHEATRE,TERRACE |
| 3 | AUXILLARY ACTIVITIES | DINING HALL, SERVANTS ROOM, KITCHEN,LIBRARY |
| 4 | GENERAL SERVICE AREA | STORE, ARRIVAL AND OPD VERANDAH,GAS,WASHROOMS,STAIRCASE |

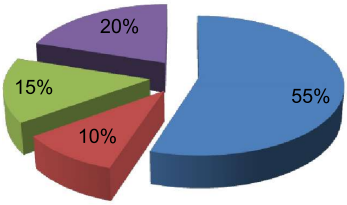



**Table 2.Types of Spaces**

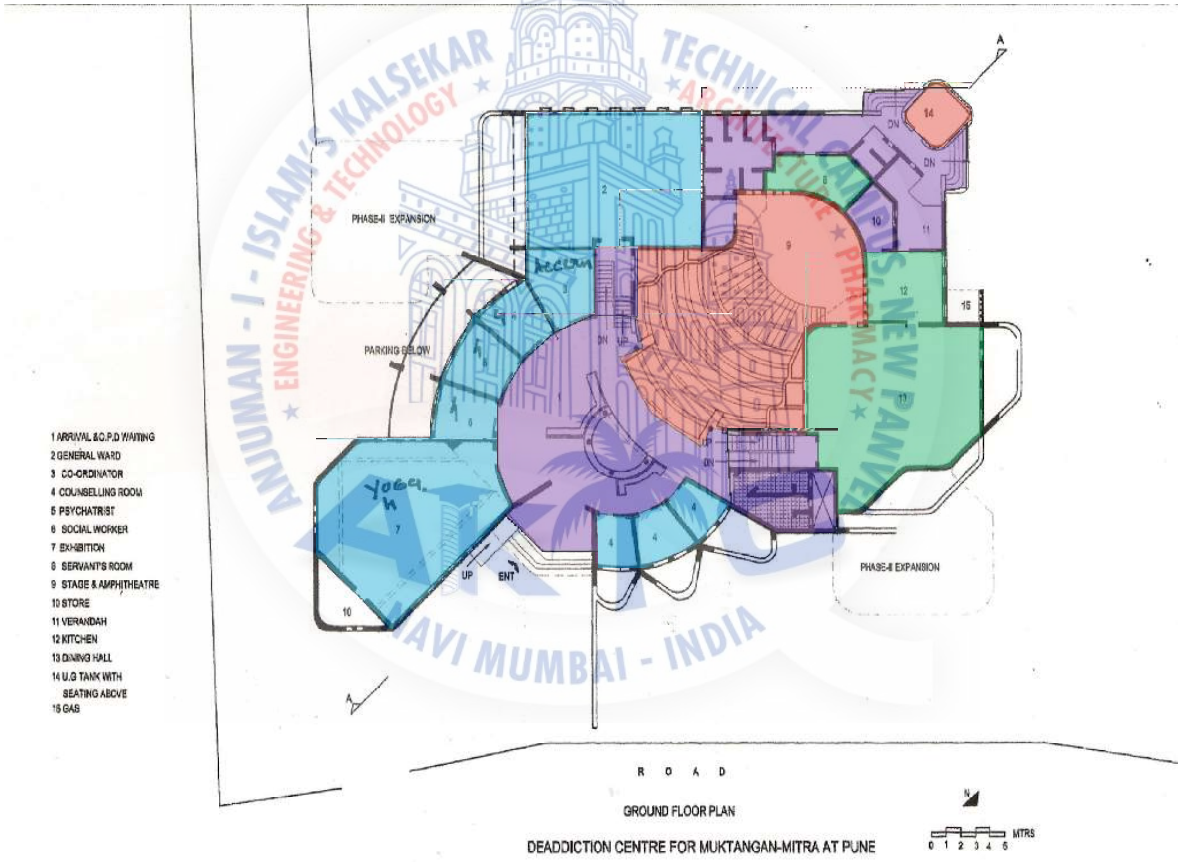



**Figure 5.Ground Floor Plan**

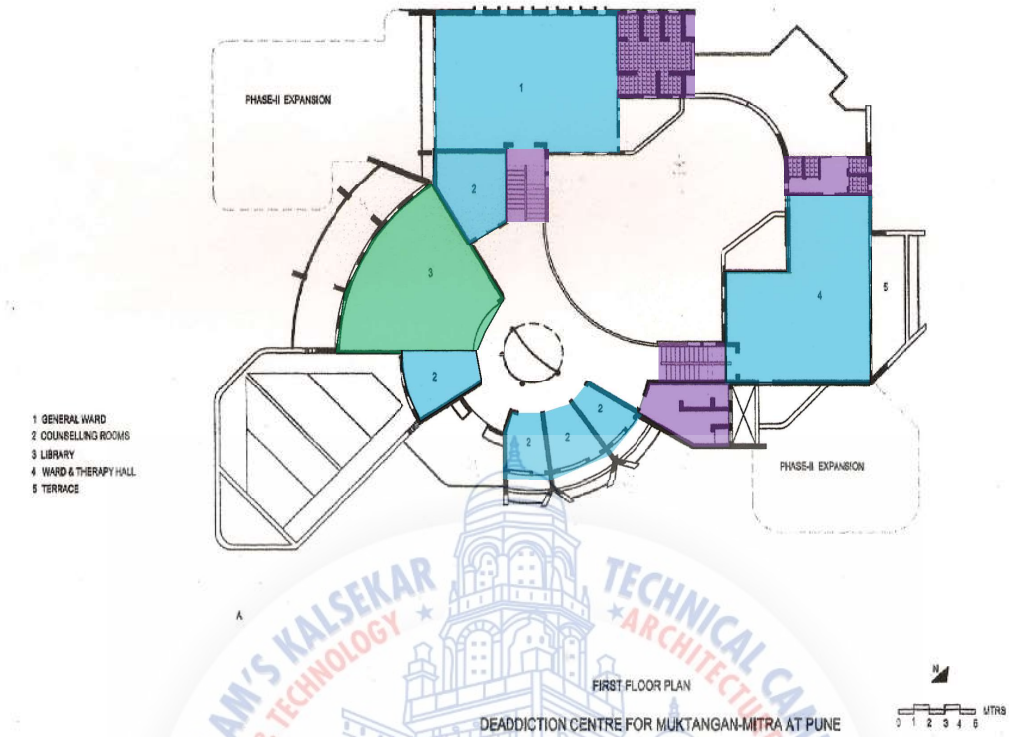



**Figure 6.First Floor Plan**

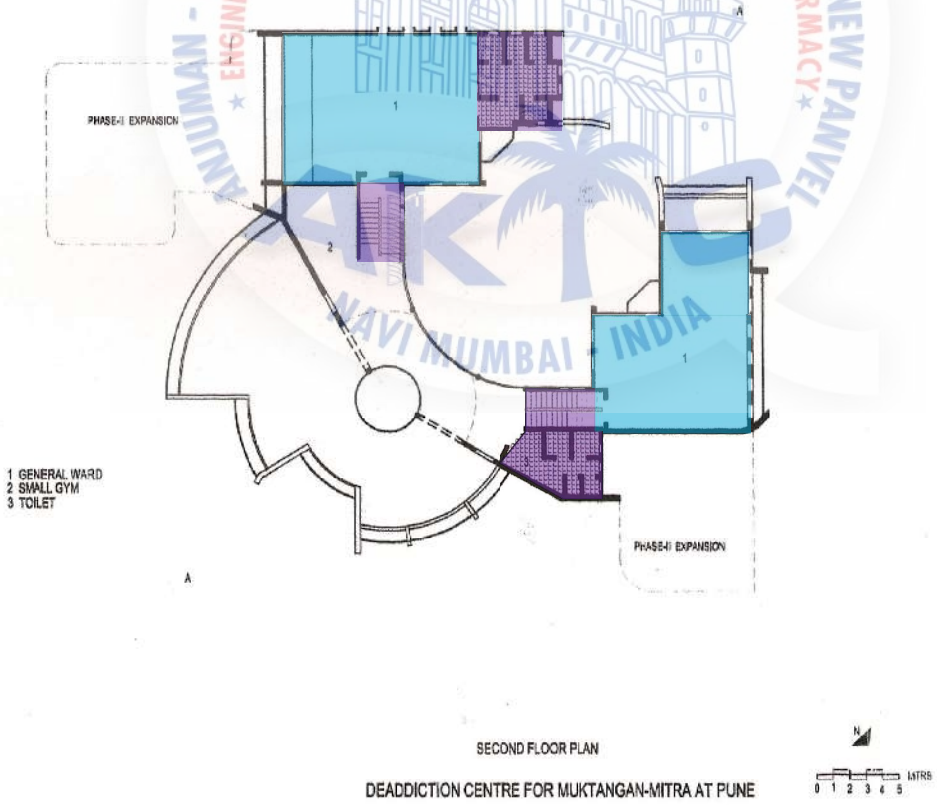



**Figure 7.Second Floor Plan**

**Space Program**

**Ground Floor**

- Reception Area
- Physician's Cabin (2 Nos)
- Physiatrist's Cabin
- Yoga Hall
- Counsellors Room ( 6 Nos)
- Amphitheatre
- Residential Ward (2 Nos)
- Anubhav Ward
- Aftercare Ward
- Dining Hall

**First Floor**

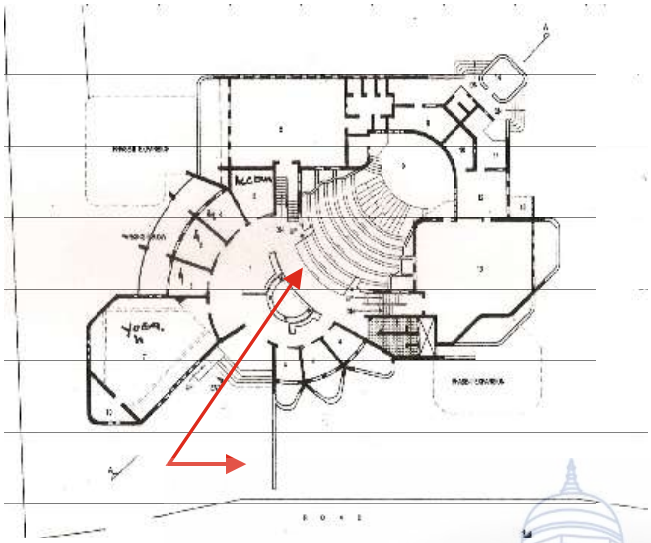
- Residential Ward(2 Nos)
- Library
- Counsellors Room (4 Nos)

**Second Floor**

- Residential Ward ( 2 Nos)
- Small Gym

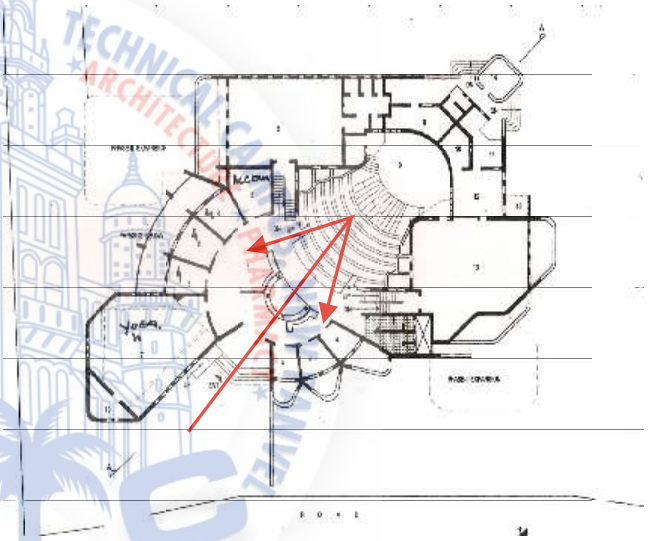
**Time Activity (Schedule for Patients)**

| | |
|---|---|
| 6.00 | Wake up time |
| 6.15 | Morning Tea |
| 6.45-7.45 | Yoga & Pranayam |
| 8.15-9.45 | Breakfasts |
| 9.15-10.15 | Meditation - Input sessions by experts |
| 10.15 | Tea Break |
| 10.30-11.45 | Time slot for visiting counsellor/Diary writing/Library |
| 11.45-12.45 | Group therapy |
| 12.45-13.30 | Lunch |
| 14.00-16.00 | Rest for new patients |
| 14.30-15.30 | Group therapy for 3rd and 4th week friends |
| 16.30-17.00 | Physical Training |
| 17.00-17.15 | Tea |
| 17.15-18.30 | Recreation/Gymnasium, Games |
| 18.30-19.30 | AA/NA meetings (Once a week on Sunday) |
| 19.30-20.00 | Prayer and distribution of medicines |
| 20.00-20.30 | Dinner |
| 20.30-22.00 | Entertainment- TV/Audio/Video/Indoor games/Books |
| 22.00 | Lights off |



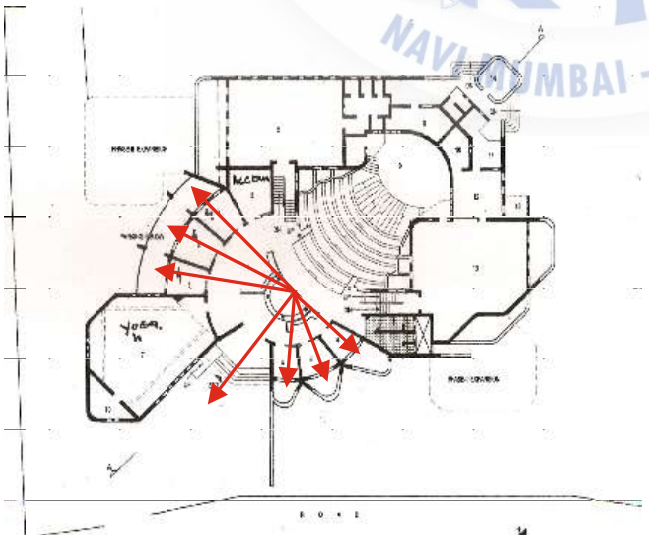
The centre has a single entrance in order to regulate the patients and for security reasons

The vision of the observer in not obstructed & the open space is focussed from this point



The waiting area of the outpatient department flows into the amphitheatre, which continues the openness of the building

The central opening in the waiting lobby continues till the terrace & allows sufficient light into interiors



The transparency is maintained by connecting outer scene of the building to the interiors

### 3. Kroonstad psychiatric hospital, Norway

**Introduction**

The design of the hospital has a strong emphasis on 'openness and transparency' towards the public whilst at the same time forming a protective shelter for the patients. The addition of public spaces, nature and new visual qualities to a challenging city environment has been central in the process.

The 12,500 square meter building includes in-patient departments on the upper floors, day care and polyclinics on lower floors and underground parking. Services within the building include mobile teams, adult polyclinics, day care clinics and several wards for short stays. The hospital is located in a highly trafficked area of Bergen, Norway, and opened in August 2013.

**Image 6.View from adjoining ground**

**Site Context**

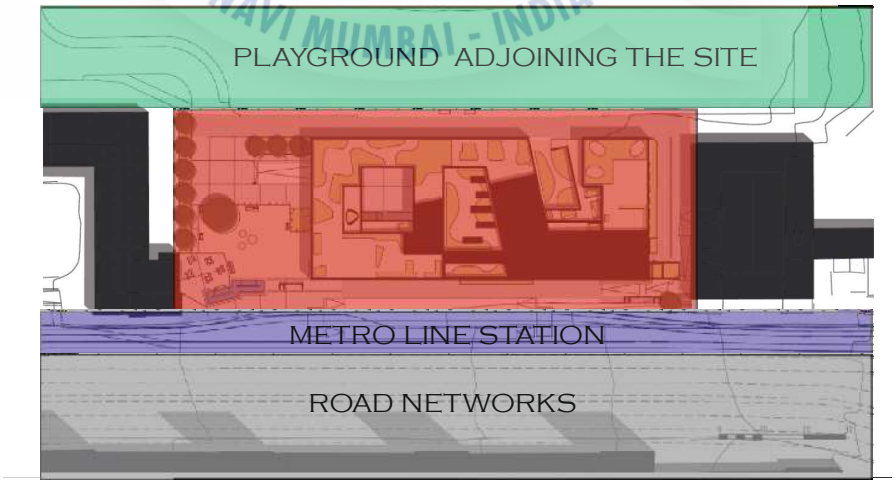



**Figure 8.Site Plan**

**Design features**

1. **Connection between community and patients**

A large emphasis has been put into the creation of a new public square north of the building. The square offers a valuable place for citizens to sit, play and contemplate in an area normally dominated by cars and traffic. The public square stretches under the building's lower floors displaying green facades with large window sections. Sight lines through the building are emphasized, and the transparency prompts the idea of greater openness about mental health issues in today's society. In addition to inviting patients and staff inside, the entire city is welcomed to have a look.

**Image 7.View of the structure with facade details**

2. **Facade treatment**

The green façade is enclosed by white façade panels. The white part expresses stability and security, and is reminiscent of the house and the home. In these overlying floors the need for shielding and protection is maintained. Here the in-patient departments are located, with several gardens for recreation and outdoor activities. The scale is reduced from the larger cityscape, to the smaller domestic and protective spaces.

3. **Planning**

The plans focus on readability and structural clarity with clear and logical communication lines. The clarity of the plans increases the comprehension of the building for the patients and staff in order to create a calmer environment. The main entrance is directly connected to the light rail stop outside, and gives direct access to the various out-patient and in-patient departments. Special attention supporting the security of staff and patients has been given to window solutions and the design of stairs. The units are designed to give staff an overview, while at the same time ensuring smaller spaces decreasing the patients feeling of being watched. The different solutions are meant to provide a good working environment for staff, facilitate neutral meeting areas and support the patient's sense of reality and private space.

**Floor Plans**


**Figure 9.Ground Floor Plan**

1. OUTPATIENT CLINIC
2. TEACHING FACILITIES
3. GYMNASIUM
4. PUBLIC SQUARE

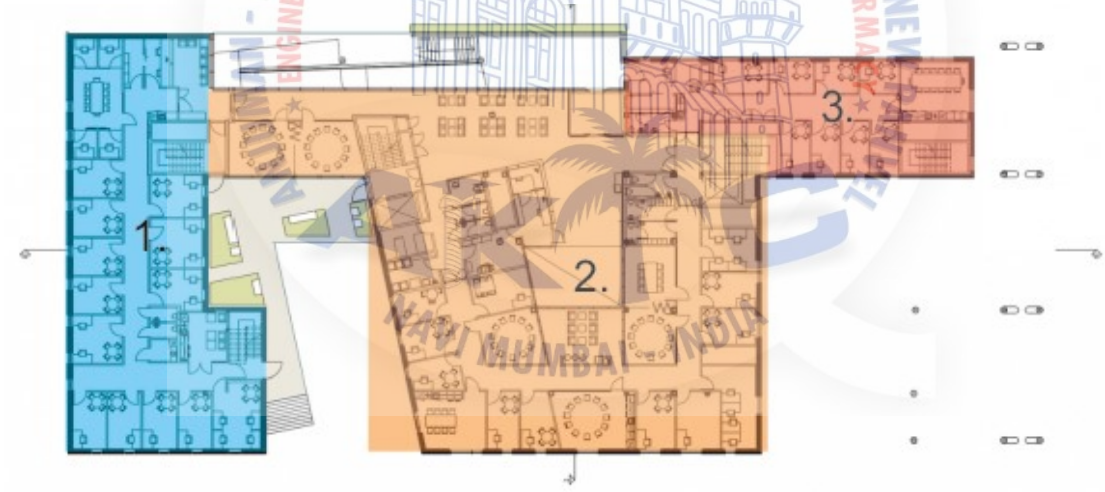



**Figure 10.Typical Floor Plan**

1. OUTPATIENT CLINIC
2. ADMINISTRATION
3. GENERAL WARDS


**Figure 11.Fourth Floor Plan**

1. GENERAL WARDS
2. GARDEN WITH BASKETBALL COURT

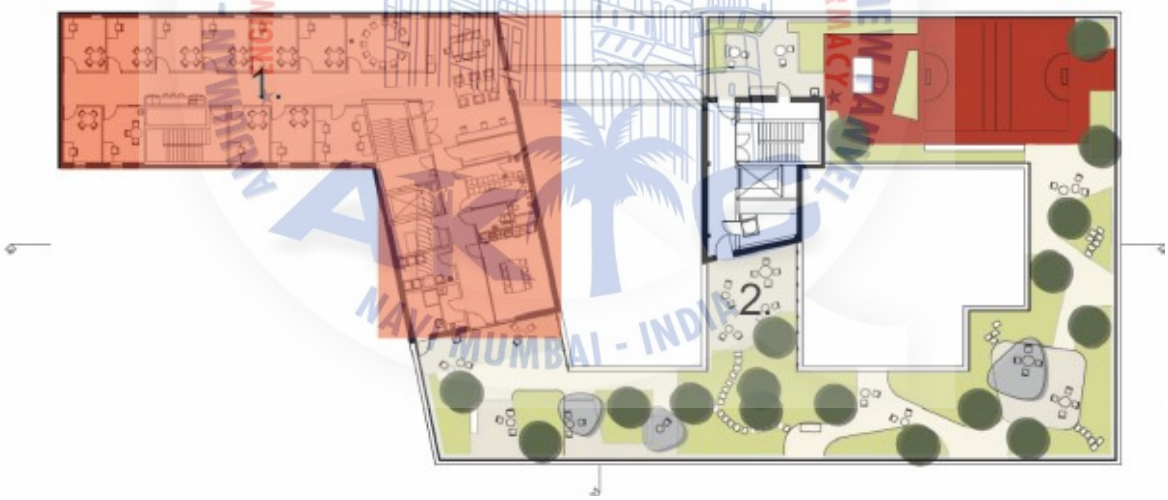



**Figure 12.Fifth Floor Plan**

1. GENERAL WARDS
2. COMMON GARDENS

## Sections

**Figure 13.Section AA'**

The hospital opens up towards the east to the view of mountain Ulriken. It is organized around three large atriums, adding light, air and valuable outdoor recreational spaces. The atriums provide visual contact between the different departments, aid the navigation by being geographical points of reference, and adds glimpse of nature within the building. Each of the hospital's departments are related to specific roof gardens. Each garden has their own characteristics and they are varied by location and function. The green zones encourage social interaction and offer space for contemplation in an environment of natural materials and plants.

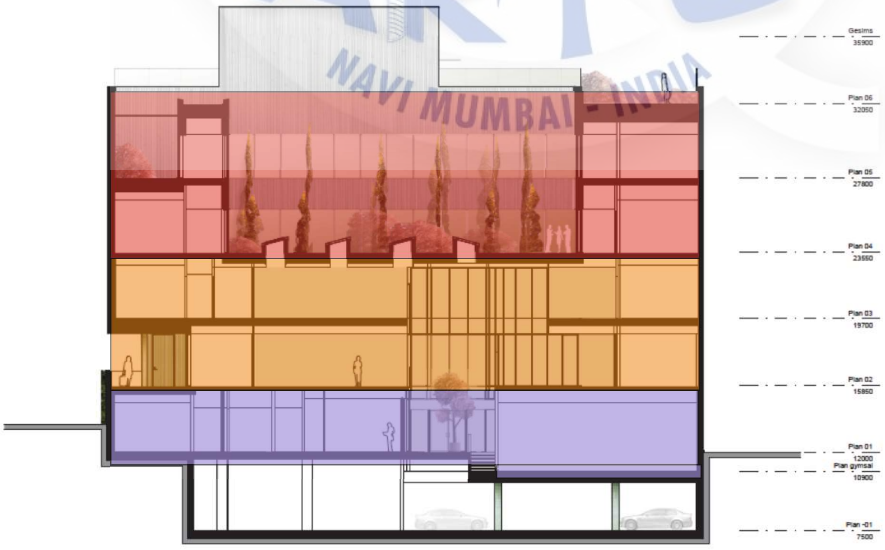


**Figure 14.Section BB'**

## 4. Rehabilitation Centre Groot Klimmendaal, Netherlands

### Introduction

Rehabilitation Centre Groot Klimmendaal designed by Koen van Velsen gradually fans out towards the top and cantilevers out over the surrounding terrain. Despite its size, the brown-golden anodized aluminum facade allows the nearly 14,000 sq. m building to blend in with its natural surroundings

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. The meandering facade in the restaurant results in a building in between trees and invites the forest inside the building. The surrounding nature has a strong visual and tangible presence everywhere in the building; it allows the user to revalidate whilst walking.

**Image 8.Groot Rehabilitation Centre**

### Site Context


**Figure 15.Master Plan**

**Design Features**

1. **Planning**

The arrangement of the programme is clear. Below are offices, above are the clinical area's and on the roof a Ronald McDonald House with its own identity. The double-height ground floor at entrance level facilitates the special elements of the programme such as a sports facility, fitness, swimming pool, restaurant and theatre. Not only patients but also family members and members of the local community (schools, theatre groups etc.) use these facilities on a regular basis. As a result, both patient and building are placed at the centre of the community.

**Image 9.South Elevation**

2. **Concept**

The care concept is based on the idea that a positive and stimulating environment increases the well-being of patients and has a beneficial effect on their revalidation process. The design ambition was not to create a centre with the appearance of a health building but a building as a part of its surroundings and the community.

Rehabilitation centre 'Groot Klimmendaal' radiates self-confidence and self-control. The welcoming and open environment offers a natural habitat for care but at the same time allows plenty of opportunity for other activities. The building is the result of an intensive collaboration between architect Koen van Velsen and the users of the building. For example, a shallow timber staircase runs the full internal height of the building and is typical for the new integral way of working. It facilitates a direct route between the different floors but also enables a variety of alternative routes roaming the building and thus forms an invitation to undertake physical exercise.

**Floor Plans**

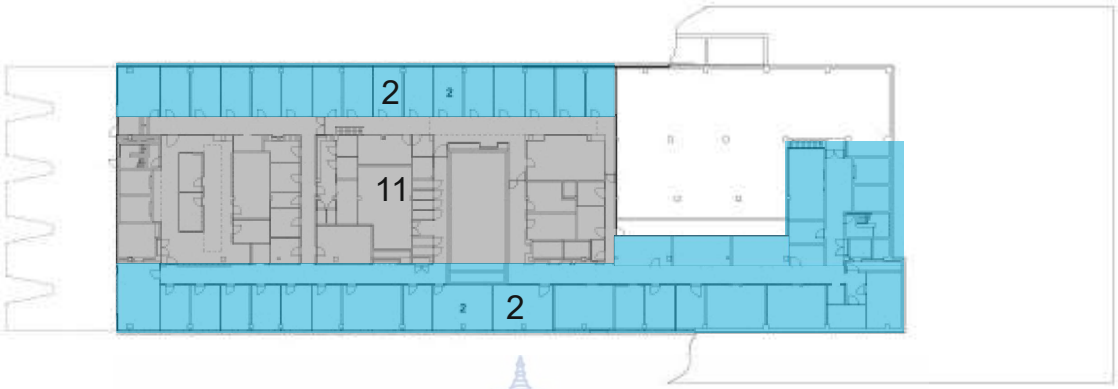



**Figure 16.Basement Level Plan**

2. Administration

11. Services (Circulation, Etc.)

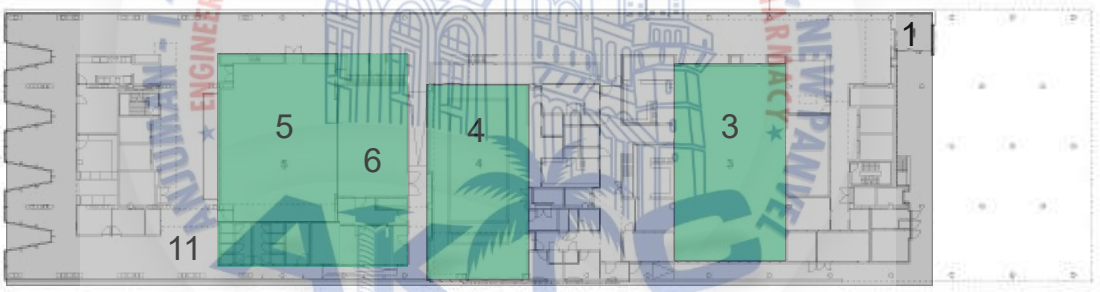



**Figure 17.Ground Floor Plan**

1. Entrance

3. Gymnasium

4. Swimming Pool

5. Theatre

6. Restaurant

11. Services (Circulation, Etc.)


**Figure 18.First Level Plan**

7. Fitness Centre

11. Services (Circulation, Etc.)

**Second Floor Level Plan**

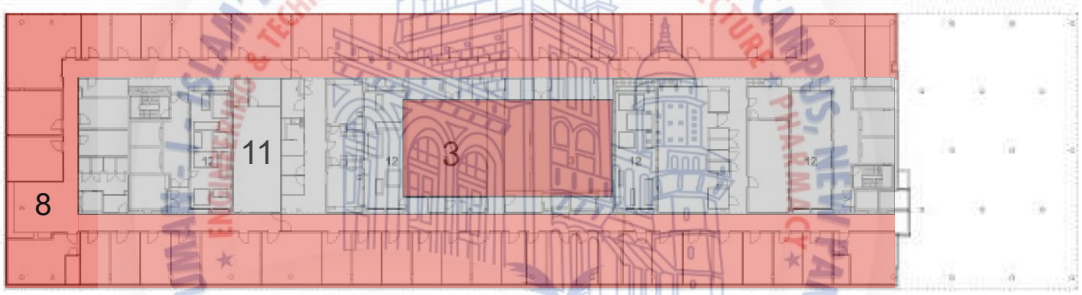



**Figure 19.Second Level Plan**

3. Gymnasium

8. Patients Rooms

11. Services (Circulation, Etc.)

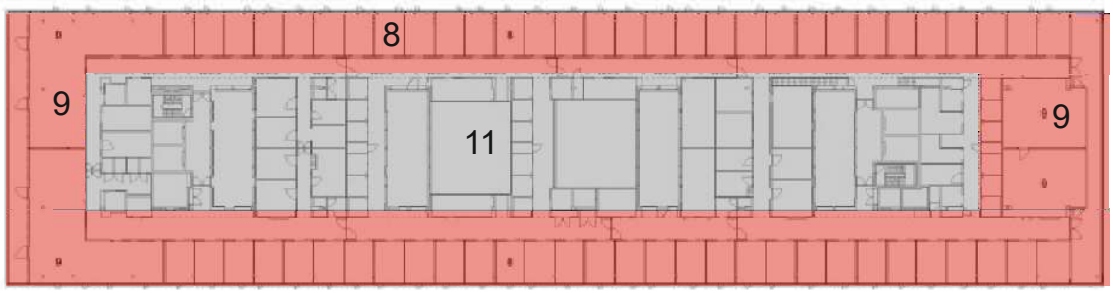



**Figure 20.Third Floor Plan**

8. Patients Rooms

9. Living Room

11. Services (Circulation, Etc.)

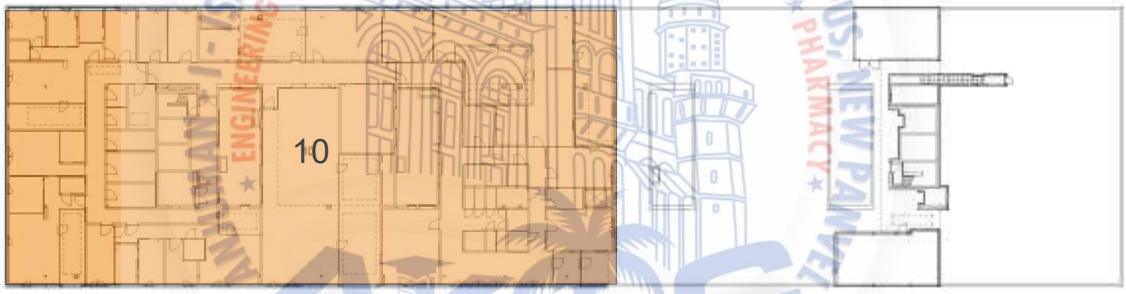



**Figure 21.Fourth Level Plan**

10. Ronald McDonald House

- ADMINISTRATION
- PUBLIC AREAS (GYMNASIUM, THEATRE, ETC)
- PRIVATE AREAS(ROOMS FOR PATIENTS)
- RONALD MCDONALD HOUSE
- SERVICES (CIRCULATION, ETC)

## Sections

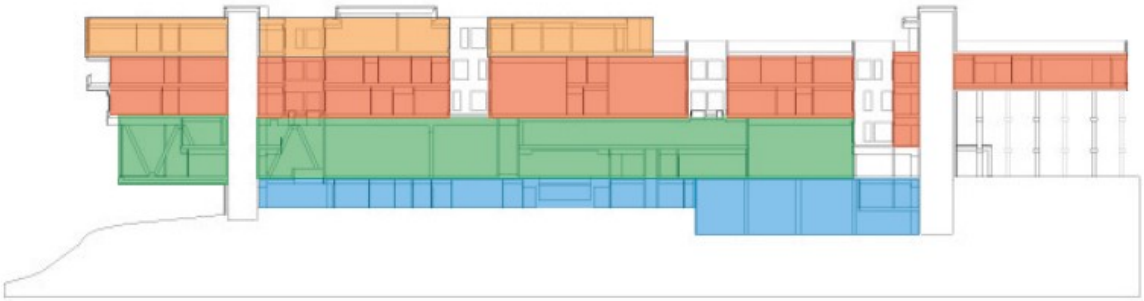


**Figure 22.Longitudinal Section**

**Figure 23.Cross-Sections**

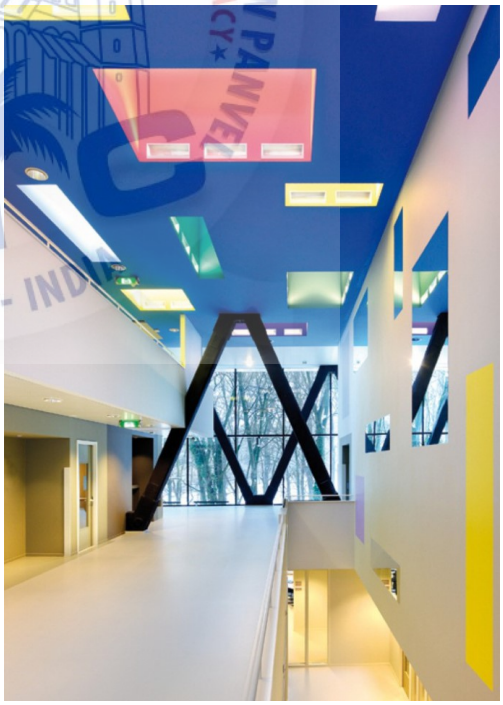


**Image 10.Cafeteria, Indoor Corridors**

## 5. Medical Resort Bad Schaller Bach, Austria

**Overview**

An inviting rehabilitation center highlighting maximum comfort and low operating costs are the result of a comprehensive renovation, modernization and extension of the healthcare facility Bad Schaller Bach by the Health Insurance Fund for Railway- Workers and Miners (VAEB).

**Architects**- Architects Collective ZT-gmbh (AC)

**Location**- Rablstrasse 7, 4701 Bad Schaller Bach, Austria

**Area**- 10200.0 sq.m

**Project Year**- 2013

**Image 11.Entrance View with Therapeutic Pool in background**

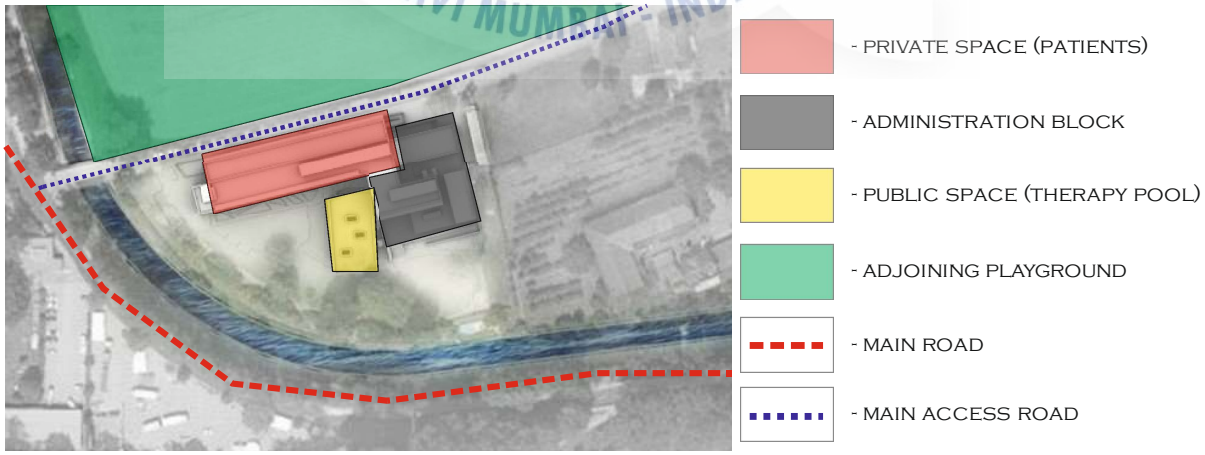



**Figure 24.Master Plan**

**Design Features**

1. **Concept**

Die Bad Schaller Bach VAEB combines a visionary concept based on a harmonious exchange between health, nature and human ecology. This exchange is emphasized throughout the building via its spatial references to the surrounding natural environment and use of natural materials throughout. The therapy pool, with its dramatic cantilevered roof to the south serves as the heart of the facility. From there, the interior space flows out to the surrounding park updated with inviting new seating areas shaded by old birch/oak trees.

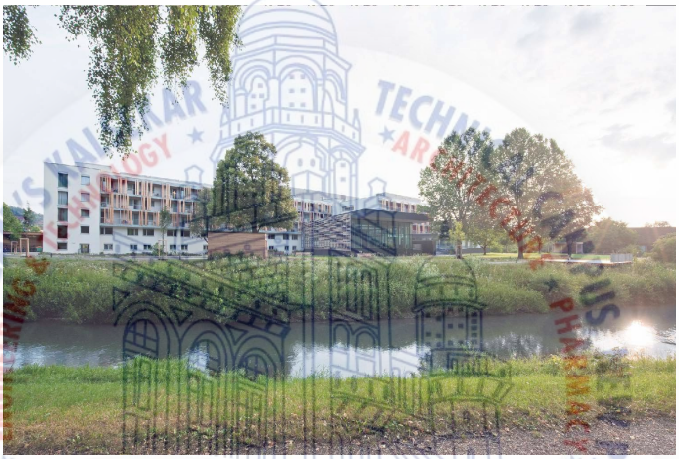


**Image 12.View of Residential Complex**

2. **Materials**

The fluid transition between the interior and exterior of the building represents a symbiotic relationship between medicine and nature. The interior emphasizes natural surfaces including slate, stone and rubber floors as well as furniture made of light oak has been imbedded with fresh hues that lend the healthcare facility a resort like quality.

Color accents varying from floor to floor serve as a discrete navigational system for guests. The friendly and open character of each space is enhanced by strong visual links between the lush park and foyer, living areas and therapy pool. Due to the repetitive floor plan in the areas of accommodation, wood in the form of highly insulated exterior walls and solid wood panels inserted between partition walls and ceiling serve as the ideal building material.

**Image 13.Therapy Halls, Corridors**

The balconies of the newly renovated areas are made of wood and a lightweight steel construction and have been outfitted with irregular wooden slates offering guests shading and visual protection. The majority of the new construction is prefabricated with different factory-fitted parts such as entire walls or ceiling elements of the health care facility.

**Image 14.Balconies with elevational elements**

## Floor Plans

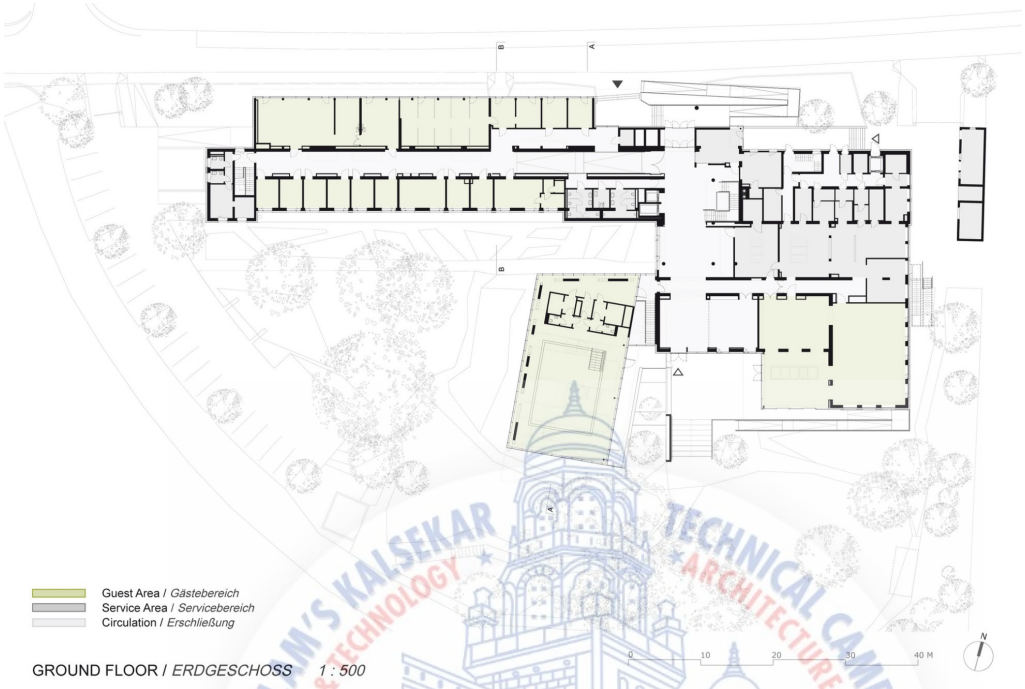



**Figure 25.Ground Floor Plan**

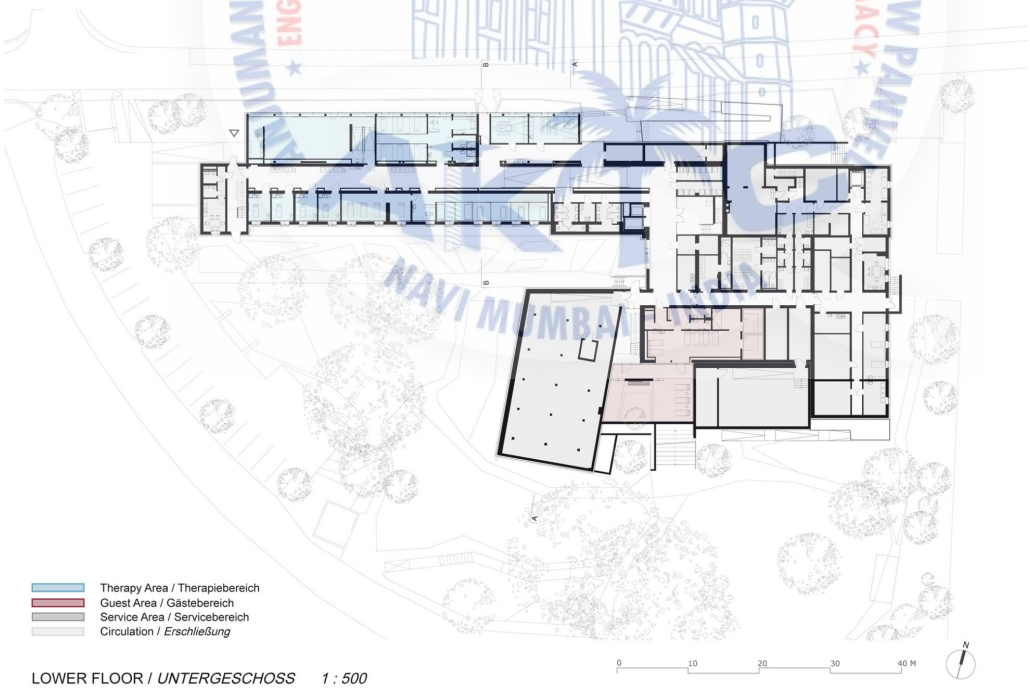



**Figure 26.Basement Level Plan**

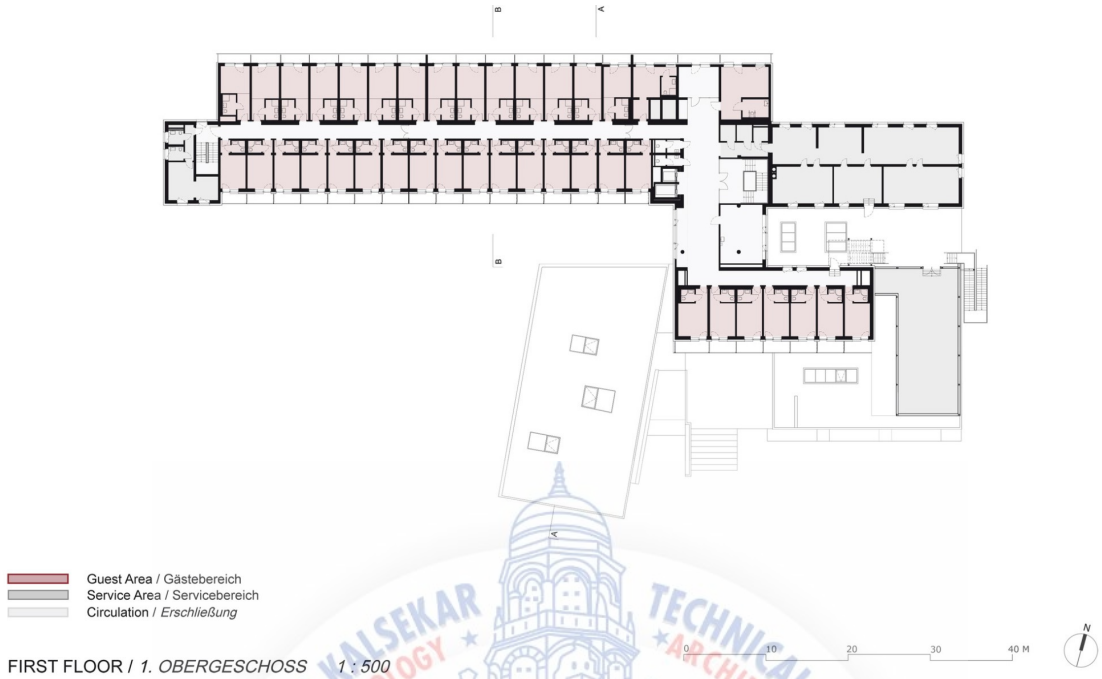



**Figure 27.Typical Floor Plan**

## Sections

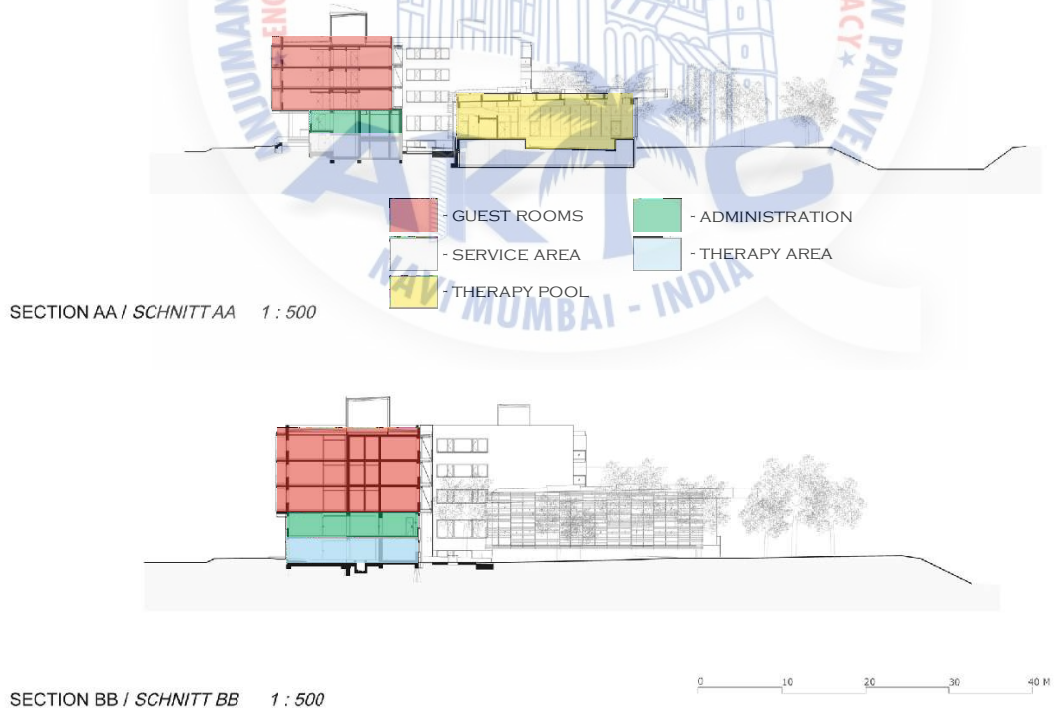



**Figure 28.Section AA' and BB'4**

- **Case Study for Meditation Spaces**

### 6. Lotus Temple , New Delhi

**Introduction**

The Baha'i House of Worship in Delhi, India, located at 28°33′11.46″N 77°15′35.10″E

**Architectural style** : Expressionist

**Location** : New Delhi, India

**Completed** : 13 November 1986

**Opening** : 24 December 1986

**Height** : 34.27m

**Technical details**

**Structural system** : Concrete frame and precast concrete ribbed roof

**Diameter** : 70

**Design and construction**

**Architect** : Fariborz Sahba

**Structural engineer** : Flint & Neill

**Seating capacity** : 1,300

**Image 15.View of Prayer Hall**

## Site Context

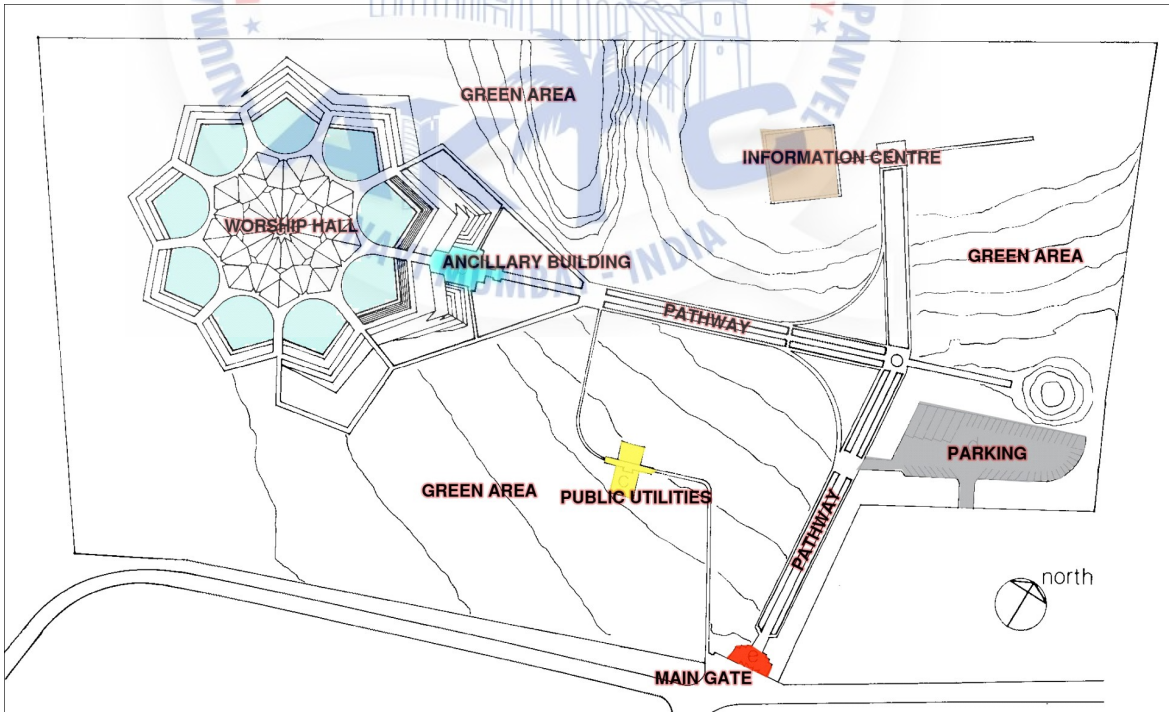



**Figure 29.Master Plan**

**The Significance of Lotus Flower**

The symbolism of the lotus flower (padma, pundarika, utpala) was borrowed by the Buddhists directly from the parent religion Brahmanism.

From earliest history, the lotus flower appears to have symbolized for Aryans primarily the idea of superhuman or divine birth, and secondarily the creative force and immortality.

The traditional Indian and Buddhist explanation is that the glorious lotus flower appears to spring not from the sordid earth but from the surface of the water and is always pure and unsullied, no matter how impure the water of the lake may be. It thus expresses the idea of supernatural birth and the emergence of the first created living thing from the primordial waters of chaos.

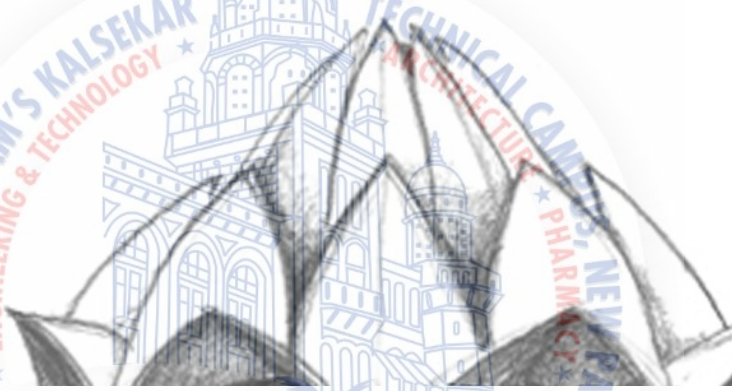


**Image 16.Sketch of Worship Hall**

**Architectural Brilliance of Lotus Temple**

It took 10 long years for Fariborz Sahba to complete the Lotus Temple in Delhi. As many as 800 Engineers, Artisans, Workers, and Technicians made their valuable contribution in completing the temple.

The structure comprises more than 20 Petals that are arranged in 3 Ranks. The petals are made of concrete cast and are wrapped in Marble. The arches offer the main support to the structure. There are pools on the outside where you will find reflections of the petals. These are basically the green leaves of the lotus petals.

**Entrance And Planning Of The Temple**

There are 9 Entry Points in the temple that open directly into a central hall that can accommodate as many as 25,000 worshippers.

One of the significant features of the Lotus Temple is the precision with which the temple has been made without upsetting the Indian history and simultaneously making it an engineering masterpiece.

The cost of building the Lotus Temple was Rs. 10 million

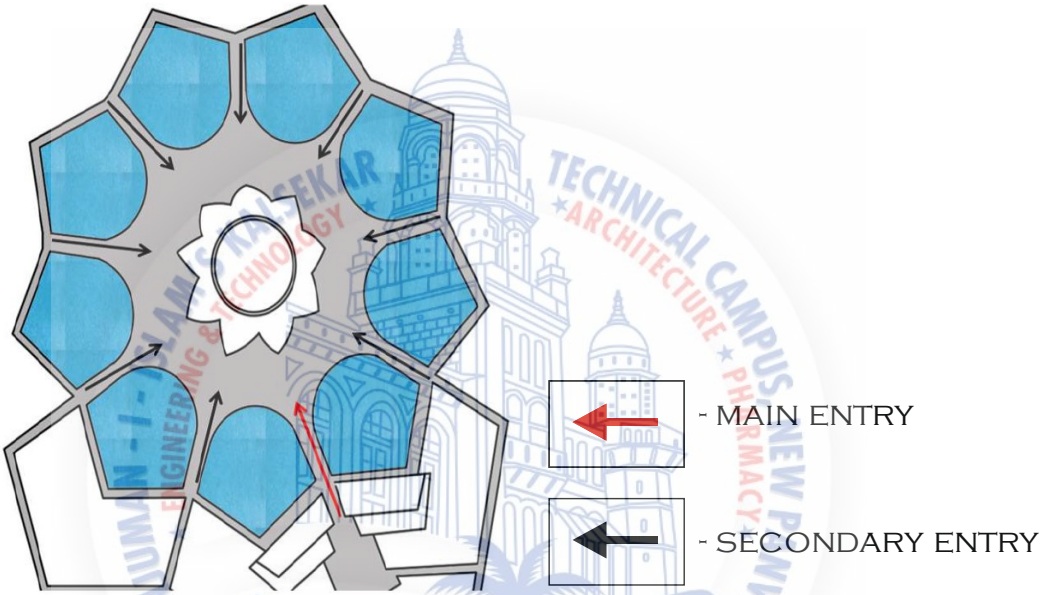



**Figure 30.Plan showing entrances of the Worship Hall**

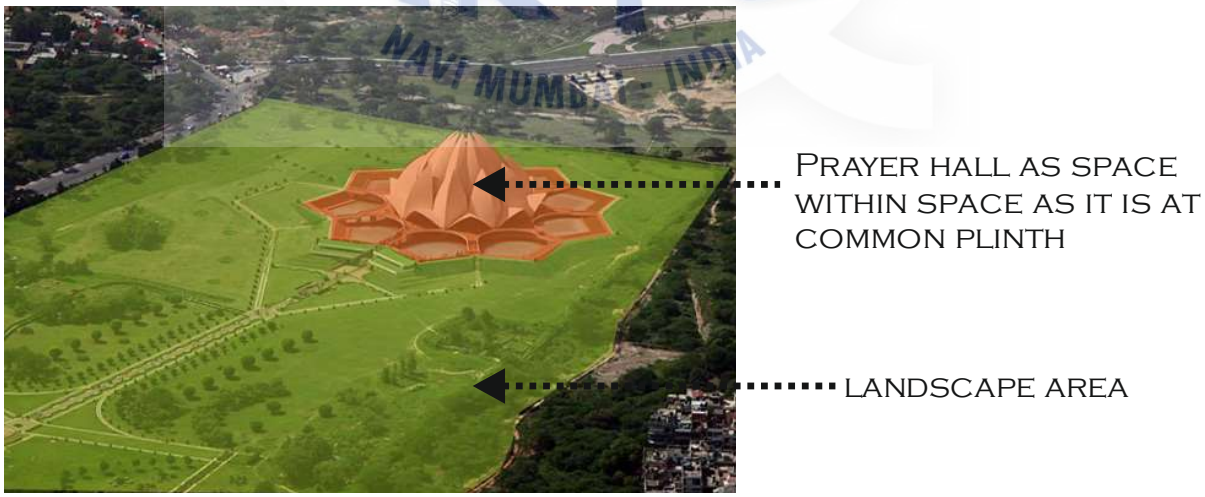


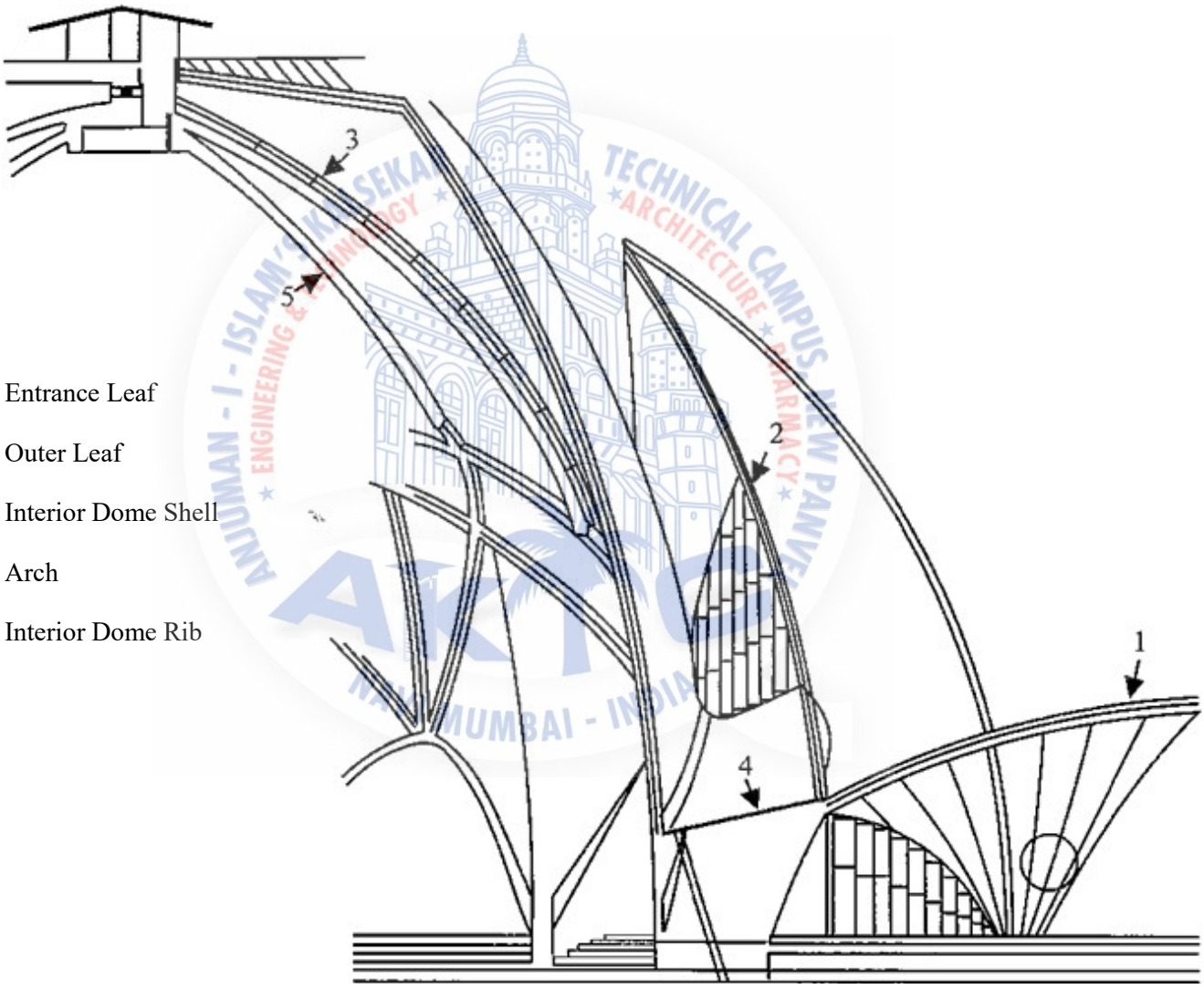

**Image 17.View showing Prayer hall and adjoining Landscape**

**Design Features**

The design is composed of 27 free-standing marble clad "petals" arranged in clusters of three to form nine sides.

These 3 petals each with a pond have been repeated symmetrically at regular intervals creating a rhythmic pattern.

Rhythmic patterns provide continuity and lead us to anticipate what comes next.




1. Entrance Leaf
2. Outer Leaf
3. Interior Dome Shell
4. Arch
5. Interior Dome Rib

**Figure 31. Section through Entrance Leaf and Interior Dome**

**Symmetry**

Radial symmetry refers to the balanced arrangement of similar, radiating elements such that the composition can be divided into similar halves by passing a plane at any angle around a center point or along a central axis.

Proportion refers to the proper or harmonious relation of one part to another or to the whole from the main node the structure looks monumental the entry gates in the main hall are in human scale with almost 4m of height once you enter the main prayer hall, the sense of monumentality continues with the hall almost 40 m. high. The hall can seat almost 1200 people at a time

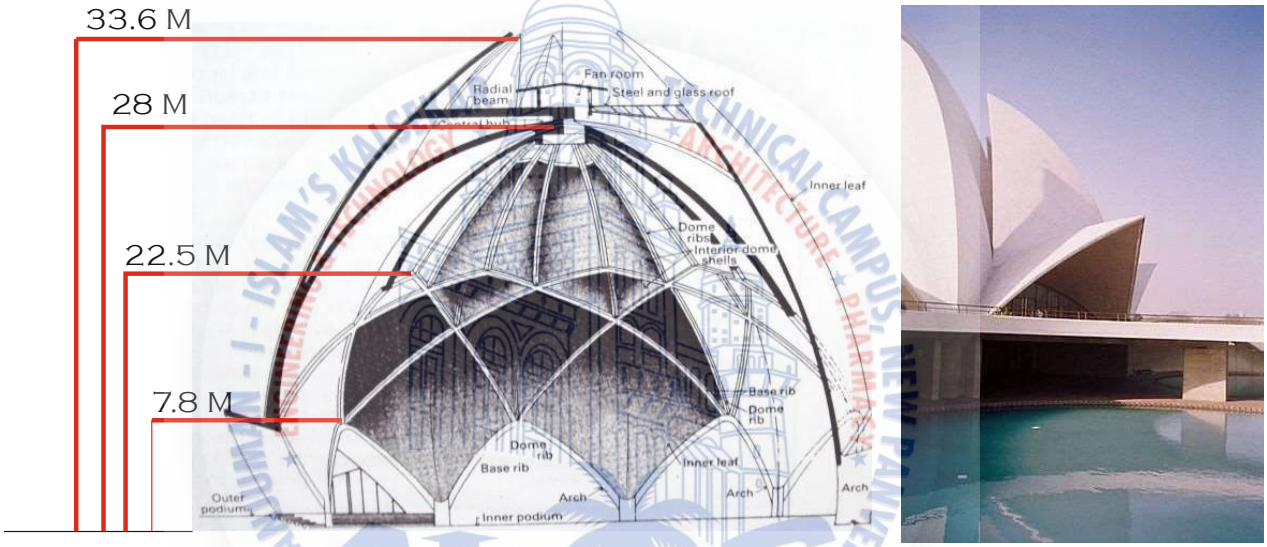



**Figure 32. Section showing different heights**

**Image 18.Study Model**

### 2.2.4 CASE STUDY INFERENCES

1. **National Drug Dependence Treatment Centre, New Delhi**

- The centre is affiliated with AIIMS, New Delhi.
- The centre maintains proper treatment processes and facilities.
- There is no proper space division based on public and private areas
- There is no proper lighting and ventilation for all the interior spaces
- There is no connection between the community and the patients
- There are no proper recreational areas within the centre

2. **Muktangan Rehabilitation Centre, Pune**

- The centre has a central courtyard and a connecting amphitheater which provides a community spaces.
- The whole structure is designed keeping in mind the natural light and ventilation
- The central courtyard acts as a core and all the programs are designed around it.
- Emphasis on physical and mental training is also kept in my mind by providing spaces like yoga room, gym and library.
- The structure has a inviting nature due to its planning and the materials used.

3. **Kroonstad psychiatric hospital, Norway**

- The design mainly focuses on the connection between the community and the patients which indirectly speeds up the recovery process of the patients
- It also focuses on using elements such trees, courtyards, gardens, sports activities to provide a habitable space for the patients etc.
- The design also provides a level of security with proper planning and distribution of spaces.
- Being in the centre of the city it is easy accessible for all and thus is a huge success.

**4. Rehabilitation Centre Groot Klimmendaal, Netherlands**

- The design highlights the inter-relationship between the community and the patients.
- The structure is designed in such a way that the interior spaces feel connected to the outside natural environment.
- Proper planning of spaces and division of spaces with respect to public and private areas.
- Light wells and voids are used to proper natural light to all the interior spaces

**5. Medical Resort Bad Schaller Bach, Austria**

- The design mainly emphases on the connection between medicine and nature.
- The use of different materials and colors for different programs can provide a inviting environment.
- The spaces are planned according to public, private and semi-private zones.
- The treatments to the facade allow natural sunlight inside the building.
- The structure is designed in such a way that is uses minimum energy and provides maximum comfort.

## 2.2.5 COMPARATIVE ANALYSIS

| SR.NO. | | 1).NATIONAL DRUG DEPENDENCE TREATMENT CENTRE | 2).MUKTANGAN REHABILITATION CENTRE | 3).KRONSTAD PSYCHIATRIC HOSPITAL | 4).REHABILITATION CENTRE GROOT KLIMMENDAAL | 5).MEDICAL RESORT BAD SCHALLERBACH |
|---|---|---|---|---|---|---|
| 1 | RECEPTION | 1 | 1 | 1 | 1 | 1 |
| 2 | ADMINISTRATION | 1 | 1 | 1 | 1 | 1 |
| 3 | PHARMACY | 1 | 0 | 1 | 0 | 0 |
| 4 | SERVICE AREA | 1 | 1 | 1 | 1 | 1 |
| 5 | DOCTORS LOUNGE | 1 | 0 | 0 | 0 | 0 |
| 6 | LIBRARY | 1 | 1 | 1 | 0 | 0 |
| 7 | TEACHING FACILIITIES | 1 | 0 | 1 | 0 | 0 |
| 8 | COMMUNITY SPACES | 0 | 1 | 1 | 1 | 1 |
| 9 | RESTAURANT | 0 | 0 | 0 | 1 | 0 |
| 10 | DINING AREA | 1 | 1 | 1 | 1 | 1 |
| 11 | OUTPATIENT DEPARTMENT | 1 | 1 | 1 | 1 | 1 |
| 12 | RESIDENTIAL WARDS | 1 | 1 | 1 | 0 | 0 |
| 13 | PRIVATE ROOMS | 0 | 0 | 0 | 1 | 1 |
| 14 | GYMNASIUM | 0 | 1 | 1 | 1 | 0 |
| 15 | MULTIPURPOSE HALL | 1 | 1 | 1 | 1 | 0 |
| 16 | SWIMMING POOL | 0 | 0 | 0 | 1 | 1 |
| 17 | THERAPY ROOM | 0 | 0 | 0 | 1 | 1 |
| 18 | COUNSELLING ROOMS | 1 | 1 | 1 | 1 | 1 |
| 19 | THEATRE | 0 | 1 | 0 | 1 | 0 |
| 20 | RECREATIONAL AREAS | 0 | 1 | 1 | 1 | 1 |
| 21 | INDOOR GARDENS | 0 | 0 | 1 | 1 | 0 |
| 22 | LANDSCAPING | 1 | 1 | 1 | 1 | 1 |

**Table 3.Comparative Analysis (Space Program)**

**Comparative Analysis Part 2**

| | LOCATION | AREA (SQ.M) | ARCHITECT |
|---|---|---|---|
| **1).NATIONAL DRUG DEPENDENCE TREATMENT CENTRE** | New Delhi | 40468.6 sqm | |
| **2).MUKTANGAN REHABILITATION CENTRE** | PUNE , MAHARASHTRA | 2202.0 sqm | AR.SHIRISH BERI |
| **3).KRONSTAD PSYCHIATRIC HOSPITAL** | Bergen, Norway | 12500.0 sqm | Smedsvig Landskapsarkitekter |
| **4).REHABILITATION CENTRE GROOT KLIMMENDAAL** | Groot Klimmendaal, Netherlands | 14000.0 sqm | Koen van Velsen |
| **5).MEDICAL RESORT BAD SCHALLERBACH** | Bad Schallerbach, Austria | 10200.0 sq.m | Architects Collective ZT-GmbH (AC) |
| **6).LOTUS TEMPLE (MEDITATION SPACE)** | New Delhi | 105,000 sqm | Fariborz Sahba |

| YEAR OF ESTABLISHMENT | CAPACITY(BEDS) | RUN BY | PURPOSE OF CASE STUDY |
|---|---|---|---|
| 2003 | 50 | GOVERNMENT | TO STUDY THE AREA PROGRAM OF THE STRUCTRE AND THE DIFFERENT TYPES OF TREATMENT ADOPTED BY THE NATIONAL DRUG DEPENDANCE CENTER. |
| 1986 | 120 | PRIVATE NGO | TO STUDY THE PROGRAM OF SPACES AND THE PROCEDURE OF TREATMENT.TO STUDY THE PLANNING AND MATERIALS USED IN THE STRUCTRE. |
| 2013 | 75 | PRIVATE | TO UNDERSTAND THE INTERACTON OF PUBLIC AND PRIVATE SPACES WITH THE HELP OF PLANNING AND MATERIALS |
| 2011 | 140 | PRIVATE | TO STUDY THE CONNECTION BETWEEN NATURE AND THE INDOOR SPACES . |
| 2013 | 50 | PRIVATE | TO STUDY THE ARRANGEMENT OF SPACES W.R.T TO PUBLIC,PRIVATE AND SEMI-PRIVATE ZONES.TO UNDERSTAND THE PLAY OF MATERIALS IN HEALING AN INDIVIDUAL |
| 1986 | 1300 | BAHA'I COMMUNITY | TO UNDERSTAND THE IMPORTANCE OF MEDITATION IN HEALING AN INDIVIDUAL.TO STUDY THE PRINCIPLES REQUIRED WHILE DESINGNING A MEDITATION SPACE. |

| SITE FOOTPRINT (SATELLITE IMAGES) | SITE CONTEXT | SECTIONS |
|---|---|---|
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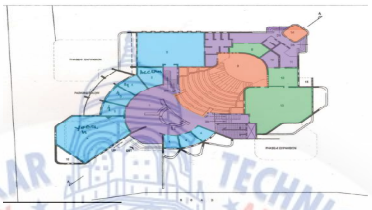
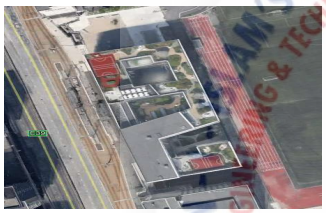
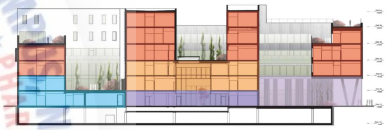
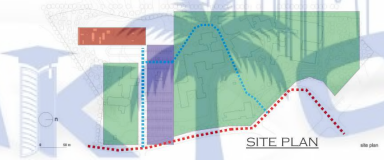
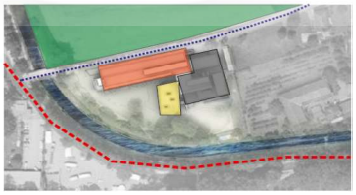
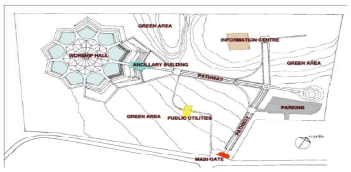
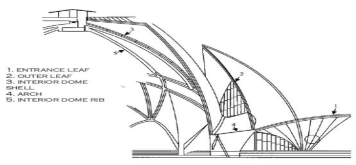
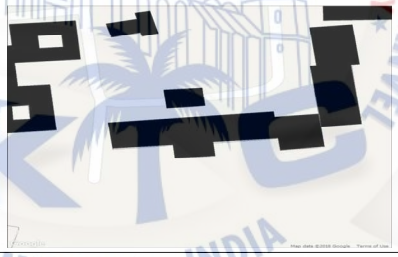
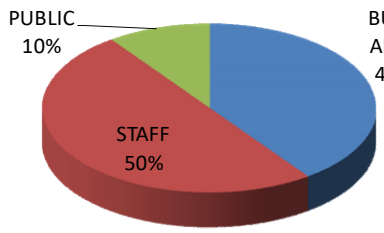
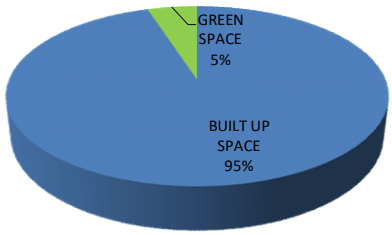
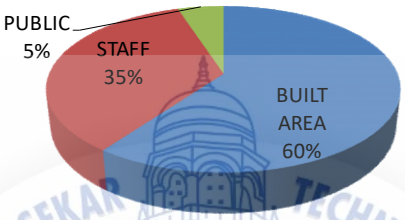
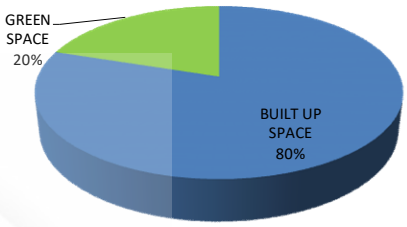
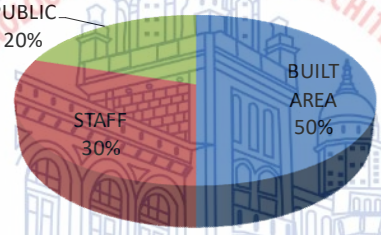
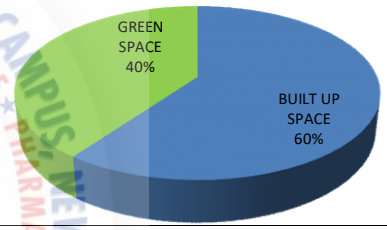
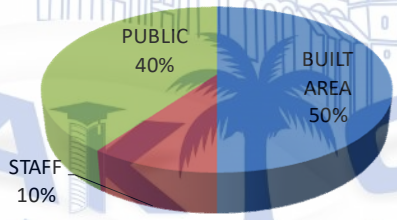
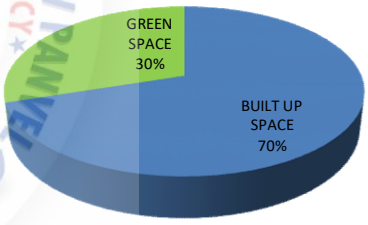
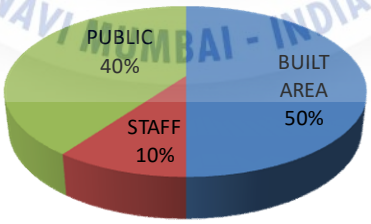
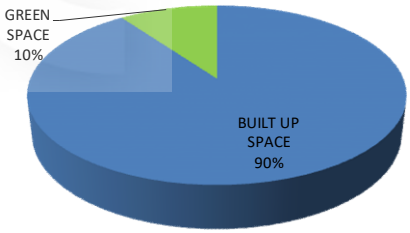
|  |  | |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

| TOPOGRAPHY | MATERIALS | FIGURE GROUND | SPECILAL FEATURESW.R.T SPACES |
|---|---|---|---|
| FLAT SITE | R.C.C |  | NONE |
| FLAT SITE WITH MINOR COUTOURS | STONE MASONARY AND R.C.C |  | CENTRAL COURTYARD AND CENTRAL LOBBY |
| FLAT SITE | R.C.C WITH ELEVATIONAL DETAILS |  | COMMINUTY SQAURE, CENTRAL ATRIUMS WITH VEGETATION |
| FLAT SITE WITH MINOR COUTOURS | STEEL,CONCRETE,GLASS |  | BLENDS WITH NATURE,DOUBLE HEIGHTED SAPCES, LIGHTWELLS |
| FLAT SITE | R.C.C,SLATE.STONE.RUBBER |  | ADJOINING VIEWS,COMFORTABLE PRIVATE SPACES, BALCONIES,ELEVATIONAL DETAILS |
| FLAT SITE | CONCRETE FRAME,PRECASET CONCRETE RIBBED ROOF |  | CALM AND QUIET ENVIRONMENT,PROPER USAGE OF MATERIALS, PRINCIPLES OF DESIGNING |

| SPECIALFEATURES W.R.T PROGRAMS | PROGRAM W.R.T USERS | BUILT UP SPACE V/S GREEN SPACE |
|---|---|---|
| LIBRARY,LECTURE ROOMS FOR STUDENTS |  |  |
| COURTYARDS,PHYSICAL TRAINING AREAS,ENTERTAINMENT ZONES |  |  |
| COMMUNITY AREAS,TEACHING FACILITIES,PUBLIC SQAURE,GYMNASIUM |  |  |
| GYMNASIUM, THEATRE,RESTAURANT,SWIMMING POOL,FITNESS CENTER |  |  |
| THERAPY AREAS,GUEST AREAS,THERAPY POOL |  |  |
| LANDSCAPE AREAS,PONDS | N.A | N .A |

## 2.3 RESEARCH DESIGN

### 2.3.1. BACKGROUNDSTUDY

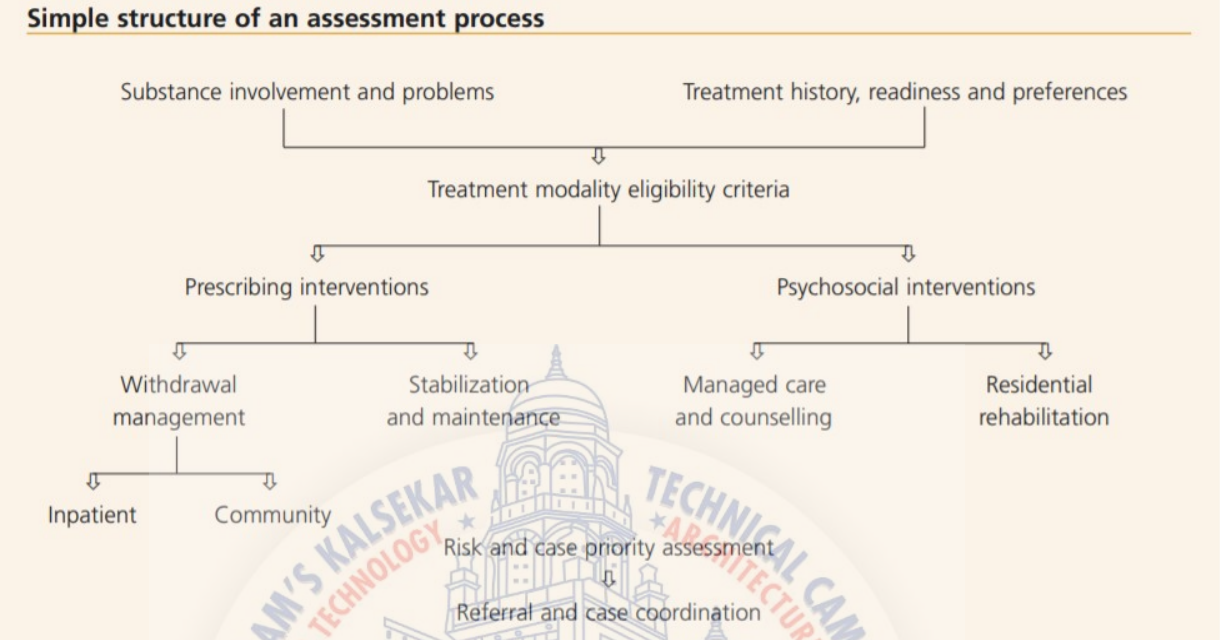



**Figure 33. Flow-chart showing an assessment process for an individual drug addict**

**Example of a treatment link for an individual client**

| *Initial treatment required* | | *Then possible additional treatments needed (care pathway)* |
|---|---|---|
| | Community detoxification | → Aftercare/support<br>→ Community drug-free counselling → Aftercare/support<br>→ Residential rehabilitation → Aftercare/support<br>→ Residential rehabilitation → Community drug-free counselling → Aftercare/support |
| | Inpatient detoxification | → Aftercare/support<br>→ Community drug-free counselling → Aftercare/support<br>→ Residential rehabilitation → Community drug-free counselling → Aftercare/support |
| | Community drug-free counselling | → Aftercare/support<br>→ Residential rehabilitation → Aftercare/support |
| | Community prescribing | → Community detoxification → Aftercare/support<br>→ Community detoxification → Community drug-free counselling → Aftercare/support<br>→ Community detoxification → Residential rehabilitation → Aftercare/support<br>→ Inpatient detoxification → Community drug-free counselling → Aftercare/support |
| | Residential rehabilitation | → Aftercare/support<br>→ Community drug-free counselling → Aftercare/support |

**Table 4.Steps required for treatment of an individual drug addict**

**Types of Treatment Programs**

Research studies on addiction treatment typically have classified programs into several general types or modalities. Treatment approaches and individual programs continue to evolve and diversify, and many programs today do not fit neatly into traditional drug addiction treatment classifications.

- **Detoxification**

Most, however, start with detoxification and medically managed withdrawal, often considered the first stage of treatment. Detoxification, the process by which the body clears itself of drugs, is designed to manage the acute and potentially dangerous physiological effects of stopping drug use. As stated previously, detoxification alone does not address the psychological, social, and behavioural problems associated with addiction and therefore does not typically produce lasting behavioural changes necessary for recovery. Detoxification should thus be followed by a formal assessment and referral to drug addiction treatment.

Because it is often accompanied by unpleasant and potentially fatal side effects stemming from withdrawal, detoxification is often managed with medications administered by a physician in an inpatient or outpatient setting; therefore, it is referred to as "medically managed withdrawal." Medications are available to assist in the withdrawal from opioids, benzodiazepines, alcohol, nicotine, barbiturates, and other sedatives.

- **Long-Term Residential Treatment**

Long-term residential treatment provides care 24 hours a day, generally in non-hospital settings. The best-known residential treatment model is the therapeutic community (TC), with planned lengths of stay of between 6 and 12 months. TCs focus on the "socialization" of the individual and use the program's entire community—including other residents, staff, and the social context—as active components of treatment. Addiction is viewed in the context of an individual's social and psychological deficits, and treatment focuses on developing personal accountability and responsibility as well as socially productive lives. Treatment is highly structured and can be confrontational at times, with activities designed to help residents examine damaging beliefs, self-concepts, and destructive patterns of behaviour and adopt new, more harmonious and constructive ways to interact with others. Many TCs offer comprehensive services, which can include employment training and other support services, onsite. Research shows that TCs can be modified to treat individuals with special needs, including adolescents, women, homeless individuals, people with severe mental disorders, and individuals in the criminal justice system

**Short-Term Residential Treatment**

Short-term residential programs provide intensive but relatively brief treatment based on a modified 12-step approach. The residential treatment model consisted of a 3- to 6-week hospital-based inpatient treatment phase followed by extended outpatient therapy and participation in a self-help groups. Following stays in residential treatment programs, it is important for individuals to remain engaged in outpatient treatment programs and/or aftercare programs. These programs help to reduce the risk of relapse once a patient leaves the residential setting.

- **Outpatient Treatment Programs**

Outpatient treatment varies in the types and intensity of services offered. Such treatment costs less than residential or inpatient treatment and often is more suitable for people with jobs or extensive social supports. It should be noted, however, that low-intensity programs may offer little more than drug education. Other outpatient models, such as intensive day treatment, can be comparable to residential programs in services and effectiveness, depending on the individual patient's characteristics and needs. In many outpatient programs, group counselling can be a major component. Some outpatient programs are also designed to treat patients with medical or other mental health problems in addition to their drug disorders.

- **Individualized Drug Counselling**

Individualized drug counselling not only focuses on reducing or stopping illicit drug or alcohol use; it also addresses related areas of impaired functioning—such as employment status, illegal activity, and family/social relations—as well as the content and structure of the patient's recovery program. Through its emphasis on short-term behavioural goals, individualized counselling helps the patient develop coping strategies and tools to abstain from drug use and maintain abstinence. The addiction counsellor encourages 12-step participation (at least one or two times per week) and makes referrals for needed supplemental medical, psychiatric, employment, and other services.

- **Group Counselling**

Many therapeutic settings use group therapy to capitalize on the social reinforcement offered by peer discussion and to help promote drug-free lifestyles. Research has shown that when group therapy either is offered in conjunction with individualized drug counselling or is formatted to reflect the principles of cognitive-behavioural therapy or contingency management, positive outcomes are achieved. Currently, researchers are testing conditions in which group therapy can be standardized and made more community-friendly

## 2.3.2. QUESTIONNAIRES AND SURVEY RESULTS

### 1. Drug Problem: The Government's Survey in Punjab

In 2015, a study was commissioned by the Ministry of Social Justice and Empowerment (MoSJE), Government of India, to find out the numbers of opioid/drugs dependent individuals in Punjab. The survey was conducted by the Society for Promotion of Youth & Masses (SPYM) and a team of researchers from the National Drug Dependence Treatment Centre (NDDTC), AIIMS, New Delhi, in association with the Department of Health and Family Welfare, Government of Punjab.

Ten districts were covered in the study: Bathinda, Ferozepur, Jalandhar, Kapurthala, Gurdaspur, Hoshiarpur, Patiala, Sangria, Moga, and Tarn Taran.

**Some interesting facts revealed in the survey are as follows:**

- The total number of drug users in Punjab 2, 32,856.
- 89% of drug addicts are educated and literate.
- 83% of drug addicts in Punjab have jobs.
- Almost all drug addicts in Punjab are male (99%).
- Half of Punjab's drug addicts are from villages (56%).
- The most common drug consumed is Heroin (chitta). 53% of drug addicts surveyed claimed this.
- On an average, Rs. 1400 is spent on heroin by drug addicts every day in Punjab. Opium users spend Rs. 340 per day and pharmaceutical opioid users spent Rs. 265 per day.

**Factors that caused drug problem in the state**

- A farming crisis caused by an over-reliance on cash crops
- Lack of job opportunities
- Easy availability of narcotic substances
- Ties between drug associations, organized criminal gangs, politicians and crook elements of the law enforcement agencies

**Government efforts to tackle drug problem in the state**

Chief Minister Captain Amrinder Singh decided to take a strong action against the drug problem in the state following the elections. His primary areas of focus are:

- To target the drug network in the state to reduce the drug supply
- Introducing "Outpatient Opioid Assisted Treatment" in order to improve thye current conditions of the de-addiction centres
- Building mass awareness on drug abuse to reduce demand for drugs.

In a recent survey by the Government on drug problem in the national capital, it was found that children as young as 9-years-old are known to have been affected by drug abuse. This was the first time a major government survey was undertaken on Delhi's street children. The survey was conducted by Delhi government's women and child development department in association with NDDTC at AIIMS.

**Some interesting facts revealed in the survey are as follows:**

- Around 70,000 street children are in the habit of consuming drugs in any form.
- 20,000 consume tobacco.
- Around 10,000 children are into alcohol consumption.
- 7000 children are consuming inhalants.
- 5600 children are in the habit of taking cannabis.
- Around 800 are addictive to heroin.
- There are few who are addictive to pharmaceutical opioids and sedatives.

The strange fact revealed in the survey was that children in the age group of 9 and 10 years have already started consuming tobacco, alcohol while heroin or opium addictions started at the young age of 12-13 years.

**Some major causes**

In the survey, street children revealed that they took to drugs due to various reasons. Some said that it was peer pressure. Some said that they were curious to experience the after-effects of drugs, while few said they had to resort to drugs to avoid hunger, cold and poverty. More than 60% of these kids were living with their families or relatives. About 15-20% of them lived on the streets to support their families. Just a handful of them (about 10%) were school going children. Some of the children surveyed were school-dropouts due to drug abuse.

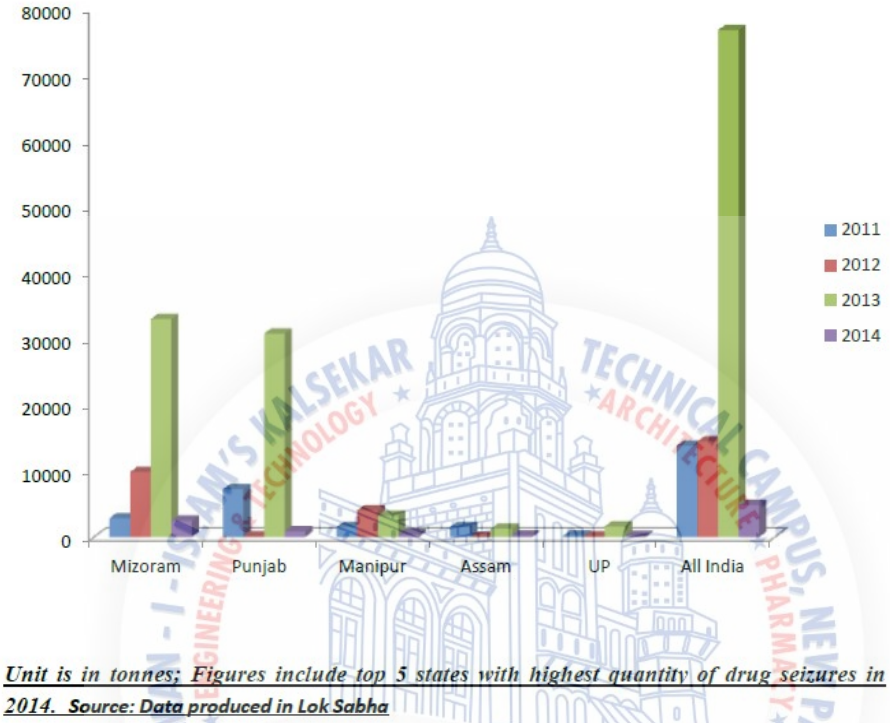
**To sum up**

It is very astonishing to find how widespread the problem is. The situation is grave not only in Punjab and Delhi but also in many parts of India. The Delhi government is now planning to start dedicated juvenile drug de-addiction centres in six hospitals. In the Punjab survey, it was revealed that more than 80% have tried to give up drugs but only about 30% of them have actually received help or treatment. Experts are of opinion that health and welfare programs do not reach the millions of people affected by drugs.

## 2. Comparison of Punjab with other states

- **Quantity of Drugs Seized**

Punjab figures among the top 5 states with highest drug seizures in India, albeit the quantity seized is erratic.




*Unit is in tonnes; Figures include top 5 states with highest quantity of drug seizures in 2014. Source: Data produced in Lok Sabha*

**Figure 34.Drug seizures in 2014**

- **Crime Rates**

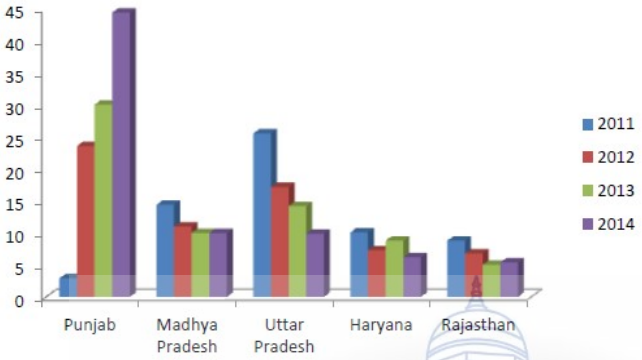
Crime rate under NDPS Act in Punjab has been consistently higher than all other states


*Fig. Rate of crime is crime per lakh population; Figures include the top 3 states in India with highest crime rates under NDPS Act*

**Figure 35.Rate of Crime in population**

- **Cases of Convicts**

Punjab forms 44.5% of total convicts in India under the NDPS Act in 2014, much more than the next highest state at 10%




*Figures indicate % of convicts in each state as share of total convicts in India under NDPS Act at the end of each year*

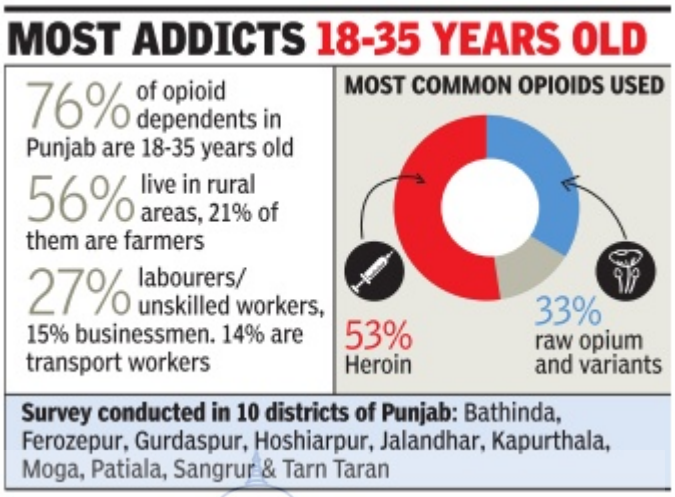
*Source: Data from National Crime report Bureau*

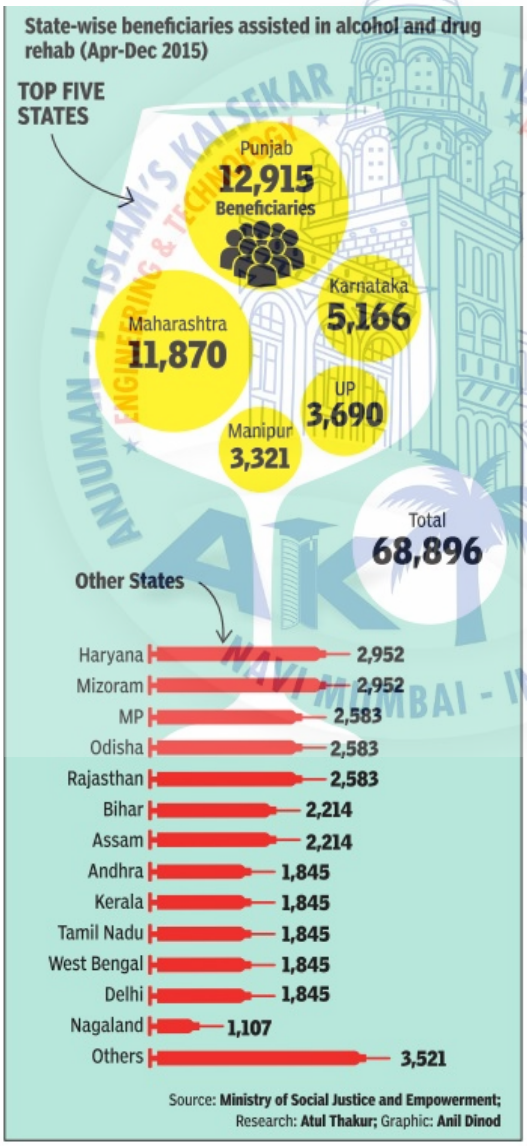
**Figure 36.Number of Convicts per state**

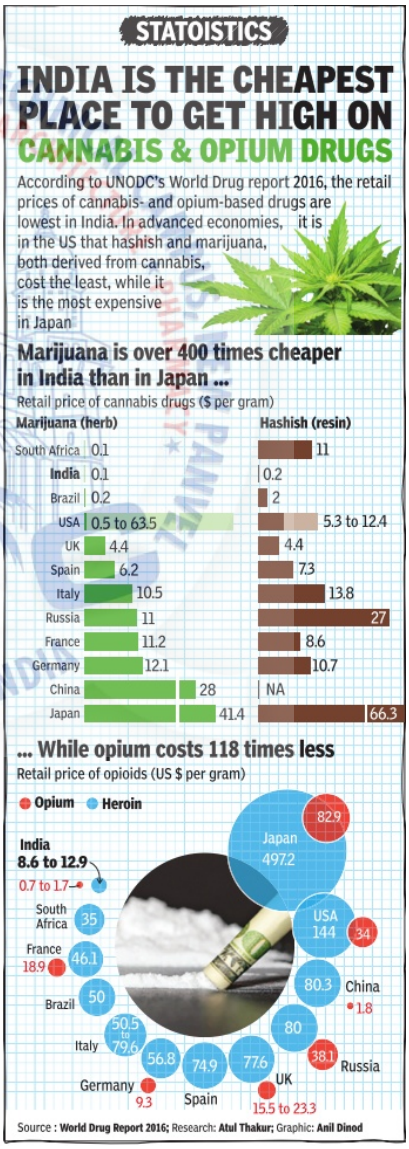
| Demographic profile of Opioid Dependent individuals in Punjab | Survey results |
|---|---|
| Males | 99% |
| Literate and educated | 89% |
| Married | 54% |
| Employed | 83% |
| Punjabi as mother tongue | 99% |
| Opioid dependent population in rural areas | 55% |
| Most common opioid drug:Heroin | 53% |
| Using drugs through injecting route | 33% |
| Most common reason for starting opioid use: Peer-influence | 75% |
| Ever tried to quit? | 80% |
| Ever received any help for quitting? | 35% |
| Lower bound estimate of opioid dependent individuals | Rs 174642 |
| Upper bound estimate of opioid dependent individuals | Rs 322416 |
| Amount spent on opioid drugs per day by opioid dependent people | Rs 20 cr |
| Annual expenditure on opioid drugs | Rs 7575 cr |
| Unskilled Worker/ Labourer | 27% |
| Farmer | 21% |
| Clerical jobs/ businessmen | 15% |
| Transport Worker | 14% |
| Skilled Worker | 13% |

**Table 4.Demographic Profile of opioid dependent individuals in Punjab**

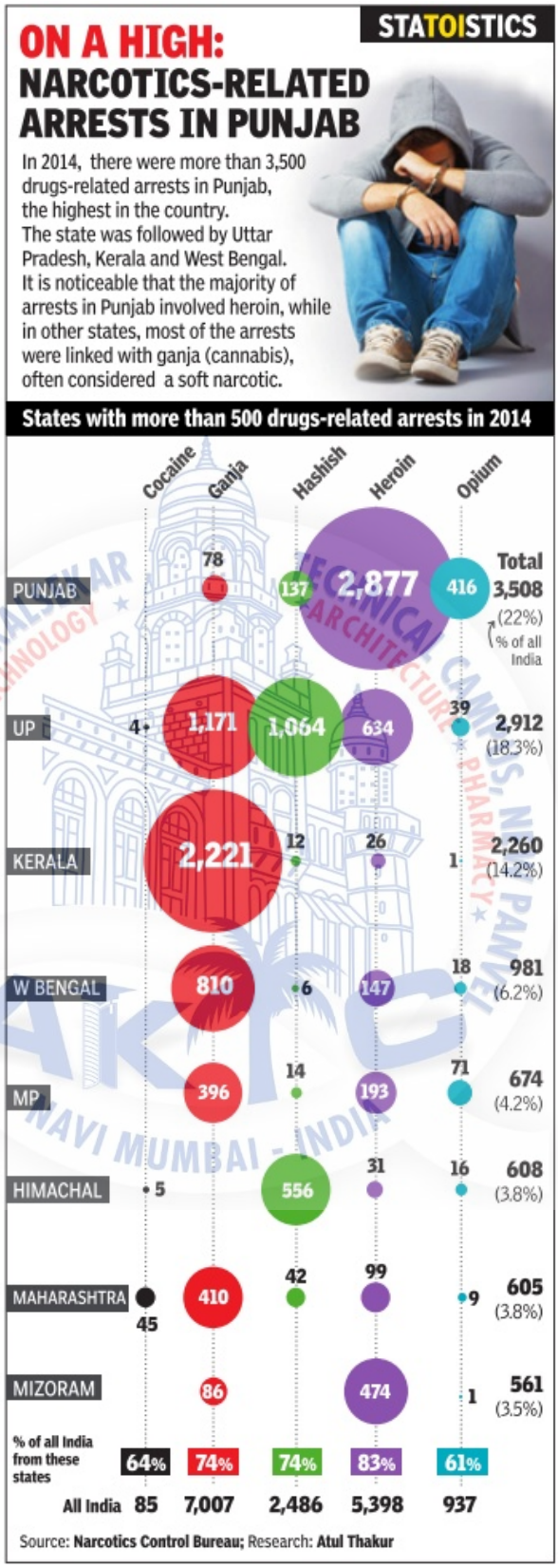
***Source: Punjab Opioid Dependence Survey 2015***




***Source:-The Times of India, July 1, 2016***




***Source: - The Times of India, June 16, 2016***

### 3. A study of profile of patients admitted in the drug de-addiction centres in the state of Punjab

**Table 1: Age, sex, residence, marital status wise distribution of patients undergoing treatment at de-addiction centers**

| Particulars (n=120) | | Number of Patients | Percentage |
|---|---|---|---|
| Sex | Male | 120 | 100 |
| | Female | 0 | 0 |
| Age (years) | 10-20 | 2 | 1.7 |
| | 20-30 | 57 | 47.5 |
| | 30-40 | 43 | 35.8 |
| | 40-50 | 10 | 8.4 |
| | 50-60 | 7 | 5.8 |
| | >60 | 1 | 0.8 |
| | **Range** | 15-73 years | |
| | **Mean ± SD** | 31.22 ± 9.50 years | |
| Marital Status | Un-married | 38 | 31.7 |
| | Married | 78 | 65.0 |
| | Separated/divorced due to drug abuse | 4 | 3.3 |
| Residence | Urban | 49 | 41.0 |
| | Rural | 71 | 59.0 |

**Table 2: Education, occupation and income status of patients undergoing treatment at de-addiction centers**

| Particulars (n=120) | | Number of Patients | Percentage |
|---|---|---|---|
| Education | Professional Degree | 2 | 1.7 |
| | Graduation | 7 | 5.8 |
| | 10+2/Diploma | 23 | 19.2 |
| | Matric | 41 | 34.2 |
| | Middle | 19 | 15.8 |
| | Primary | 22 | 18.3 |
| | Illiterate | 6 | 5 |
| Occupation | Professional | 1 | 0.8 |
| | Semi-professional | 9 | 7.5 |
| | Clerical/Shop/Farmer | 52 | 43.3 |
| | Skilled Worker | 35 | 29.2 |
| | Semi-skilled Worker | 7 | 5.8 |
| | Unskilled Worker | 8 | 6.7 |
| | Un-employed | 8 | 6.7 |
| Income (Rs) | >20,000 | 33 | 27.5 |
| | 10,000-19,999 | 29 | 24.2 |
| | 7,500-9,999 | 4 | 3.3 |
| | 5,000-7,499 | 28 | 23.3 |
| | 3,000-4,999 | 206 | 16.7 |
| | 1,001-2,999 | 6 | 5 |
| | ≤1,000 | 0 | 0 |

**Table 5 .Profile of Patients admitted in Drug De-Addiction Centres**

***Source:-International Journal of Health Sciences(Supplement) July-Sept. 2013***

**Table 3: Route of administration and type of drugs abused by patients undergoing treatment at de-addiction centers**

| | | | |
|---|---|---|---|
| **Route of Administration of Drugs** | Oral | 114 | 95 |
| | Sniffing | 18 | 15 |
| | IDU | 16 | 13.3 |
| **TYPE OF DRUGS ABUSED** | | **Single Drug Abuse** | **Multi Drug Abuse** |
| Tobacco | | 0 | 75 (62.5%) |
| Alcohol | | 25 (20.8%) | 51 (42.5%) |
| **OPIOIDS** Single drug abuse = 35 (29.2%) Multi drug abuse = 111 (92.5%) | Opium | 4 (3.0%) | 17 (14.1%) |
| | Bhukki | 2 (1.6%) | 7 (5.8%) |
| | Smack | 3 (2.5%) | 19 (15.8%) |
| | Capsule | 25 (20.8%) | 49 (40.8%) |
| | Tablets | 1 (0.8%) | 11 (9.2%) |
| | Syrup | 0 | 8 (6.6%) |
| Injection Avil | | 3 (2.5%) | 16 (13.3%) |
| **BENZO-DIAZEPINES** Single drug abuse = 4 (33.3%) Multi drug abuse = 22 (18.3%) | Injection Diazepam | 3 (2.5%) | 16 (13.3%) |
| | Tab. Alprazolam | 1 (0.8%) | 6 (5.0%) |
| Eraser Fluid | | 1 (0.8%) | 0 |
| Bhang | | 2 (1.6%) | 8 (6.6%) |

**Table 4: Amount spent per day on drugs, source of income for drugs and reasons for starting drugs by patients undergoing treatment at de-addiction centers**

| **Particulars (n=120)** | | **Number of Patients** | **Percentage** |
|---|---|---|---|
| Amount spent per day on Drugs by Patients | <50 | 14 | 11.7 |
| | 50-100 | 26 | 21.7 |
| | 100-200 | 45 | 37.5 |
| | 200-300 | 15 | 12.5 |
| | 300-400 | 8 | 6.6 |
| | 400-500 | 3 | 2.5 |
| | 500-1000 | 6 | 5 |
| | 1000-2000 | 3 | 2.5 |
| | **Range** | **Rs 25-1500** | |
| | **Mean** | **Rs 170.63** | |
| Source of Income for buying Drugs | Self | 102 | 85.0 |
| | Family | 14 | 11.8 |
| | Employer | 1 | 0.8 |
| | Friends | 2 | 1.6 |
| | Theft | 1 | 0.8 |
| Reasons for starting drugs | Peer Pressure | 95 | 79.2 |
| | Curiosity | 10 | 8.3 |
| | Unemployment | 4 | 3.3 |
| | Family Grief | 8 | 6.7 |
| | Breakup with Girlfriend | 3 | 2.5 |

**Table 6.Profile of Patients admitted in Drug De-Addiction Centres**

***Source:-International Journal of Health Sciences(Supplement) July-Sept. 2013***

**Table 5: Family history of drug intake, previous history of DDC visit, history of relapse and persons brought to centre by whom at DDCs**

| Particulars (n=120) | | Number of Patients | Percentage |
|---|---|---|---|
| **Family History of Drug Intake** | YES | 19 | 16 |
| | NO | 101 | 84 |
| **Person who brought patient to DDC** | Self | 26 | 22 |
| | Family | 72 | 60 |
| | Relative | 15 | 12 |
| | Others | 7 | 6 |
| **Previous History of DDC visit and History of Relapse** | **Yes** | **47** | **39.2** |
| | **No** | **73** | **60.8** |

**Table 6: Relationship between early initiation of drug abuse & family history of drug intake**

| Family history of drug intake | Age of starting drug abuse | | Total | Chi-square | p value |
|---|---|---|---|---|---|
| | <20years | >20years | | | |
| Yes | 12 | 7 | 19 | 7.87 | <0.01 H.S. |
| No | 30 | 71 | 101 | | |
| Total | 42 | 78 | 120 | | |

**Table 7: Age of starting drug abuse by patients undergoing treatment at de-addiction centers**

| Particulars (n=120) | | Number of Patients | Percentage |
|---|---|---|---|
| Age of Starting Drugs | 10-20 | 42 | 35.0 |
| | 20-30 | 65 | 54.2 |
| | 30-40 | 11 | 9.1 |
| | 40-50 | 2 | 1.7 |
| | 50-60 | 0 | 0 |
| | >60 | 0 | 0 |
| | **Range** | **13-48 year** | |
| | **Mean±SD** | **21.15 ± 5.29 year** | |

**Table 7.Profile of Patients admitted in Drug De-Addiction Centres**

***Source:-International Journal of Health Sciences(Supplement) July-Sept. 2013***

## Standards for Designing

Department of Health November 2004

**GUIDELINES IN THE PLANNING AND DESIGN OF A HOSPITAL AND OTHER HEALTH FACILITIES**

A hospital and other health facilities shall be planned and designed to observe appropriate architectural practices, to meet prescribed functional programs, and to conform to applicable codes as part of normal professional practice. References shall be made to the following:

- P. D. 1096 – National Building Code of the Philippines and Its Implementing Rules and Regulations
- P. D. 1185 – Fire Code of the Philippines and Its Implementing Rules and Regulations
- P. D. 856 – Code on Sanitation of the Philippines and Its Implementing Rules and Regulations
- B. P. 344 – Accessibility Law and Its Implementing Rules and Regulations
- R. A. 1378 – National Plumbing Code of the Philippines and Its Implementing Rules and Regulations
- R. A. 184 – Philippine Electrical Code
- *Manual on Technical Guidelines for Hospitals and Health Facilities Planning and Design.* Department of Health, Manila. 1994
- *Signage Systems Manual for Hospitals and Offices.* Department of Health, Manila. 1994
- *Health Facilities Maintenance Manual.* Department of Health, Manila. 1995
- *Manual on Hospital Waste Management.* Department of Health, Manila. 1997
- *District Hospitals: Guidelines for Development.* World Health Organization Regional Publications, Western Pacific Series. 1992
- *Guidelines for Construction and Equipment of Hospital and Medical Facilities.* American Institute of Architects, Committee on Architecture for Health. 1992
- De Chiara, Joseph. *Time-Saver Standards for Building Types*. McGraw-Hill Book Company. 1980

1 *Environment:* A hospital and other health facilities shall be so located that it is readily accessible to the community and reasonably free from undue noise, smoke, dust, foul odor, flood, and shall not be located adjacent to railroads, freight yards, children's playgrounds, airports, industrial plants, disposal plants.

2 *Occupancy:* A building designed for other purpose shall not be converted into a hospital. The location of a hospital shall comply with all local zoning ordinances.

3 *Safety:* A hospital and other health facilities shall provide and maintain a safe environment for patients, personnel and public. The building shall be of such construction so that no hazards to the life and safety of patients, personnel and public exist. It shall be capable of withstanding weight and elements to which they may be subjected.

3.1 Exits shall be restricted to the following types: door leading directly outside the building, interior stair, ramp, and exterior stair.

3.2 A minimum of two (2) exits, remote from each other, shall be provided for each floor of the building.

**GUIDELINES IN THE PLANNING AND DESIGN OF A HOSPITAL AND OTHER HEALTH FACILITIES**

3.3 Exits shall terminate directly at an open space to the outside of the building.

4 *Security:* A hospital and other health facilities shall ensure the security of person and property within the facility.

5 *Patient Movement:* Spaces shall be wide enough for free movement of patients, whether they are on beds, stretchers, or wheelchairs. Circulation routes for transferring patients from one area to another shall be available and free at all times.

5.1 Corridors for access by patient and equipment shall have a minimum width of 2.44 meters.

5.2 Corridors in areas not commonly used for bed, stretcher and equipment transport may be reduced in width to 1.83 meters.

5.3 A ramp or elevator shall be provided for ancillary, clinical and nursing areas located on the upper floor.

5.4 A ramp shall be provided as access to the entrance of the hospital not on the same level of the site.

6 *Lighting:* All areas in a hospital and other health facilities shall be provided with sufficient illumination to promote comfort, healing and recovery of patients and to enable personnel in the performance of work.

7 *Ventilation:* Adequate ventilation shall be provided to ensure comfort of patients, personnel and public.

8 *Auditory and Visual Privacy:* A hospital and other health facilities shall observe acceptable sound level and adequate visual seclusion to achieve the acoustical and privacy requirements in designated areas allowing the unhampered conduct of activities.

9 *Water Supply:* A hospital and other health facilities shall use an approved public water supply system whenever available. The water supply shall be potable, safe for drinking and adequate, and shall be brought into the building free of cross connections.

10 *Waste Disposal:* Liquid waste shall be discharged into an approved public sewerage system whenever available, and solid waste shall be collected, treated and disposed of in accordance with applicable codes, laws or ordinances.

11 *Sanitation:* Utilities for the maintenance of sanitary system, including approved water supply and sewerage system, shall be provided through the buildings and premises to ensure a clean and healthy environment.

**GUIDELINES IN THE PLANNING AND DESIGN OF A HOSPITAL AND OTHER HEALTH FACILITIES**

A hospital and other health facilities shall be planned and designed to observe appropriate architectural practices, to meet prescribed functional programs, and to conform to applicable codes as part of normal professional practice. References shall be made to the following:

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- R. A. 1378 – National Plumbing Code of the Philippines and Its Implementing Rules and Regulations
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3.1 Exits shall be restricted to the following types: door leading directly outside the building, interior stair, ramp, and exterior stair.

3.2 A minimum of two (2) exits, remote from each other, shall be provided for each floor of the building.

**GUIDELINES IN THE PLANNING AND DESIGN OF A HOSPITAL AND OTHER HEALTH FACILITIES**

19.5 Service Zone – areas that provide support to hospital activities: dietary service, housekeeping service, maintenance and motorpool service, and mortuary. They shall be located in areas away from normal traffic.

20 *Function:* The different areas of a hospital shall be functionally related with each other.

20.1 The emergency service shall be located in the ground floor to ensure immediate access. A separate entrance to the emergency room shall be provided.

20.2 The administrative service, particularly admitting office and business office, shall be located near the main entrance of the hospital. Offices for hospital management can be located in private areas.

20.3 The surgical service shall be located and arranged to prevent non-related traffic. The operating room shall be as remote as practicable from the entrance to provide asepsis. The dressing room shall be located to avoid exposure to dirty areas after changing to surgical garments. The nurse station shall be located to permit visual observation of patient movement.

20.4 The delivery service shall be located and arranged to prevent non-related traffic. The delivery room shall be as remote as practicable from the entrance to provide asepsis. The dressing room shall be located to avoid exposure to dirty areas after changing to surgical garments. The nurse station shall be located to permit visual observation of patient movement. The nursery shall be separate but immediately accessible from the delivery room.

20.5 The nursing service shall be segregated from public areas. The nurse station shall be located to permit visual observation of patients. Nurse stations shall be provided in all inpatient units of the hospital with a ratio of at least one (1) nurse station for every thirty-five (35) beds. Rooms and wards shall be of sufficient size to allow for work flow and patient movement. Toilets shall be immediately accessible from rooms and wards.

20.6 The dietary service shall be away from morgue with at least 25-meter distance.

21 Space: Adequate area shall be provided for the people, activity, furniture, equipment and utility.

## 2.4 SITE SELECTION AND JUSTIFICATION

In 2015, a study was commissioned by the Ministry of Social Justice and Empowerment (mosje), Government of India, to find out the numbers of opioid/drugs dependent individuals in Punjab. The survey was conducted by the Society for Promotion of Youth & Masses (SPYM) and a team of researchers from the National Drug Dependence Treatment Centre (NDDTC), AIIMS, New Delhi, in association with the Department of Health and Family Welfare, Government of Punjab.

Ten districts were covered in the study: Amritsar, Bathinda, Ferozepur, Jalandhar, Kapurthala, Gurdaspur, Hoshiarpur, Patiala, Sangria, Moga, and Tarn Taran.


**Image 19.Map of Punjab**

The worse-affected districts are Amritsar, Moga, Tarn Taran, Nawanshahr, Muktsar, Mansa and Ludhiana.

When it comes to the number of people seeking treatment, Bathinda was closely followed by Amritsar, where around 3,500 drug addicts sought treatment every month.

**Why Amritsar?**

- The major drugs used by the addicts in these areas are local drugs are heroin (chitta), opium, prescription drugs.
- All these local drugs are manufactured in Afghanistan and smuggled to India via Pakistan.
- Hence Punjab being the state that shares its boundary with Pakistan gets affected the most.
- The districts of Punjab which share the India Pakistan border are Amritsar and Tarn Taran.
- Amritsar being the major metropolitan city of Punjab it is advisable to select a site in the close proximity to the city.

**About Amritsar**

**Amritsar district** is one of 22 districts located in the Majha region of the state of Punjab in North India. The city of Amritsar is headquarters of this district.

As of 2011 it is the second most populous district of Punjab (out of 22), after Ludhiana.

**Amritsar**, historically also known as *Rāmdāspur* and colloquially as *Ambarsar*, is a city in north-western India which is the administrative headquarters of the Amritsar district - located in the Majha region of the Indian state of Punjab. Amritsar, literally meaning the 'Pool of the Nectar of Immortality', is one of the major cities of the Punjab state. The administrative headquarters of the Amritsar District, it is the major spiritual and cultural centre of Sikhs.


**Image 20.Map of Amritsar**

| LAND USE ZONES AND PERMISSIBLE LAND USES | | | | | | |
|---|---|---|---|---|---|---|
| USE CLASS | | LAND USE ZONES | | | | |
| Sub Code | Description | Residential | Commercial | Industrial | Warehousing | Rural and Agricultural |
| F5 | Educational, Training and Research Institutes not classified above | | | | | |
| G | **Health Care Facilities** | | | | | |
| G1 | Medical and Dental Clinics and Dispensaries | 9 | | | | |
| G2 | Hospitals (NIC Group 861) and Health Center | 9 | | | | |
| G3 | Nursing Care Facilities (NIC Group 871) | 9 | | | | |
| G4 | Residential care activities for Mental Retardation, Mental Health and substance abuse (NIC Group 872) | | | | | |
| G5 | Residential care activities for the elderly and disabled (NIC Group 873) | | | | | |
| G6 | Veterinary services | | | | | |
| G7 | Health Care Facilities not classified above. | | | | | |

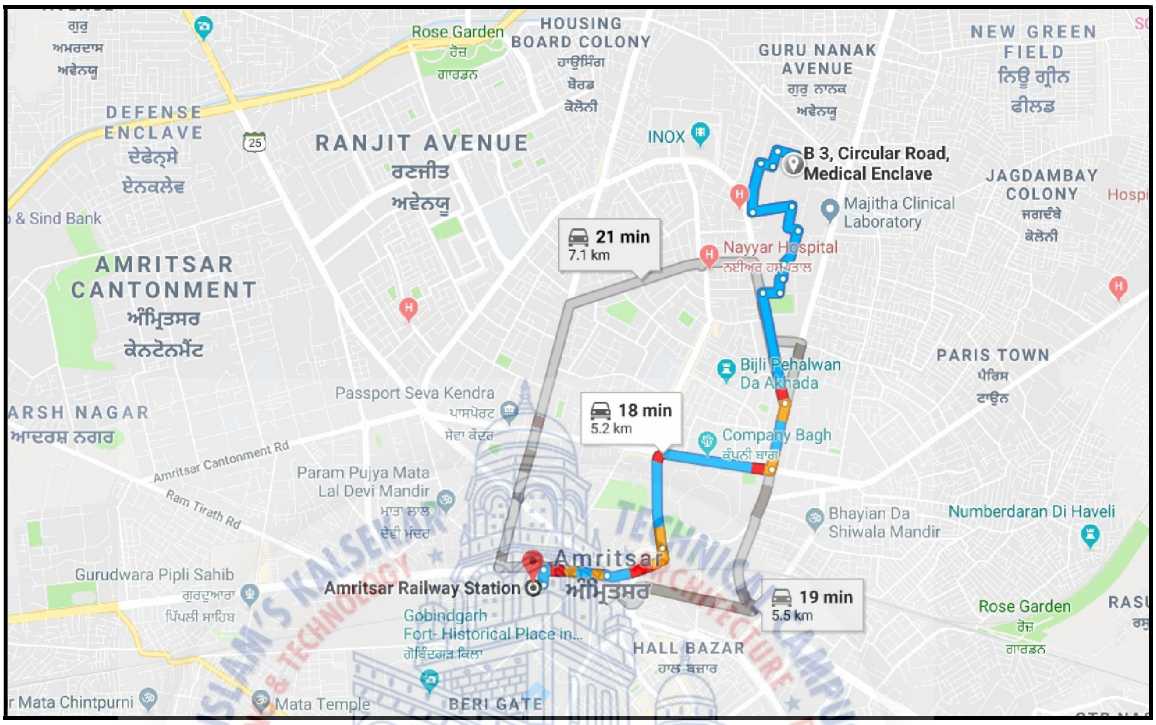
**Table 8.Land use zone and Permissible land uses**

**SITE NO.1**

- The site is located to north of the city of Amritsar.
- The site is easily accessible by roads from the all the four sides.
- The site is located in a sector known as the Medical Enclave which comprises of a medical college and a hospital.
- The adjoining areas of the site have a number of hospitals such as Guru Nanak Dev. Hospital, Bebe Nanki Mother and Child Care Centre, Sukhmani Hospital.
- Government medical college, Amritsar is also situated in the neighborhood of the site. Thus the area being known the Medical Enclave


**Image 21.Satellite Image of Site**

**Accessibility**

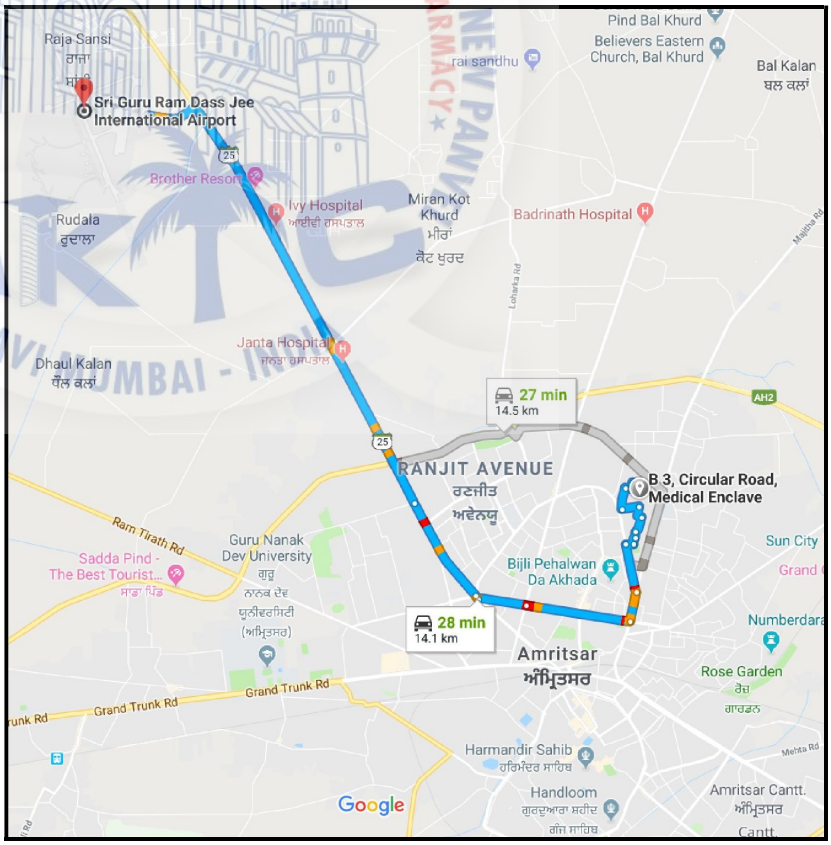



From Amritsar railway station

- 5.2 km

From Amritsar airport

- 14.1 km



**Potentials of site**

- As situated near the centre of the city, it can be easily accessible for patients getting enrolled in the centre.
- The site is situated in the medical enclave which comprises of two hospitals and a medical college which might help in creating awareness about drug addiction and promote rehabilitative measures.
- The vocational part of the program can easily managed because of the site being situated near to the city centre.

**Site details**

Area of site = 36,423 sq.m (approx.)

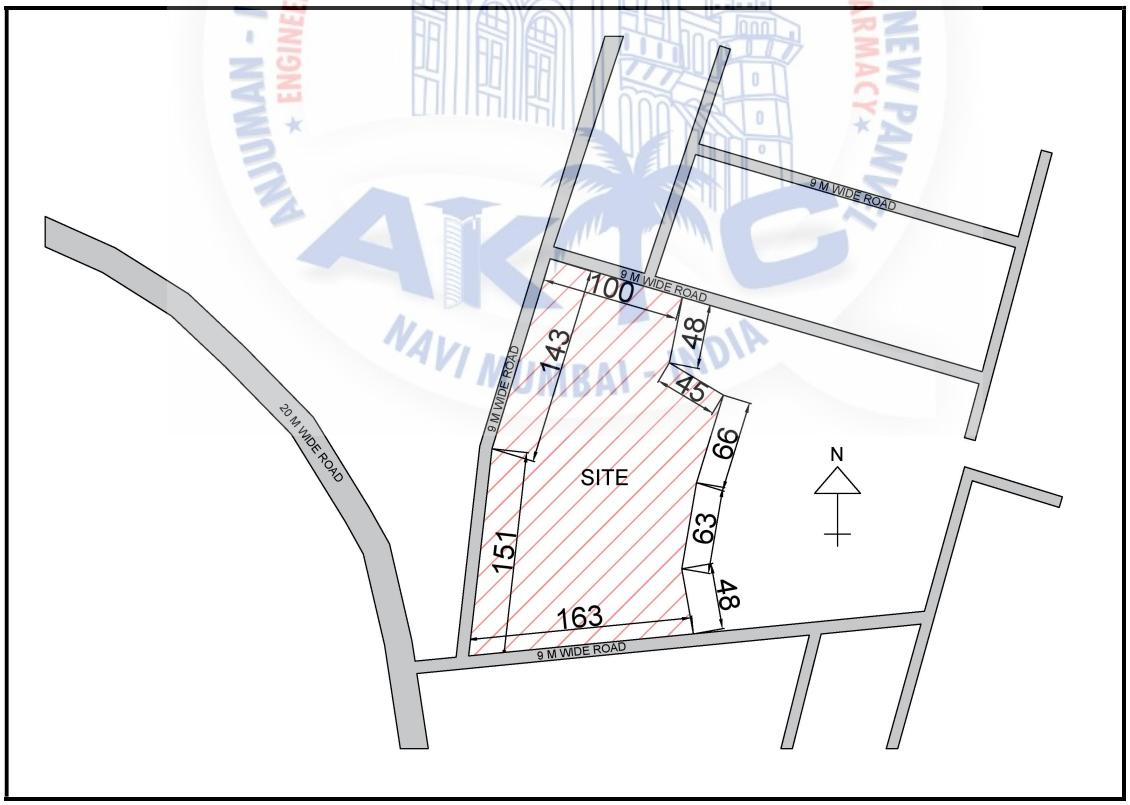



**Figure 37.Site Measurements**

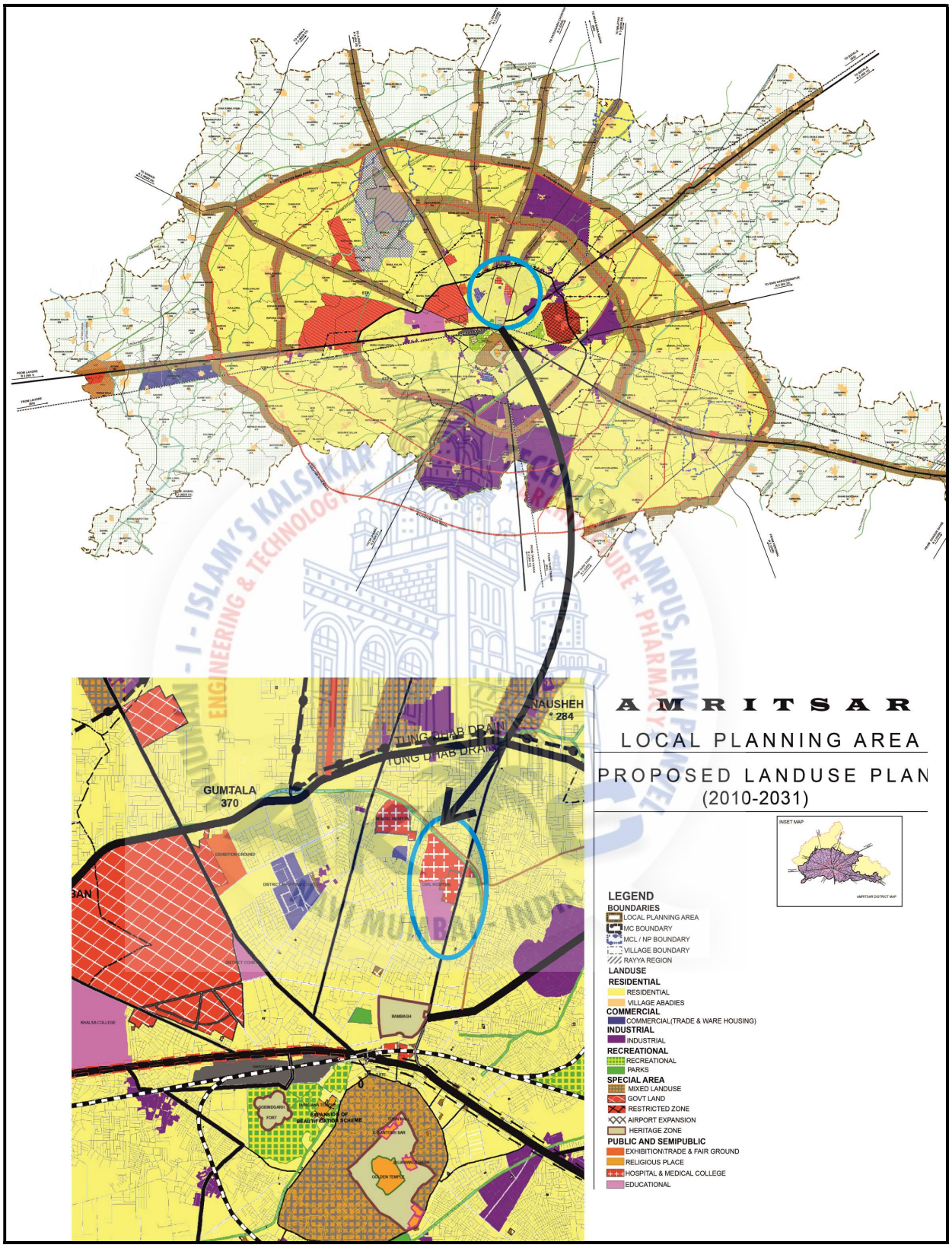


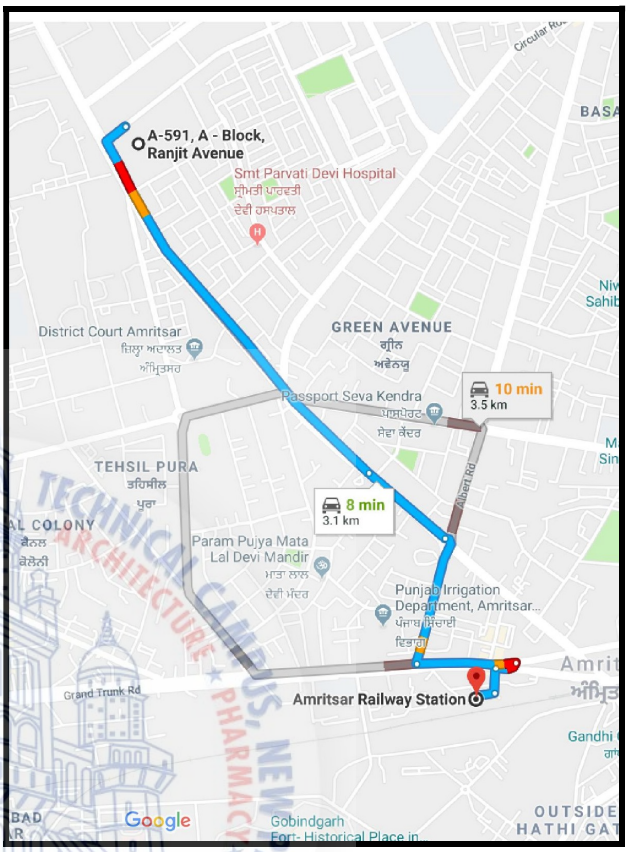

**Figure 38.Development Plan**

**SITE NO.2**

- The site is located in the north-west region of Amritsar.
- The site is accessible by road from two sides
- The roads adjoining the site are NH25 on the western side and a peripheral road on the northern side.
- The adjoining areas of the site include Amritsar cantonment and Ranjit Avenue.


**Image 22.Satellite Image**

**Accessibility**

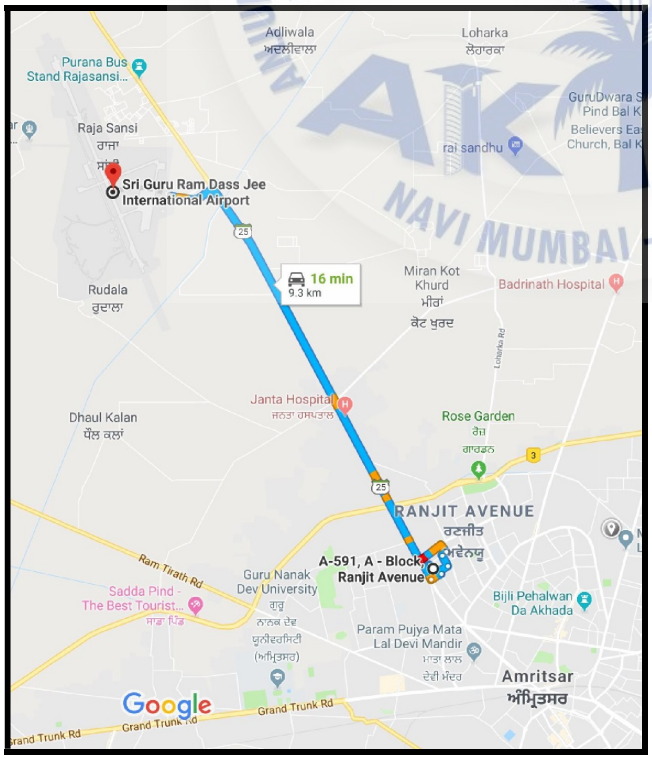



From Amritsar Railway Station

- 3.1 km

From Amritsar Airport

- 9.3 km



**Potentials of site**

- The site is situated next to NH25 which makes it easily accessible for all the patients being enrolled in the centre
- The site is in close proximity to the airport and railway station thus increasing its accessibility.
- The site being on the outskirts of Amritsar city has better view and vistas in all cardinal direction.
- The site is surrounded by residential zones in all the four direction, thus providing a calm and quiet nature.

**Site details**

Site area: - 27086 sq.m (approx.)

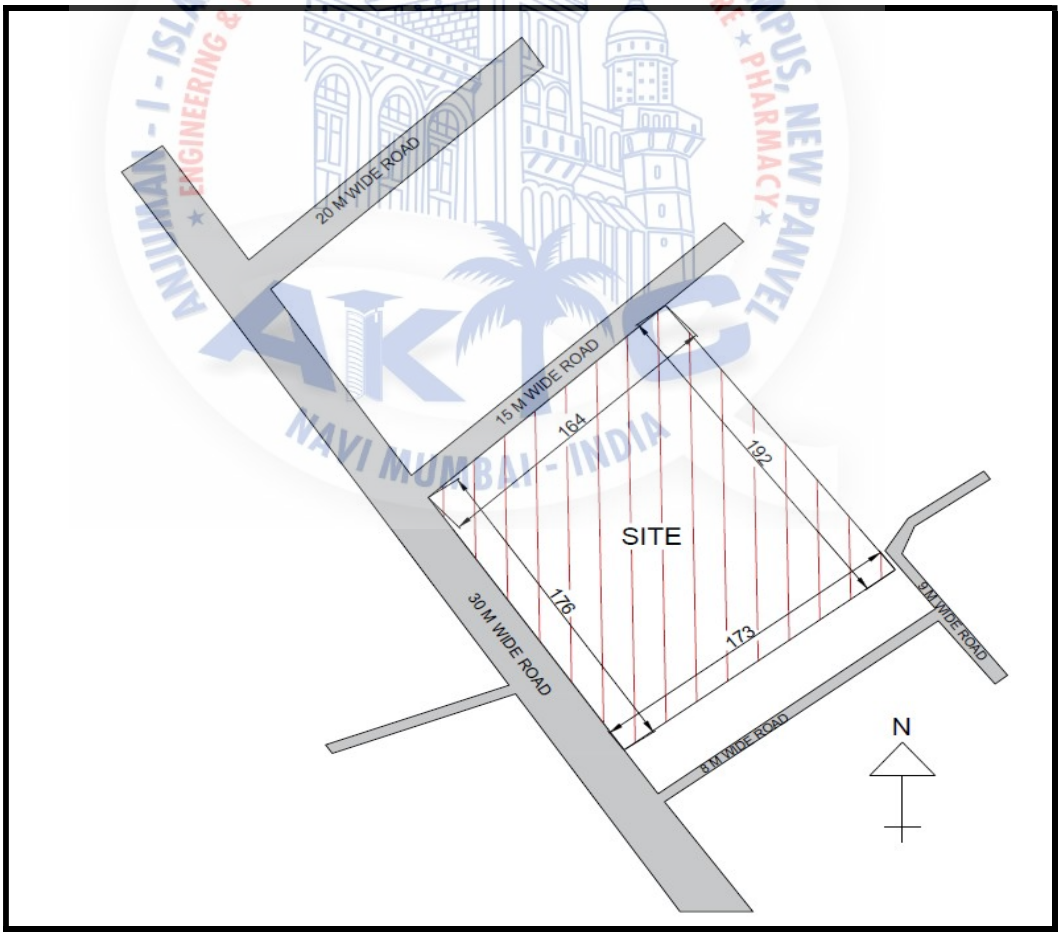



**Figure 39.Site Measurements**

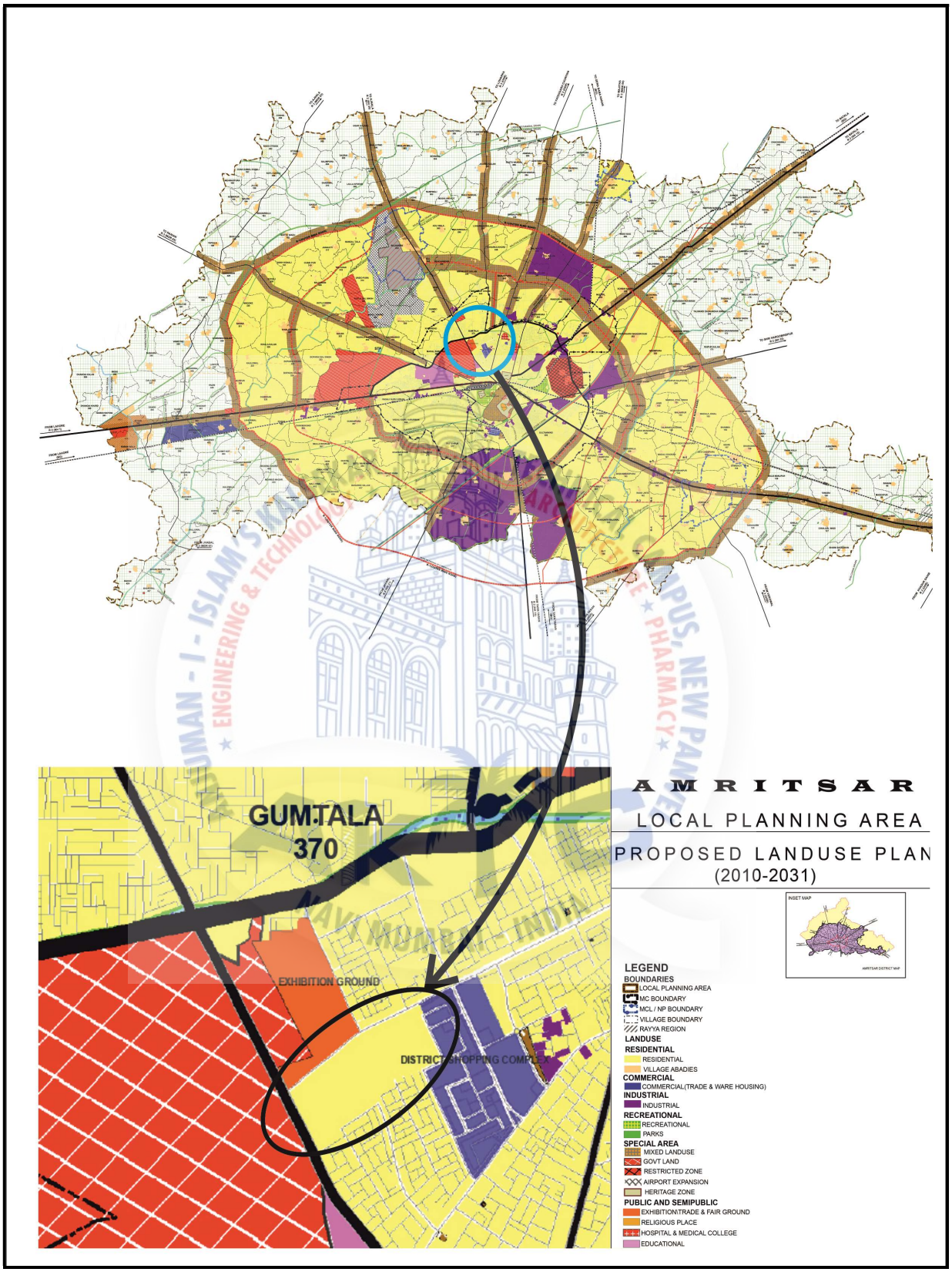



**Figure 40.Development Plan**

## 3. DESIGN BRIEF

The Youth signify the most vibrant and dynamic sector of the population of any country. Thus being affected can directly cause problems to the nation. Drug addiction is now days become one of the major problems caused in a nation and there must be interventions to eradicate it.The thesis focuses on a transitional home that will help people maintain a substance-free lifestyle and serve as a learning centre for families and these people. The goal is to design both a program and building as a prototype that can help people transition from a rehab treatment to going home.

The project will help people fighting drug addiction a new way of living through programmes and spaces designed keeping in the mind principles which increase rehabilitative measures. The project will also help the patients in developing their skills and getting accustomed to the society through various lectures and workshops.

These ideas shall be executed and addressed to, by:

- *Designing spaces which maintain a balance between built and open spaces*
- *Designing interactive spaces which help addicts to socialize with the society and help develop their vocational skills.*
- *Creating spaces which provide a bridge between healthcare facilities and nature.*
- *Designing spaces which follow principles Therapeutic Architecture*
- *Designing social and communal spaces for events, gatherings, etc*
- *Providing areas which help improve the physical, psychological and emotional strengths of the patients.*
- *Environmentally and culturally sustainable design.*

## 4. TENTATIVE SAPCE PROGRAM

| SR.NO | SPACES | SUB-SPACES | NUMBER OF SPACES | AREA REQUIRED (M) | TOTAL AREA (SQ.M) | TYPE OF USERS | QUALITY OF SPACE |
|---|---|---|---|---|---|---|---|
| 1 | OUT-PATIENT DEPARTMENT | | | | | | |
| | | DOCTOR'S CHAMBER | 4 | 15 | 60 | DOCTORS | SEMI-OPEN |
| | | FAMILY COUNSELLOR | 10 | 15 | 150 | PATIENTS,COUNSELLOR | SEMI-OPEN |
| | | PRIMARY COUNSELLOR | 10 | 15 | 150 | PATIENTS,COUNSELLOR | SEMI-OPEN |
| | | MOTIVATIONALIST | 2 | 15 | 30 | PATIENTS,COUNSELLOR | SEMI-OPEN |
| | | EMPLOYER COUNSELLOR | 2 | 15 | 30 | PATIENTS,COUNSELLOR | SEMI-OPEN |
| | | PHSCHOLOGIST | 1 | 15 | 15 | PATIENTS,DOCTORS | SEMI-OPEN |
| | | PHYCHIARTISTS | 1 | 15 | 15 | PATIENTS,DOCTORS | SEMI-OPEN |
| | | TREATMENT ROOM | 2 | 20 | 40 | PATIENTS,DOCTORS | CLOSED |
| | | NURSE STATION | 1 | 20 | 20 | NURSES | CLOSED |
| | | PHARMACY | 1 | 40 | 40 | PHARMACISITS,PATIENT | CLOSED |
| | | MAIN WAITING AREA | 1 | 50 | 50 | GUEST | SEMI-OPEN |
| | | SUB-WAITING AREA | 1 | 35 | 35 | GUEST | SEMI-OPEN |
| | | WASHROOM | 2 | 25 | 50 | | CLOSED |
| | TOTAL AREA | | | | 685 | | |
| 2 | ADMINITRATIVE AREA | | | | | | |
| | | MANAGER'S CABIN | 1 | 20 | 20 | MANAGER | SEMI-OPEN |
| | | ADMINISTRATIVE OFFICE | 2 | 100 | 200 | WORKING STAFF | SEMI-OPEN |
| | | CONFERENCE ROOMS | 1 | 150 | 150 | WORKING STAFF | CLOSED |
| | | LOBBY | 1 | 50 | 50 | GUEST | SEMI-OPEN |
| | | WATING AREA | 1 | 25 | 25 | GUEST | SEMI-OPEN |
| | | RECORDS ROOMS | 1 | 30 | 30 | WORKING STAFF | CLOSED |
| | | WASHROOM | 2 | 15 | 30 | | CLOSED |
| | TOTAL AREA | | | | 505 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **3** | **LABORATORY** | | | | | | |
| | | SAMPLE COLLECTION | 1 | 35 | 35 | PATIENTS,STAFF | CLOSED |
| | | LABORATORY | 1 | 150 | 150 | WORKING STAFF | CLOSED |
| | | RECEPTION | 1 | 25 | 25 | PATIENTS,GUEST | CLOSED |
| | | WAITING AREA | 1 | 50 | 50 | PATIENTS,GUEST | CLOSED |
| | | WASHROOM | 2 | 20 | 40 | WORKING STAFF | CLOSED |
| | **TOTAL AREA** | | | | **300** | | |
| | | | | | | | |
| **4** | **LIVING FACILITIES (150 BEDDED)** | | | | | | |
| | | FAMILY APARTMENT (25) | 25 | 40 | 1000 | PATIENTS | SEMI-OPEN |
| | | SINGLE APARTMENT (50) | 50 | 20 | 1000 | PATIENTS | SEMI-OPEN |
| | | GENERAL WARD(75 BEDDED) | 3 | 100 | 300 | PATIENTS | SEMI-OPEN |
| | | CRITICAL WARD | 2 | 20 | 40 | PATIENTS | CLOSED |
| | | DAYCARE | 1 | 150 | 150 | PATIENTS | SEMI-OPEN |
| | | NURSE STATION | 3 | 20 | 60 | NURSES | CLOSED |
| | | TREATMENT ROOM | 4 | 30 | 120 | PATIENTS,DOCTORS | CLOSED |
| | | WASHROOM (FAMILY APT) | 4 | 30 | 120 | PATIENTS | CLOSED |
| | | WASHROOM (SINGLE) | 4 | 45 | 180 | PATIENTS | CLOSED |
| | | WASHROOM (WARD) | 4 | 45 | 180 | PATIENTS | CLOSED |
| | | STORAGE | 4 | 30 | 120 | PATIENTS | CLOSED |
| | **TOTAL AREA** | | | | **3270** | | |
| | | | | | | | |
| **5** | **ACTIVITY BASED TREATMENT** | | | | | | |
| | | THEATRE WORKSHOP | 1 | 100 | 100 | PATIENTS | SEMI-OPEN |
| | | ART ROOM | 1 | 200 | 200 | PATIENTS | SEMI-OPEN |
| | | DANCE ROOM | 1 | 100 | 100 | PATIENTS | SEMI-OPEN |
| | | MUSIC | 1 | 100 | 100 | PATIENTS | SEMI-OPEN |
| | | INDOOR GAMES | 1 | 350 | 350 | PATIENTS | SEMI-OPEN |
| | | GYM | 1 | 200 | 200 | PATIENTS | SEMI-OPEN |
| | | WASHROOM | 4 | 30 | 120 | PATIENTS | CLOSED |
| | **TOTAL AREA** | | | | **1170** | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **6** | **RESOURCE CENTRE** | | | | | | |
| | | LIBRARY | 1 | 350 | 350 | PATIENTS | SEMI-OPEN |
| | | AUDITORIUM | 1 | 200 | 200 | PATIENTS | CLOSED |
| | | LECTURE ROOMS | 4 | 50 | 200 | PATIENTS | SEMI-OPEN |
| | | HIGHER EDUCATON CLASSROOM | 4 | 90 | 360 | PATIENTS | SEMI-OPEN |
| | **TOTAL AREA** | | | | **1110** | | |
| **7** | **SERVICES** | | | | | | |
| | | KITCHEN AND DINING | 1 | 450 | 450 | PATIENTS | SEMI-OPEN |
| | | KITCHEN STORAGE | 1 | 60 | 60 | STAFF | CLOSED |
| | | KITCHEN WASHING AREA | 1 | 35 | 35 | STAFF | CLOSED |
| | | WASHROOM | 4 | 30 | 120 | PATIENTS,STAFF | CLOSED |
| | **TOTAL AREA** | | | | **665** | | |
| **8** | **COMMERCIAL VENTURE** | | | | | | |
| | | ART GALLERY | 1 | 300 | 300 | PATIENTS,GUEST | SEMI-OPEN |
| | | VOCATIONAL TRAINING | 2 | 250 | 500 | PATIENTS | SEMI-OPEN |
| | | OFFICE AND WAITING AREA | 1 | 50 | 50 | STAFF | CLOSED |
| | **TOTAL AREA** | | | | **850** | | |
| **9** | **EXTERIOR SPACES** | | | | | | |
| | | COMMUNITY GARDENS | | | APD | | OPEN |
| | | PLAYGROUNDS | | | APD | | OPEN |
| | | SPORTS FILEDS | | | APD | | OPEN |
| | | COURTYARDS | | | APD | | OPEN |
| | | WALKING AND BIKE PATHS | | | APD | | OPEN |
| | **TOTAL BUILT-UP AREA** | | | | **8555** | | |

## LIST OF FIGURES

## LIST OF TABLES

## LIST OF IMAGES

## 8. BIBLIOGRAPHY

**Blogs, Web Articles, Websites.**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- https://indianexpress.com/article/india/helpline-for-alcoholics-drug-dependents-witnesses-two-fold-increase-in-calls-5052934/
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- https://www.mapsofindia.com/my-india/government/drug-problem-the-governments-survey-in-punjab-and-delhi


**E-books and Pdfs.**


- A study of profile of patients admitted in the drug de-addiction centers in the state of Punjab
- Drug Abuse! Problem is intense in Punjab, India by *K. Kaur*
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