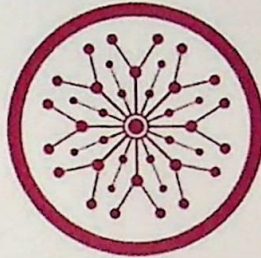


DEPARTMENT OF ARCHITECTURE
SUPERIOR UNIVERSITY LAHORE, PAKISTAN



SUBMITTED BY:

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Roll No: BARM-F17-010

SESSION 2017-2022

PROJECT

AL-KHIDMAT FOUNDATION WELFARE COMPLEX

SUBMITTED TO:

AR.M. MOHSIN IQBAL

DECLARATION

This is to certify that the thesis, **entitled “AL-KHIDHMAT FOUNDATION WELFARE COMPLEX”** which is submitted in partial fulfillment for the award of a Bachelor’s degree in Architecture from the University of Lahore, Lahore
Comprises only my original work and due acknowledgment has been made in the text to all
Other material used. The thesis has not been submitted for the award of any other degree.

Date: 01-02-2021

Name: **SALMAN RAO**

Roll No: **Barm-F17-010**

CERTIFICATE

This is to certify that the thesis, entitled “**AL-KHIDHMAT FOUNDATION WELFARE COMPLEX**” which is submitted by **SALMAN ROA** “Barm-F17-010” in partial fulfillment of the requirement for the award of Bachelor’s Degree in Architecture of the University of Lahore, Lahore is carried out by him under my supervision.

AR. NAUSHABA AZHAR
Head of Department

AR. MOHSIN IQBAL
Thesis Supervisor

ACKNOWLEDGMENT

The researcher would like to thank all who in one way or another contributed to my completion of this project.

First give my thanks to Allah Almighty for the protection, patience, and ability to fulfill the work.

Especially and heartily thanks to all the advisors who encouraged and directed me in all the ways that there can. Their challenge brought this work towards completion. It is with their supervision that this work came into existence.

Also deeply thankful to the informants and respondents, their information helped me to complete this research paper.

I would also like to thank my fellow students whose challenges and productive critics have provided new ideas to work on.

Furthermore, I am sincerely grateful for the family and friends who encouraged and prayed throughout the time of the research. This research is heartily dedicated to my parents who are sacrificing and working hard for me to achieve a decent education.

May Allah Almighty richly bless all of you!

ABSTRACT

My project **“AL-KHIDHMAT FOUNDATION WELFARE COMPLEX”**

The complex is an amalgamation of several institutions that are necessary for a person in their lifetime. Institutions such as healthcare, welfare, and education. The complex will be divided into different zones such as the healthcare zone, welfare zone, and educational zone. The purpose of this thesis is to design a Home for orphans and the Elderly in an endeavor to create a space where the two groups can live together, where one group can provide the other with what they lack. The project would aim to establish a mutual relationship between the two groups. The elderly would act as parents or Grand Parents while the children would be a source of happiness, someone in need, and a responsibility. The elderly could play an important role in the children's lives; likewise, the children could play an important role in the lives of the elderly. The project also encourages people from outside to mingle with the people living in the home. This is done through community activities spaces. One would also have to cater to the needs and requirements of the elderly and children in one place but they would have to function independently.

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CHAPTER 1: INTRODUCTION

1.1 PROJECT STATEMENT:

The aim is to design a complex to provide a one-unit infrastructure for welfare, health, and educational facilities for destitute people of our society.

1.2 PROJECT DESCRIPTION:

The project is an Alkhidmat foundation complex that comprises many of its health, education, and welfare facilities. The complex focuses on people's health, wealth, and welfare and also facilitates them in different aspects and different stages of life.

The complex is an amalgamation of several institutions that are necessary for a person in their lifetime. Institutions such as healthcare, welfare, and education. The complex will be divided into different zones such as the healthcare zone, welfare zone, and educational zone. The complex will be publicly accessible.

1.3 AIMS AND OBJECTIVES:

The objective of this complex is to function as

- An orphanage for the children who are born under unpleasant circumstances and are put into adoption.
- The complex will also include a primary school for children, especially orphans.
- The Old age home is a retirement facility that also provides medical assistance to senior citizens and will be convenient when there is an emergency.
- A medical facility to provide treatment.
- The complex will consist of the necessary facilities for its users such as residential compounds for on-campus students, nurses, and staff.

1.4 PROJECT SCALE:

- The project will be a complex of:
- Clinic
- Old age homes 90 senior citizens
- Orphanage for 300 kids
- Primary and secondary school for 400 children
- Vocational institute for 400 students
- Mosque

1.5 FOCUS OF WORK:

□ Why the goal of the foundation is to achieve a sustainable approach to living, therefore: The focus area will be: **Bio-climatic architecture.**

CHAPTER 2: DATA COLLECTION

2.1 BUILDING TYPE AND HISTORICAL CONTEXT

2.1.1 WELFARE COMPLEX:

A welfare complex is a combination of multiple institutions such that of welfare, health, and education. It serves the less fortunate and destitute members of society by providing affordable treatment, orphan care, retirement homes, and public schools.

2.1.2 HISTORY

Welfare originated in Imperial Germany (1871–1918). Welfare is a type of government support intended to ensure that members of a society can meet **basic human needs** such as food and shelter. This gave rise to the social programs that were either government or privately funded. The belief that all citizens should benefit equally gave rise to institutions that provided those facilities to the people with low socioeconomic status.

A society can flourish only when its members do not spend all their wealth on the satisfaction of their desires, but reserve a portion of it for parents, relatives, neighbors, the poor, and the needy. As the saying goes: Charity begins at home. A true believer, after meeting the needs of his family, is thus always prepared to assist other people in need of his help.

Charity, in its broadest sense, has been called Sadaqa in Islam. Such great importance is attached to a charity that the month of Ramadan has been fixed for individuals to be trained in the practice of charity. It has therefore been made into an institution to give it permanence and regularity. The law of Zakat, i.e. to take from the wealthy and give to the poor, rotates wealth in such a way as to balance social inequality. Therefore it is important to build the infrastructure for such institutions so that both the present and future generations may benefit from it. In the olden days, it was a mosque, now a much more versatile institution is required.

2.1.3 EVOLUTION OF WELFARE COMPLEX

Welfare came in the form of both government and private institutions that ensure welfare, healthcare, and education to citizens.

2.1.4 WELFARE IN PAKISTAN

The Social Welfare Department of Pakistan is a comparatively new one, which has been established with the main task of serving and facilitating the underprivileged classes and fostering the purpose of an Islamic welfare state in short. This department of government operates in every province and works for women, the elderly, and children, as well as the rehabilitation the homeless and utterly destitute. This has been done through individual institutions or receiving charitable funds or a multiplex on a small scale.

2.1.5 CLIENT: ALKHIDMAT FOUNDATION

Alkhidmat Foundation Pakistan is one of the leading, non-profit organizations, fully dedicated to humanitarian services since 1990. Alkhidmat workers and volunteers continue to work

tirelessly for the relief of affected people across Pakistan and worldwide. Our dedicated services include disaster management, health services, education, orphan care, clean water, Mawakhat (interest-free loan), and other community services.

2.1.6 ALKHIDMAT'S VISION:

“SERVICE TO HUMANITY WITH INTEGRITY”

Alkhidmat Foundation Pakistan is a non-political, non-governmental, and nonprofit organization is committed to serving humanity especially vulnerable and orphans without any kind of discrimination to contribute to their well-being of health, education, financial sustainability, livelihood, shelter, availability of clean water, mosques, savage of disaster and other aspects of life and for the welfare of its employees utilizing resource mobilization and developing a partnership with NGOs, other concerned public & private organizations, supporting, engaging in and during useful programs and doing all such acts, deeds, and things required to achieves above with integrity.

2.2 TECHNICAL DATA AND DESIGN CONSIDERATIONS

The components of a welfare complex

1. Healthcare:

- i. Clinic

Welfare:

- i. Orphanages
- ii. Old age homes

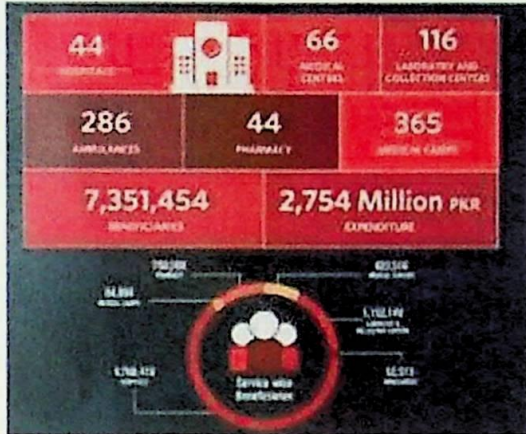
3. Education:

- i. Primary School
- ii. Vocational institute

2.2.1 HEALTHCARE:

The World Health Organization (WHO) has enlisted Pakistan among 57 countries with critical health workforce deficiency while the country is placed at 122nd position in terms of quality of healthcare facilities. Unfortunately, Pakistan stands high on the list of top countries with extreme infant mortality.

Being conscious of the situation, Alkhidmat Health Foundation has established a countrywide network to provide the best healthcare facilities to the public, irrespective of their socioeconomic status. Several Hospitals, Clinics / Dispensaries, Diagnostic Centers and Blood Banks, Mobile Medical Camps, and Ambulances.



The basic form of healthcare is a clinic that is, ideally, based on its functions:

1. Bed-related inpatient functions
2. Outpatient-related functions
3. Diagnostic and treatment functions
4. Administrative functions

The type of healthcare required in this institution is in the form of a clinic.

- Outpatient department (OPD)
- Inpatient care
- Diagnostic ward

EFFICIENCY AND COST-EFFECTIVENESS

- An efficient clinic layout should:
- Promote staff efficiency
- Consolidate outpatient functions for more efficient operation

FLEXIBILITY AND EXPANDABILITY

- Follow modular concepts of space planning and layout

- Use generic room sizes and plans as much as possible, rather than highly specific ones
- Be served by modular, easily accessed, and easily modified mechanical and electrical systems

ACCESSIBILITY

- Easy to use by the many patients with temporary or permanent handicaps
- Allow easy movement.
- Accommodate patients with slower adaptation rates to dark and light.

CONTROLLED CIRCULATION

- circulation should be controlled.
- Outpatients should be separated from inpatients.
- Typical outpatient routes should be simple and clearly defined
- Visitors should have a simple and direct route to each patient nursing unit without penetrating other functional areas

2.2.2 WELFARE:

Welfare is divided into a variety of facilities such as orphan care, senior citizen care

2.2.2.1 ORPHANAGE:

DEFINITION OF ORPHAN:

- A child who has no home.
- Who has no parents (or) guardian
- Who is found destitute and his parent or surviving parents or other guardian is undergoing Transportation

Orphans are those innocent souls who suffer the most on the earth due to the unavailability of proper parental support. Being the most suffering segment of the society they need an abundance of support to have their lives restored to normal. People coming forward to help these orphans may reduce the intensity of their peril and get the best reward hereafter. According to the United Nations, there are more than 4.6 million orphan children in Pakistan and the majority of this population is below the age of 17. This significant portion of the population is suffering from social depravity that needs to be addressed on an urgent basis. Support Alkhidmat Orphan Care Program to ensure a brighter future for the orphans!

2.2.2.2 CLASSIFICATION OF ORPHANS

PARENTLESS:

Parents are major protectors of children, in cases where parents are unable to protect the children from danger around them and within them, the children lose confidence in their parents and become frightened. They cannot think bigger thoughts and let their mind rise from practical and particular into the abstract world where what is

possible conceivable and imaginable resides.

MOTHERLESS:

A mother's death will influence subsequent behavior patterns more than the death of other relatives. A major wound has occurred in the child as it was amputated from its and unable to survive without help and rebuild other relationships.

FATHERLESS:

Father's loss entailed financial hardship for the mother and children and put an excessive work burden on the mother. The submissive women become over strict and dominant and try to take over the parental role. In such cases boys are deeply disturbed, resulting in them as uncontrolled, undisciplined, and at one time even violent.

Design considerations:

- Today, it has been proved that children by themselves need not only physical protection, but also all of their existential dimensions (mental, emotional, personality, intellectual, cognitive, and moral dimensions) should be considered.
- Eliminating and changing dormitory and public salons to suites
- Dividing and sectioning residential units into private and public sections
- Designing personal facilities like the cage, bed, and other personal facilities
- Creating a space between complex and district can lead to making communication between children of the complex and other children.
- To avoid distracting others; a sitting room should be designed for residents of several rooms.
- Creating intangible border between the complex and surrounding area (eliminating fences and impermeable walls)
- Presence of children in the context of common and routine activities of people
- Designing residential units beside each other as intimate neighbor units
- Designing residential units responsible for a certain number of individuals
- Creating features and spaces of a house in units
- Psychology study of children and recognition of spaces, colors, and textures interested by children
- Considering principles and standards of designing spaces based on the physical dimensions of children.
- Paying attention to principles of safety and firefighting
- Creating suitable landscapes between closed and natural space
- Creating a physical relationship between internal and external space
- Using flowers and plants in space
- Creating spaces with suitable colors and contrast.

2.2.2.3 OLD AGE HOME HOMES:

An old age home – is sometimes called an old people's home or old age home, although old people's home can also refer to as a nursing home as a multi-residence housing facility intended for the elderly. Typically, each person or couple in the home has an apartment-style room or suite of rooms. Additional facilities are provided within the building. This can include facilities

for meals, gatherings, recreation activities, and some form of health or hospice care. A place in a retirement home can be paid for on a rental basis, like an apartment, or can be bought in perpetuity on the same basis as a condominium.

An old age home differs from a nursing home primarily in the level of medical care given. Retirement communities, unlike retirement homes, offer separate and autonomous homes for residents.

TECHNICAL DATA:

Apart from food, shelter, and medical amenities, old age homes also provide yoga classes to senior citizens. Old age homes also provide access to telephones and other forms of communication so that residents may keep in touch with their loved ones.

Some old-age homes have daycare centers. These centers only take care of senior citizens during the day.

DESIGN FEATURES

- The design of Old Age Homes depends on the social and economic status of the people who are going to reside in the homes.
- They could be the dormitory type, independent rooms, or cottages... The rooms should be well-ventilated.
- Designing a ground Floor in an Old Age Home is of utmost importance. Possibly all the basic facilities in the home should be provided on the ground floor.
- The toilets and bathrooms should have rough flooring so that the elders do not slip. Suitable railings should be provided for support.
- Recreation rooms and rooms for medical care should be built.

MEDICAL CARE FACILITIES IN OLD AGE HOMES

- There should be a sterile storeroom for all medicines and medical accessories.
- Certain instruments are necessary for medical treatment.
- Transport facilities.

RECREATIONAL FACILITIES IN AN OLD AGE HOME

- Provision of recreational facilities is a must. Old people also need entertainment so that their mind does not remain idle.
- Provide entertainment.
- Keep them connected to the outside world.

2.2.3 EDUCATION

PRIMARY SCHOOL

Education is the only solution for humanity to prosper. To help every child to get an education, Alkhidmat Foundation Pakistan has taken lead among all its competitors by providing education through free schooling and rehabilitation support to the poor and needy children. Alkhidmat's helpful undertakings



encircle all matters and issues related to education in Pakistan.

A primary school, elementary school, or grade school is a school for children from about four to eleven years old, in which they receive primary or elementary education. It can refer to both the physical structure (buildings) and the organization. Typically it comes after preschool, and before secondary school.

DESIGN CONSIDERATIONS

ACCESSIBILITY

- Design spaces to meet the specific needs of students, teachers, and administrative staff with disabilities.
- Design for future flexibility, which enables spaces to be easily modified.

AESTHETICS

- The importance of the physical appearance of a public school should not be minimized. A school building that is attractive and responds to and is consistent with the design and context of the neighborhood, builds a sense of pride and ownership among students, teachers, and the community. The exterior should complement the neighborhood and reflect the community's values. The interior should enhance the learning process.
- Bring the community into the planning process through an integrated design process.
- Provide an interior environment that is visually comfortable and stimulating by integrating natural and artificial lighting, eliminating glare, and incorporating colors that stimulate or soothe, depending on the space function.
- Design for diffuse, uniform daylight throughout classrooms.
- Avoid direct-beam sunlight.
- Use a daylighting analysis tool to integrate lighting systems, controls, and materials that reflect or absorb light.

COST-EFFECTIVE

- Apply cost-effective principles in the planning, design, construction, and operation of school facilities.
- Select building elements based on life-cycle cost analysis — Mirror the lifespan of projects and systems with the expected lifespan of the facility.
- Consider the recyclability of materials.
- Use energy simulation and analysis tools to optimize energy performance.

FUNCTIONAL

- To foster students' sense of community and individuality:
- Cluster classrooms around common areas.
- Connect spaces visually with colors and patterns, particularly for primary school children.
- Provide platform spaces for gathering, sitting, and presenting and alcoves for quiet play,

reflection, and reading.

- Decentralize administrative spaces to encourage active leadership and maximize interaction with students.

PRODUCTIVE

- Make daylighting a priority, especially in classrooms.
- Integrate daylighting with high-efficient electric lighting and controls to optimize visual comfort.
- Use natural ventilation when possible.
- Ensure acoustical comfort.
- Ensure superior indoor air quality.
- Ensure thermal comfort.
- Connect the indoor environment to the outdoors

SUSTAINABLE

- Designing sustainable, high-performance green schools.
- Use energy, water, and other resources efficiently.
- Integrate renewable energy strategies, including passive solar design and, where appropriate, solar thermal and photovoltaics.
- Conserve and protect natural areas. Provide barriers that protect children and plants and wildlife.
- Incorporate materials and products derived from sustainable-yield processes and/or are manufactured locally.

VOCATIONAL INSTITUTE:

The goal of the project is to contribute to the creation of an enabling environment conducive to public sector growth, and competitiveness, and to promote investment and employment by investing in skills and knowledge relevant to key sectors and industries of the target region.

- The project output is: Functional vocational training center providing tailored training to reduce the labor force skills gap in target industries. The center will be led by the Alkidhmat foundation in partnership with interested local governments, private sector membership organizations, and other professional organizations. It is to assume the following roles:
- To assist companies in the upgrading of existing employees' skills to track fast-changing technology and innovation, and in applying lifelong learning philosophy;
- To provide training to newly recruited employees to improve their skills to meet companies' needs;
- To provide vocational training and retraining to unemployed populations to improve or re-shape their skills according to demands of the labor market and thus increase their employability; and
- To serve as a site for practical training and skills development of technical high school students.

TECHNICAL DATA:

A-List of Vocations:

- Civil
- Electrical
- Auto cad
- 3D max
- Computer software

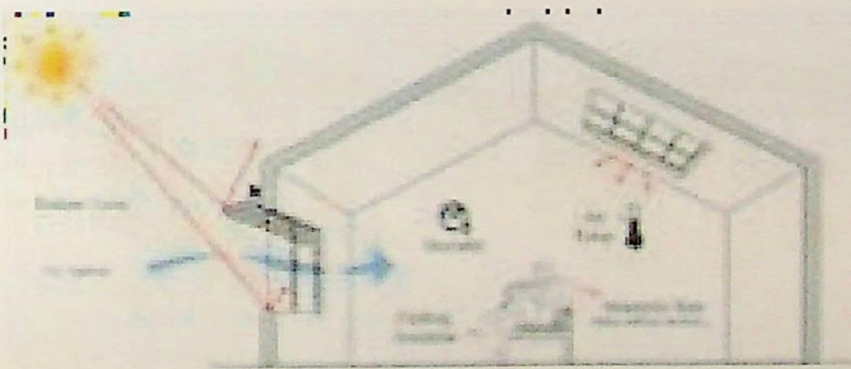
2.3 BIOCLIMATIC ARCHITECTURE

Bioclimatic architecture refers to the design of buildings and spaces (interior – exterior – outdoor) based on local climate, aimed at providing thermal and visual comfort, making use of solar energy and other environmental sources. Basic elements of bioclimatic design are passive solar systems which are incorporated onto buildings and utilize environmental sources (for example, sun, air, wind, vegetation, water, soil, sky) for heating, cooling, and lighting the buildings.

The bioclimatic design takes into account the local climate and includes the following principles:

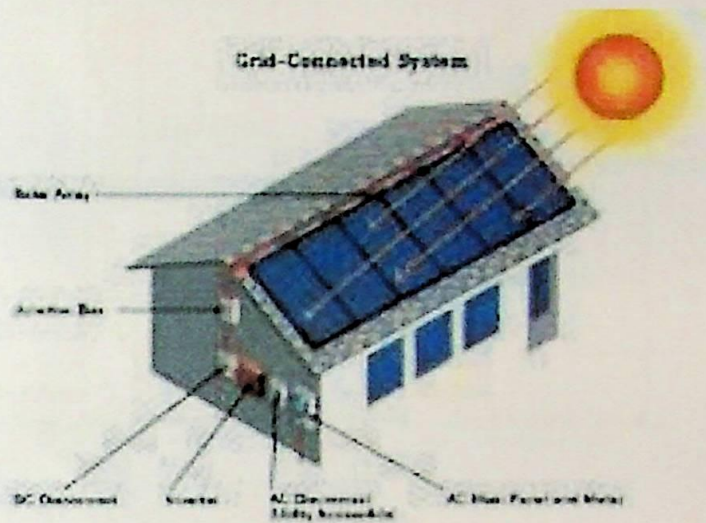
2.3.1 HEAT PROTECTION

of the buildings in winter as well as in summer, using appropriate techniques which are applied to the external envelope of the building, especially by adequate insulation and airtightness of the building and its openings.



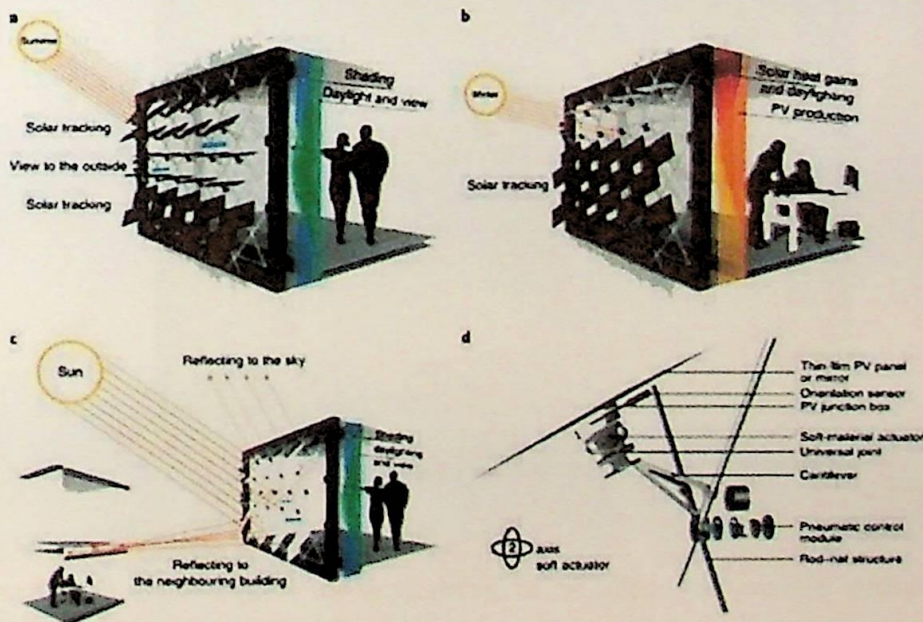
2.3.2 USE OF SOLAR ENERGY

for heating buildings in the winter season and for daylighting all year round. This is achieved by the appropriate orientation of the buildings and especially their openings (preferably towards the south), by the layout of interior spaces according to their heating requirements, and by passive solar systems which collect solar radiation and act as “natural” heating as well as lighting systems.



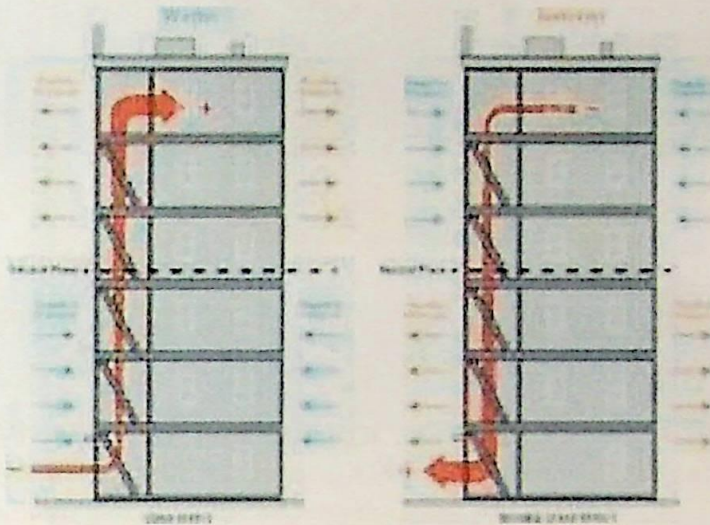
2.3.3 PROTECTION OF THE BUILDINGS

from the summer sun, primarily by shading but also by the appropriate treatment of the building envelope (i.e. use of reflective colors and surfaces).



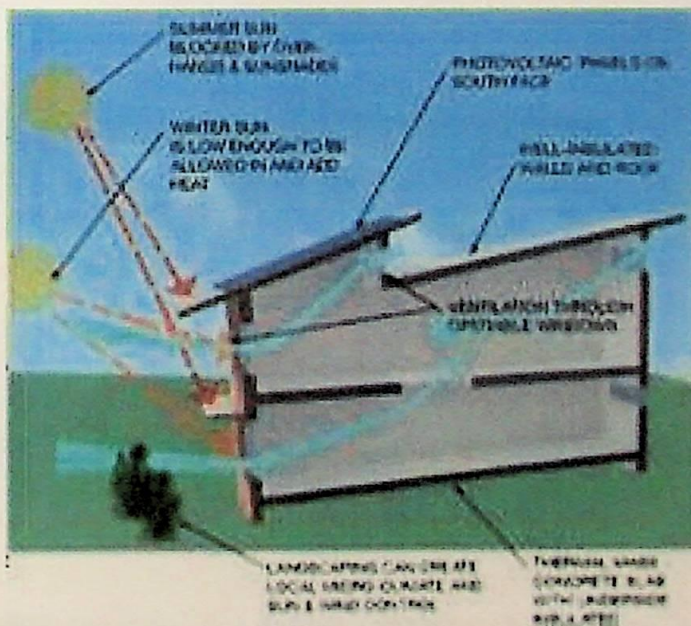
2.3.4 REMOVAL OF THE HEAT

which accumulates in summer in the building to the surrounding environment using natural means (passive cooling systems and techniques), such as natural ventilation, mostly during nighttime.



2.3.5 IMPROVEMENT –

adjustment of environmental conditions in the interiors of buildings so that their inhabitants find them comfortable and pleasant (i.e. increasing the air movement inside spaces, heat storage, or cool storage in walls).



2.3.6 ENSURING INSOLATION

combined with solar control for daylighting of buildings, to provide sufficient and evenly distributed light in interior spaces.

PASSIVE SOLAR SYSTEMS

Passive (Natural) Cooling Systems and Techniques

Systems and Techniques for Natural Lighting

The bioclimatic design of a building requires the simultaneous and coordinated operation of all the systems so that thermal and visual benefits can be combined throughout the year.

Special points to remember:

- Buildings are intensive energy consumers, thus contribute significantly to the greenhouse effect and climatic change, and have a severe overall environmental impact.
- As inhabitants of buildings, we can make our lives more comfortable, and preserve the environment, our health, and our well-being. We can use them appropriately to this end.
- The energy we consume in buildings is costly. It is worthwhile asking ourselves who pays for this consumption and why.
- All of us affect the energy performance of the buildings we live in. If we are aware of the proper design, materials, and use of technologies, we can apply them as far as possible in each case. Every action, even the simplest, can have energy benefits for our building.

CHAPTER 3 CASE STUDIES

3.1 SOSVILLAGE KARACHI:

INTRODUCTION:

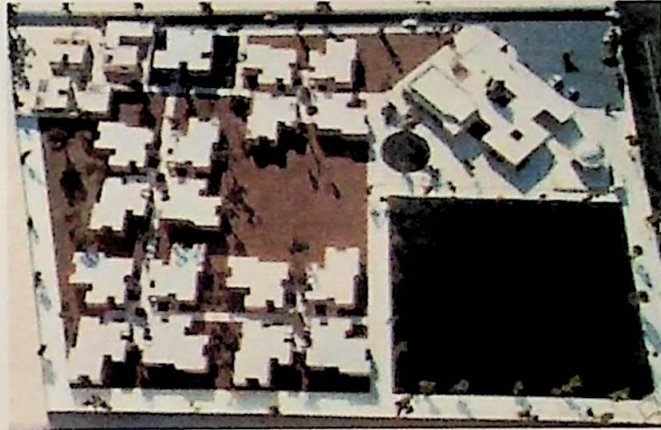
LOCATION: KARACHI

SITE AREA: 7-ACRE

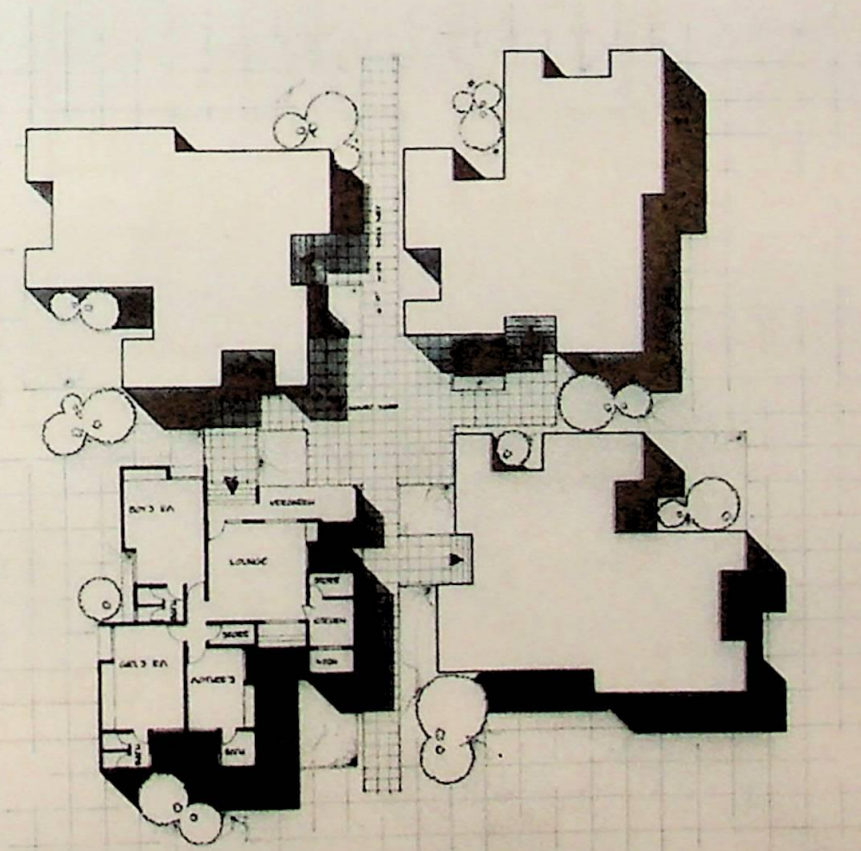
COMPLETION YEAR: 1987

MASTERPLAN

Residence for up to 150 children.
16 family units
School
Vocational training center
Admin block
Guesthouse
Masjid
Outdoor play area,



- The master plan is designed on cluster planning.
- Residences are in the form of a cluster of 4 units in which each unit is divided into further 4 units to make a cluster.



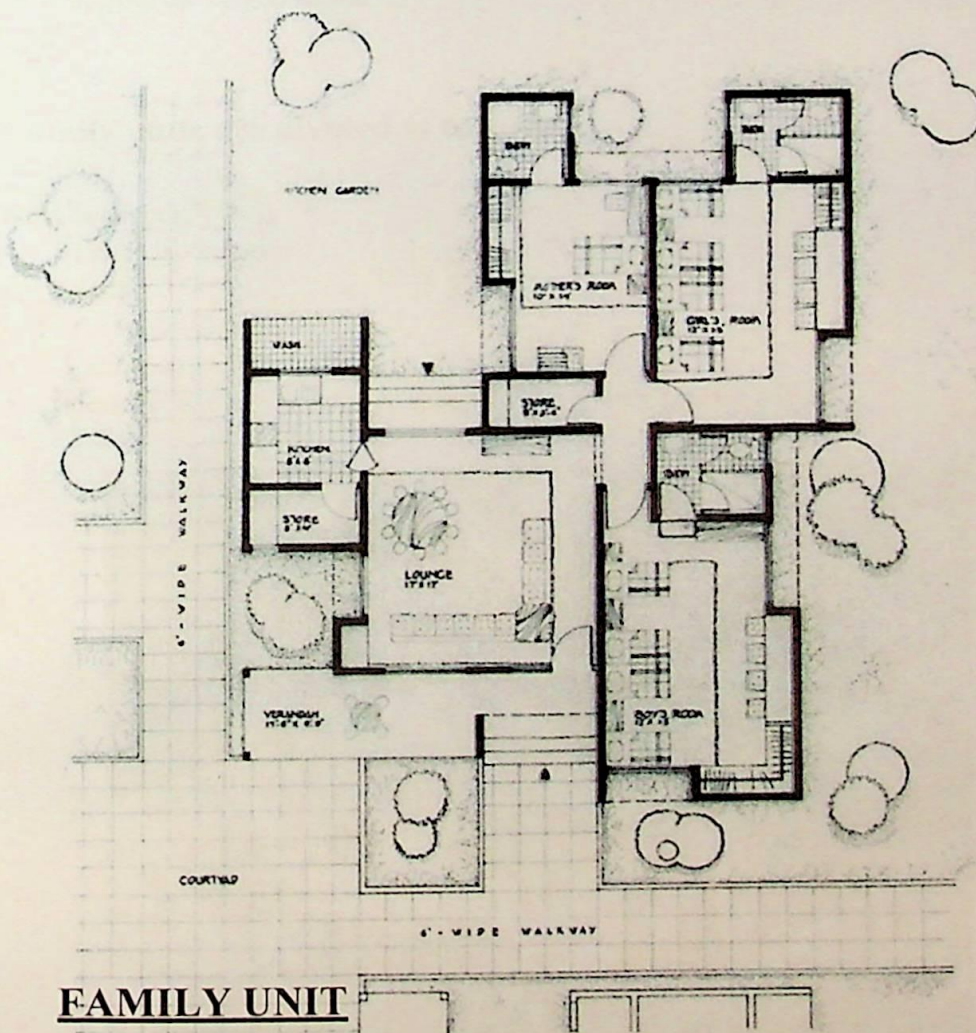
Family Unit:

Family units are divided as follows

- Lounge
- Veranda
- Boys Room
- Girls Room
- Mother Room
- Attach Bath
- Store
- Kitchen



- Units are designed in a way that there is a veranda on left then we enter the lounge.
- When we enter the lounge there are two rooms both for boys and girls with an attached bath. On the right side, One room for the mother with an attached bath and storeroom is also attached through Lounge.
- The kitchen is also attached to the lounge.
- All units are properly ventilated through windows



CONCLUSION:

PROS:

- Due to clustering housing, all openings of a house open in the open area and the spaces get efficient natural light.
- Spaces are designed by the direction of the wind so the spaces are airy and properly ventilated.
- Well planned considering privacy for every home.

CONS:

- Absence of sports activity area for indoor games etc.

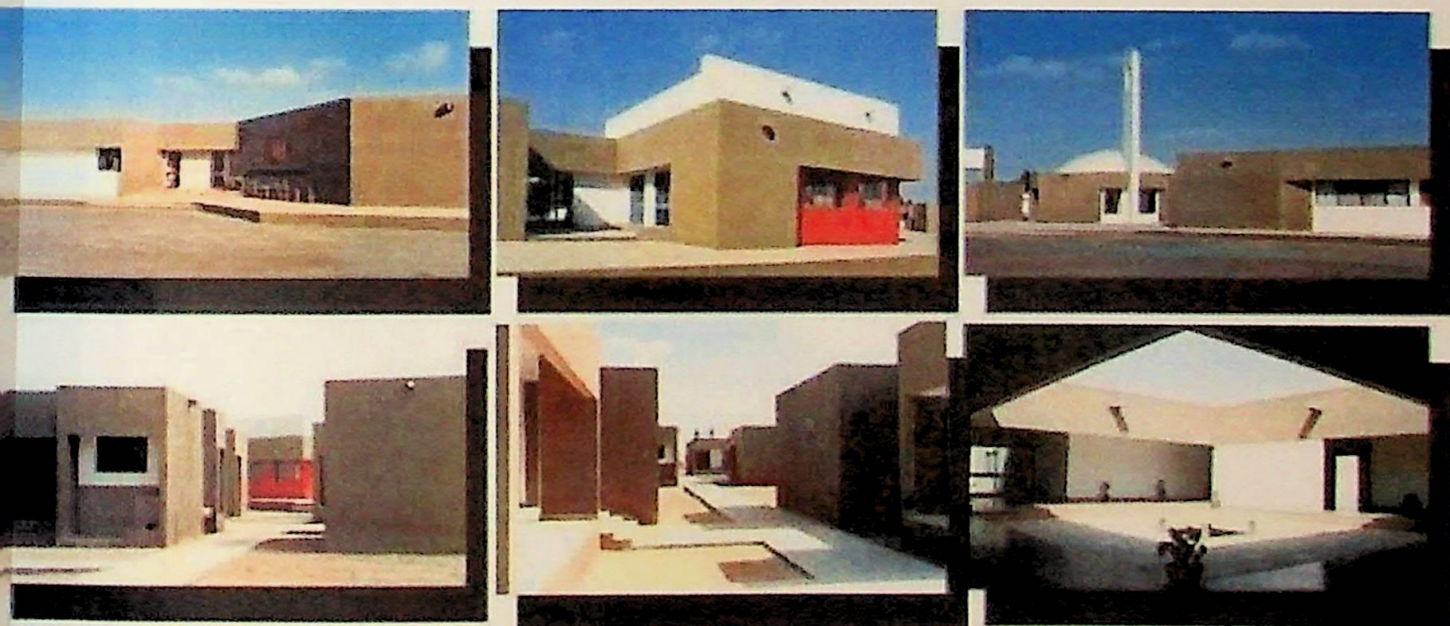
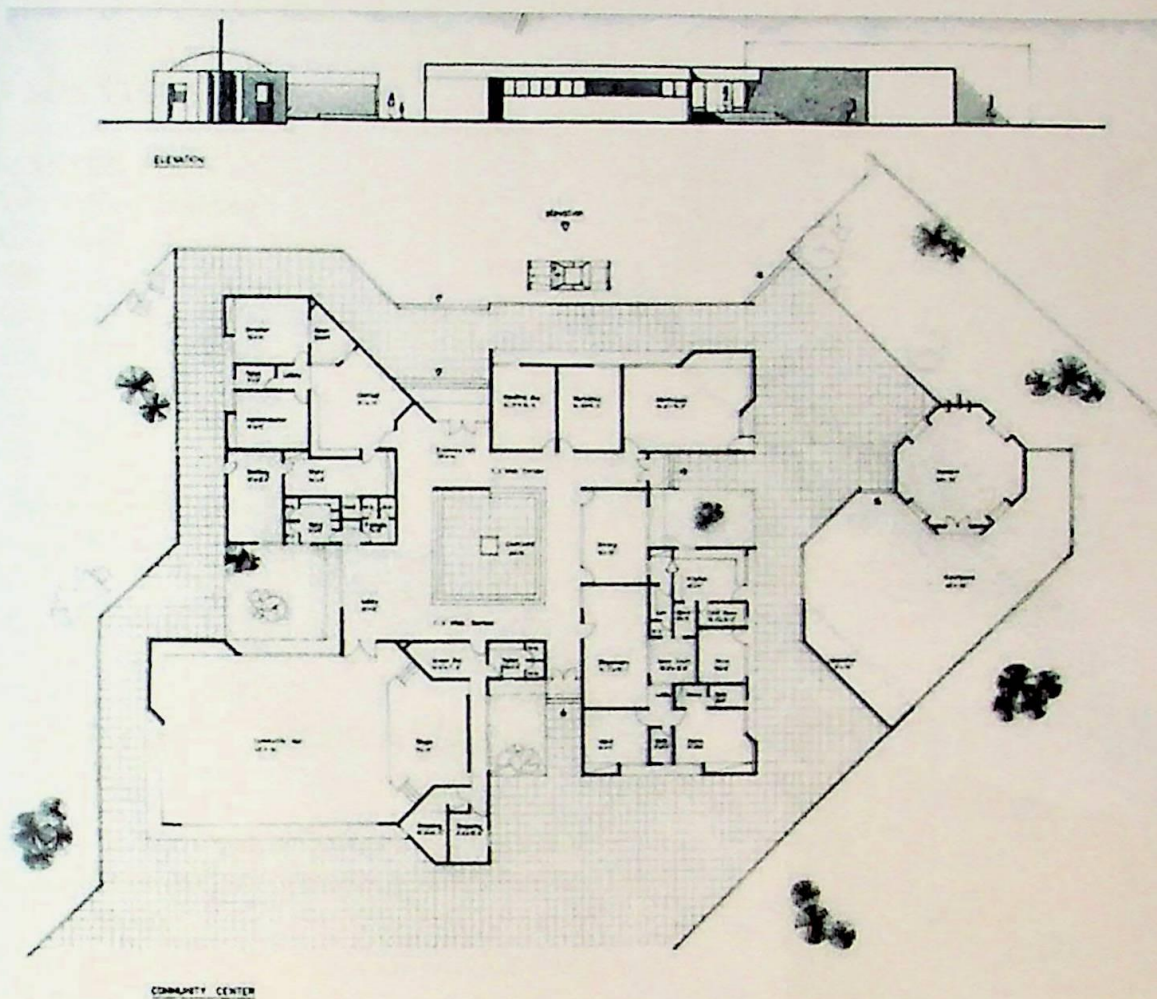
3.2 The Vocational Training Center

Vocational training center helps boys towards needs earnings and make them realize that they have to support a family. The school has a kindergarten and provides primary and secondary. It opened in 1998 to provide education of a high standard for around 1,300 SOS children, as well as children from the neighborhood.

Family units are divided as follows:

- Classrooms
- Science laboratories
- Library
- Computer lab.
- Auditorium
- Special classes are on offer to support children with learning difficulties





CONCLUSION:

- Vocational training center for children interested in it.
- open area and the spaces get efficient natural light.

3.3 SOS VILLAGE LAHORE

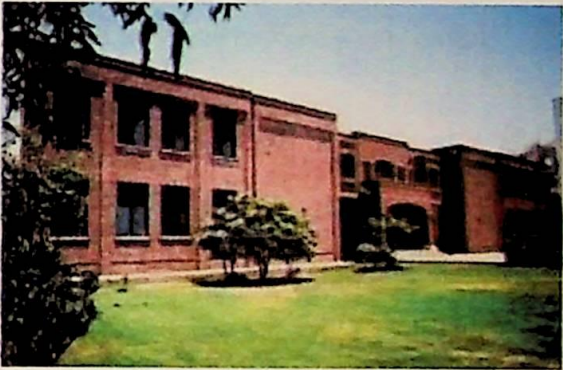
MASTER PLAN

- Office building
- Typical Family Houses
- School
- Play Area
- Library, Computer Lab
- Park
- Kitchen
- Store
- High School

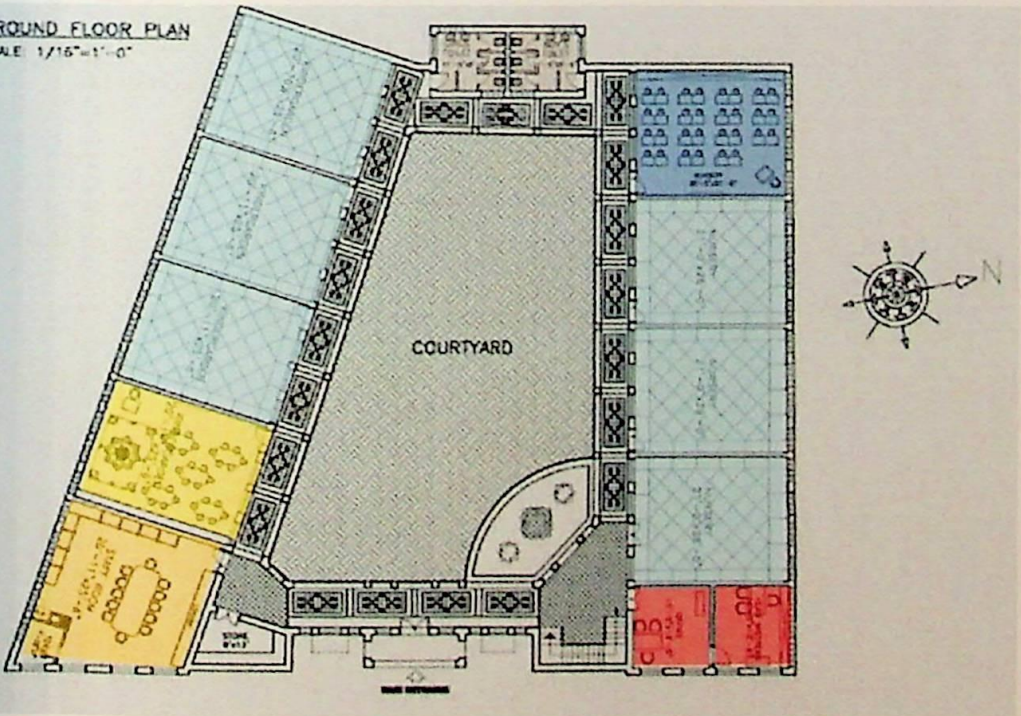


SOS HERMANN GMEINER SCHOOL

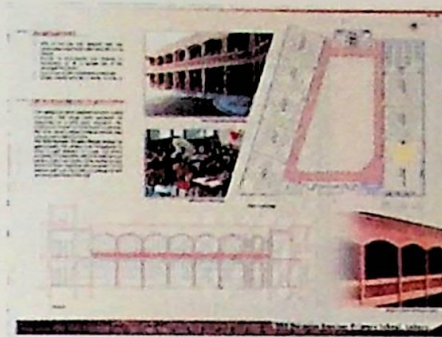
- The SOS Hermann Gmeiner School has a kindergarten and provides primary and secondary education.
- It opened in 1998 to provide education of a high standard for around 1,300 sos children, as well as too to children from the neighborhood.
- It has 30 classrooms science laboratories, a library, and a computer lab. Special classes are on offer to support children with learning difficulties.



GROUND FLOOR PLAN
SCALE: 1/16"=1'-0"



- Staff Room
- Nursery and ClassRoom
- Admin
- Toilet
- Library
- Computer lab



CONCLUSIONS:

Special classes and spaces for special children like audiovisual rooms,

NATURAL LIGHT AND VENTILATION

- Due to cluster housing, all openings of a house open in the open area and the spaces get efficient natural light.
- Spaces are designed per the direction of the wind so the spaces are airy and properly ventilated

PROS AND CONS:

PROS:

- Clustered planning help in developing a sense of community.
- Well planned, considering privacy for every home.
- Vocational training center for children interested in it.

CONS:

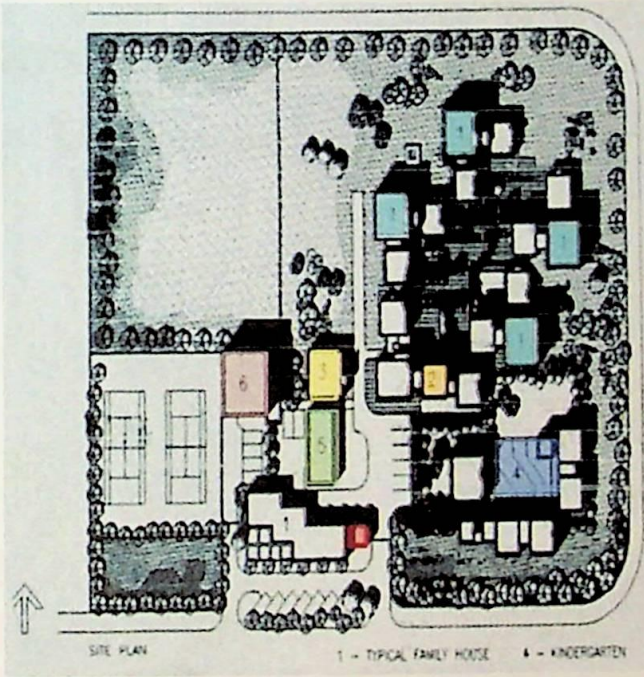
Absence of sports activity area for indoor games etc.

3.4 SOS CHILDREN VILLAGE AQABA JORDAN:

- Architects: Architects Jafar Tukan
- Clients: SOS. Children's Association of Jordan
- Year: 2000
- Site: 20000m2
- Ground Floor: 2700m2
- Total Floor Area:4000m2

This SOS complex for orphaned children is located in the residential outskirts of the city of Aqaba, on the Red Sea. This was the second such village to be constructed in Jordan.

An orphanage was designed as a cluster of two-story buildings containing nine family houses, a kindergarten, an administration building, stall housing, and sports all. and a service block The structures are arranged to form shaded courtyards accessible through vaulted archways The buildings are constructed of reinforced concrete frames and infill of irregular granite boulders.

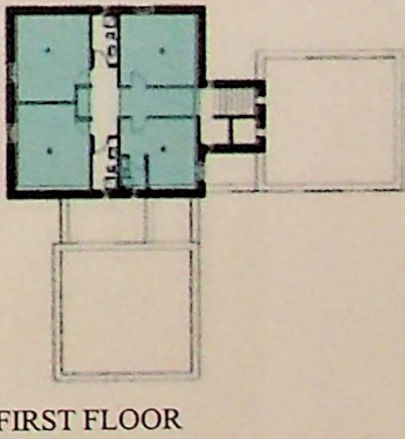


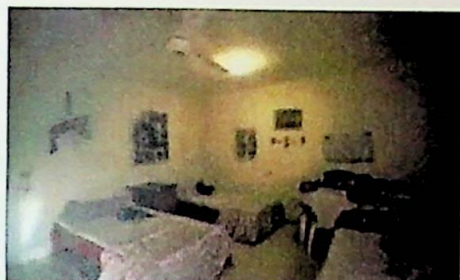
MASTER PLAN

- 1. Typical Family Houses
- 2. Staff Room
- 3. Admin
- 4. Kindergarten
- 5. Service Building
- 6. Sport Hall
- 7. Gate House

FAMILY HOUSE

- Family Houses
- Living Room
- Kitchen
- Store





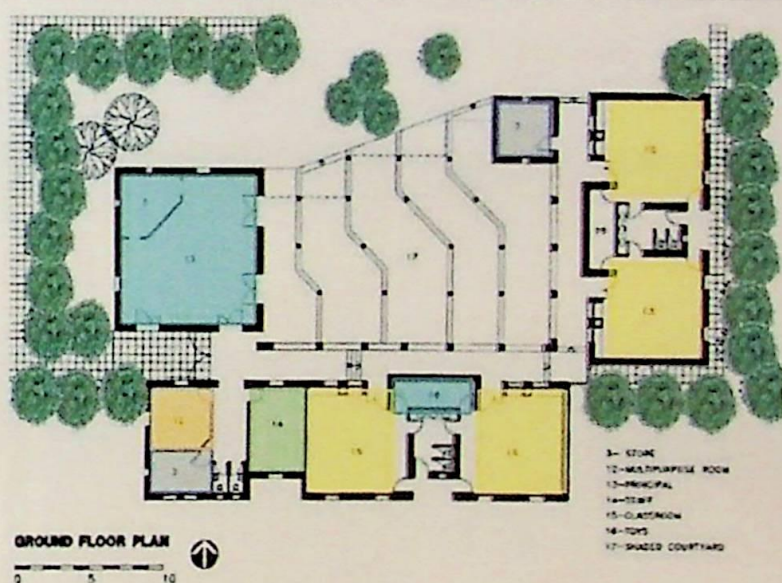
INTERIOR VIEWS



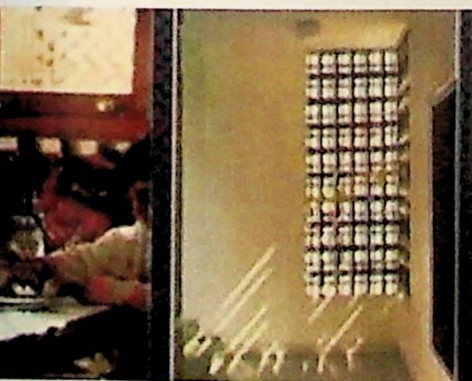
HOUSE DOOR

KINDERGARTEN

- Multipurpose Hall
- Principal
- Class Room
- Store
- Staff



GROUND FLOOR



SROOM INTERIOR

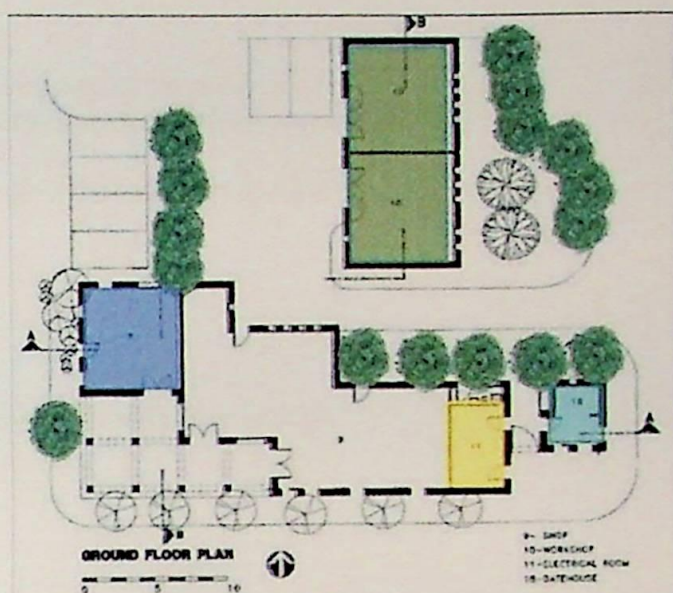
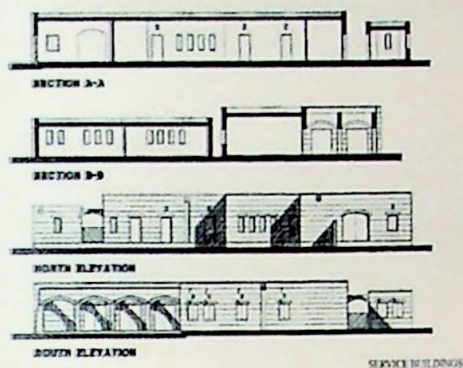


COURTYARD



SERVICE CENTER

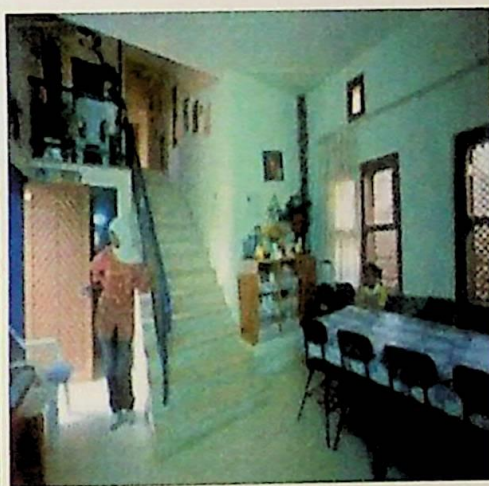
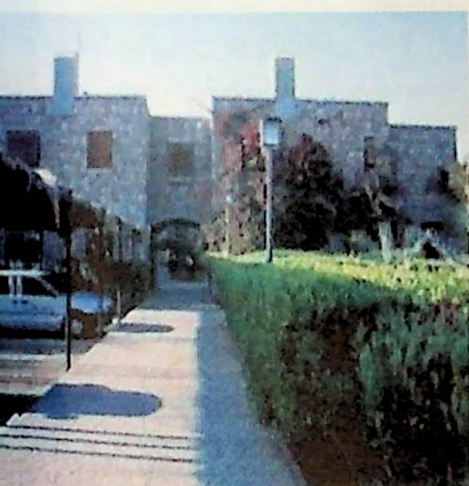
- GateHouse
- Electrical Room
- Shop
- Workshop



Admin

Private Area

Materials



MERITS:

- It created a very warm and sympathetic environment for the children.
- It revived a typically regional style of architecture environmentally sensitive in response to climate conditions
- Use of local materials and building technology, ventilation. Material and color are in full harmony with the hilly background of Aqaba.

DEMERITS:

- The wind catchers designed by the architect have proved to be a problem when there is dust from desert winds.

CONCLUSION:

The architecture is attractive. Well designed and sincere and represents a modern interpretation of the local vernacular stone building.

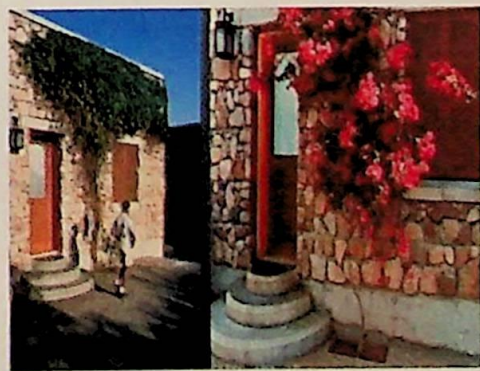
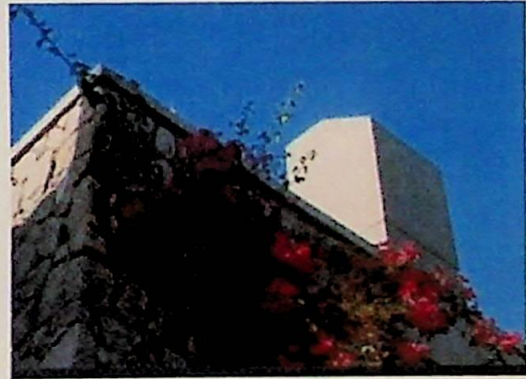
LIGHTING:

Natural lighting is well provided for but is somewhat jeopardized by the degree of shading

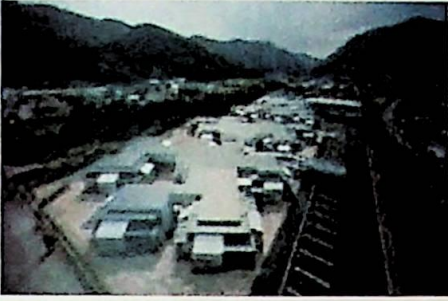
required inside the houses for climatic comfort. Sun control and shading are extremely successful and have been wellworked out in the design and planning stages. The lighting problem is exacerbated by the fact that in summer, to keep the interiors shaded and cool, the children can not open the window shades. So they can use artificial lighting.

VENTILATION

Otherwise, the ventilation was assessed as very good, and there are sufficient light wells. The design by the architect has proved to be a problem when there is dust from desert winds. As a result, the windcatcher's vents are kept shut at floor level most of the time. Despite the lack of air-conditioning the temperature inside the houses of the village was assessed as 'much better than other houses'. The dwellings enjoy good thermal insulation.



3.5 KAZE NO MACHI MIYABIRA



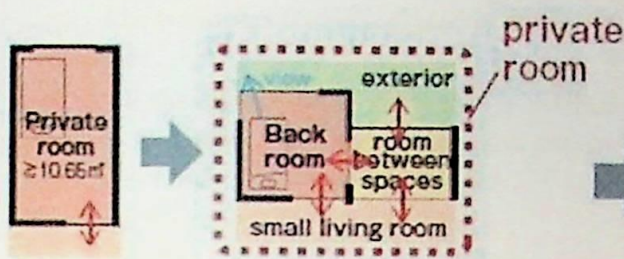
DAY CARE SHOBARA, JAPAN

- Architects: Met Architects, Susumu Uno/CAn
- Client: TOJO ARISUKAI social welfare corporation
- Constructor: TODA CORPORATION Hiroshima Branch
- Location: Tojo, Shobara, Hiroshima, Japan
- Site Area: 13,840.00m
- Building area: 4,377.00m²
- Total Floor Area: 4,603.52m²
- Design years: 2012 to 2013
- Construction years: 2013 to 2014.

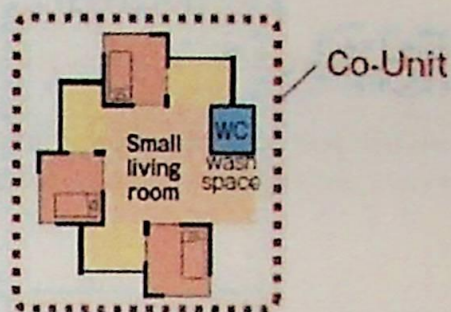
This is the elderly care facility located in Shobara City, Hiroshima. All the time, the client hopes that this facility can be a wooden warm house that family and the surrounding residents can visit casually.



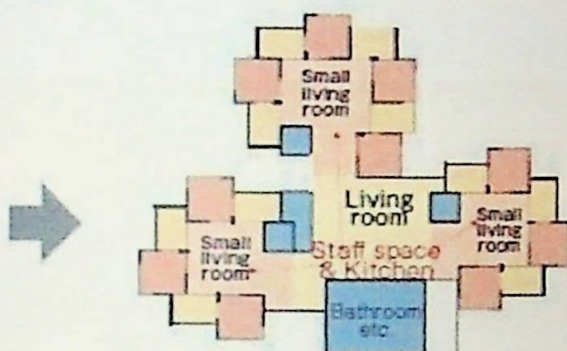
1 Composed of 2 rooms



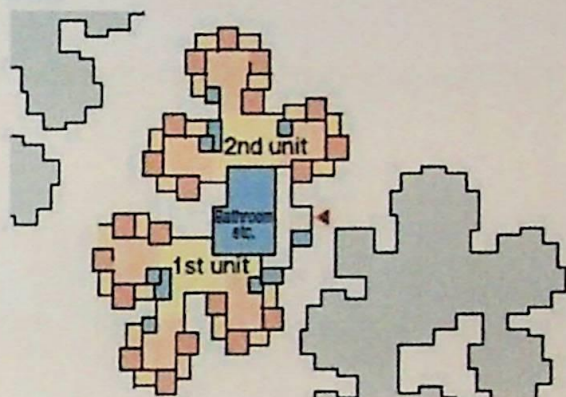
2 Composed of 3 or 4 private room



3 Composed of 3 Co-units and staff space



4 Composed of 2 units and bathroom etc.



ANALYSIS:

- There are many promenades alleys and gardens open to the public inside this site.
- Separating buildings of 5 for special elderly nursing and short staying 2 for daycare and 1 for administration are constructed.
- The location of the administration building in the center of the site.
- The buildings for special elderly nursing and short staying occupy the biggest area of the site. Three co- units are combined to make one unit in which 10 people can live.
- Each co-unit is composed of a small living room that surrounds it. In addition considering the need for night care, each two-unit is connected by the service desk and kitchen and bathroom space.
- Each private room is divided into 2 areas bedroom of 9m² and a multipurpose room of 6m². According to the investigation of the living habits of the surrounding residents. The bedroom is named the back room and the multipurpose room is named the room between spaces.
- The method of separating rooms between spaces from the traditional bedroom space is driven by the careful investigation of the life habits of the surrounding residents. Thus the individual privacy of the backroom is improved and the open activity space is created which maintain the diversity of the elderly people's life and their communication with the external environment.

CONCLUSIONS:

- Promenades, alleys, and gardens have recreational uses provide convenience to visitors, and improve site circulation.
- Buildings are separated and placed according to functional requirements.

- It should be convenient for the staff to administer and monitor the residents. a centralized position is optimal.
- The buildings for special elderly nursing and short staying occupy are separated as they require special care
- All the surrounding bedrooms get external views and share a common living room. this allows them to experience the scenery and also coexist with their fellow residents, for night care, every two units are connected by the service desk.
- and kitchen and bathroom space.
- services are compartmentalized between units efficiently.
- These division and placements of spaces allows the residents to experience comfort and makes sure that they don't lose their sense of belonging and a community.



CHAPTER 4: SITE ANALYSIS

4.1 SITE DOCUMENTATION:

GREEN ACRE NEAR TARIQ GARDEN, LAHORE.

AREA: 627272 sqft

17.42 acre

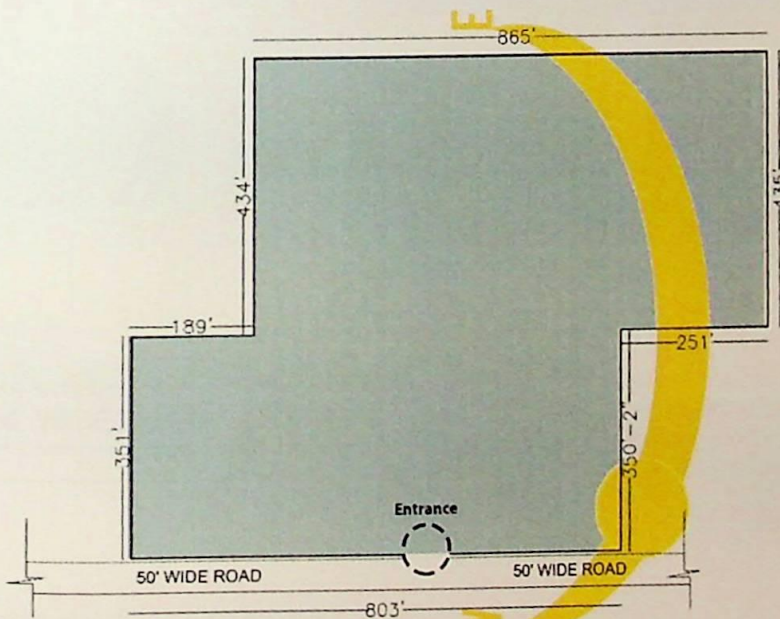
CLIMATE: Hot and dry

4.2 SITE SELECTION

CRITERIA:

- The site is located in an area where there is a need for a school.
- The site is near form the headquarter.
- It is located near the outskirts of the dense city and faces less traffic.
- It is easily accessible due to its location on defense road.
- The site is located where there is a lack of health care facilities and an emerging demand for clinical treatments.

4.3 SITE:



4.4 CONCLUSION:

SITE

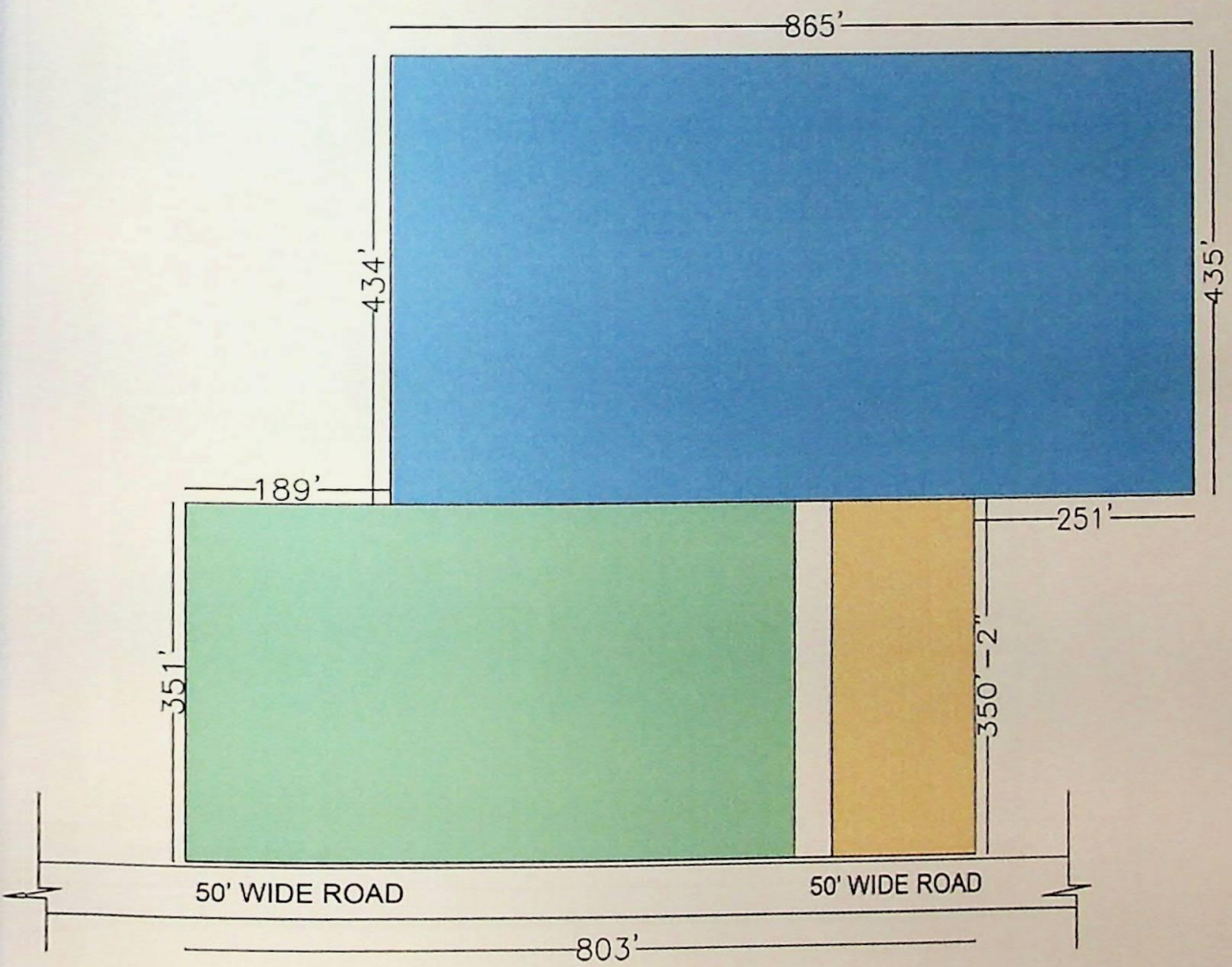
DISTANCE FROM HQ

CONNECTION OF ROADS



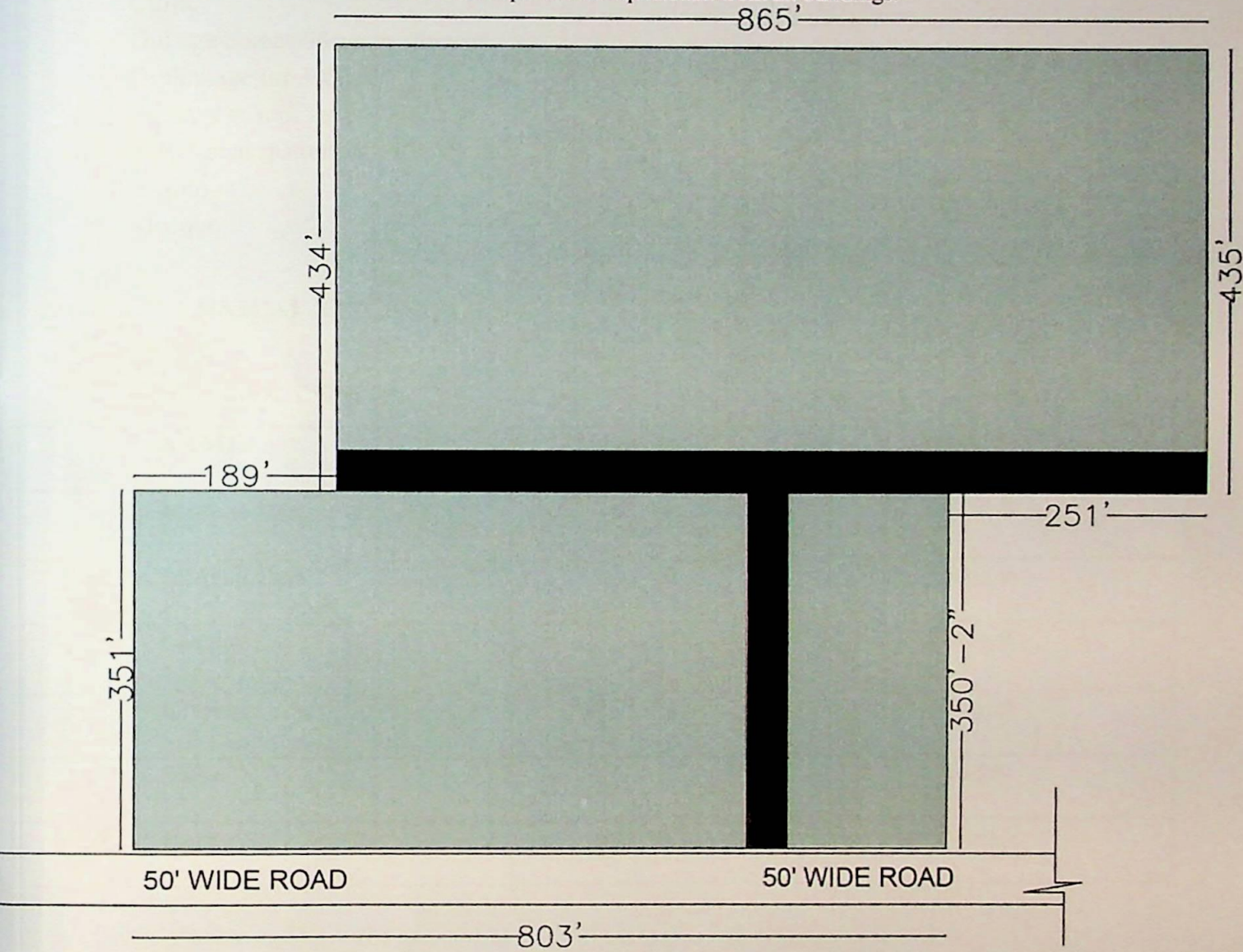
ZONING:

- Depending upon the usage, the site will be divided into different zones:
 1. Welfare
 2. Healthcare
 3. Education
- The zones will be accessible to different users depending on the user requirements.

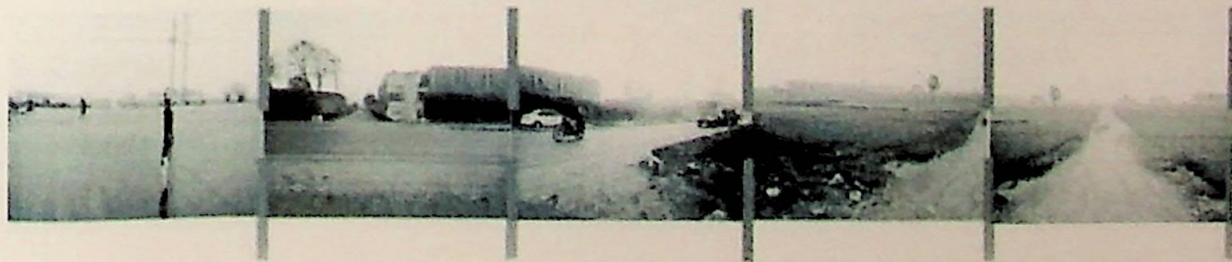


PLACEMENT:

- The placement of public spaces such as the school and clinic will be placed at the front and residential compounds at the back for privacy, security, and comfort. • The office, parking, and the common landscape will be equidistant from all buildings.



4.5 SITE PICTURE:



CHAPTER 5: BUILDING PROGRAM

5.1 BUILDING PROGRAM OUTLINE:

- Clinic
- Old age homes 90 senior citizens
- Orphanage for 300 kids
- Primary school for 300 children
- Vocational institute for 170 students
- Admin
- Mosque

5.2 TECHNICAL SPACES:

5.2.1 FAMILY UNITS:

NAME:	Quantity	Area
Mother Bed	1	150sq.ft
Children Bed	6	250sq.ft
Lounge	1	300sq.ft
Kitchen	1	100sq.ft
Store	1	50sq.ft
Bath	1	100sq.ft

5.2.2 OLD AGE UNITS:

NAME:	Quantity	Area
Caretaker	1	150sq.ft
Old Lady Bed	1	150sq.ft

Lounge	1	300sq.ft
Kitchen	1	100sq.ft
Store	1	50sq.ft
Bath	1	30sq.ft

5.2.3 School:

NAME:	Quantity	Area
Class Room	1 Student	13sq.ft
Computer Lab	1 Student	14sq.ft
Staff Room	28 Teachers	800sq.ft
Science Lab	25 Student	1700sq.ft
Bio Lab	25 Student	1700sq.ft
Chemistry Lab	25 Student	1700sq.ft
Physics Lab	25 Student	1700sq.ft
Toilets	4	200sq.ft
Principal Office	1	300sq.ft
Meeting Room	1	300sq.ft

5.2.4 Vocational Training:

NAME:	Quantity	Area
Class Room	1 student	14 sq.ft
Computer Lab	35	1300sq.ft

Studio	35	1800sq.ft
Toilets	8	400sq.ft
Bike Parking	1	18sq.ft
Principal Office	1	250-300 sq.ft
Staff Office	6 person	650 sq.ft

5.2.5 Clinic:

NAME:	Quantity	Area
Reception	1	30sq.ft
X-Ray	1	150sq.ft
Staff Room		350sq.ft
Waiting	1	10sq.ft
Toilets	2	100sq.ft
Bike Parking	1	18sq.ft
Dr. Office	1	200sq.ft
Path lab	1	400sq.ft
Ward	4 person	250sq.ft
Ultrasound	1	150sq.ft

5.2.6 Mosque:

NAME:	Quantity	Area
Per person	1 person	10sq.ft
Ablution	1 person	12sq.ft
Toilets	1 person	50sq.ft

5.2.7 ADMIN:

NAME:	Quantity	Area
Director	1	350sq.ft
HR Office	1	250sq.ft
Storage	1	650sq.ft
Toilets	1	50sq.ft
Reception	1	30sq.ft
Adoption	1	250sq.ft
Meeting		650sq.ft
Car	1	128sq.ft