

**PROYASH INSTITUTE FOR
SPECIAL EDUCATION AND RESEARCH CENTER, CHITTAGONG**



By

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ABSTRACT

Disability in a physical or mental condition, present from early childhood, characterized by great difficulty in communicating and forming relationships with other people and in using language and abstract concepts. People with such issues have to face several hardships throughout their lifetime. Even though it is not a disease, but many of us still unable to understand that an autistic person is as normal as us with just different way of communication. In Bangladesh, almost 10% of the total population have disabilities. It is high time to realize that without the contribution and participation of a large portion of our population, we cannot help them to lead towards a good life.

The idea of an institute is to develop more interaction among teachers, parents and children with disabilities. The academy will not only provide proper education to the special children but also encouraging general people to know how autistic people deal with regular activities. This project will bring the opportunity to produce more facilities to the children with disabilities and help them to participate socially.

AKNOWLEDGEMENT

First of all thanks to almighty Allah for guiding me and giving me such great parents and Family. I want to thank all my instructors, Iftekhar Ahmed, Fuad Hasan Mallick and Abul Fazal Mahmuddunabi without whom I wouldn't have had been completed this journey. Thanks to my classmates and friends who had always supported me in taking concrete decisions. I am immensely thankful to Rafid,, Sarah, Sanjida, Shihab, Eyaana, Maruf, Ishrak, Fayez, Jubayer, Fabliha, Rafiah, Afsara , Satabdi, Mashrica, Rime, Othi for their endless support. A very special thanks to my Senior Argha Saha for guiding me and believing on me on every steps My Journey in this project would not have run that strong without the constant support from my team.

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CHAPTER 01: INTRODUCTION

1.1 ABSTRACT:

In contemporary world, neurodevelopment disorder is regarded as an issue of special concentration. It is because from studies and research it is found that millions of children worldwide suffering in silence in the absence of enough understanding of the problem. From a recent study it is observed that 1% of the world's population, suffer from an autism spectrum disease.

Bangladesh is a developing country from South Asia having population of 167 million. According the World health Organization supported survey 2009 there are 0.84% children are suffering from Autism Spectrum disorders.(A,Helal,2014). There are lack of concern and approaches, need to make a common framework and plan to make a national guideline for autism management. The problem further aggregated with lack of quality institute for the children. Moreover, there is no facility available for the training and motivations of parents and teachers.

For last one decade, Bangladesh Army has taken a big initiative to facilitate these special children with quality education and therapy opportunity in a institution named PROYASH.This Institute has others branches in Jessore,Bogra, COMLLA ,Chittagong and Sylhet etc. Proyash Chittagong branch already has started their curriculum since 2012. However since then the school is being operated in a rented building with less capacity of holding all the functions.

To Accommodate All Of Their Students And Facilities, A New Design Of Campus Is Needed. In my proposal I want design a new campus for this institute with proper facilities and accommodations. This project not only be useful for the special children in their physical and mental development but also will benefit the society with such good initiative.

1.2 BACKGROUND OF THE PROJECT

According to a report published by in 2013, There is 7% children age under (3-14) years in our country are suffering from different sort of disabilities. Among them 3% child are from Dhaka city and the others are from different cities of the country .For children and people with disability, special schools or therapy centre are really negligible in number. With this concern in mind, The PROYASH Institute for Special Education and research (PISER) started its journey on 2006 in Dhaka Cantonment with an intention for holistic development for all children with need of special education. PROYASH is functioning under the advocacy of Bangladesh Army. Moreover, the curriculum, services and facilities are opened for all kinds of children with special needs of Bangladesh and other nationalities. A training Centre and research center for the development of special education teachers and therapists is also operated by this institute.

Besides With intention from serving children of the other parts of the country, Proyash Established Multiple Branches Of Which Chittagong Is Notable. The current number of student in PROYASH Chittagong Branch is 180, and 276 children are still in waiting list.

Other then this institute, there are Shebi, Ashar alo, Seher Autism Foundation, ACWF And Few Private One. But most of them deal with children with autism spectrum disorder. On the contrary PROYASH Chittagong has six categories of children including cerebral palsy, Autism Spectrum Disease, intellectually challenged, physically challenged, hearing impairment, visual impairment.

1.3 PROJECT SPECIFICATIONS

PROJECT TITLE: PROYASH Institute For Special Education And Research Centre

SITE: JL no: 01, Mouja : Jalalabad , Thana :Panchlaish, Chittagong Cantonment

AREA: 3.17 ACRE

CLIENT: Bangladesh Army, Ministry of Social Welfare

1.4 RATIONALE OF THE PROJECT

This institute deals with 5 types of major special students including Children With Autism Spectrum Disease, intellectually challenged, physically challenged, hearing impairment, visual impairment. The goal of this institute is to provide special guidance, education and training to them for better future. These children also need a school where they can get treatment, therapy, care motivation so that they can improve their skills and reach towards a normal life. Moreover, there is opportunity for research and learning for the teachers and parents through which they can be more cooperative towards the children.

1.5 REASONS BEHIND THE PROGRAM

The programs are based on the functional requirements of complete physical and mental growth facilities .The program also includes a full scheme for a complete disabled children friendly institute.

1.5 PROJECT AIMS AND OBJECTIVES:

- Ensuring the rights and need of a special child
- This institute can work as a support system to make them "differently able" to "able".
- Providing maximum comfort of a special child for better communication with other people.
- Exploring their scope of work and interests.
- This project is an initiative to make people with autism capable of living with being

Self contained.

1.6 KEY FUNCTIONS

1. Administration

2. Inclusive Education Program

A. Early Childhood Development Program

B. Primary School

C. Secondary School

D. Vocational School

3. Special education program

A. School OF Autism

B. School for intellectually challenged

C. School for physically challenged

D. School for visual impairment

E. School for hearing impairment

4. Institute for special education and research centre

5. Therapy Unit

A. Hydro therapy

B. Music and yoga therapy

C. Occupational therapy

D. Physiotherapy

E. Speech and language therapy

F. Behavior therapy

2. LITERATURE REVIEW

2.1 BACKGROUND OF AUTISM AND DISABILITIES

The term differently able body or disability refers to a physical and mental condition that creates a boundary for a person's senses, movements or activities. Disability is a concept which also covers impairments, activity limitations and restriction in participatory work. According to a statement of WHO, "Disability is not only a health problem but also a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives." (2016). Besides impairments may include physical, sensory, and cognitive or developmental disabilities.. Mental disorders and different types of chronic disease may also be referred as disabilities. However, Autism is the most common condition in a group of developmental disorders known as the autism spectrum disorders (ASDs). To elaborate, Autism is characterized by impaired social interaction, verbal issues and nonverbal communication, unusual, repetitive, or severely limited activities and interests shown by a children or person.

2.2. TYPES OF DISABILITIES

2.2.1 AUTISM SPECTRUM DISORDER

In general, ASDs include Asperger syndrome, Rett syndrome, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified (usually referred to as PDD-NOS). Experts estimate that three to six children out of every 1,000 will have autism. Males are four times more likely to have autism than females. There are three distinctive behaviors that characterize autism. Autistic children have difficulties with social interaction, problems with verbal and nonverbal communication, and repetitive behaviors or narrow, obsessive interests. These behaviors can range in impact from mild to disabling. The hallmark feature of autism is impaired social interaction. Parents are usually the first to notice symptoms of autism in their child. As early as infancy, a baby with autism may be unresponsive to people or focus intently on one item to the exclusion of others for long periods of time. A child with autism may appear to develop normally and then withdraw and become indifferent to social engagement. Children with autism may fail to respond to their name and often avoid eye contact with other people. They have difficulty interpreting what others are thinking or feeling because they can't understand social cues, such as tone of voice or facial expressions, and don't watch other people's faces for clues about appropriate behavior. They lack empathy

2.2.2 PHYSICAL DISABILITIES

According to the National Educational Association of Disabled Students (NEADS), a physical disability is one that affects a person's mobility or dexterity ("Making Extra Curricular Activities Inclusive", 2016). An individual with a physical handicap might have a compelling reason to utilize a percentage of supplies for support for versatility. It also incorporates persons who lost limbs and due to those state of their body, require slight adaptations on a chance to be settled on to empower them on take part completely to function in society. Paraplegia what's more Quadriplegia are what numerous individuals first identify for a physical handicap ("Making Extra Curricular Activities Inclusive", 2016). Paraplegia comes about from damage of the spinal cord, happening beneath neck, same time quadriplegia alludes to harm of the spinal line in the neck ("Making Extra Curricular Activities Inclusive", 2016). Changing measures of losing limbs and different portability might effect from these condition. Different types for physical disability like- polio, cerebral paralysis and genetic states are also responsible for these conditions. NEADS defined Types of Physical Disabilities as- Paraplegia Quadriplegia Multiple sclerosis (MS) Hemiplegic Cerebral palsy Absent limb/reduced limb function Dystrophy Polio ("Making Extra Curricular Activities Inclusive", 2016).

2.2.3 INTELLECTUAL DISABILITIES

According to American Association of Intellectual and developmental Disabilities "Intellectual disability is a disability characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills" (Definition of Intellectual Disability, 2016). These disabilities normally develop before crossing teenage period. They have difficulty completing tasks and processing information. Communication is very difficult them. NEADS find learning difficulties can cause difficulties in reading, writing, or mathematics and 10% of the population affected by it ("Making Extra Curricular Activities Inclusive", 2016).

2.2.4 VISUAL IMPAIRMENTS

The terms, visually impaired ranges from those who do not see at all to those who may see, but are confused by what they see because of changes or distortions brought about by their visual mechanisms. “Only 5% of 'blind' people can't see anything” (“Making Extra Curricular Activities Inclusive”, 2016). Visual impairments might be brought on toward a large number from claiming factors, including disease, accidents, and also birth defects. In addition, If a person has some sight, he is "visually impaired" and not "blind", regardless of what and how a child sees, he is much like other children in terms of basic needs and feelings and in general responses to growth processes.

Furthermore, the term "color blindness" is a misnomer since this genetically transmitted disorder is not "blindness" as the term is generally understood and is a minor handicap to only a few people. Visually impaired children are normally considered to be those who show by their actions and general functioning that they learn more efficiently by ways other than visual or who must implement, supplement, or substitute for their visual learning through touching and listening. From the educational point of view, the blind child is now considered to be the child who learns educationally through Braille and related media with little or no residual vision employed. The partially sighted child is felt to have useful vision for educational purposes, but is limited to the extent that some special educational provisions are necessary.

2.2.5 HEARING IMPAIRMENTS

Hearing impairment is generally defined as a partial or total inability to hear. Hearing loss may occur to one or more ears. Kentucky's Office for the Americans with Disabilities Act defined hearing impairments as-"A hearing impairment is a hearing loss that prevents a person from totally receiving sounds through the ear and if the loss is mild, the person has difficulty hearing faint or distant speech"("Hearing Impairments", 2016).many thing can cause deafness and hearing loss, like- accident, birth defect. NEADS found a distinction between people who are deaf and those who have a hearing impairment ("Making Extra Curricular Activities Inclusive", 2016).

2.3 SYMPTOMS OF AUTISM AND DISABILITIES:

For many children, autism symptoms improve with treatment and with age. Some children with autism grow up to lead normal or near-normal lives. Children, whose language skills regress early in life, usually before the age of 3, appear to be at risk of developing epilepsy or seizure-like brain activity. During adolescence, some children with autism may become depressed or experience behavioral problems. Parents of these children should be ready to adjust treatment for their child as needed. Many children with autism engage in repetitive movements such as rocking and twirling, or in self-abusive behavior such as biting or head-banging. They also tend to start speaking later than other children and may refer to themselves by name instead of "I" or "me." Children with autism don't know how to play interactively with other children. Some speak in a sing-song voice about a narrow range of favorite topics, with little regard for the interests of the person to whom they are speaking. Many children with autism have a reduced sensitivity to pain, but are abnormally sensitive to sound, touch, or other sensory stimulation. These unusual reactions may contribute to behavioral symptoms such as a resistance to being cuddled or hugged. Children with autism appear to have a higher than normal risk for certain co-existing conditions, including fragile X syndrome (which causes mental retardation), tuberous sclerosis (in which tumors grow on the brain), epileptic seizures, Tourette syndrome, learning disabilities, and attention deficit disorder.

2.4 AUTISM DIAGNOSED:

Autism varies widely in its severity and symptoms and may go unrecognized, especially in mildly affected children or when it is masked by more debilitating handicaps. Doctors identified a group of behaviors to alert them to the possibility of a diagnosis of autism. These behaviors are:

- Impaired ability to make friends with peers
- Impaired ability to initiate or sustain a conversation with others
- Absence or impairment of imaginative and social play
- Stereotyped, repetitive, or unusual use of language
- Restricted patterns of interest those are abnormal in intensity or focus
- Preoccupation with certain objects or subjects
- Inflexible adherence to specific routines or rituals

Doctors will often use a questionnaire or other screening instrument to gather information about a child's development and behavior. Some screening instruments rely solely on parent observations; others rely on a combination of parent and doctor observations. If screening instruments indicate the possibility of autism, doctors will ask for a more comprehensive evaluation.

2.5 HOW CHILDREN WITH AUTISM SHOULD BE TREATED

Although we are living in a modern world advanced in medical science and technology, however there is still no cure for autism. Therapies and behavioral interventions are designed to remedy certain symptoms and can bring about substantial improvement. The ideal treatment plan consists of therapies and interventions that target the core symptoms of autism: impaired social interaction, problems with verbal and nonverbal communication, and obsessive or repetitive routines and interests.

- **Educational/Behavioral Interventions:** Therapists use highly structured and intensive skill-oriented training sessions to help children develop social and language skills. Family counseling for the parents and siblings of children with autism often helps families cope with the particular challenges of living with an autistic child.
- **Medications:** Doctors often prescribe an antidepressant medication to handle symptoms of anxiety, depression, or obsessive-compulsive disorder. Anti-psychotic medications are used to treat severe behavioral problems. Seizures can be treated with one or more of the anticonvulsant drugs. Stimulant drugs, such as those used for children with attention deficit disorder (ADD), are sometimes used effectively to help decrease impulsivity and hyperactivity.
- **Other Therapies:** There are a number of controversial therapies or interventions available for autistic children, but few, if any, are supported by scientific

2.6 AUTISM RATES ACROSS THE WORLD

In 2017 a few keystrokes would bring up recent and reliable comparisons of the autism rates of the world's wealthiest and healthiest countries which is sorely disappointing. According to a survey conducted by World Health Organization (WHO), Poland with 3 in 10,000 statistics declares the number of children with disabilities. On the contrary For Hong Kong, the 371 in 10,000 statistic came from a 2017 media piece that reported 25,000 children are registered as autistic with an expected 10,000 more school children to be diagnosed in the 2017-2018 school year.(Charron,2017)

Autism Spectrum Disorder (ASD) is characterized by having deficits in social skills, engaging in repetitive behaviors, and having challenges with speech and non-verbal communication. Despite the media's portrayal of autistic people being prodigies or having extremely high intelligence, more than half of autistic people have an IQ of less than 70. 30% of autistic children never speak more than a few words, they are sickened

by bowel disease at a much higher rate than the average population, and many suffer from debilitating anxiety. By the most conservative estimates, almost 20% of children with autism also have epilepsy. Over 90% of autistic children who die prematurely do so because of drowning. The most severely affected kids may never be toilet trained and many struggle with frustrations that lead them to self-assault or assault a caregiver. Currently autism has no real cure, but treating the medical conditions that aggravate autism symptoms can drastically improve the child's health, and many parents report that their child is considered to be "recovered."

2.7 PRESENT CONDITION OF CHILDREN WITH DISABILITIES IN BANGLADESH

Disabled people have equal right to enjoy a better life with access to basic needs as well as sports. In Bangladesh disabled people are most deprived of education, medical support and social support. Due to inadequate facilities disabled persons are still struggling for quality education and developing social skills. Not only facilities but also accessibility in all the social sectors is very important for disabled persons. Due to inadequate accessibility they become socially bound to their own space separated from community. This prevents the normal development of disabled person as a child.

Parents' awareness in this matter has increased but there are not sufficient institutions or centers in the city where they can avail the help and treat their children better. In an article published earlier , "People who have autistic children usually come forward and form organizations by themselves to take care of their children. The government has to step up more dedicated centers in this regard," added Shahe Newaj, assistant director of Chittagong district social service office. According to statistics there are 12,083 autistic children in Chittagong and 44,440 across the country. Dr Nazneen Kawshar Chowdhury, director of Chittagong district service office, however, claimed that there are sufficient arrangements for care for autistic children in the port city. (Daily Star, 2018)

2.8 INCLUSIVE DESIGN CONSIDERATIONS FOR CHILDREN WITH DISABILITIES

Children with special educational need and disabilities need an attractive, accessible environment for better lifestyle. Such type of design creates a sense of belongingness and self-worth. According to the book, designing for disabled children and children with special abilities, few factors which are needed to be considered are;

Access: an accessible clear layout, simple circulation route for children with wheelchair, ergonomic detail favorable for children with all sort of disabilities.

Space: Children with mobility aids need more and broader space for movement. Safe clearance around furniture and equipment is necessary.

Sensory awareness: Designers should take account of glare free controllable lighting, good quality of acoustic condition, visual contrast and texture.

Enhancing learning: An environment where teachers, therapists and student can communicate clearly will enhance the mental condition.

Flexibility and adaptability: By minimizing fixed furniture and creating various size of accommodating space flexible and adaptive space can be given.

Health and well being: Thermal control, good ventilation is need for children with different abilities, specially who have difficulties with mobility.

Safety and security: Good sight lines for passive observation, proper use of ramp etc should be assured.

In Bangladesh, Government must take giant steps to develop special schools all over the country with public fund and only then state can formulate code of practice for the protection of the rights of special need children. Moreover teaching a special need child is a challenging and difficult task. Teachers of special school must receive higher remuneration than teachers of mainstream schools otherwise teachers will not be motivated to take the challenging profession. Therefore significant funding is required

for maintenance of special schools. In Bangladesh there are a few private organizations for Autistic children, but private organizations cannot be brought under legally binding provision. Government should take the responsibility to establish the legal framework, infrastructure, facilities and regular budget for education and care for Autistic children.

CHAPTER: 03: SITE APPRAISAL

3.1 SITE LOCATION AND ZONING

Name of the Project: PROYASH Institute for Special Education and Research Center

Site: JL no: 01, Mouja : Jalalabad , Thana :Panchlaish, Chittagong Cantonment

Area:

3.17

ACRE



3.2. SITE PHOTOGRAPHY



Panorama view of the site



Canal by the west side of the site

3.3 SITE SURROUNDINGS

The site has Chittagong Cantonment on the north-west side; including a hill and canal just adjacent to the site. Besides on the east side the office of Bangladesh Post Office is situated. Apart from these, on the south –east side, there is Cantonment super market, Restaurants, grocery shops, confectionaries and other amenities. Furthermore the south-west side is the Bayezid residential area, under Bayezid Bostami Thana which according to the 2011 census, comprises population of this Thana is 211,355. Apart from these, the site surrounding contains lots of trees, greeneries.



3.4 SOCIAL BACKGROUND

Ever since with the formation of Chittagong Cantonment, this field has been there. Included under Bayezid Bostami Thana, people utilize this field for cattle grazing, children to play and do various sports activities. This site has been treated as a huge field to the neighboring Bayezid Bostami residential area people as community field. Previously there where less residential building along the road. With course of time, the site surrounding started getting crowdie.

3.5 SWOT ANALYSIS

Strength:

- a. Lots of trees surrounding the site.
- b. The front side of the site is open with main road and the other side to canal .
- c. Enough land and space for an institutional project.
- d. Highly secured and maintenance under the military of Bangladesh army as it is adjacent to Chittagong Cantonment.

Weakness:

- a. Only one secondary road for vehicular access
- b. No public transportation facilities.
- c. Two side of the site is surrounded by cantonment which is a restricted area.

Opportunity:

- a. Aesthetically pleasing because of the adjacent hill and flow of canal
- b. Scope for creating a soothing space for disabled children.
- c. Tree act as sound barrier.

Threat:

- a. As it is adjacent to the main gate of Chittagong cantonment, all the vehicles including heavy ones also pass through these which eventually create noise pollution
- b. There is a high possibility of traffic problem in the near future.
- c. During rainy season, heavy rainfall may cause landslide in the hill which may overflow the canal.

CHAPTER: 04: PROGRAMME STUDY AND DEVELOPMENT

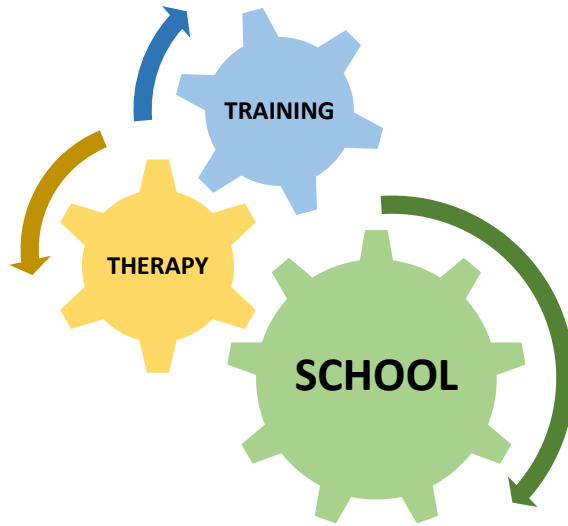


Diagram: Major functions of the institute

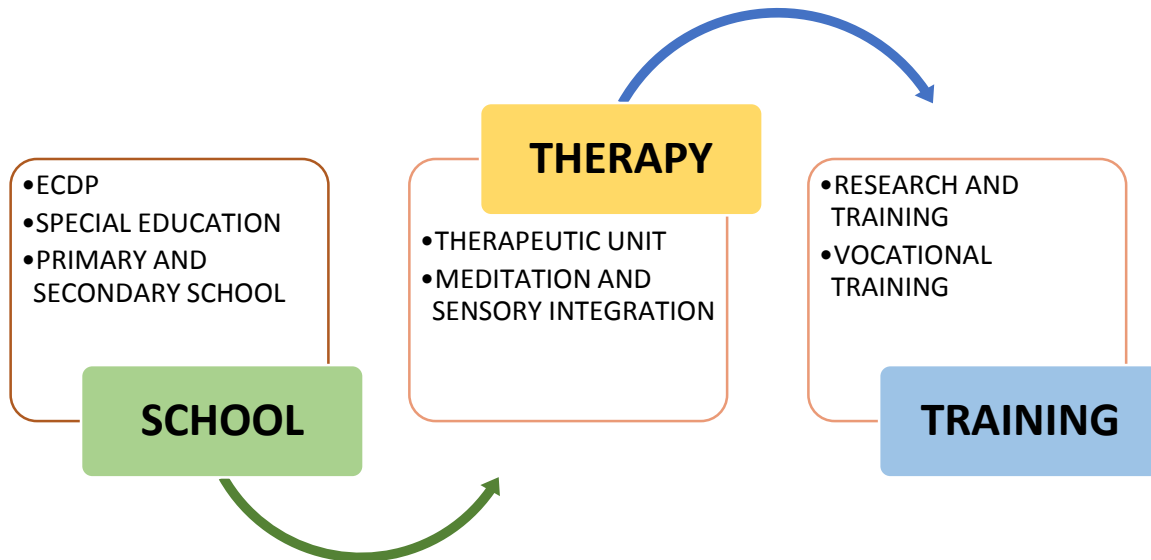


Diagram: Detailed functions of the institute

4.1. ADMINISTRATION BUILDING

1. Entry + Entry Lobby = 500 sft
 2. Administration + Admission = 1000 sft (03 Rooms)
 3. Reception+ Information + Inquiry = 400 sft
 4. Display = 200 sft
 5. Principal's Room with P.A. Room + Toilet+ Waiting = 700 sft (03 Rooms)
 6. Vice Principal s Office = 300 sft
 7. General Staff =300 sft (for 04 staffs)
 8. Fund raising authority = 150 sft
 9. Teachers room = 800 sft (for 10 teachers)
 10. Account Manager = 150 sft
 11. Conference Room = 700 sft
 12. Toilets + Stores = 1800 sft
 13. Daycare centre =600 sft
- Total = 7700 sft

4.2. MEDICAL CARE & TREATMENT

1. Lobby + Reception =150 sft
2. Doctors Lounge = 200 sft
3. Clinical Support Room = 800 sft

4. Nurse Station = 150 sft

5. Toilets + stores = 1000 sft

Total = 1400 sft

4.3. THERAPEUTIC UNIT

1. Physiotherapy = 500 sft

2. Hydrotherapy = 500 sft

3. Speech and hearing therapy = 250 sft

4. Mental health therapy unit = 300 sft

5. Occupational Therapy unit = 800 sft

6. Room for therapists(18) =1500 sft

7. Toilets + stores = 50 sft

Total = 2400 sft

4.4. MEDITATION AND SENSORY INTEGRATION

1. Special class for Activities Daily = 500 sft

Living and Life-skill training

1. Yoga and meditation classrooms = 1600 sft (04 rooms)

2. Toilets + stores = 200 sft

Total = 2200 sft

4.5 VOCATIONAL TRAINING UNITS

1. Lobby + waiting = 200 sft
 2. Workshops = 2000 sft (04 rooms)
 3. Sewing Training = 300 sft
 4. Mental workshops = 300 sft
 5. Computer Training = 300 sft
 6. Dance classroom = 500 sft
 7. Music classroom = 500 sft
 8. Painting classroom = 500 sft
 9. Cooking Room =500 sft
 10. Toilets + stores = 200 sft
- Total = 5300 sft

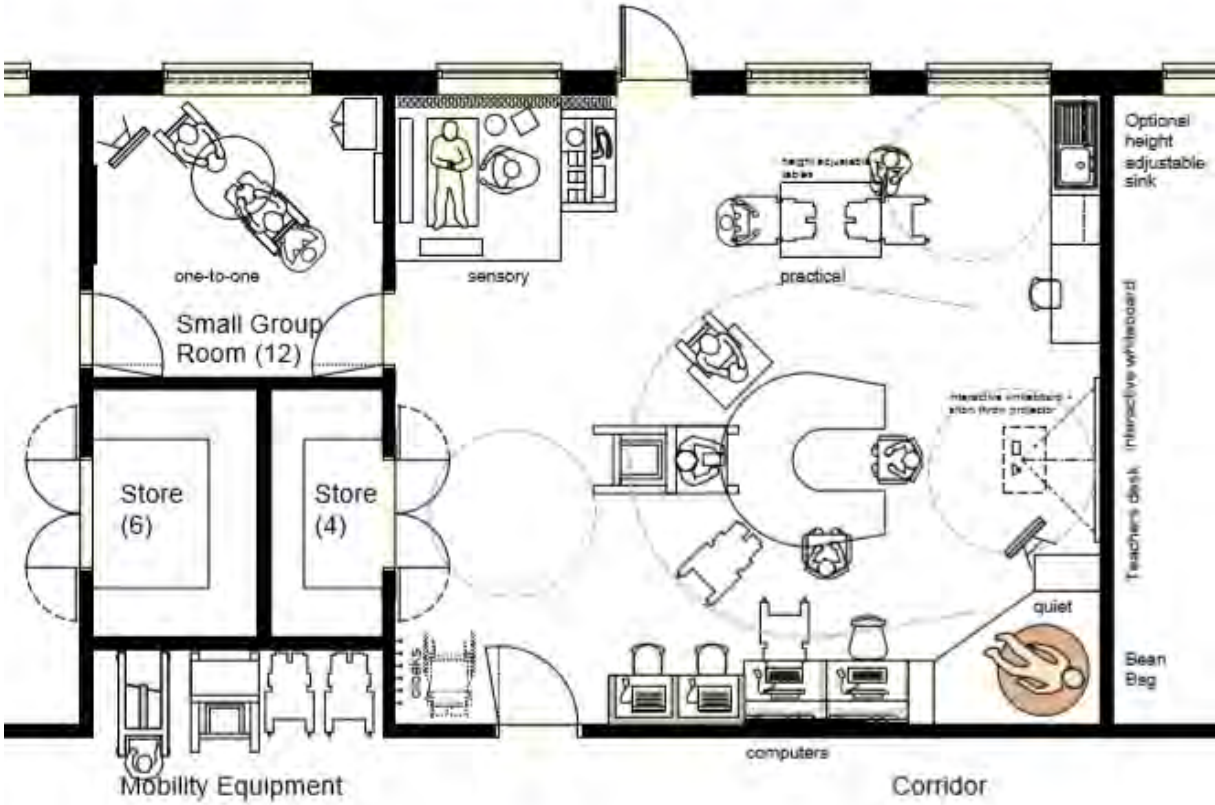


Diagram: A therapy room containing sensory integration and wheelchair access

4.6. EARLY CHILDHOOD DEVELOPMENT PROGRAMME CENTRE

(FOR 50 CHILDREN)

1. Lobby +waiting room=200 sft

2. Classrooms (5x800)=4000 sft

3. Playroom= 1200 sft

4. Library=1000 sft

5. Toilets +store room=200sft

Total=6600 sft

4.7. SPECIAL EDUCATION (FOR 300 CHILDREN)

1. Class room assuming 300 students = 15000 sft

(approx.) at a time with the capacity of 20 students in a class (10 nos x 1000 sft)

2. Studio Workshops = 3000 sft
3. Relative equipment's + Store = 300 sft

4. Activity Room = 500 sft

5. Teachers Common Room = 1000 sft

6. Teachers Workshop = 800 sft

7. Teachers training Room = 800 sft

8. Exhibitions Room = 1500 sft

9. Toilets + Store = 1500 sft

Total = 24400 sft

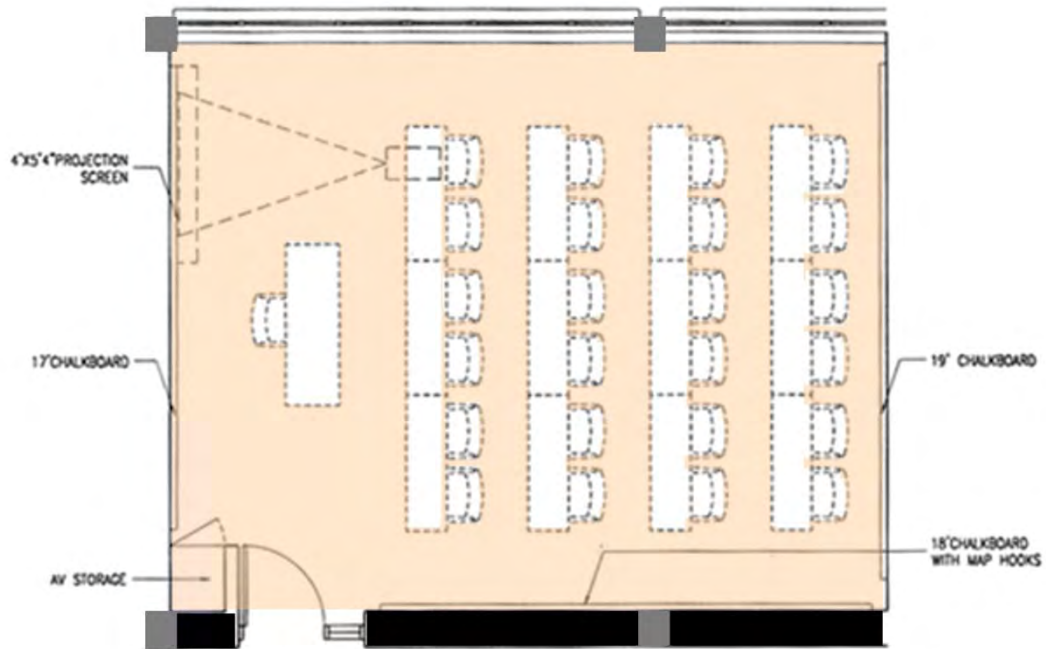


Diagram: A typical classroom for primary school students

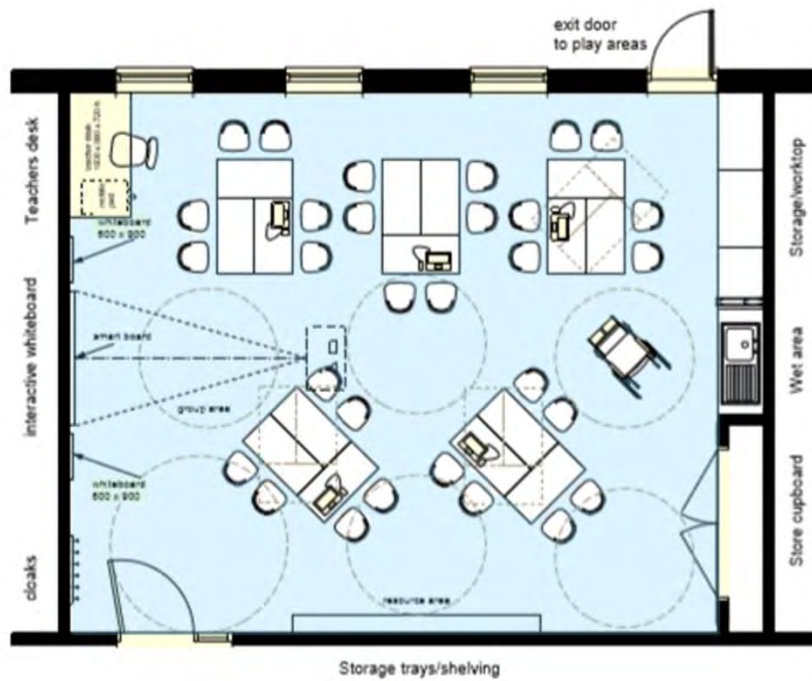


Diagram: A typical classroom for student with wheelchair

4.8. FOOD ZONE & ENTERTAINMENT ZONE

1. Cafeteria + Kitchen & Pantry = 3500 sft

2. Multipurpose hall = 6000 sft

3. Indoor games = 3000 sft

4. Swimming pool =4000 sft

5. Library=3000 sft

Total = 14500 sft

4.9. RESEARCH AND TRAINING CENTRE

1. Lobby +waiting zone= 200 sft

2. Classrooms (8x1000) sft=8000 sft

3. Library =2000 sft

4. Seminar Room =1500 sft

5. Recreational room= 1000 sft

6. Computer Lab=1000 sft

7. Faculty room=1500 sft

7. Toilets + store= 1500 sft

Total=17200 sft

Area: 3.17 acre or 2, 02120 sqft

Total built Area = 81700 sft

Circulation Area = 21700 sft

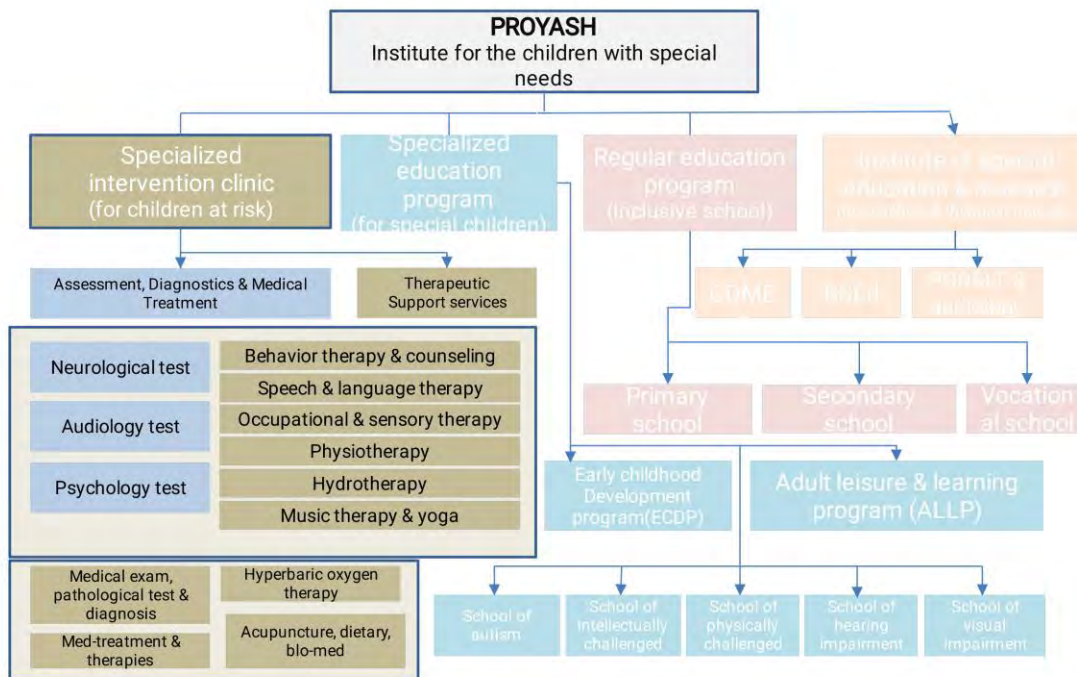
(30% of total Built Area)

In Total = 1, 20, 100sft area

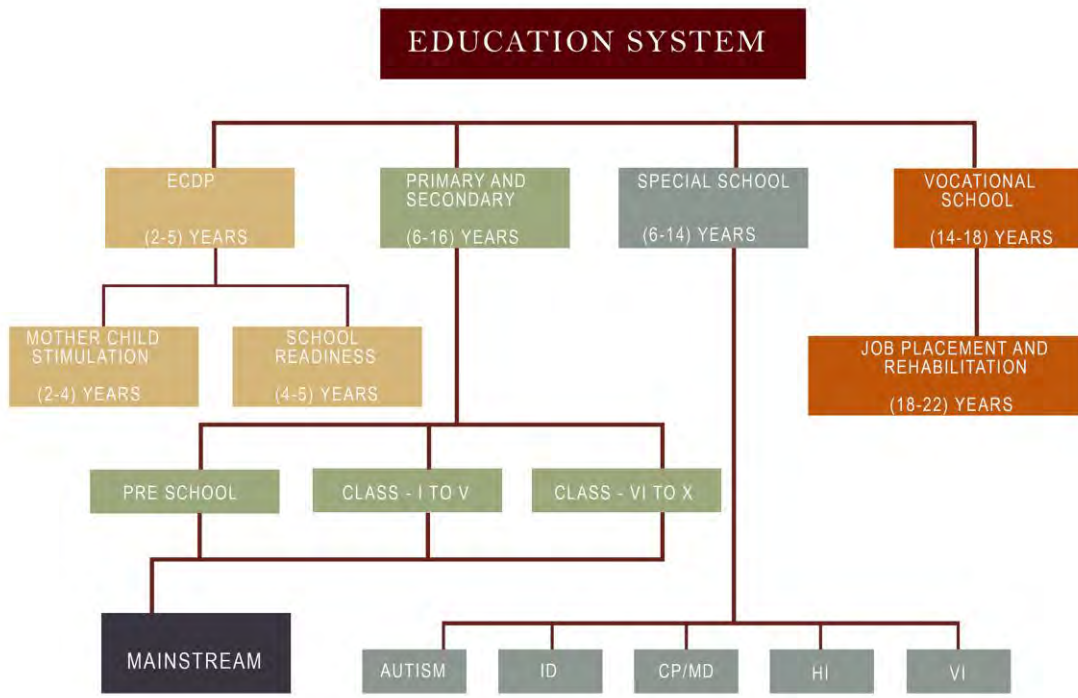
For Public Places = 108020 sft (open area)

OTHER FOR THE SITE DEVELOPMENT:

1. A platform for differently able children's to participate their cultural events
2. Drop off point of students taking public transport.
3. Car parking as much close to code requirement.
4. Pedestrian walkways for access to school building as much may be incorporated.
5. Vehicular drop off under porch of school building.
6. Courtyard + landscaped sitting for Students.
7. Parents waiting with toilet inside and outside of the school compound.
8. Sanctuary garden and playground placement properly.



HOW PROYASH WORKS



CHAPTER 05: CASE STUDIES

INTERNATIONAL :

Bay tree Community Special School

Client: North Somerset Council

Architects: David Morley Architects

Type: Community special school for children and young people with severe learning disabilities and profound and multiple learning difficulties.

Date completed: 2004

Area: 2000 m²

The external space is designed to allow easy access by the children as well as the community. The building has two main entrances – one for the community facilities and one for school use. The roof over-sails a long entrance wall to give a sheltered drop-off for the eight specially equipped mini-buses that bring the special school's students. Outside there are multi-use games areas, a skate park, bike track, nature garden, adventure area and playing fields. The design is focused on natural light and ventilation, making the environment conducive to learning. The two-storey high roof envelope is engineered to allow north light and fresh air to penetrate the spaces below, with reflective shafts allowing light penetration to the back of the lower level classrooms. All classroom windows face south, with projecting canopies and louvers that help control summer sun and allow some free heat from the low winter sun.



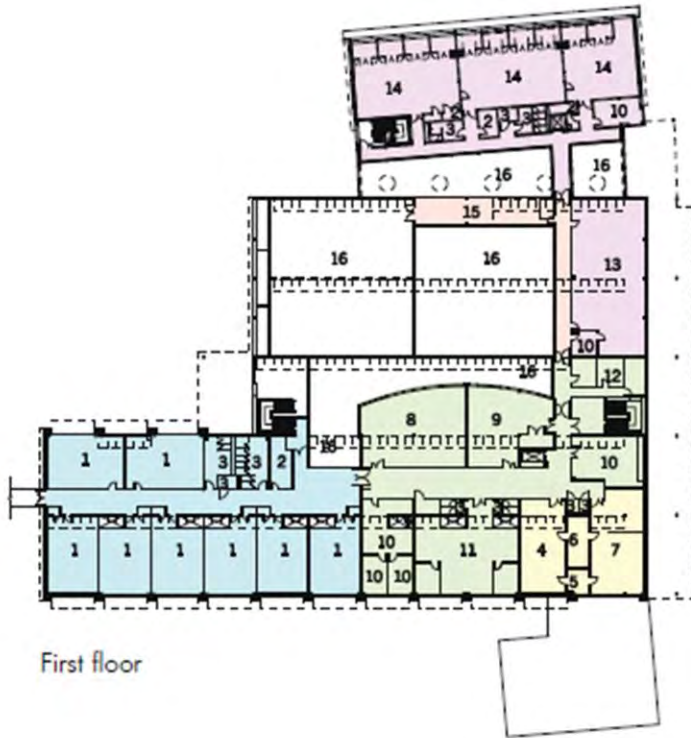
Road side view of the school



Internal open space in Baytree School

Key – first floor

1. Primary school class base (KS2)
2. Store
3. Toilets
4. Special school class base
5. Calming room
6. Hygiene
7. Life skills
8. ICT room
9. Art and design
10. Office/admin
11. Staff room
12. Meeting room
13. Adult education
14. Community rooms
15. Plant
16. Void

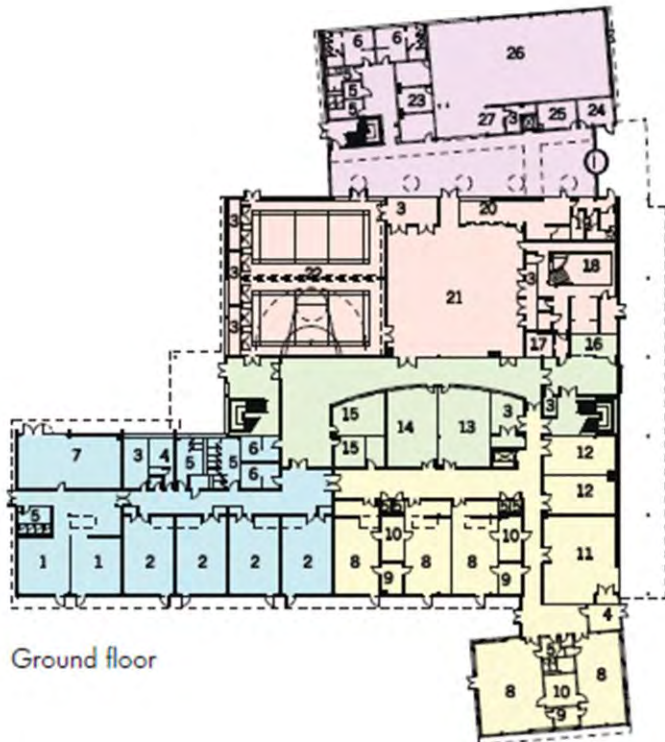


Key – ground floor

1. Primary school class base (foundation stage)
2. Primary school class base (KS1)
3. Store
4. Medical room
5. Toilets
6. Shower and changing
7. Music
8. Special school class base
9. Calming room
10. Hygiene and changing
11. SEN resource base (PMLD)
12. Multi-purpose room
13. Language and special needs
14. Food technology
15. Speech therapy
16. Schools' reception
17. Soft play
18. Hydrotherapy pool
19. Kitchen
20. Servery
21. Dining
22. Hall
23. Meeting
24. Police office
25. Interview
26. Library and resource centre
27. Library and community reception

Key colours

- Community facilities
- Shared school and community
- Shared support
- Primary school
- Special school



The building is conceived as three related wings of accommodation. A top-lit open plan dining hall lies at the heart of the building and can be shared by both the schools and the community. This space has moveable walls so that it can be used not just for dining and assembly but also as a foyer to the main hall for large gatherings or after-school events. The halls and the hydrotherapy pool are positioned for easy access for others visiting the school. The different areas of the school are zoned in a way that retains security and privacy for school pupils. The special school facilities also include a soft play room and sound and light therapy areas. Each pair of special school class bases shares a small group room and a hygiene room.

Merits and Demerits:

- Lots of trees and water body as part of the building and reduce the typical Institution effect.
- Presence of transitional sensory garden for children.
- Community related facilities in such institution add a new dimension.
- Though there is various functions but the presence of color and different aesthetic is not visible which is very much essential for such kids.
- Function is not properly analyzed so that they are not in proper sequence.

NATIONAL :

Center for Rehabilitation of Paralyzed (CRP)

Site: Mirpur, Dhaka

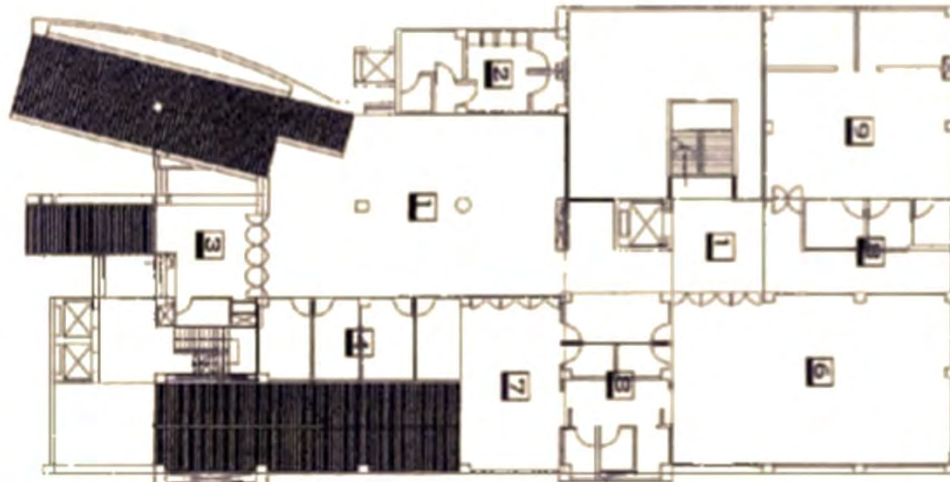
Architect / Consultant: SHATOTTO

Centre for the Rehabilitation of the Paralyzed or CRP (পক্ষাঘাতগ্রস্থদের পুনর্বাসন কেন্দ্র) is a Bangladesh non government organization that works for the rehabilitation of the paralyzed.



Architectural Program:

- Medical diagnostic services and telemedicine, Pathology, Radiology
- Medical consultancy
- Physiotherapy, Occupational therapy
- Childcare services
- Vocational training program
- Cabin facilities



■ CRP, MIRPUR

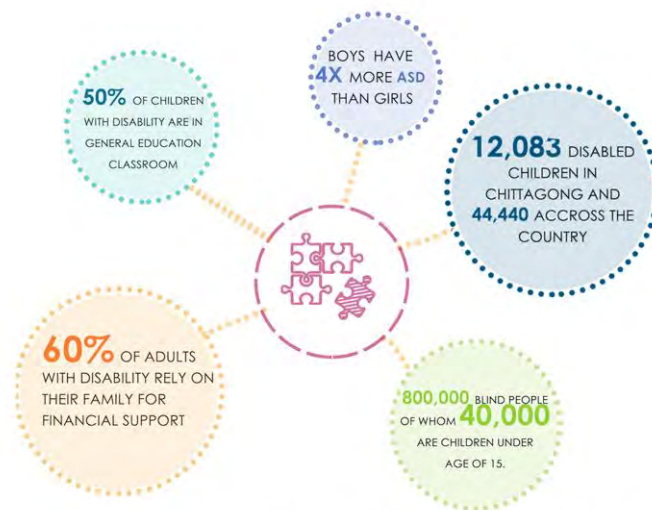


Merits and Demerits:

- Lots of terrace make this building part of nature and reduce the hospital effect.
- Lots of open and free space for patient.
- There are zoning problem in function development.
- Though there is function in both sides the double loaded corridor become dark.
- Use of glasses gained very much heat.
- Function is not properly analyzed so that they are not in proper sequence.

CHAPTER 06 : CONCEPTUAL STAGE AND DESIGN DEVELOPMENT

6.1 Concept & Design Considerations

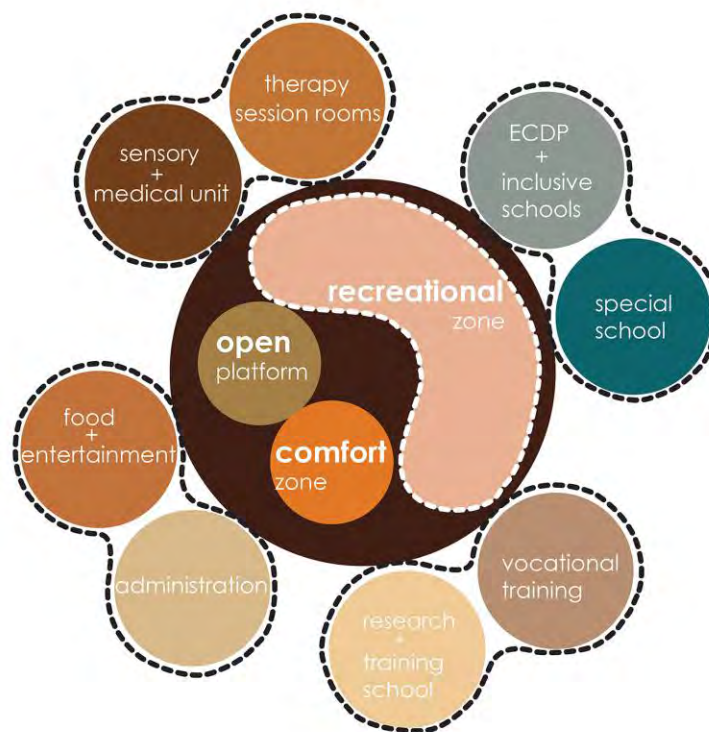


CURRENT CONDITION OF DISABILITY IN BANGLADESH



DESIGN CONSIDERATIONS

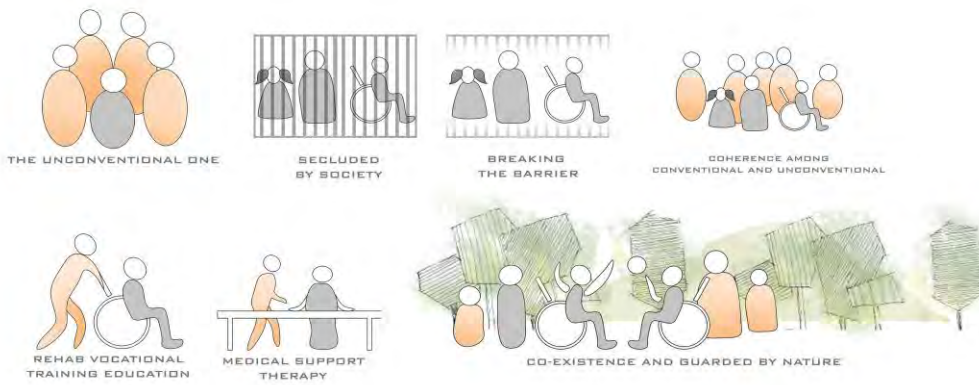
6.2. Program development



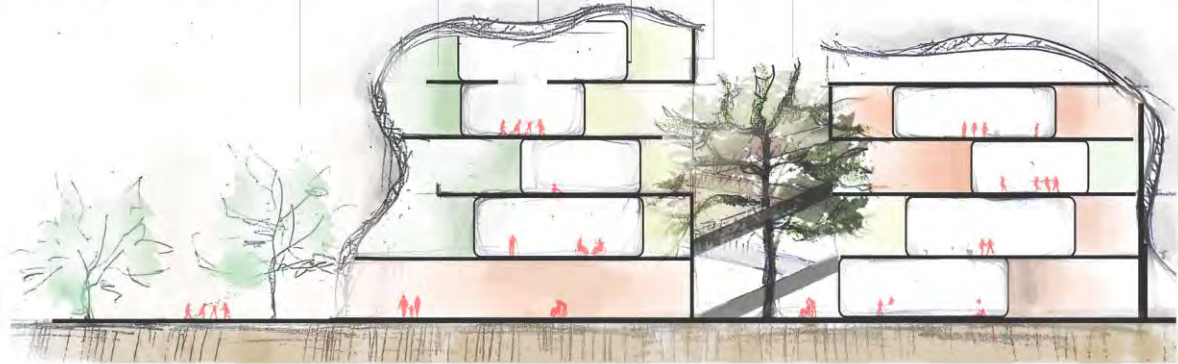


SCHOOLING SYSTEM

6.3. Conceptual sketch

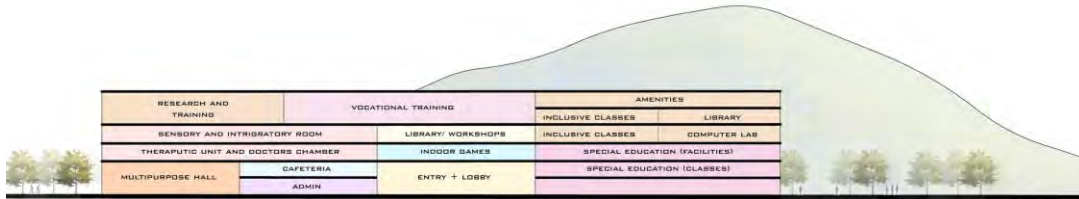


CONCEPTUAL SECTION: COMMUNITY SPACE TERRACE SPACES ENSURING CURVED WALLS PERIPHERAL CIRCULATION VERTICAL CIRCULATION VIA RAMPS SURROUNDING A TREE AVOIDING CORRIDOR SPACE AND DESIGNING WIDER CIRCULATION

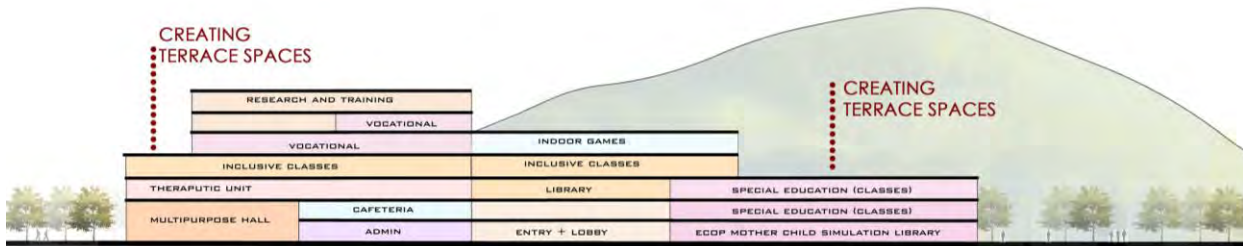


6.4. Mass development

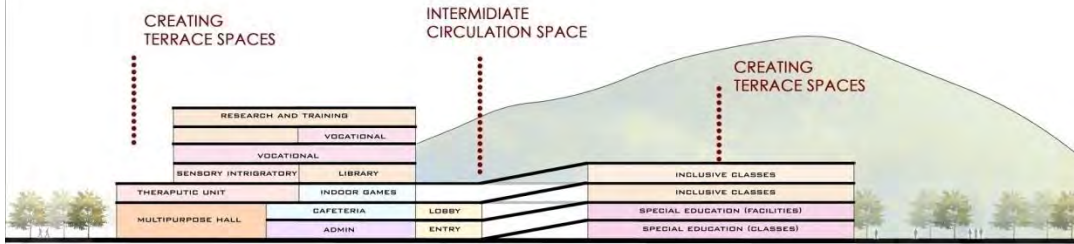




PHASE 1



PHASE 2



PHASE 3

6.5. Plans

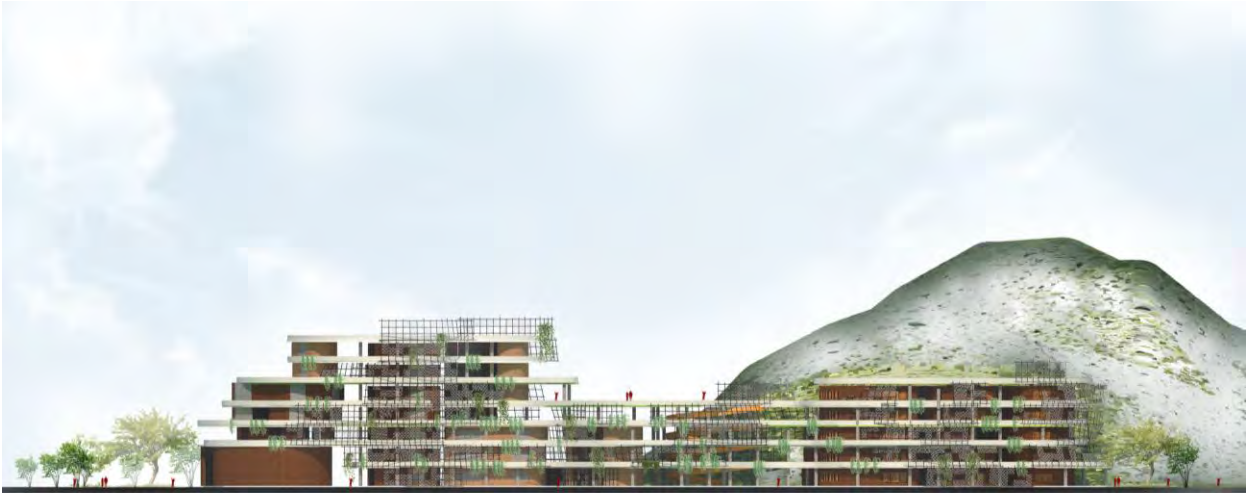


U GROUND FLOOR PLAN
SCALE: 1/16"=1'-0"



Fig: All Floor Plan

6.6. Elevation



EAST ELEVATION

6.7. Sections



SECTION BB
SCALE: 1/16" = 1'-0"



SECTION AA
SCALE: 1/16" = 1'-0"

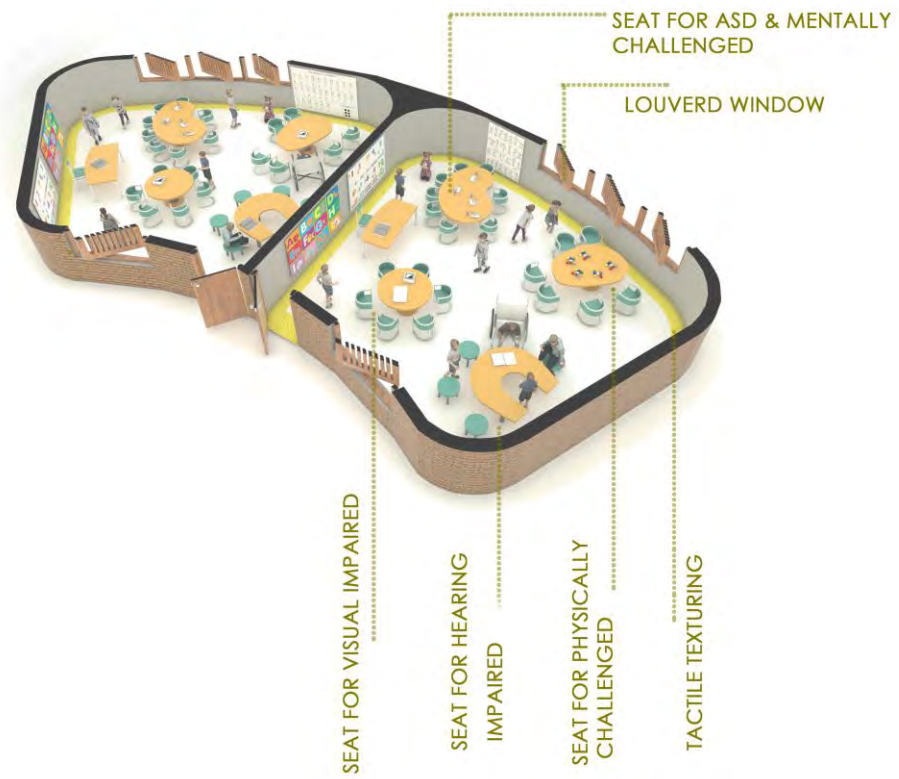
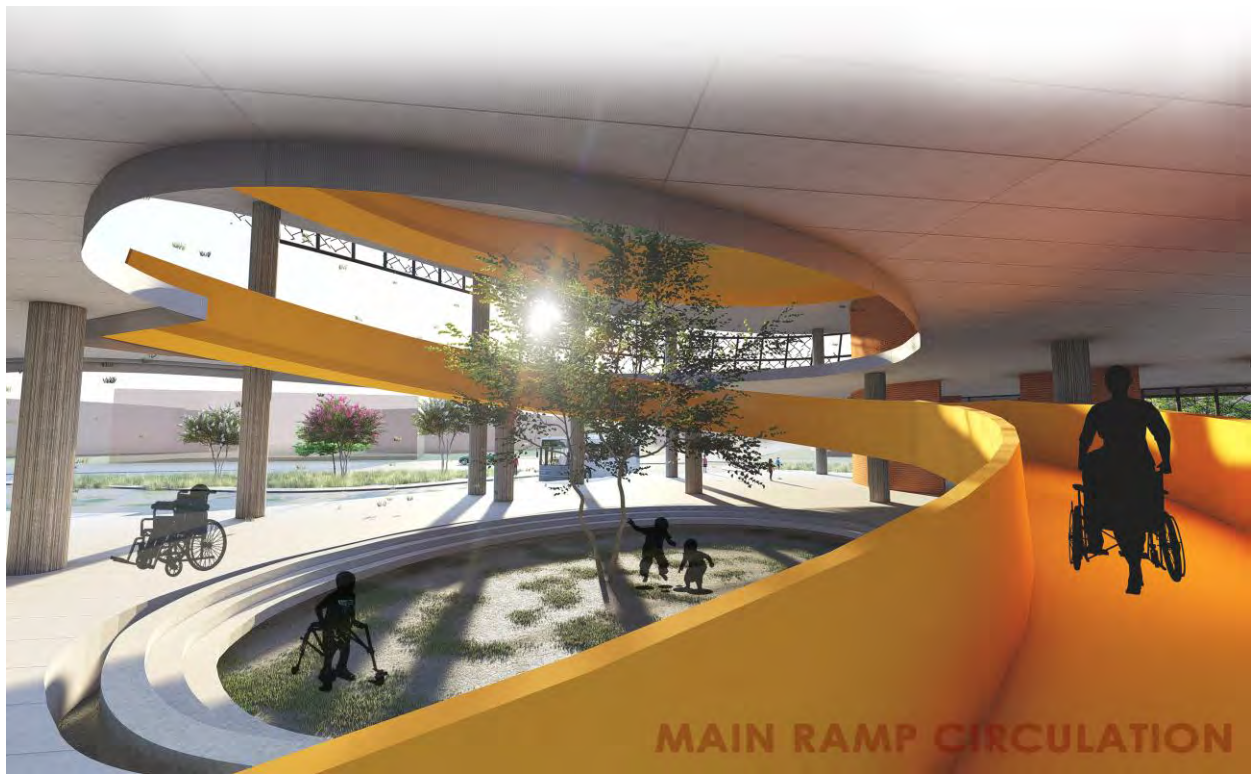


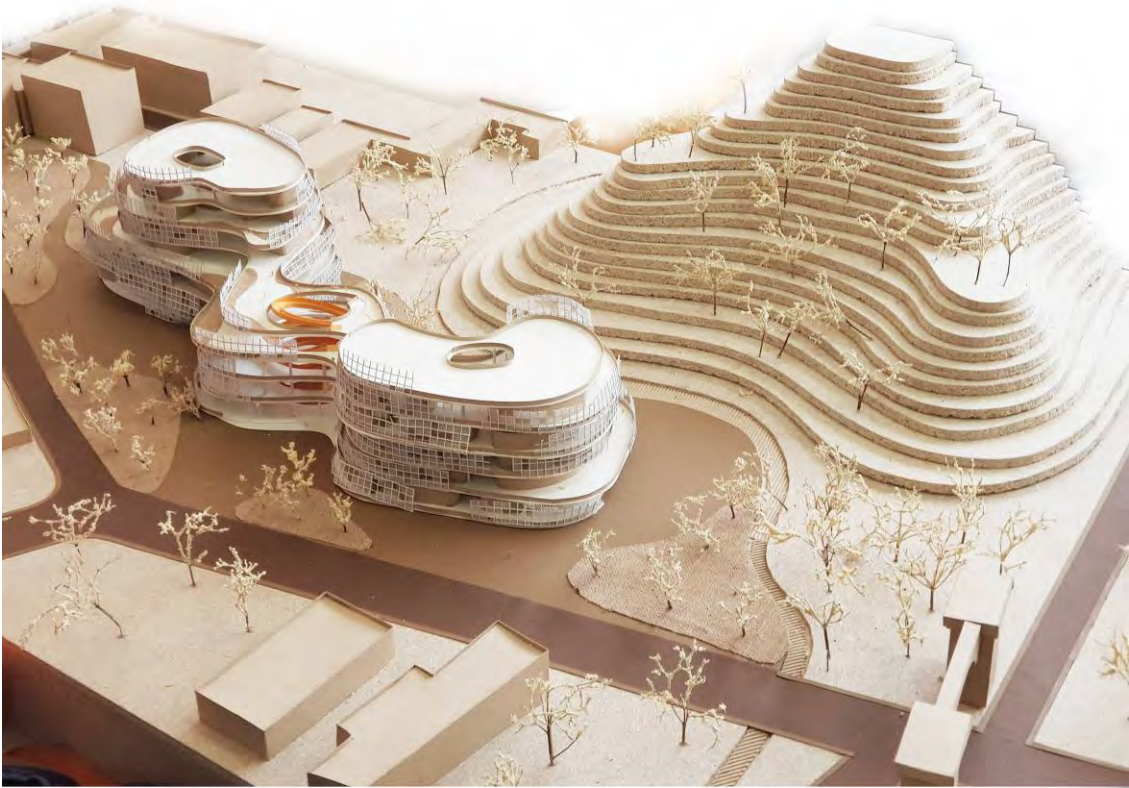
Fig: Classroom unit for inclusive Education System

6.8. 3D Views & Render





6.9. Model Images



CONCLUSION:

In our lifetime, we will probably know more people and families affected by autism. We can choose and be part of the solution by helping a friend, family member or neighbor. We can take time to learn not just about autism, but the individual child. Make the decision to accept children with disabilities and teach our children how they can help children with autism by being a friend too. Making the choice to support a family affected by autism is one of the greatest gifts we can give. It is also very likely that our act of kindness may turn out to be one of the greatest gifts we may receive back as well. Being a friend in our good times is easy. During the difficult times too, that's how we learn who our real friends are.

This paper is a step by step solution of the project which reflects what would be a satisfying environment for the people of special needs and providing them a better space to embrace their life.

Reference:

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