

CENTER FOR UNDERPRIVILEGED CHILDREN

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Chapter 1
INTRODUCTION

1.1 Background of the Project

1.2 Project Brief

1.3 Project Rationality

1.4 Needs and Aims of the project.

1.5. Given program and function

INTRODUCTION:

Definition of —“ Underprivileged” which means a group of people deprived through social and economic condition of some of the fundamental rights of all members of a civilized society. In our society there are many people who live under poverty line and deprived of basic rights. Bangladesh is over populated country and its main cities are overcrowded with urban slums, illegal tenants. Due to rural poverty and migration number of street lining is increasing in Dhaka city. And street children and their number is increasing at the same time which has become a major concern now ("Protection of Children Living on the Streets", 2009). There are several categories street children, most of the time their socio –economic condition led them to this situation. Many live with family but works for daily living, many live on their own because either they have been abandoned or orphaned (Norul Alam Raju & Sharmin, 2016). There are so many issues which are involved with the torture of children such as insecure life, trafficking, physical and mental abuse, inadequate facilities and lack of decent employment facilities. Also a large number of are abandoned and tortured over the year. There are not enough institutions which are working to solve the problem of children ("Protection of Children Living on the Streets", 2009). Though different type of acts has been formulated by Govt. to protect children rights, but numbers of street children are increasing day by day with this rapid urban growth.

This project is about designing a shelter home and also educating street children - children who have not only fallen out of the formal education system but have been separated from their families. Main target of this project is in future the children will be educated and at the same time they will become productive and self-dependent.

CHAPTER 1: INTRODUCTION

1.1. BACKGROUND OF THE PROJECT:

Being underprivileged is one of the major curses a person can be under. The five basic rights a person must have are- Food, Clothes, Proper place to live, Education and Medical facilities. In our society lot of people are deprived of most their basic rights due to poverty. In recent part the cities have been witnessing the phenomenal growth of the unfortunate distressed children. The most vulnerable thing is the street children are mostly parent-less or from broken families or abandoned by families. As a result it they faces lot of problem in life and they become ill-fed, goes under mental trauma. They are often run-away from homes due to domestic violence, poverty, unemployment, family feud, divorced parents.

It is very important to know about street children and their condition in this particular context before designing it. Thousands of children on the streets of Bangladesh are being denied their rights according to the United Nations Convention on the Rights of the Child (UNCRC). Then again according to Prime Minister's statement, 34 Lakh street children exist in different cities of the country while the report from Bangladesh Institute of Development Studies (BIDS) projects the number of street children are 1.5 million in 2015 and it will reach to 1.56 million in 2024 (Norul Alam Raju & Sharmin, 2016). Another statistics of Unicef shows that 249,200 number of children are in street of Dhaka only ("Protection of Children Living on the Streets", 2009). 3.18 million children of age-range 5- 7 years are involved in works. ("New proposal , children city, 2011). And this clearly shows that there is no reliable data available on actual numbers or situation of street children. But this street children fact has become most vulnerable issue now-a-days.

UNICEF statistics 2009 shows that children living are vulnerable to abuse and exploitation. These children faces problem of their safety and well being and frequently find themselves the victims of sexual abuse, physical torture, and trafficking (Edleson, J.L., Nguyen, H.T., Kimball, E. (2011). They are subject to be involved into hazardous jobs like garbage collector, street vendor, porter, begging, smuggling, stealing, commercial sex work and also drug dealing. All these they just do for their mere survival. Due o low family income and unemployment of parents, many families depend on their children's earring.

But they have potentials to grow and lead a descent, discipline and orderly life if opportunities are open to them. Architecture should not be dealing only with the designing of buildings. It also includes the aspects of society. As a student of architecture we should think and come forward to serve our nation. We must provide legal protection to women and children, gender equality & good governance.

1.2. PROJECT BRIEF:

Project Title: Centre for underprivileged children, Bahadurpur, Gazipur

Location: Bahadurpur Thana: Joydebpur

Site Area: 8 acres (apprx.)

Participants :300-350 Children

Client : MG Group

1.3. PROJECT RATIONALITY:

Providing a proper infrastructure by this regimentation process within discipline and rehabilitate the Most Vulnerable and Disadvantaged Children of Bangladesh and helping them to grow with their full potentials and freedom up to 18 years through education and specialized hands-on training on different trades of employable skills and child development services.

- There are today still many deprived and orphan children in some parts of the country aged between 8 to 8 above years who have never been to school at all.
- Missing sustain community-based support and care system, including referral mechanisms to ensure creating opportunities for orphans and otherwise vulnerable children to grow up in a family environment familiar to them with proper protection, development and access to services.
- Having no any motivation to change their attitude and mind set towards high level of moral values and lifestyle to become most worth, responsible and disciplined citizens of the country.
- Create awareness about the basic human rights and obligation as well as civic responsibilities through proper counseling, guidance and peer education.
- Proper necessary infrastructure and support facilities to enroll and accommodate most vulnerable and distressed children for their rehabilitation by harnessing they're in-born and ingenious potentials and merits are missing.
- Provide them food, shelter, cloth, healthcare, formal education up to secondary/higher secondary school, life skills & livelihood training for marketable wage earning and self-employment.

1.4. NEEDS AND AIM OF THE PROJECT:

The main purpose and aim of this project is to create a healthy living environment to those destitute children. After a certain period of time these children will get vocational training in order to be employed and independent. And MG Group has planned to make them independent by giving educational and training facilities. What I want to do through this project is-

- Create a center to give safe shelter with all the basic facilities for the underprivileged children.
- To provide recreational facilities, an environment of nature for the people there.
- To promote our local art, craft, clothing, agriculture as we have resources regarding these elements and they have value both in our country and abroad.
- Involving the community, make them independent and productive through training and education.

1.5. GIVEN PROGRAM AND FUNCTIONS:

MAIN SECTORS:

- SUPERVISION
- EDUCATION & KNOWLEDGE
- ENTERTAINMENT
- SHELTERS

PROGRAM BRIEF:

- A. SCHOOL -45600 sft
- B. TRAINNING CENTRE -27300 SFT
- C. DORMETORY- 28000 SFT
- D. MULTIPURPOSE HALL – FOR 250 PEOPLE
- E. MEDICAL CENTRE-4250 sft
- F. ADMINISTRATION- 2400 SFT

The broaden idea of the programs are given below-

- School
- School admin
- Classrooms
- Medical service zone
- Psychological counseling service
- Student and club activity
- Laboratory
- Child care service
- Interaction space
- Training centers
- Studios
- Stimulation room
- Communication room
- Workshops
- Trainee's room
- Transitional spaces
- Audio visual room
- Enterprise's office area
- Library
- Dorm
- horticulture space
- Exhibition point
- Buying and selling point

CHAPTER 2
LITERATURE REVIEW

- 2.1 Brief understanding about children.
- 2.2 Children rights milestones
- 2.3 Street children condition in Bangladesh
- 2.4 children's rights in Bangladesh context
- 2.5 Domestic violence on children
- 2.6 Domestic violence on children in Bangladesh

CHAPTER 2: LITERATURE REVIEW

2. BRIEF UNDERSTANDING ABOUT CHILDREN:

2.1. History of children's right: Children's rights are a relatively new concept. Although Human Rights have been discussed since the 17th century, it was not until the 19th and 20th centuries that the rights of children began to be considered. Initially, discussion of children's rights inclined primarily to be focused more on protection. (H. Kosher, 2016)

1. At the beginning of the 20th century, when the world saw the devastating situation of children, when millions of children died in the First World War and orphaned by the fighting, The League of Nations was formed. Basically its aim was to try to protect basic human rights standards. (H. Kosher, 2016) And children and human right protection started to take in consideration and this kind of act first taken by France. ("Children's Rights History - Humanium • We make children's rights happen")

In 1945 the United Nations adopted the Universal Declaration of Human Rights. In 1959 again second Declaration of the Rights of the Child was declared.

2.2. Children rights milestones

: The evolution of children rights and standards are discussed in brief ("The evolution of international standards on child rights", 2012)

- 1924 - Geneva Declaration of the Rights of the Child adopted by the League of Nations
- 1948 - Universal Declaration of Human Rights adopted by the UN
- 1959 - Declaration of the Rights of the Child adopted by the UN
- 1979 - International Year of the Child
- 1989 - Convention on the Rights of the Child adopted by the UN
- 1990 - World Summit for Children held at the UN
- 1991 - UK ratified the UNCRC
- 2000 - Optional protocols to the CRC are adopted by the UN, specifically On the Evolvement of Children in Armed Conflicts, and On the Sale of Children, Child Prostitution and Child Pornography. 2002 - A World Fit for Children is agreed to as a consensus document at the United Nations
- 2002 - A World Fit for Children is agreed to as a consensus document at the United Nations General Assembly Special Session for Children ("The evolution of international standards on child rights", 2012).

2.3. Street children condition in Bangladesh:

Bangladesh Institute of Development Studies (BIDS) projects the number of street children are 1.5 million in 2015 and it will reach to 1.56 million in 2024 ("Protection of Children Living on the Streets", 2009). In 6.2 section of National Children Policy, it has been stated that the Social Safety Net has to be expanded to ensure the rehabilitation of all poor children and street children. In addition, the National Plan of Action for Children (2005-2010) also clearly emphasizes the urgent need for "education and empowerment." Education is one of the most pressing needs for the street children that clearly been ignored over the years (Norul Alam Raju & Sharmin, 2016). This large number of street children is one of the most vulnerable groups in Bangladesh. Though several acts, projects has been undertaken by Govt. and different non govt. NGOs and social organizations like SOS, Shajeda foundation, Ahsania mission, Leedo etc but still major problem of street children includes insecure life.

According to the United Nations Convention on the Rights of the Child (UNCRC), which recognizes that every children has right of a standard living with basic rights which is adequate for child's physical, mental and moral development (Norul Alam Raju & Sharmin, 2016). But statistics shows that in Bangladesh, particularly in Dhaka city street children lives insecure lide; physical and sexual abuse by adults; harassment by law enforcing agencies; inadequate healthcare facilities. (Norul Alam Raju & Sharmin, 2016). Considering recent situation of street children in Bangladesh it is very important to take proper and effective steps to protect children from violation and ensure proper living.

2.3. children's rights in Bangladesh context :

There are 60 million children in Bangladesh and most of them continue to live below the international poverty line and 19 million children under five years old in Bangladesh; the chance of these children surviving to their fifth birthday has increased by 10 per cent in the last 20 years. Bangladesh also suffers from a range of governance problems that obstruct the realization of children's rights. The Government's structure is highly centralized, limiting local officials' authority and flexibility to adapt services to local circumstances and demand. Achievements in the social sectors since the early 1990s have mainly expanded access. In Bangladesh, children rarely have opportunities to express themselves, and when they do, adults tend not to take them seriously. In the middle of the childhood, when children are developing the capacity for independent opinions and participation in decision-making, parents often control them to work or study hard and unilaterally make important decisions concerning their lives. Initiatives in seeking the children's views in the formulation of policies regarding child abuse and the commercial sex exploitation and trafficking of children have also been taken at

national level. But the parents oppose their children from such initiative because they think speaking out publicly is inappropriate, particularly for girls.

2.4. Challenges facing the children of Bangladesh : According to UNICEF now children are facing some major problems. They focused on 6 issues

- protection
- education
- health
- nutrition
- water and sanitation
- emergencies

Bangladesh has the highest rate of child marriage and 26 million children live below the national poverty line. 79.5 per cent of students enrolled in grade one complete primary school. Severe Acute Malnutrition is currently at 4 per cent which affects an estimated 600,000 children in Bangladesh ("UNICEF Bangladesh - Overview - Challenges facing the children of Bangladesh", 2012)

2.5. Domestic violence on children:

Domestic violence affects not only women who are abused by their intimate partners but also children living with these adults. In fact, most people assume that adult women are the primary resident shelters but actually over half of the residents of shelters in the United States are actually children (National Network to End Domestic Violence, 2010). This happens because of children needs basic rights and they demand it.

Shelters and domestic violence service programs have developed in greater way for children who faced domestic violence, still low funding and regular staff turnover many difficulties in maintaining services and basic rights are hampered. There are professionals like children welfare workers, but most of the time they are also lack behind because of basic information and resources. As a result, this lack of information and resources leads to frustration.

2.6. Domestic violence on children in Bangladesh:

The law prohibits rape and physical spousal abuse, but it makes no specific provision for spousal rape as a crime. A total of 3,516 rapes and 3,523 incidents of spousal abuses were officially reported during the year. Of the spousal abuse cases, 2,814 were related to disputes over dowry. Of the 2,130 alleged rapists that were prosecuted, 63 persons were convicted. The Government reports that other rape cases are under trial. During the year, the Government acceded to the U.N. Optional Protocol to the Convention on the Elimination of All Forms of Discrimination against Women. The Government also has enacted laws specifically prohibiting certain forms of discrimination against women, including the Anti-Dowry Prohibition Act of 1980, the Cruelty to Women Law of 1983, and the Women and Children Repression Prevention Act of 1995, which was replaced by the Women and Children Repression Prevention Act of 2000. However, enforcement of these laws is weak, especially in rural areas, and the Government seldom prosecutes those cases that are filed. According to a human rights organization, there are 7 government-run and 13 privately run large shelter homes available for use by women who are victims of violence. Some smaller homes also are available for victims of violence ("Ministry of Women and Children Affairs-Government of the People's Republic of Bangladesh | মহিলা ও শিশু বিষয়ক মন্ত্রণালয়-গণপ্রজাতন্ত্রী বাংলাদেশ সরকার", 2015)

CHAPTER 3

3.1. Background of the site

3.2. Historical

3.3. Climatic

3.4. Site at glance

3.5. Location of the site

3.6. Site images

3.7. SWOT analysis

3.1. Background of the site

ABOUT GAZIPUR : Gazipur is an Upazila of gazipur District in the Division of Dhaka, Bangladesh. it was upgraded as district in 1984. It consists of 6 upazilas 67 unions, 825 mouzas. it is in position of 7th in respect of size among Dhaka division (papon, 2013) The Geo position of Gazipur District is between 23°53' to 24°20' North latitudes and between 90°09' to 90°42' east longitude. The total area of the district is 1806.36 sq (papon, 2013)



(Source : google)

Gazipur District is divided into the following upazilas (papon, 2013):

- [Gazipur Sadar Upazila](#)
- [Kaliakair Upazila](#)
- [Kapasia Upazila](#)
- [Sreepur Upazila](#)
- [Kaliganj Upazila](#)

Gazipur sadar is largest upazila in terms of population. it is contained of Joydevpur and Tongi Thana. Some main rivers of gazipur are ,the Old Brahmaputra,Turag balu, labandala, Salda and Tongi khal.

3.2.HISTORICAL:

There is a rumor that it was abode of famous Gazi family and thats why there might be chance of naming the uplazila from its name. The jamidar of bhawal built its residence at “pirabari” on the south side of river “chilai” and jamidar joydeb narayan roy chowdhury named it “joydebpur”. In 1878 jamidar kalinarayan roy chowdhury got the title “ raja” and the residence of the jamidars started to knoe as “Rajbari or royal palace “ (Anon, 2015).There are sign of mass killing and mass grave in eastern side of the Joydebpur Rajbari, Sathkamair, Tongi Shaheed Smriti School compound and at Gachhaat liberation war time. Three person were killed on 4th march 1971 and on 19th march 1971 pak army also people at joydebpur. ‘Jagrata Chaurangi’ at Joydebpur Chowrasta and the premises of the Joydebpur Rajbari are memorial monuments (Anon, 2015).

3.3.Climatic:

As it’s situated in the tropical belt so it experiences tropical monsoon climate. Temperature is almost uniform throughout the year. The level of humidity actually varies from 83% to 53% and temperature varies from 35.1°C to 14°C(papon, 2013).

3.4. Site at a glance:

Location of the project is in Gazipur District. Bahadurpur village, near Gazipur Rover Scout camp. Overall topography is rather flat and local landscapes are very diverse. Basically land used for mainly agriculture and settlement and surrounded by large forest. As it’s near to highway road, transportation is very available but in recent condition communication road condition is not good.



(source: authour)

3.5. Site images:



(site map) (source: author)



(site images) (source: author)

3.6. Site and surroundings:

There are basically 2 main access road from highway. They are mirjapur road and master bari road. But master road is now under construction. There are another “kacha road” named Bhim bazar road beside scout camp which is the shortest distance road from mirjapur road. It was used mostly before site has given its boundary wall. Local people basically used to use it as shortcut.

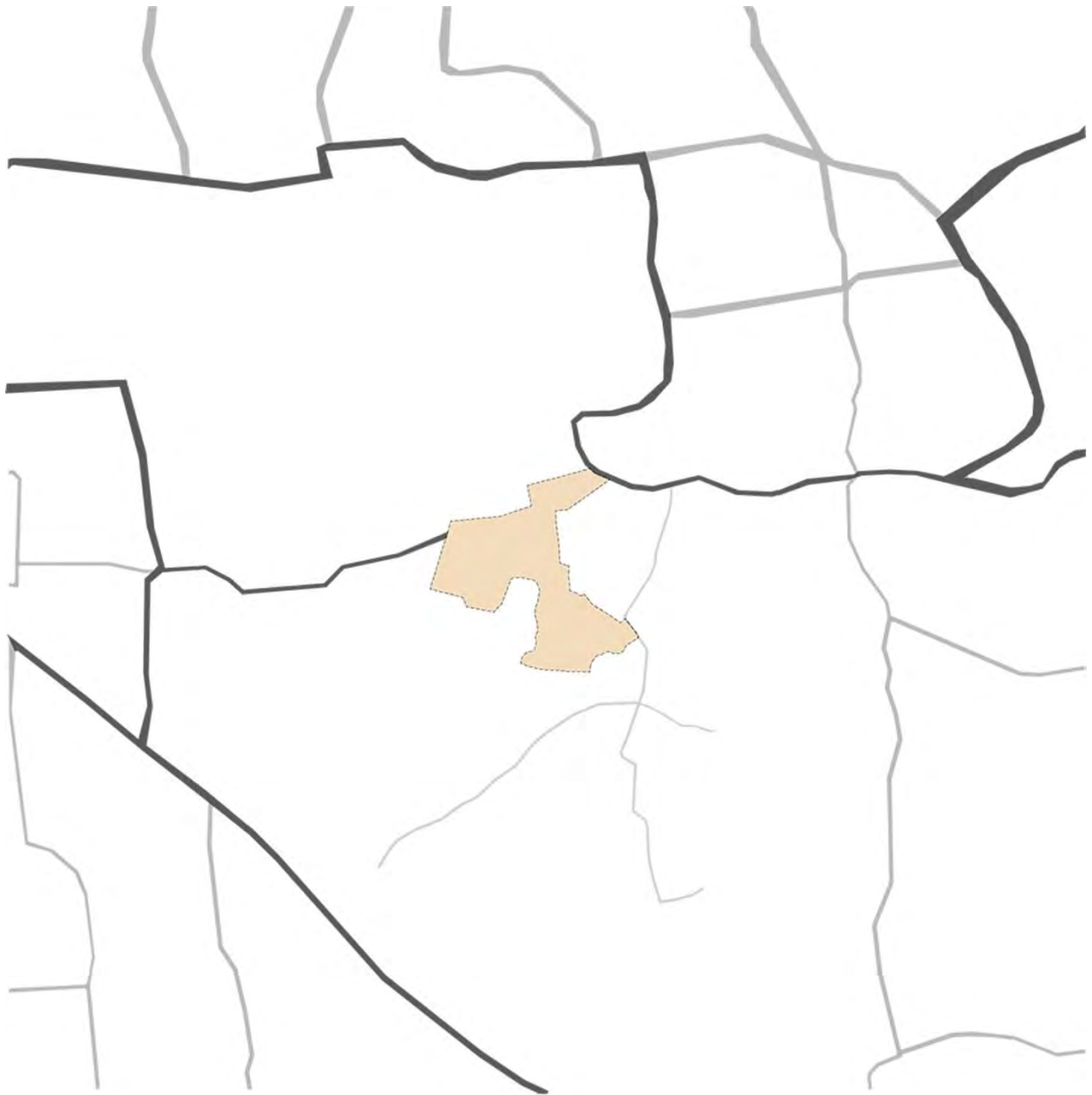


Figure: Road network mapping, Source: Author

Important site forces are bhim bazar, highway bazar, tiles factory beside site , and gazipur rover scout camp.



Figure: Height mapping , Source: Author

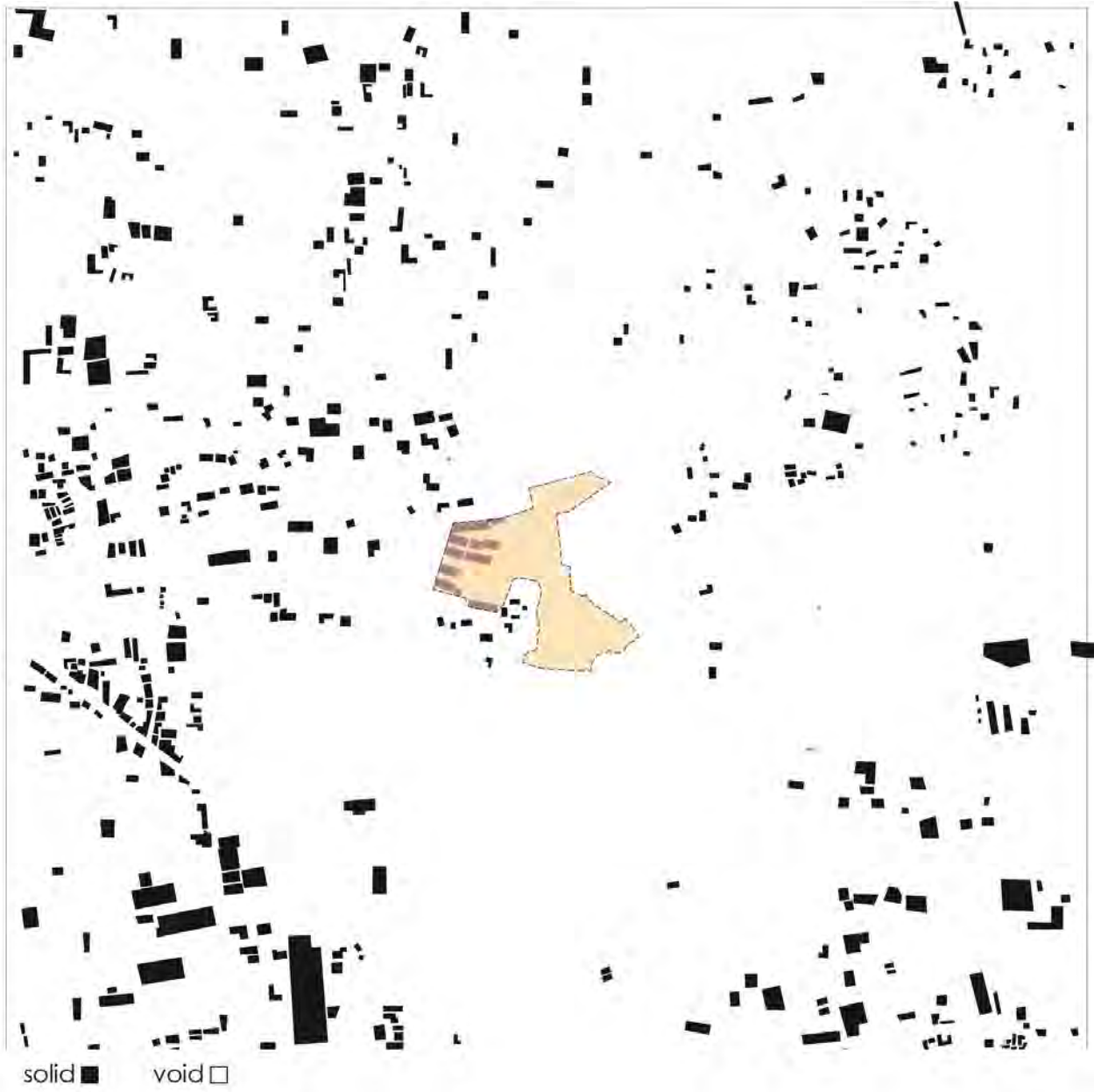


Figure: Solid void mapping, Source: Author

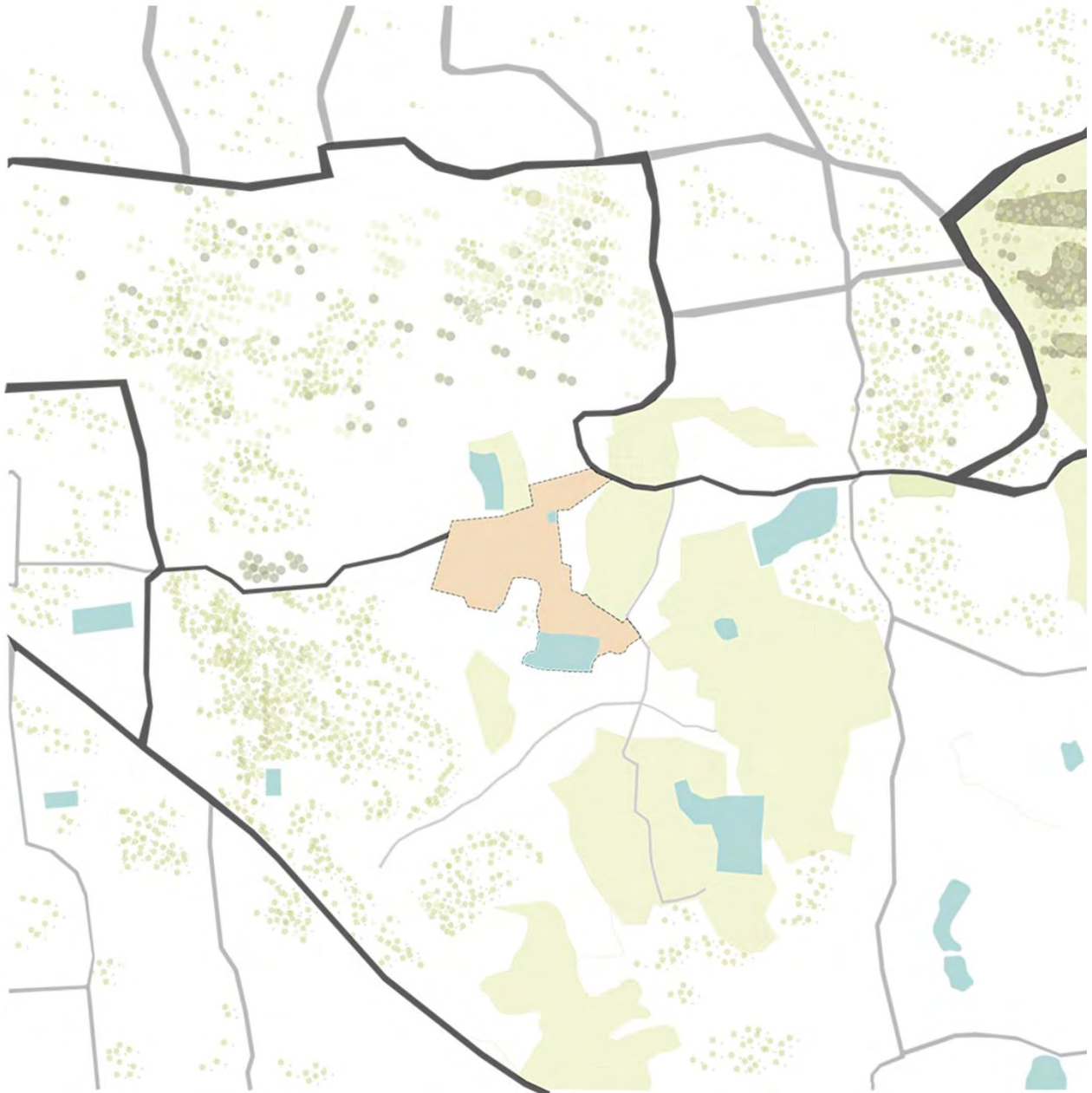


Figure: Vegetation mapping, Source: Author

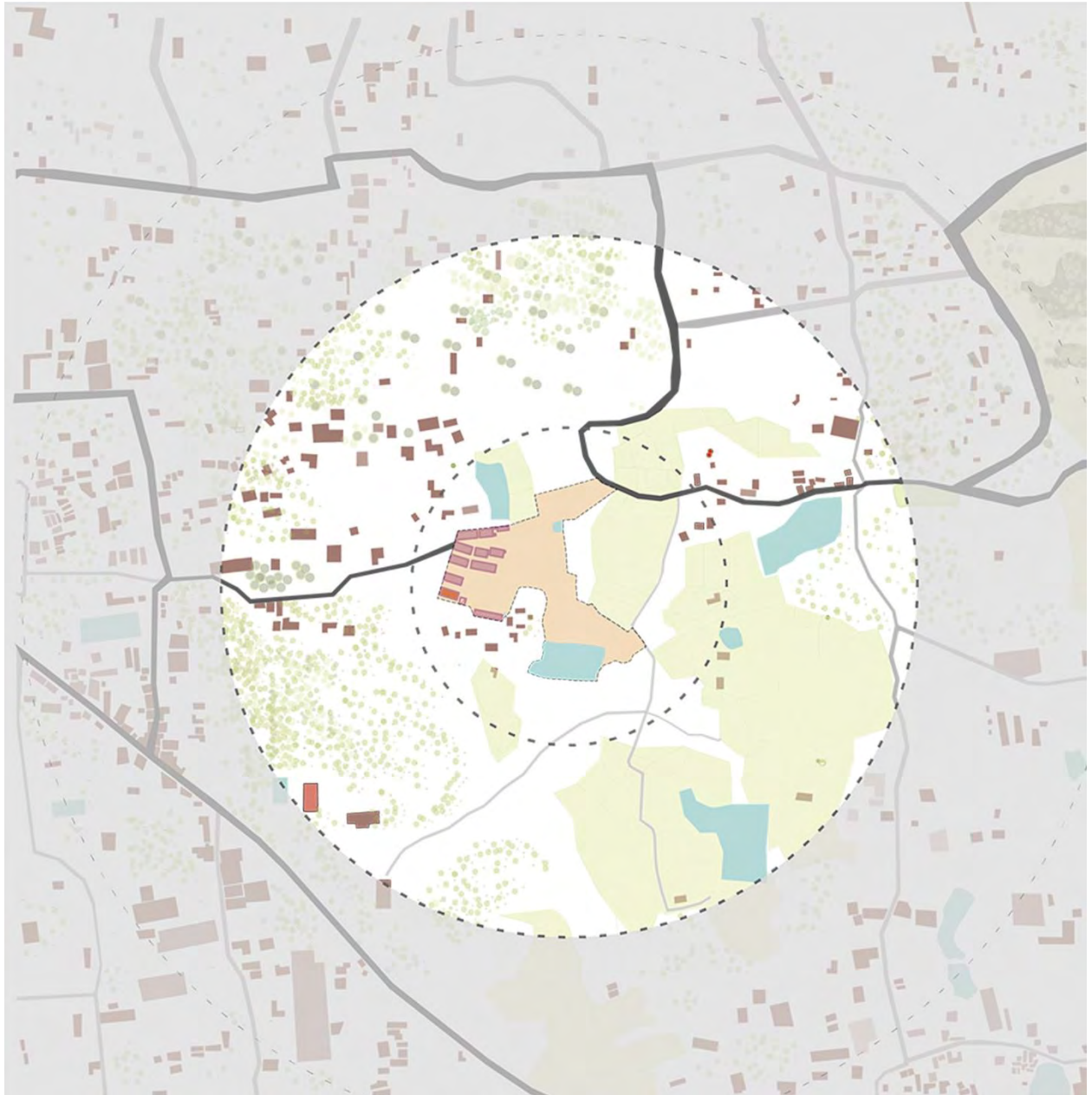
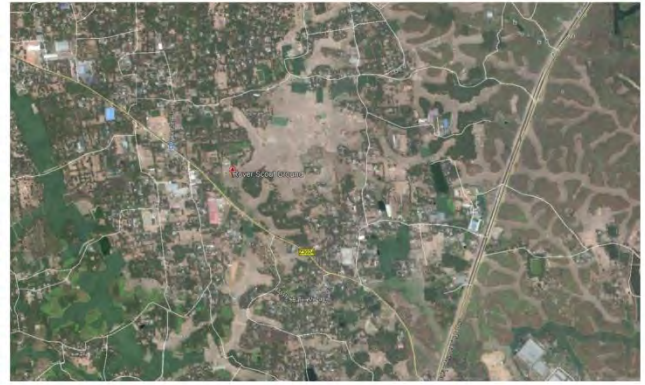


Figure: Walking distance diagram, Source: Author



2017



2015



2014



2013

(source: author)

Here, from 2017 to 2013 this site and surroundings has grown too fast. Water body and green is decreasing and new road network developing.

Bhim bazar is mainly used for daily necessary goods. There are another local market. but bhim bazar is used mostly by local people. The most important site force is rover scout camp which is adjacent to site. Basically scout camp happens in every 3-4 months, but there mostly 2 main camping happens in two different seasons of year. When almost 12,000 students comes from different location of country. There are pros and cons of this events. After talking to local people , sound pollution and damages of their crops are the 2 main important findings.



(Rover scout camp) (SOURCE: AUTHOR)

SWOT:

Strength

- Rural market on the south
- Existing trees
- Not flood affected area
- Factory Beside the site (pavement tiles factory)

Weakness

- narrow secondary road
- Sound effect of rover scout camp.

Opportunity

- Away from the crowded city, gives a feeling of village.
- peaceful shelter can be provided

Threat

- High land price
- Interaction process of children with the surrounding scout camp youth
- Acceptability of community people.

CHAPTER -4

PROGRAMME ANALYSIS

4.1. INTRODUCTION

4.2. MAIN SECTOR

4.1. INTRODUCTION: Like other projects, this project also has 3 main spaces, as

- public
- semi-public
- private

PUBLIC: It is space where anyone can access but of course it's a secured space. Such as: parking, amphitheater, landscape and exhibition space etc.

SEMI- PUBLIC: Admin section (example: information desk), school, training centre, medical center etc will be semi public space.

PRIVATE: private space if this project is the place where holds children. It needs a proper security system for safety. This space cannot be accessed by anyone without supervision accepts children and staff. Example: Dorms

4.2. MAIN SECTORS: Based on case studies and several similar thesis report, 4 main components of a street children rehabilitation center has been figured out. (Aljbour.M, 2016, Dec 15)

- SUPERVISION
- EDUCATION & KNOWLEDGE
- ENTERTAINMENT
- SHELTERS

SPACE PROGRAMME:

Program brief

- A. PRIMARY SCHOOL
- B. TRAINING CENTRE
- C. CREATIVE SCHOOL
- D. MULTIPURPOSE HALL
- E. MEDICAL CENTRE
- F. ADMINISTRATION

4.2.1.CHILDREN’S DORM FOR 250 CHILDREN:

According to time saver standards, A minimum of 15 SFT(min) per person is required. For combination dining and common room-25sft (min) is required. And for both boys and girls room 4bed- 4ppl -240sft room area and 1bath with 1 shower area is minimum requirement. Some basic functions for dormitory is Bedrooms+ washrooms, dining, kitchen, living area, hall room, guardian room etc (Watson & Crosbie, 2005). But an analysis shows that 270SFT is required for 4person student room with suitable furniture layout (*college and university residence hall design guidelines, 2009*).

According to case study SOS Children’s village, Rajshahi, Every family is guided by a mother and 10 children are brought up under the supervision of each mother. In this project, tried to follow this concept and 25 guardian is needed for 250 children. And 13 rooms for guardian should be allowed. Standard room area for 2person is 120sft (Watson & Crosbie, 2005).

SL NO	SPACE	USERS		AREA	STANDARD
1	BED ROOM	4 CHILD/RM		270 sft	18X 15 (<i>college and university residence hall design guidelines, 2009</i>).
2	TOTAL ROOM REQUIRED FOR 250 Children	4 CHILD/RM	250 child/ 4 child per room = 63 rooms	270 sft x 63 rooms	
TOTAL MINIMUM SPACE REQUIRED FOR BED ROOM FOR 250 CHILDREN					270X 63 = 17010 SFT
MINIMUM SPACE REQUIRED FOR EACH WASH ROOM					35 X 63 = 2205 SFT
30% CIRCULATION					5765 sft
TOTAL MINIMUM SPACE REQUIRED FOR CHILDREN DORM					24980 SFT

SL NO	SPACE	USERS		AREA	STANDARD
1	GURADIAN ROOM	25 GRD		120	12 X 10 (Watson & Crosbie, 2005)
2	TOTAL ROOM REQUIRED FOR 6 GURDIAN	2 GRD /RM		120 sft x 13 rooms	
TOTAL MINIMUM SPACE REQUIRED FOR BED ROOM FOR 25 GURDIAN					120X 13 = 1560sft

SL NO	SPACE	USERS		AREA	STANDARD
1	DINNING HALL	250		25 sft	25 SFT (Watson & Crosbie, 2005)
2	TOTAL AREA REQUIRED FOR 250 CHILDREN			25 sft x 250 nos	
TOTAL MINIMUM SPACE REQUIRED FOR DINNING FOR 250 CHILDREN					25X 250 = 6250 sft
TOTAL MINIMUM SPACE REQUIRED FOR KITCHEN / SERVICE AREA					1000 sft
TOTAL MINIMUM SPACE REQUIRED FOR STORE GOODS FOR KITCHEN					750 sft
TOTAL MINIMUM WASH AREA REQUIRED FOR DINNING HALL					10 NOS

TOTAL MINIMUM OPEN SPACE REQUIRED FOR EACH CHILD					12 SFTX 250 = 3000 sft
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4.2.2. SCHOOL:

As per client's requirements, a school is a mandatory program. Standard class room size for 30 students is 800sft. 625 SFT room areas can be designed for 10-15 pupils. It can be used for variety of purpose like common conference room, student council room / club room (Watson & Crosbie, 2005). So 4 basic club room area required 2500sft. 3 laboratory need for science department. 25sft needed for each student in laboratory (Watson & Crosbie, 2005). So a laboratory with 50 student minimum room size is 625 sft.

SI No	SPACE	USERS	UNITS	AREA	STANDARD
1	RECEPTION		1	800sft	
2	LOBBY AND WAITING		1	1000SFT	
3	SCHOOL ADMIN			400 SFT	
4	HEADMASTERS ROOM	1	1	120 Sft	12 X 10 (Watson & Crosbie, 2005)
5	COMMON ROOM	25	2	800 sft	
6	TEACHERS ROOM	16	1	480 sft	
7	Toilet (M-3,F-3, Disable-1)			400SFT	
	PRE SCHOOL LEARING	50	1	1500 SFT	
7	OFFICE	4	1	200 sft	
8	CLASSROOM	25 PER CLASS	16	12800 sft	32 X 25
9	PLAYROOM	20	5	1200 sft	
10	LABORATORY	25	3	1900 sft	
11	TOILET BLOCK 3 (M-3,F-3, Disable-1)		3	1200 SFT	
12	LIBRARY	50	2	4400 sft	0.1 sft/BOOK 25 sft per station
13	LIBRARY OFFICE	2	1	120 SFT	
14	TOILET		1	200 SFT	
15	6 CLASS ROOMS (CLASS 9, 10)	25* 6 = 150		4800 SFT	
16	TOILET BLOCK 2 (M-3,F-3, Disable-1)		2	800 SFT	
17	CLUB ACTIVITY		1	800 SFT	
18	30% CIRCULATION			10500SFT	
TOTAL MINIMUM OPEN SPACE REQUIRED FOR 400 CHILD					45600 sft

4.2.3. MEDICAL UNIT:

A medical center is a necessary program of a shelter home. Children should be healthy before they engage in any meaningful educational activities (Brink, 1997). According to Guidelines for the design of centers for street children, General ward area should be 1060 sft (approx). A doctors room, dispensary and proper wash room area should be there as per number of people usage (Brink, 1997).

SL NO	SPACE	USERS	UNITS	AREA	STANDARD
1	DOCTOR'S ROOM	2	1	200 sft	10 X 10 ROOMS
2	NURSE'S SATION	4	1	200 sft	
3	GENERAL WARD	5	2	1060sft	
4	PSYCHIATRIC SECTION	5	1	400sft	
5	PSYCHOLOGICAL SECTION	5	1	400sft	
6	WAITING ROOM		1	400sft	
7	LAUNDRY		1	150sft	
8	DISPERSARY		1	200sft	
9	STERLIZATION UNIT		1	100sft	
10	TOILETS		1	200sft	
	30% CIRCULATION			1000	
	Total			4250 sft	

4.2.4. TRAINING CENTER:

According to time saver standards for building types, vocational training facilities like art and crafts center, mechanical workshop, electrical and IT workshop, dying and printing all these have some basic requirements such as working surface, counters, tables etc as well as space of display and storage (Watson & Crosbie, 2005). As a reference of this, training room space for 20-25 student has been calculated.

SL NO	SPACE	USERS	UNITS	AREA	STANDARD
1	HANDICRAFTS	25	1	1200 SFT	
2	COMPUTER LAB	20	1	1200 SFT	
3	DYING AN PRINTING	25	1	2500SFT	
4	AGRECULTURE WORKSHOP	25	1	3500 SFT	
5	EMBROIDERY	25	1	2500SFT	
6	BAKERY AND CONFECTIONARY	25	1	2500SFT	
7	MECHANICAL WORKSHOP	25	1	1200 SFT	
8	ELECTRICAL WORKSHOP	25	1	1200 SFT	
9	IT WORKSHOP	15	1	1000 SFT	
10	SCULPTURE AND POTTERY	15	1	2000 SFT	
11	CATERING	25		2500SFT	
11	TRAINERS ROOM	14	1	450 SFT	
12	STORAGE		1	250 SFT	
13	PRINCIPLE ROOM		1	200SFT	
14	TOILET			800SFT	
	30% CIRCULATION			6300	
	TOTAL			29900 SFT	

4.2.5. ADMINISTRATION

SL NO	SPACE	USERS	UNITS	AREA	STANDARD
1	DIRECTOR	1	1	200 SFT	
2	ASST. DIRECTOR	1	1	150 SFT	
3	GENERAL OFFICE	15	1	400 SFT	
4	STORAGE		1	200SFT	
5	LOBBY		1	400SFT	
6	MEETING ROOM		1	400SFT	
7	TOILET			100 SFT	
	30% CIRCULATION			550 SFT	
	TOTAL			2400 SFT	

TOTAL AREA REQUIRED: 119690 SFT

CHAPTER -5

CASE STUDY

5.1. INTERNATIONAL CASE STUDIES

5.2. LOCAL CASE STUDIES

CHAPTER 5: CASE STUDIES

5.1 Case studies

5.1.1. INTERNATIONAL CASE STUDY: THE ORPHAN

Architect: Aldo van Eyck

Location: Amsterdam

Functions: Residence for orphan children or broken families children.

Capacity: 125 youth (4-20 years) & 30-40 staff

Project year: 1955-60

CONCEPT:

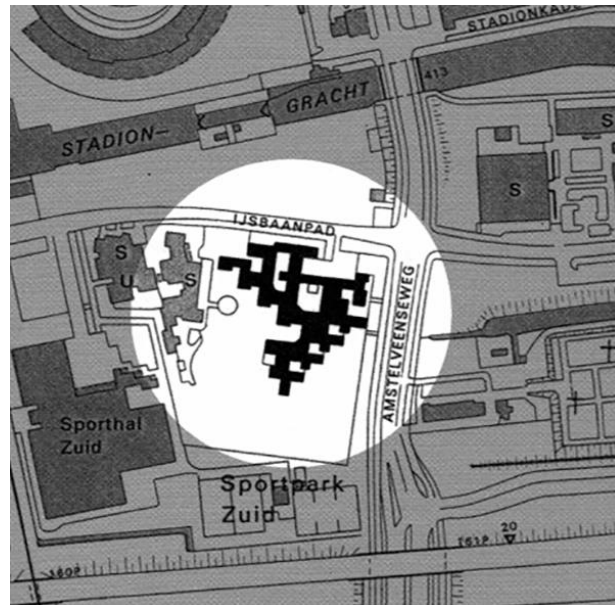
“A house must be like a small city if it’s to be a real house, a city like a large house if it’s to be a real city” - A. van Eyck (1956). Van Eyck readopted a concept previously formulated by the fifteenth-century architect L.B.Alberti, the analogy between house and city ("Amsterdam Orphanage - Data, Photos & Plans - WikiArquitectura", 2011)

Design concept of this project was play with geometric form and connecting them with each other to create that environment where children play with and mainly design focused on a balance of forces to create both a home and small city on the outskirts of Amsterdam. The building looks like a casbah or a labyrinth. In Van Eyck’s vision, the private and the collective were closely linked and the boundary between the building and the city had to be broken down.

As a member of CIAM (International Congress of Modern Architecture) and later founding member of Team 10, he held strong views on postwar architecture. The Amsterdam Orphanage was the architect’s opportunity to put his views into practice through his first large-scale large scale project (Fracalossi, 2011)



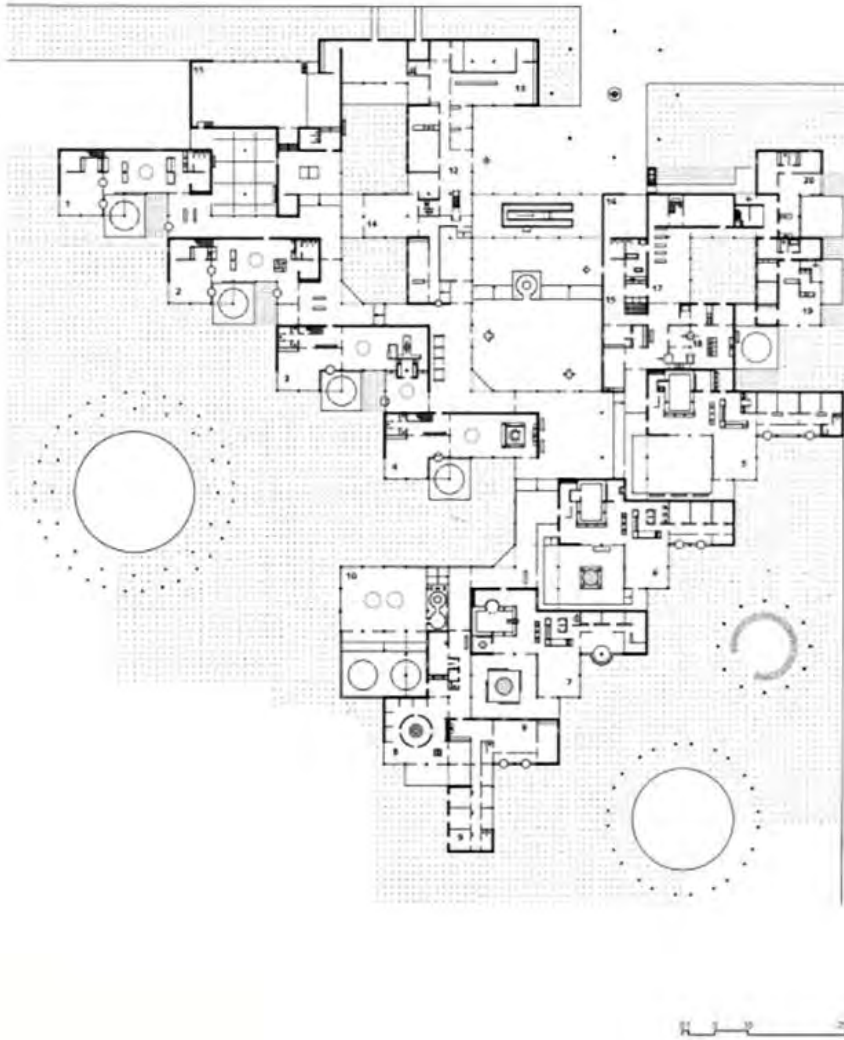
(source : author)
archdaily)



(Figure 5.1: site plan)

(source:

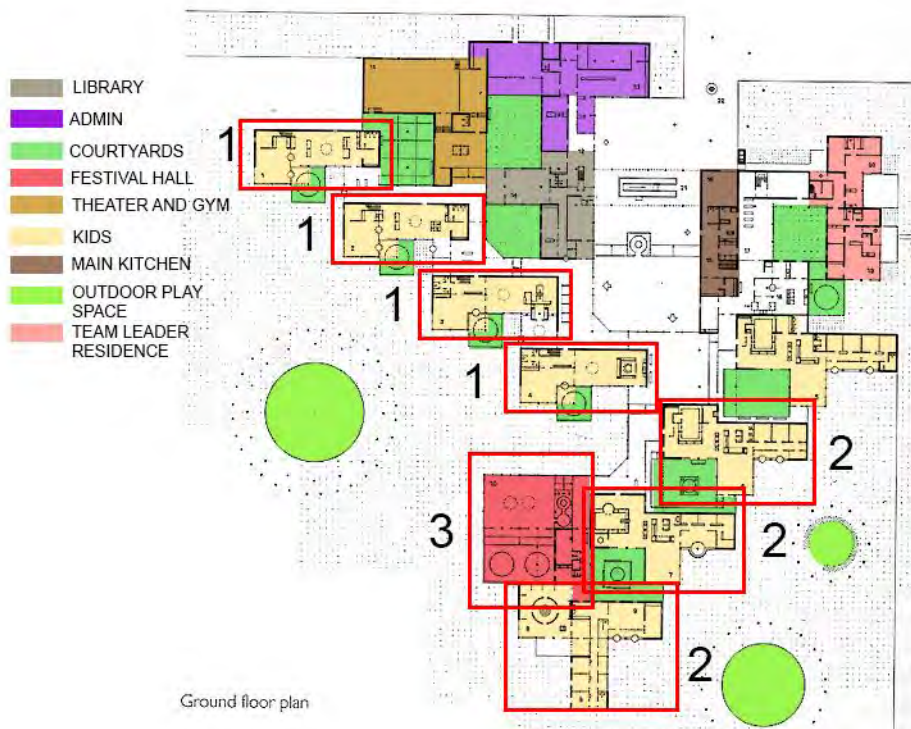
FORM & GEOMETRY: The building has many shapes that do range in location and scale. This shape defines spaces when they interplay with each form. Here, designer played with rectangle, square and soft curves of circles (Hussain, 2014). The square shapes are more like grid which connects with rectangle shapes and complements each other and help forming the concept of the building. In designing, designer used standard modules which are repeated with subtle variations. The complex comprises a total of 336 modules, grouped around an inner court.(Fracalossi, 2011)



(Figure 5.2: Ground floor plan) (Source: Archdaily Igor Fracalossi, Amsterdam Orphanage,2011)

MAIN ZONING: The space is organized with sleeping quarters, a kitchen, laundry room, gymnasium, library, and administrative spaces and this orphanage is for children of all ages. Here, van tried to create urban node with many points of interaction (Fracalossi, 2011). He did experiment with elemental forms with their interrelations, his thoughts became more organized and this project is its reflection. In this project he tried to create a great quantity of

polarities. Ground floor contains library, festival room, kids room, theater and gym, indoor outdoor play space, admin block (Hussain, 2014).



(Figure 5.3: Ground floor plan zoning)
author)

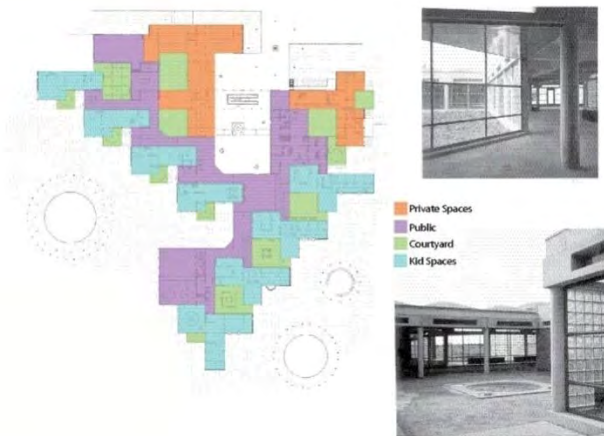
(Source : Based on Van Eyck plan, modified by

- 1- children age 10-20
- 2- children age 0-10

("Amsterdam Orphanage - Data, Photos & Plans - WikiArquitectura", 2011)

Observation: In this plan it clearly visible that designer divided children in 2 age groups. 0-10 and 10-20 (Hussain, 2014). And he accommodates this zoning totally opposite direction of each other. The courtyard wall is glass made so that it can be visible from inside and do not create any gray space. It also gives sense of security (Hussain, 2014).

ZONNING ANALYSIS:

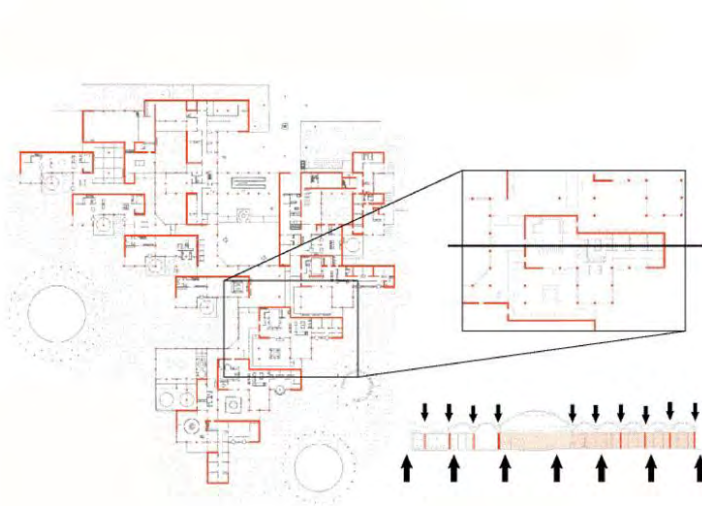


(Figure 5.4: Ground floor plan zoning)
author)

(Source : Based on Van Eyck plan, modified by

Observations:

- Different views
- Not to make any locations superior rather than others,
- Equal negative and positive spaces.
- Own outdoor space

STRUCTURAL ANALYSIS:

(Figure 5.5: Ground floor plan structural analysis)

("Amsterdam Orphanage - Data, Photos & Plans - WikiArquitectura", 2011)

Underneath the architectural balance that is offered to the sight is a strictly confirmed architectural order, consisting of columns, cargo walls and architraves that combine to form an orthogonal grid. The roof domes at the top of the grid provide continuous spatial articulation ("Case Study: Amsterdam Orphanage / Aldo van Eyck", 2010).

Materials:

- Floor was made of Reinforced concrete panels. Opaque brick and transparent glass was used also.
- Columns- concrete cylinders with the fine grooving on the left side of the formwork.
- Architraves are concrete beams, each with an oblong slit in the center.
- 336 modules of round column.
- Pre-cast concrete concave ceiling.

("Case Study: Amsterdam Orphanage / Aldo van Eyck", 2010)

SOS Children's village, Rajshahi

Architect: Khadem ali

Location: Terokhadia, Rajshahi

Project Year: 1979

Client: SOS foundation

Site area: 5 acres

Intimates: 150

Houses: 15

(Source: SOS Children's Village Rajshahi. (n.d.). Retrieved March 8, 2018, from <http://www.sos-bangladesh.org/rajshahi.aspx>)

Program:

- Administration Building: Located just at the entrance of the site so that admin can supervise and co-ordinate all other areas and functions of the site.
- Multipurpose Hall: A Large multipurpose hall for multipurpose uses.
- Family House: Three cluster of family houses are there in the village.
- Community House: It is for the old aged people.
- Director's House: One director house for the director and his family.
- Youth Hostel: 50 seats in the hostel. Self contained with toilets and prayer room.
- Courtyard: Located in the middle of every family cluster to make the environment intimate and friendly.
- Play field: There is a play field at the west side of the village.



Figure 5.6: SOS children's village Rajshahi

(Source: All the photos and drawings regarding this project are collected from Architekton)



S

Figure 5.7: Master plan of SOS children's village, Rajshahi
Roof plan:

1. Administration building. 2. Family house. 3. Multipurpose hall. 4. Community house.
5. Youth hostel. 6. Director house. 7. water tank

Design considerations:

1. The SOS children's village in Rajshahi is arranged in groups of family houses.
2. The family houses are clustered in 10 members.
3. The administrative block is located near the entry of the site.
4. There are 3 clusters of family houses in village community house which includes guest houses and auntie's house is located in between clusters of family houses.
5. Multipurpose is located in the centre of the village.
6. Every family is guided by a mother and 10 children are brought up under the supervision of each mother.
7. Youth children accommodation is located in back side of the site.

CHAPTER -6

6.1 Introduction

6.2 Concept

6.3 Design Development

6.4 Architectural Drawings

6.4.1 Plans

6.4.2 Sections

6.4.3 elevations

6.4.4 Unit details

6.5 Renders

6.6 Model Images

CHAPTER 6: CONCEPTUAL STAGE AND DESIGN DEVELOPMENT

6.1 Introduction

Unprivileged children are from different background with a very sensitive mental situation. They feel insecure and deprived from the basic rights of living. So, the main purpose and aim of this project is to create a healthy living environment to those underprivileged children. After a certain period of time these children will get shelter, vocational training, to make them independent by giving educational and training facilities.

6.2 Concept development

My design approach started from understanding the children psychology, need and nature. To handle children's psychological state and give them a proper childhood my studies identify some factors that contribute their psychological well being. Solutions are mainly 2 types:

1.Environmental

2.Emotional.

Basic rights are provided there, but still to handle emotional state and self-esteem interacting and integration with community is equally important. My concept is giving them a mystic learning space where they can interact with the neighborhood, understood the importance of respecting everyone in community and opponents in a healthy competitive environment. It is hoped that in future the children will be educated and become self-dependent and also will be referred as an asset for the nation rather than a burden of society if they are given proper opportunities For many children burdened by the demands of poverty, the center provided an opportunity to express themselves, release their pent-up energy and be a part of the larger community.



Figure: Conceptual diagram about children psychology, Source: Author

6.3 Design development



Figure: Diagram of design consideration, Source: Author



Figure: Diagram of design decision, Source: Author

Form development

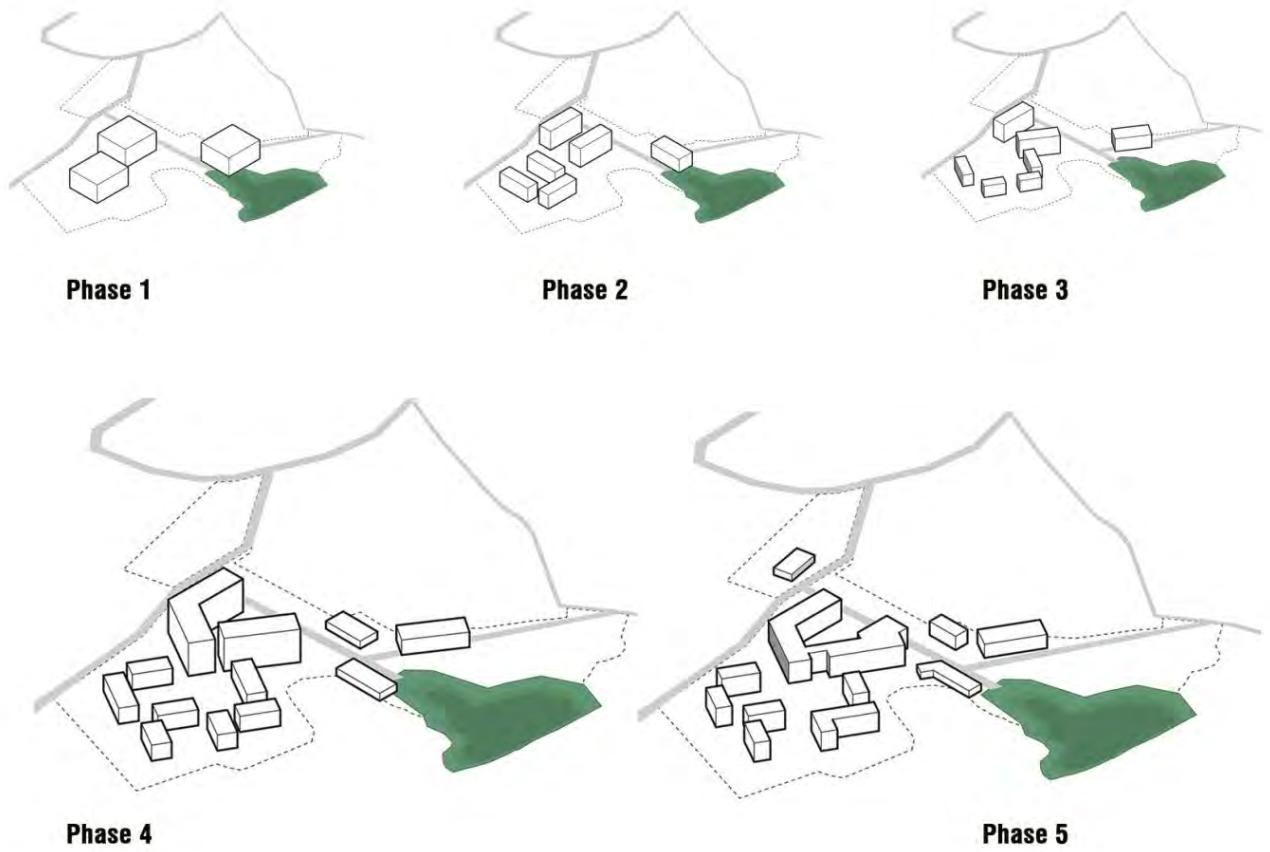


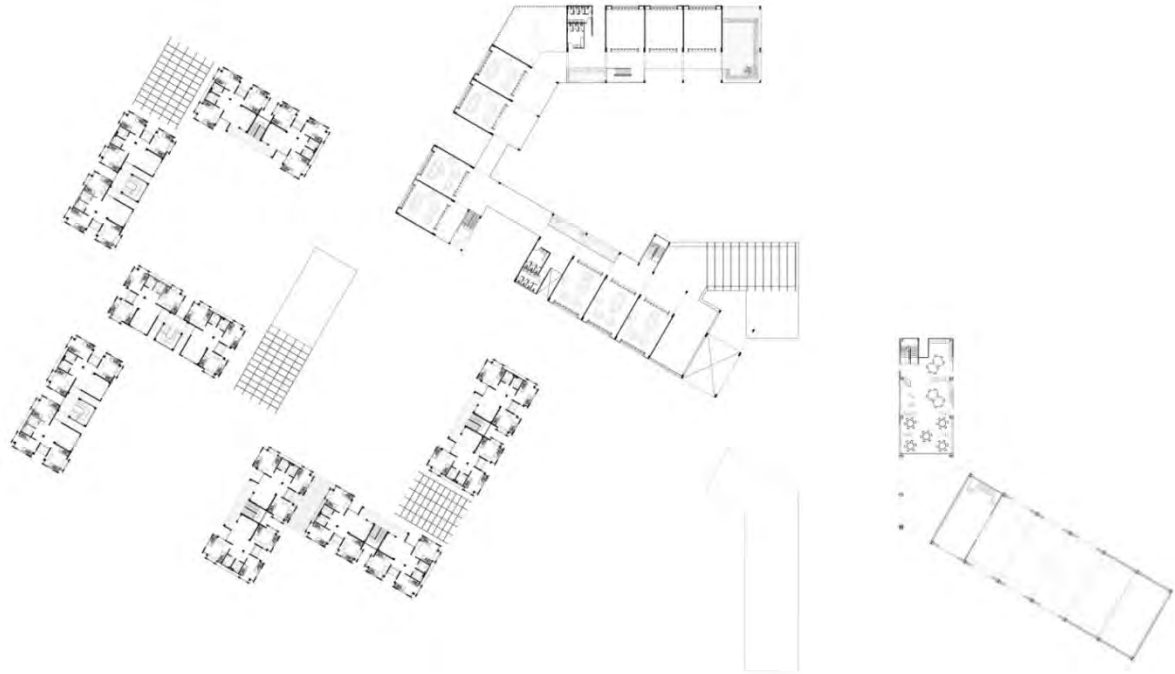
Figure: Form development, Source: Author

6.4 Architectural Drawings

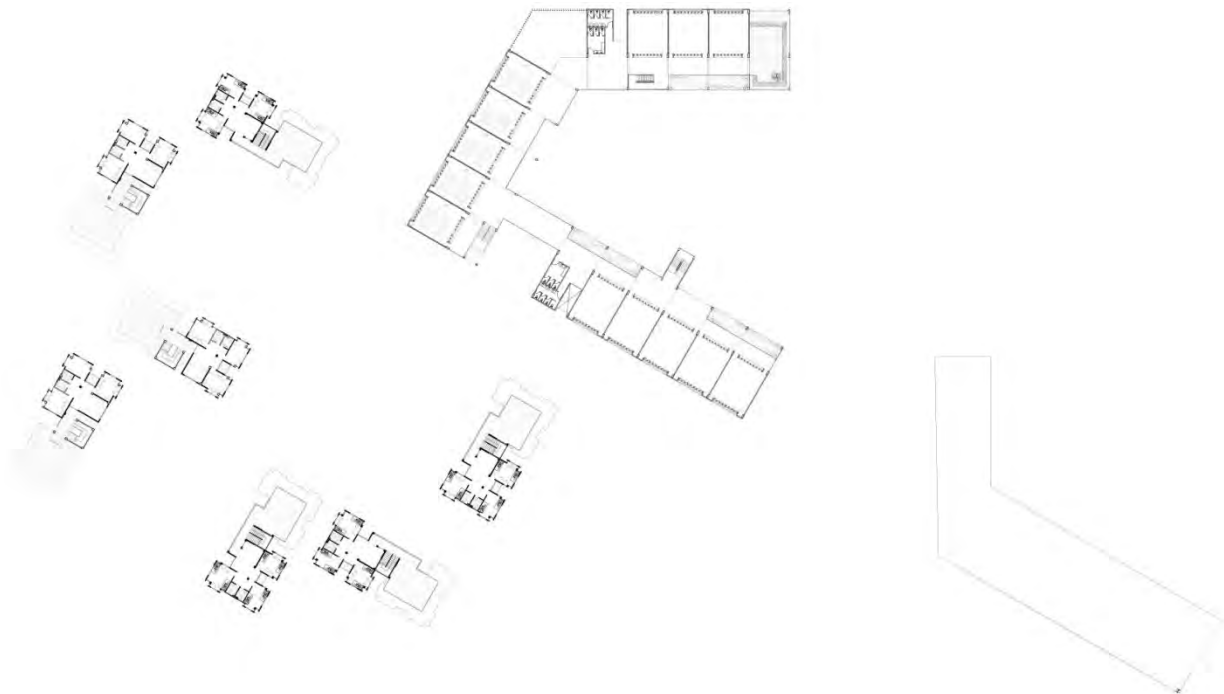
6.4.1 Plans



Ground floor plan. Source: Author



First floor plan. Source: Author



Second floor plan. Source: Author

6.4.2 Sections



Figure: Sections, Source: Author

6.4.3 Elevations



NORTH WEST ELEVATION



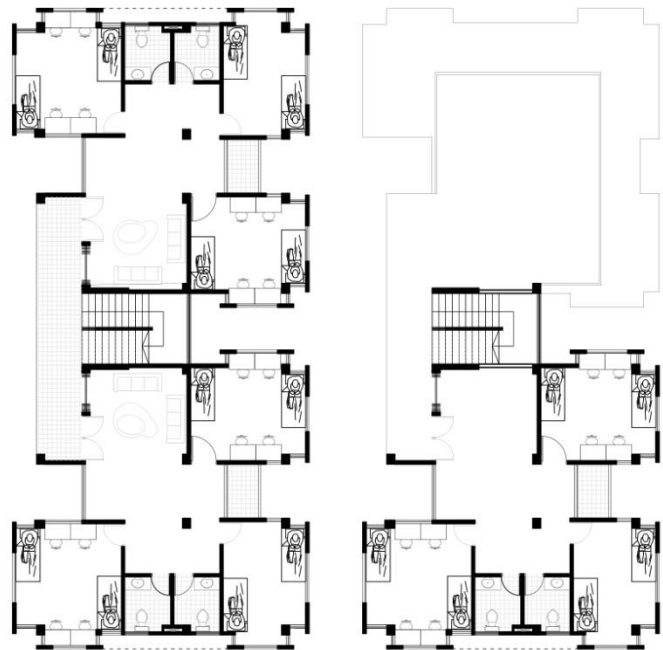
SOUTH WEST ELEVATION

Figure: Elevations, Source: Author

6.4.4 Unit details

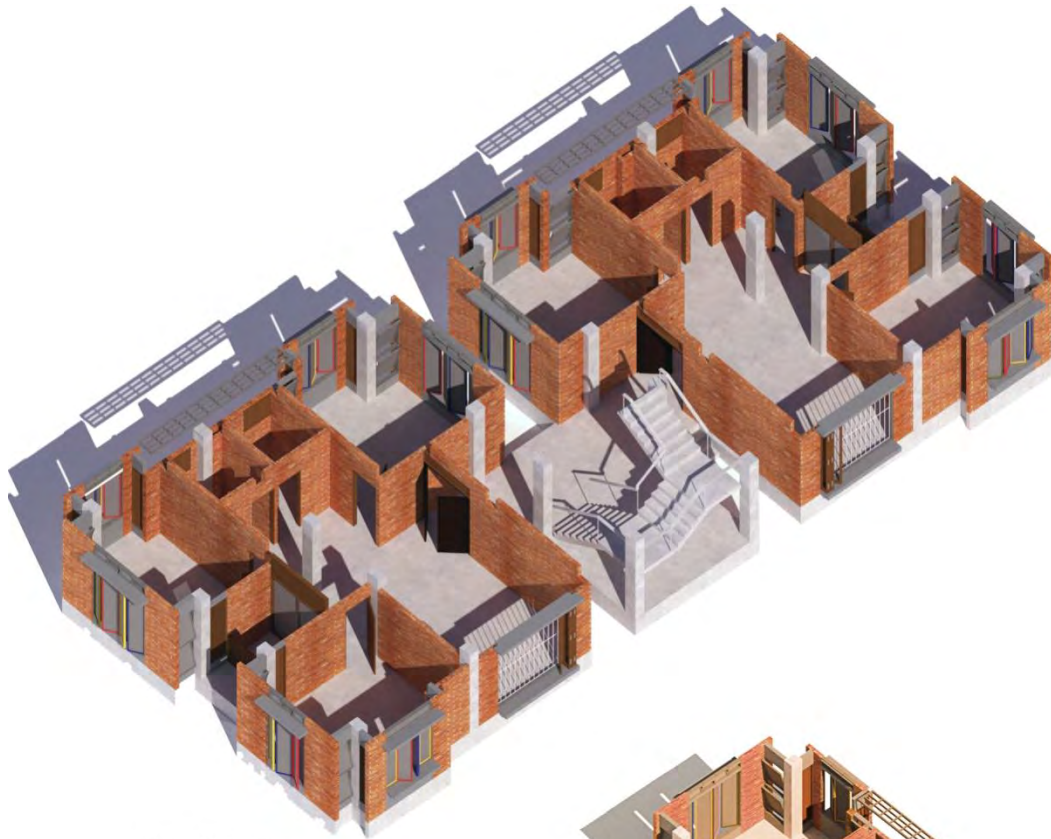


UNIT A

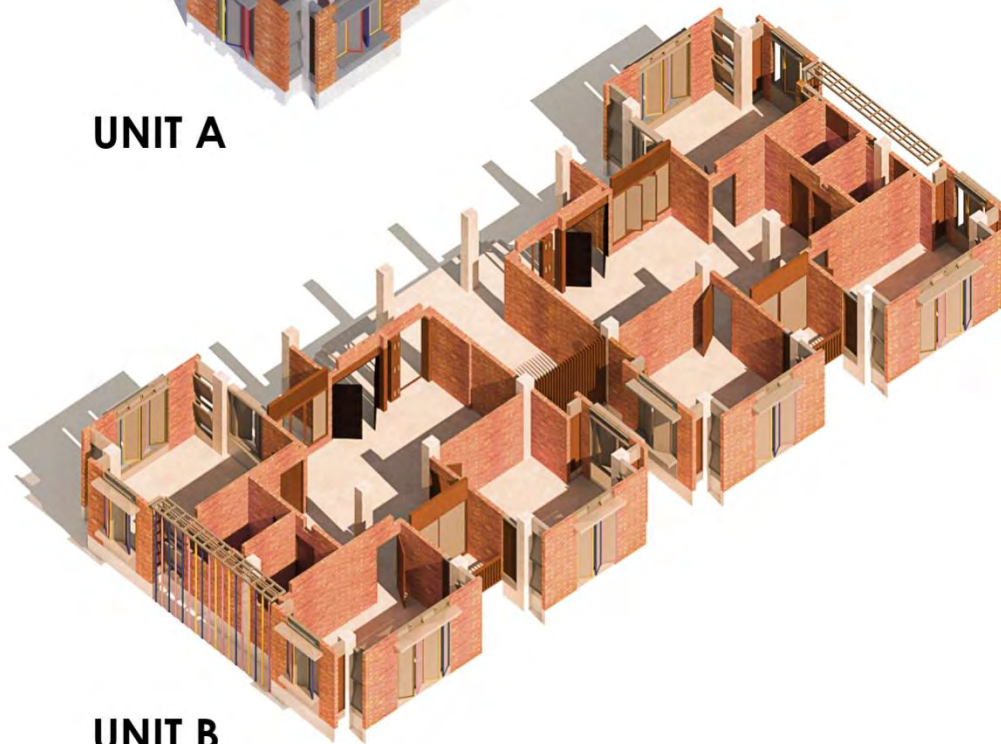


UNIT B

Figure: Unit type, Source: Author



UNIT A



UNIT B

Figure: Unit type, Source: Author

6.5 Renders









6.5 Model images



Figure: Model image, Source: Author

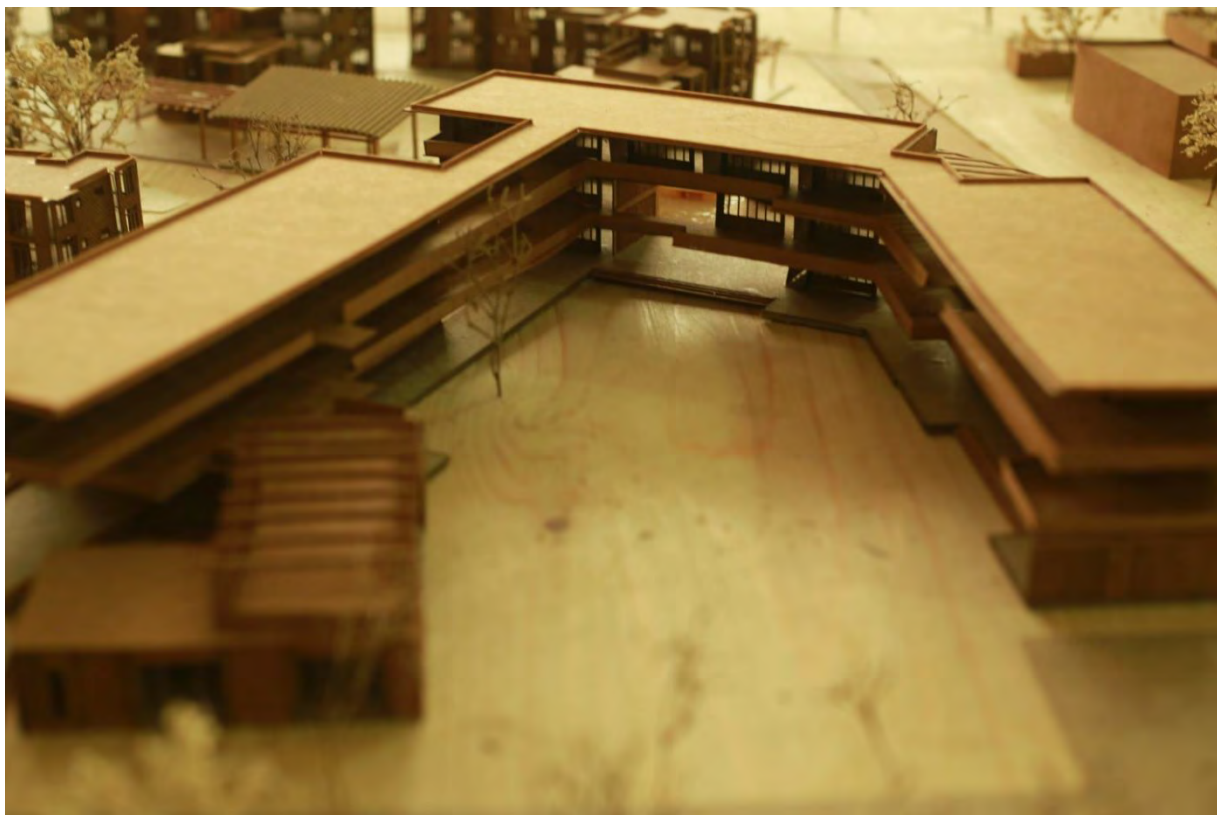


Figure: Model image, Source: Author



Figure: Site Model image, Source: Author

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