
PROPOSED NATIONAL INSTITUTE FOR VISUALLY HANDICAPPED, HYDERABAD

**GUIDED BY:
AR.AANSHUL SINGH**

**SUBMITTED BY:
DARSHIKA SRIVASTAVA
B.ARCH 5TH YR (2024-25)
ROLL NO. - 1180101023
BABU BANARASI DAS UNIVERSITY,
LUCKNOW**

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INTRODUCTION:

- This project will be a school for the visually impaired the blind and visually impaired have the right to be able to navigate effortlessly through the built environment.
- It is our job as designers to ensure the health, safety, and welfare of everyone who uses our buildings; therefore, in designing we must consider everyone's needs.
- A design that considers all the senses through which we gather information will undoubtedly be more holistic and complete than one that only considers sight.

NATIONAL INSTITUTE FOR THE EMPOWERMENT OF THE PERSON WITH VISUALLY DISABILITIES (DIVYANGJAN):

- “ The national institute for the empowerment of persons with visual disabilities (divyangjan), is a premier institute in the field of visual disability working under the administrative control of ministry of social justice and empowerment, government of India.
- The institute is committed to promote rights and dignity of persons with visual impairments. in order to achieve this laudable objective, the institute produces trained manpower for providing quality education, vocational training and rehabilitation services to the visually impaired persons.
- It also undertakes research and developmental activities ensuring emergence of disability inclusive policies, programmes and practices.
- Its r&d activities have contributed a number of useful tools and enabling technologies for equal participation by the visually impaired persons in different walks of life.
- The institute is largest producer and distributor of braille literature and devices in the country including talking books."

METHODOLOGY

SCHOOL FOR THE BLIND

CLAIM:

The blind and visually handicapped have the right to be able to navigate effortlessly through the built.

PREMISES:

The blind compensate for their lack of sight by relying more heavily on the other senses. navigation through and the action of experiencing a place depends on a person's ability to collect information through his or her senses.

we as designers often focus most of our time and energy on the visual aspects of a design.

PROJECT EMPHASIS

This thesis will study different methods and techniques designers can employ to help the blind navigate through, interact with, and experience built environments.

emphasis will be placed on designing for all the senses to create a space that all people are able to experience and enjoy regardless of their disabilities.

in this project i will explore different methods and techniques that can be used to create a design that appeals to all the senses, thus enabling the blind to better experience the world around them. it comes as no surprise that architecture is mainly a visually based profession, but when every sense is considered it will undoubtedly make for a superior design and a better experience for all the users.

PLAN FOR PROCEEDING

Research will be conducted in the areas of the unifying idea, project typology , site analysis, and requirements qualitative and quantitative data will be collected. The design process will be documented utilizing sketches, photography, digital drawings, and physical models. documentation will be collected.

AIMS AND OBJECTIVES

The aims and objectives of the nivh as stated in the memorandum of association are as follows:

- to conduct, sponsor, co-ordinate and/or subsidize research in collaboration with other ngos and research organizations including universities into various dimensions of the education and rehabilitation of the visually impaired.
- to undertake, sponsor, co-ordinate or subsidise research into biomedical engineering leading to the effective evaluation of special appliances/ instruments or suitable surgical or medical procedures or the development of new special appliances/ instruments.
- to undertake or sponsor the training of trainees and various specialized professionals including teachers, employment officers, psychologists, vocational counsellors and such other personnel as deemed necessary.
- to distribute, promote, or subsidise the manufacture of prototypes and to manage distribution of any or all devices designed to promote any aspect of the education, rehabilitation or employment of the visually impaired.

SCOPE & LIMITATIONS

- The scope of this project is to design an institute that relates with human behavior, interaction with the spaces, recreational and develop that environment in which special children get education.
- The study will only be limited to the architectural problems involved for the design of a special school with rehabilitation. it shall focus on an innovative approach for the planning and designing of the said school and the additional spaces and facilities within its perimeters. the advance technology will be needed.

THEORETICAL PREMISE

VISUALLY IMPAIRED : reduced vision so severe as to constitute a handicap. this is a collective term used to describe all conditions of impaired vision, including total blindness as well as partial sight

BLIND: inability to see with the physical eyes, without sight

PARTIALLY SIGHTED: with residual vision

LEGAL BLINDNESS (LEGALLY BLIND) : a person is considered "legally blind" when their visual acuity is 20/200 or less in the better eye. a person who is legally blind is eligible for disability benefits and recognized as having a handicap.

KINAESTHESIA : The perception of the bodies position and movement, the sensation accompanying the movement of muscles (awareness of the position and movement of the parts of the body by means of sensory organs)

THE HUMAN SENSES

SIGHT

- Sight is the sense most relied upon. our vision allows us to comprehend images that are far and near. we can see the nature of objects, whether they are smooth or rough, soft or hard.
- our eyes reflect the environment back to us. less than 10% of visually impaired people are totally blind. it is therefore important not to exclude the inclusion of visual elements in the way of bold forms, tonal contrasts and color.

TOUCH

- Texture can only offer information at arms length.
- Texture can be informative but cannot give information about something a long distance away, only that which is imminent.

SIGHT COLOR

- while it sounds odd that blind people could use sight as a way of experiencing and navigating through space, one must remember that there are different severities of blindness.
- total blindness is the inability to distinguish light from dark, but many visually impaired people are not totally blind. this opens up the sense of sight as a possible useful navigational tool.

SOUND

- For a person without sight. the most informative and developed sense is hearing.
- sound is omni-directional providing information about activities which are all around, far or near. sound gives warning and offers direction. buildings return sound to us, structuring and articulating our understanding of space.

SMELL

- smell is rarely used as a directional clue. however it can be used as a source of information and guidance.
- a coffee shop, for example, emits an aroma of coffee disclosing its location to the visually impaired person.

GLARE

- some visually impaired people's eyes are not able to modulate light. when this happens, glare off of reflective surfaces such as snow or water may become a problem.
- there are special glasses that visually impaired people can wear to help cut down the glare.

SENSORY GARDEN

- sensory gardens are gardens, either public or private, that appeal to all five senses. the gardens are most often targeted to people with various disabilities but they can be enjoyed by all.
- a **sensory garden** is a **garden** environment that is designed with the purpose of stimulating the senses. this stimulation occurs courtesy of plants and the use of materials that engage one's senses of sight, smell, touch, taste, and sound.



LIGHTING

- adequate lighting is the single most important aid to vision. the lighting needs of persons who are blind or visually impaired vary according to particular eye conditions.
- one level of light might work well for a person with glaucoma and be too low for someone with macular degeneration.
- the use of variable lighting controls, indirect lighting and window shades can mitigate issues caused by glare.

VISUAL STIMULATION

- vision has a strong connection to interior architecture. since visually challenged children has no or very less
 - vision so the spaces designed has to be elaborate in sense of vision to stimulate their sense of vision.
- CONTRAST COLORS INDOORS AND OUTDOOR.
 - CONTRAST COLORS FOR BUILDING ACCESSORIES.
 - COLOR CODED CLASSROOM.



OLFACTORY STIMULATION

(SMELL- SPACE'S ORDER)

- we need only a little amount of molecules of substance to trigger an impulse of smell in a nerve end, and we can smell more than ten thousand different scents.
- if it is a new scent it is possible to remember the scent and identify it again later. these associates could be used in architecture. to stimulate emotions, to guide, or to distract



HAPTIC STIMULATION

(TOUCH- AN INTIMATE SENSE)

The eye is the organ of distance, whereas touch is the sense of nearness, intimacy and affection. the eye observes and investigates, whereas the touch approaches and feels.

- DIFFERENT TEXTURE INDOORS AND OUTDOORS.
- TEXTURAL DIFFERENCE IN THE CIRCULATION, ACTIVITY AND EASING SPACES.
- BRAILLE USED ON EVERY WALL TO INDICATE SPACE LOCATION.
- INDICATION OF OBJECTS USING BRAILLE.



AUDITORY STIMULATION

ACOUSTIC- THE SILENT SENSE

- Hearing is a very incorporating sense. It is omnidirectional. Not focused like vision.
- A view at a building will not show the person watching the building but a building will return the sound of a person walking in it and listening to the sound.
- still most of the time acoustic remains an unconscious background experience but in the right places it can create the right atmosphere for almost spiritual sceneries.



TACTILE TILE

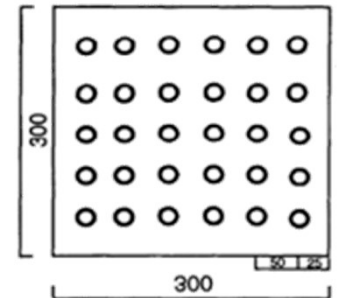
Tactile paving is a system of textured ground surface indicator found on footpaths, stairs and train station platforms to assist pedestrians who are visually impaired.

TYPES OF TACTILE:

BLISTER TACTILE

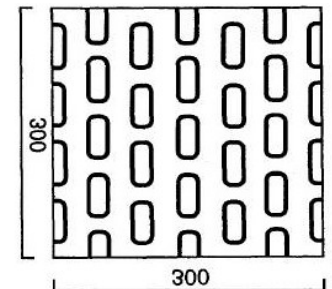
These are used for pedestrian crossings. the purpose of the blister surface is to provide a warning to visually impaired people who would otherwise, in the absence of a change of height of > 25 mm, find it difficult to differentiate between where the footway ends and the carriageway begins.

(2) Shape of spot block



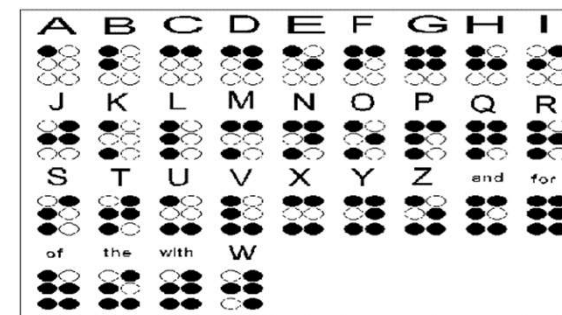
LOZENGE TACTILE

The lozenge tactile is also known as the platform edge (on-street) warning surface. "the purpose of the platform edge (on-street) warning surface is to warn visually impaired people that they are approaching the edge of an on-street light rapid transit (lrt) platform."



BRAILLE:

Education for the visually impaired existed even before the braille language was invented, the dot system became an accepted mode of written expression when luis braille, himself a blind, introduced it for educational purpose. in this system, the letters are formed by the raised dots in cell.



CLIENT/ USER DESCRIPTION

CLIENT: Ministry of social justice and empowerment, government of India will be the owner/ client of the project.

USER: students-the facility will provide services to blind and visually handicapped students ranging in age from newborns to 21. roughly 80 students will live on campus and attend school full-time nine months out of the year, while others will come for shorter periods of time to attend special classes and seminars.

TEACHERS-There will be specially trained teachers working during the academic school year. in the summer roughly half the teachers will continue working full-time teaching summer programs and seminars. teachers will use the facility between the hours of 7:00 a.m. and 4:00 p.m.

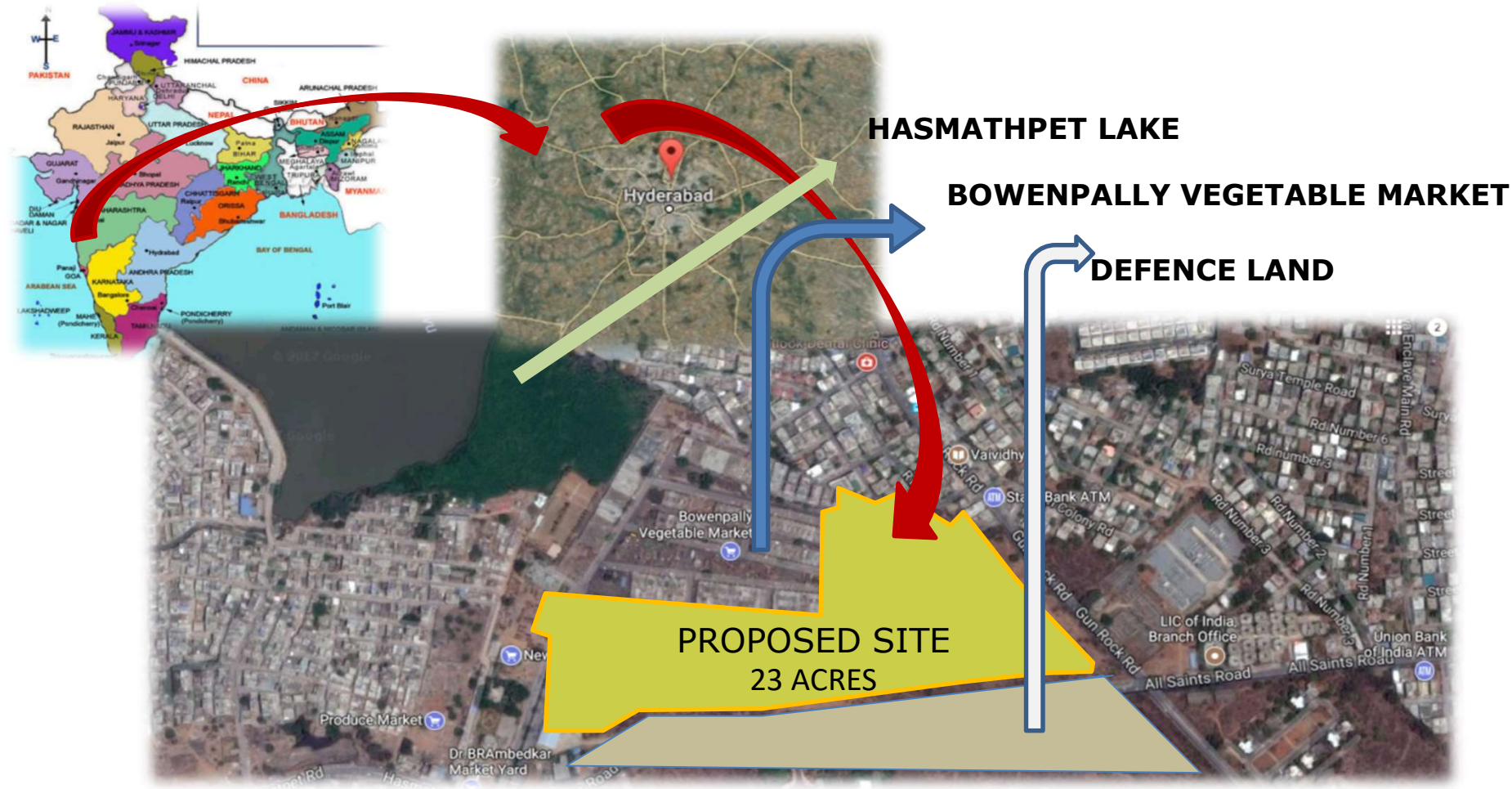
ADMINISTRATORS-Administrators will oversee the operation and everyday proceedings of the school. they will be on campus between the hours of 7:00am-4:00pm.

SUPPORT STAFF-

A number of support staff will be needed to both help the school run as smoothly and efficiently as possible and maintain the buildings and grounds. these positions will include administrative assistants, custodians, groundskeepers, cooks, etc. working hours for the support staff will vary depending on the specific job.

LOCATION OF THE SITE

The site is located 500 m from the Hasmathpet lake, Hyderabad (Andhra Pradesh). the area of site is **23 acre** national institute for visually handicap is proposed on the site according to municipal administration and development department Andhra Pradesh. the site is surrounded by residential colonies for different departments like rtc colony job colony. there is a Hasmathpet market just adjacent to the site.



PROPOSED NATIONAL INSTITUTE FOR VISUALLY HANDICAPPED, HYDERBAD

CLIMATE ANALYSIS

CLIMATE OF HYDERABAD

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YR.
RECORD HIGH °C/°F	35.9/ 96.6	39.1/ 102.4	42.2/ 108	43.3/ 109.9	44.5/ 112.1	45.5/ 113.9	37.4/ 99.3	36.1/ /97	36/ 97	36.7/ 98.1	34/ 93.2	33.8/ 92.8	45.5/ 113
AV. HIGH °C/°F	28.8/ 83.8	31.9/ 89.4	35.4/ 95.7	37.9/ 100.2	39.0/ 102.2	34.5/ 94.1	30.8/ 87.4	30/ 85.6	30.5/ 86.9	30.6/ 87.1	29/ 84.2	28/ 82.4	32.2/ 90
DAILY MEAN °C/°F	22.2/ 72	25.1/ 77.2	28.4/ 83.1	31.5/ 88.7	33.0/ 91.4	29.3/ 84.7	27.0/ 80.6	26/ 79.2	26.6/ 79.9	25.7/ 78.3	23/ 73.8	21.6/ 70.9	26.7/ 80.1
AV. LOW °C/°F	15.2/ 59.4	17.6/ 63.7	20.8/ 69.4	24.3/ 75.7	26.2/ 79.2	24.0/ 75.2	22.6/ 72.7	22/ 71.8	22.0/ 71.6	20.3/ 68.5	17/ 62.4	14.5/ 58.1	20.5/ 68.9
RECORD LOW °C/°F	6.1/ 43	8.9/ 48	13.2/ 55.8	16.0/ 60.8	16.7/ 62.1	17.8/ 64	18.6/ 65.5	19/ 65.7	17.8/ 64	11.7/ 53.1	7.4/ 45.3	7.1/ 44.8	6.1/ 43
AV. RAINFALL MM (INCHES)	13.2/ .52	7.9/ .311	15.3/ 0.6	20.2/ 0.8	35.7/ 1.41	104/ 4.09	170/ 6.67	179/ 7.03	158/ 6.23	97.2/ 3.83	22/ .882	5.9/ 0.23	828/ 32.6
AVERAGE RAINY DAYS (≥1.0MM)	0.6	0.8	1.0	2.1	3.4	10.0	12.4	14.1	9.7	6.3	2.9	0.7	64
AV. RELATIVE HUMIDITY(%)	56	49	39	37	39	61	71	74	72	63	58	57	56
MEAN MONTHLY SUNSINE HRS	278	269.3	263	273.7	281.5	179.8	141	137	167	228	247	263	2729

DEMOGRAPHICS

Hyderabad covers an area of 650 square kilometres (250 sq mi), has a population of 6,809,970 . there are 3,500,802 male and 3,309,168 female citizens. as a consequence, the total population leaped from 3,637,483 in 2001 census to 6,809,970 in 2014 census, an increase of over 87%. migrants from rest of india constitute 24% of the city population. the sex ratio of Hyderabad city is 945 female per 1000 males, higher than the national average of 926 per 1000. the city's population density is 18,480/km² (47,900/sq mi). Hyderabad city's literacy rate is 82.96% (male 85.96% and female 79.79%), higher than the national average of 74.04%. a proposal to expand the area covered by the city to make it 721 square kilometres (278 sq mi) by merging the surrounding gram panxhayatsand around 30 villages is being considered

HOW TO REACH

by air: Rajiv Gandhi international airport, Hyderabad is 29 km from the site. after that by local bus we can to the site easily.

by rail: The nearby railway station is Secundrabad junction about 5km from the site.

by bus : The nearby bus stop is hasmathpet village. by local bus we can reach there.

SITE FEASIBILITY

Because of site is in residential area more and more people will come in with the contact of blinds and encourage them. at 500 m distance hasmathpet lake so they use it as a walking place.

BYE-LAWS

F.A.R.	- 1.5	PARKING	- 2 ECS PER 100
GROUND COVERAGE	- 30%	SQ.M	
MAX. HEIGHT	- 15M	SEISMIC ZONE	- IV
FRONT SET BACK	- 18M	CLIMATE	- TROPICAL WET
SIDE SET BACK	- 9M	AND DRY	

TOPOGRAPHY

The site is a plane site. normal slope towards the hasmathpet lake, north-west of the site.

SITE PHOTO



SOIL TYPE

THE CITY'S SOIL TYPE IS MAINLY RED SANDY WITH AREAS OF **BLACK COTTON SOIL**

SEWERAGE

- Efficient sewerage system is propose by secundrabad cantonment board in the entire area.
- the sewerage lines are being installed along the side of roads.

LANDMARK

cantonment office at the south side of the site.

AMMINITIES

- **BUS STOP-** 100M FROM THE SITE.
- **PETROL PUMP-** ADJACENT TO THE SITE.
- **NATIONAL INSTITUTE FOR MINDLY HANDICAPED IS 1.5 KM DISTANCE.**
- **MARKET-** AFTER CROSS THE WEST SIDE ROAD AND NORTH SIDE ASJACENT BOWENPALLY MARKET.

MAJOR PROJECT ELEMENT

CLASSROOMS- used to conduct traditional nur.-12 education classes.

BREAKOUT SPACES- used for one on one instruction between students and teachers

GYMNASIUM-FOR PHYSICAL EDUCATION CLASSES.

BRAILLE LIBRARY-TO PROMOTE LITERACY IN BRAILLE AND PROVIDE SOURCES FOR REPORTS.

CAFETERIA-FOR THE STUDENTS LIVING ON CAMPUS.

OFFICES-FOR THE PRINCIPAL AND STAFF.

OUTDOOR PLAY AREA-FOR RECREATION.

DEPARTMENT OF SPECIAL EDUCATION AND DISABILITY STUDIES:
CLASSROOMS: USED FOR THE COURSE OF B.A AND B.ED.

OFFICES: FOR PRINCIPAL AND STAFF.

RESIDENCIAL AREA:

ROOMS- FOR STUDENTS LIVING ON CAMPUS

KITCHEN- FOR USE BY OF STUDENTS

COMMON AREA- FOR GROUP GATHERINGS AND SOCIALIZATION.

CASE STUDY - 1

**NATIONAL INSTITUTE FOR VISUALLY HANDICAPPED,
DEHRADUN**

CASE STUDY 1 : NATIONAL INSTITUTE FOR VISUALLY HANDICAPPED, DEHRADUN

The national institute for the empowerment of persons with visual disabilities owes its origin to St. Dunstan's hostel for the war blinded established in 1943, which offered a basic set of rehabilitation services to the soldiers and sailors blinded in the world war ii.

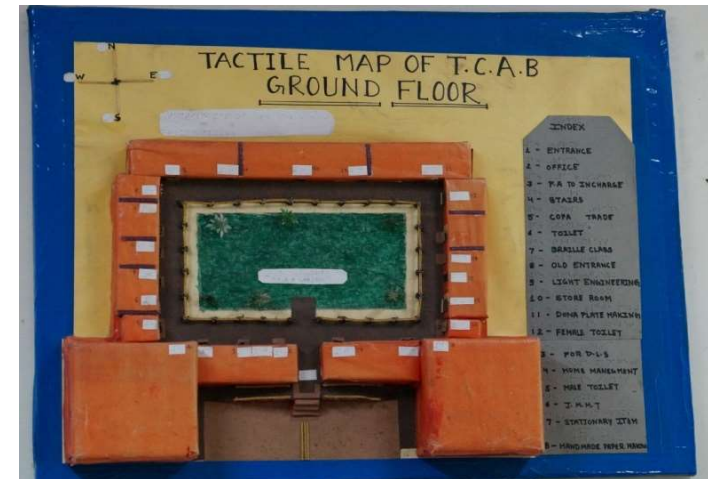
- in 1950, the government of India took over the St. Dunstan's hostel and entrusted the ministry of education with the responsibility of developing comprehensive services for the rehabilitation of blind persons.
- in 1951, the government established central braille press in 1952, workshop for the manufacturing of braille appliances in 1954, sheltered workshop in 1975 training center for the adult blind women and in 1959, model school for the visually handicapped. in 1963, national library for the print handicapped was established out of which national talking book library was carved out in the year 1990.
- on integration of all the units in 1967, the government established national center for the blind (ncb). this centre was further upgraded as national institute for the visually handicapped in the year 1979 and finally in October 1982, it was registered under the societies registration act, 1860 and gained the status of an autonomous body.



BRAILLER



BRAILLE GLOBE

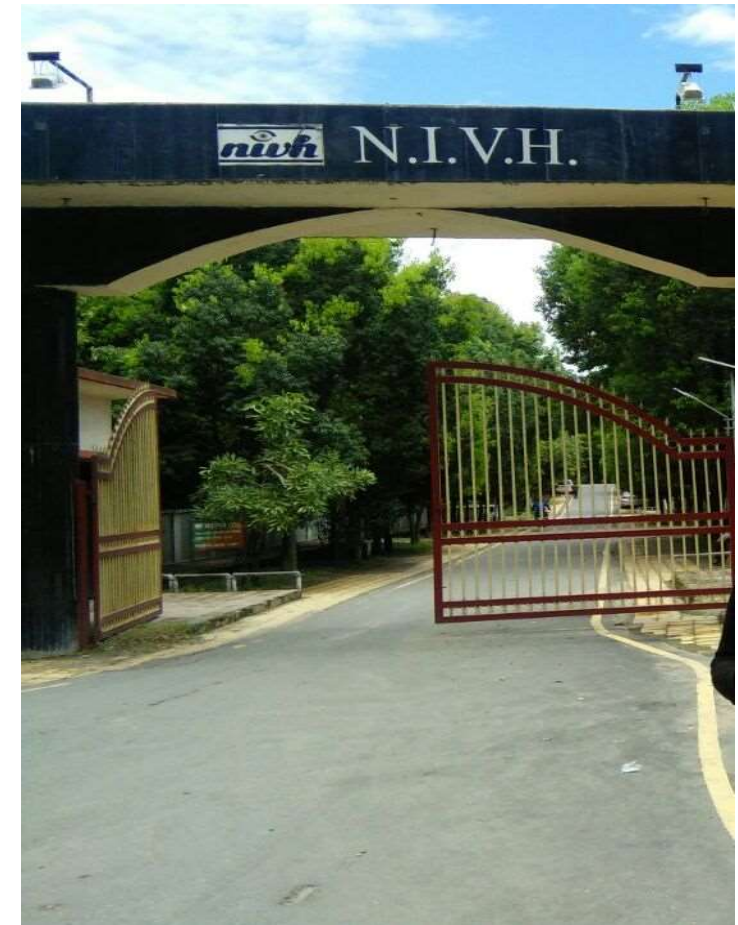


MAJOR DEPARTMENT:

- MODEL SCHOOL FOR VISUALLY HANDICAPPED
- NATIONAL LIBRARY FOR THE TALKING BOOK
- REHABILITATION AND CONSULTANCY UNIT
- TRAINING CENTRE FOR THE ADULT
- NATIONAL TALKING BOOK LIBRARY
- DESIGN AND DEVELOPMENT UNIT
- BRAILLE DEVELOPMENT UNIT
- CENTRAL BRAILLE PRESS
- MASS MEDIA UNIT
- WORKSHOP FOR THE MANUFACTURING OF APPLIANCES

LOCATION:

- **NIVH** is situated at Dehradun- Mussoorie road also known as Raipur road on west side, another road on east side is canal road.
- The site is located outside of Dehradun hence it doesn't provide more opportunity for the inhabitant to come in contact with another different environment like market etc.



ABOUT SITE

SITE AREA	43 ACRE (174150 SQ. M.)
F.A.R.	1.2
GROUND COVERAGE	30%
CLIMATE	SUB TROPICAL

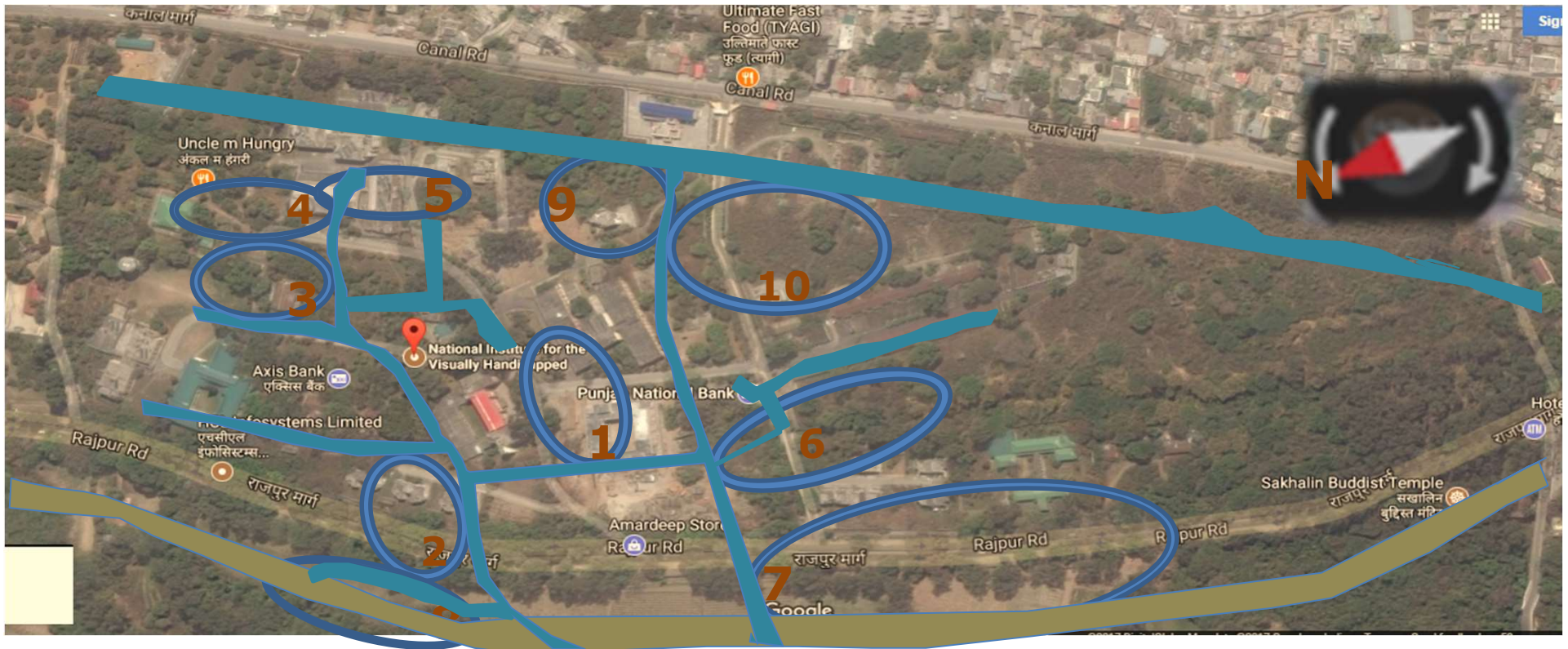
LOCATION MAP



PROPOSED NATIONAL INSTITUTE FOR VISUALLY HANDICAPPED, HYDERBAD

SITE PLAN

The site covered the area of 43 acre. the site divided into the many of the blocks like administration block, modern school, training for adult, braille press, special school, dispensary, library and hostel etc.

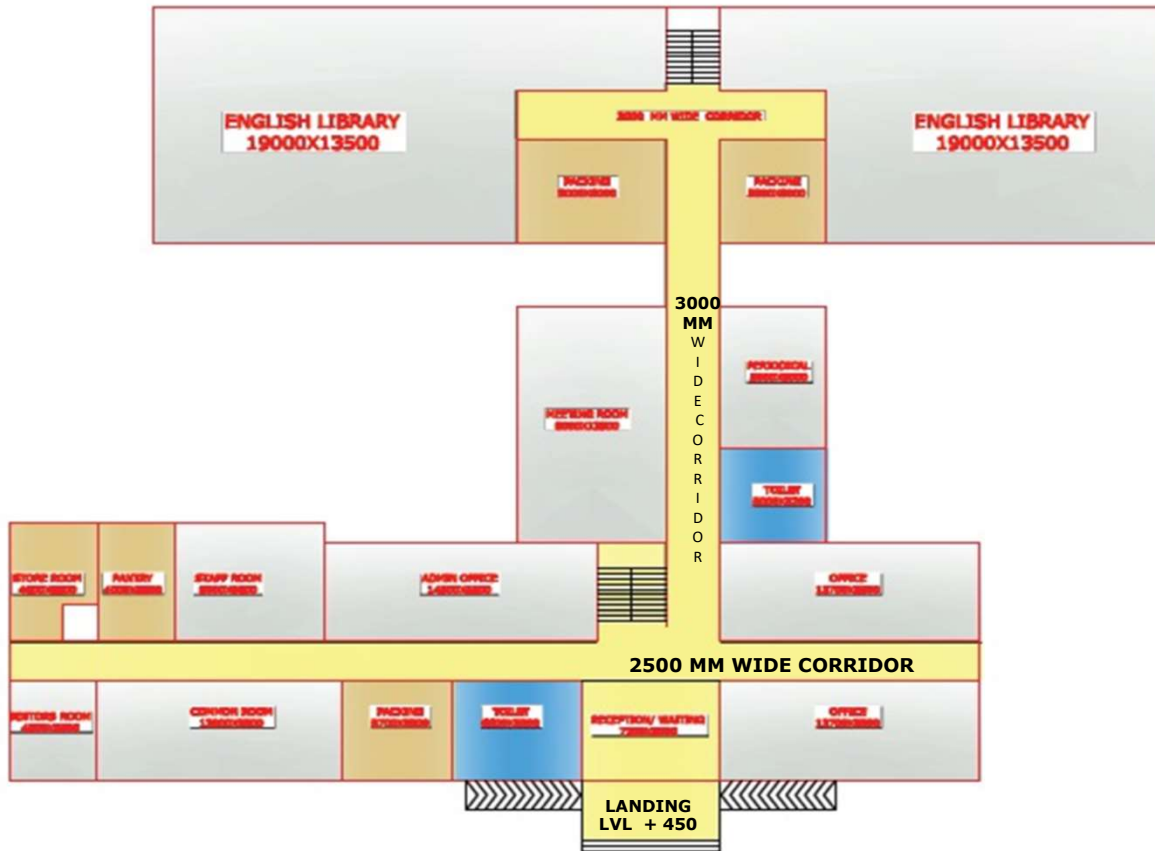


SITE MAP WITH ROAD CONNECTIVITY

- | | |
|--|------------------------------------|
| 1. HELEN KELLER BHAVN (ADMINISTRATION) | 6. RESIDENTIAL QUARTERS. |
| 2. ADULT TRAINING CENTRE. | 7. BRAILLE WORKSHOP. |
| 3. MODERN SCHOOL. | 8. RESIDENTIAL QUARTERS. |
| 4. GIRLS HOSTEL | 9. SPECIAL SCHOOL (FOR B.A, B. Ed) |
| 5. BOYS HOSTELS | 10. RESIDENTIAL QUARTERS. |

1. HELEN KELLER BHAWAN :

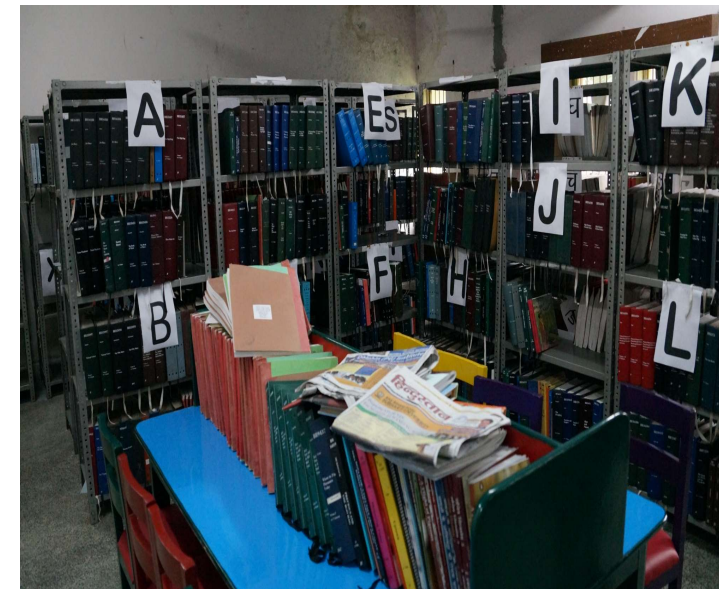
Helen Keller Bhawan is the administration building of campus. it is 2 floor building. there is national library, director office, talking book library and account section exist.



GROUND FLOOR PLAN

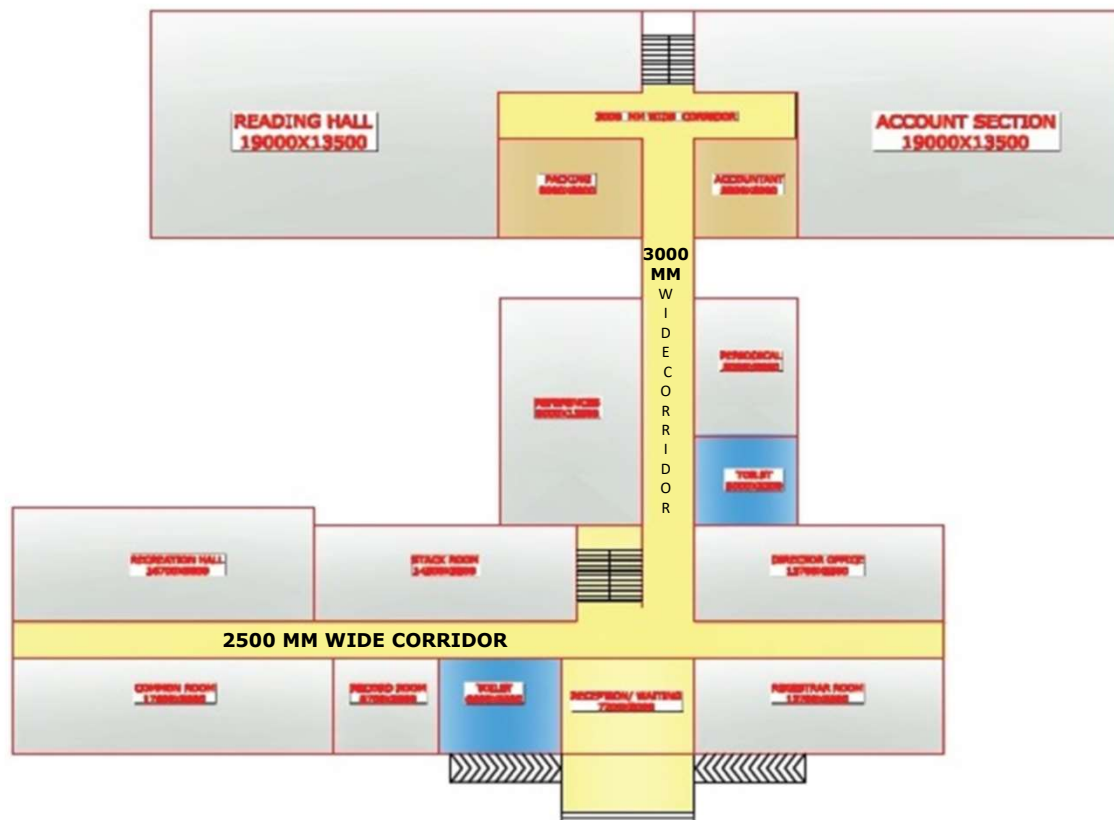


HELEN KELLER BHAWAN



NATIONAL BRAILLE LIBRARY

- The national braille library has approximately 90000 volumes on its shelves with 13000 titles.
- The library has come up with a novel scheme of free delivery of books on demand.



FIRST FLOOR PLAN

TALKING BOOK LIBRARY

The library produce audio books in Hindi, English, Sanskrit and regional languages with stock of over 4500 titles.

DESIGN CONCLUSION:

No sufficient space for reading. lack of tactile sign for visually impaired which could help them to search specific place.

on the first floor director office, pa office, registrar room, stack room, record room, references, periodical, and reading hall designed.



ACCOUNT SECTION



RECEPTION



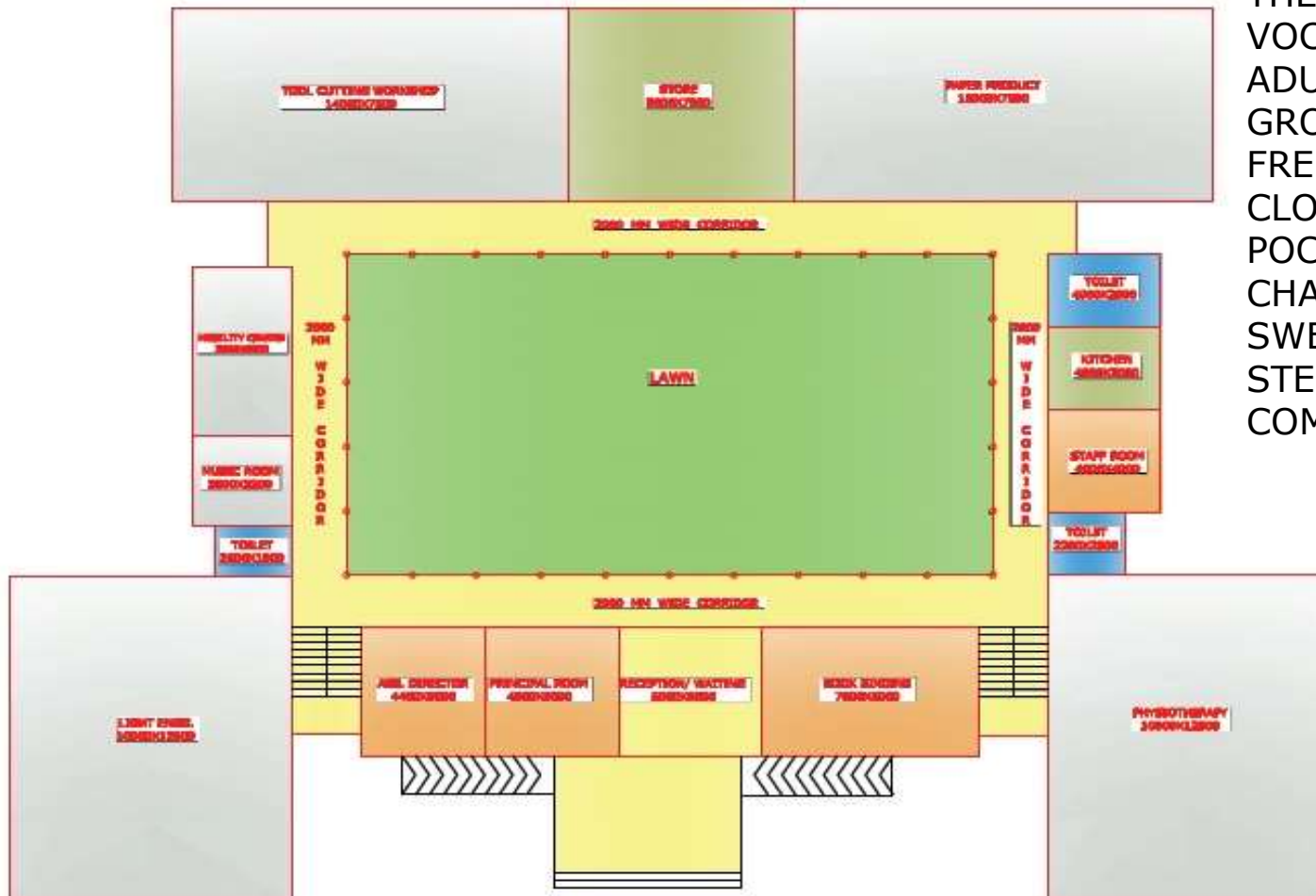
CASSATE ROOM

2. ADULT TRAINING CENTRE

THE TRAINING CENTRE IMPARTS VOCATIONAL TRAINING TO THE ADULT BLIND (18-40 AGE GROUP). ALL ARE PROVIDED FREE TRAINING BOARDING, CLOTHING, MEDICAL CARE, POCKET MONEY, FOODING, CHAIR CANNING, HANDLOOMS, SWEAVING, BRAILLE STENOGRAPHY, LIGHT ENGG. COMPUTER ETC.

PLANNING

IT IS A 3 STORY COURT YARD PLANNING BUILDING. ON THE GROUND FLOOR LIGHT ENGG. PHISIO THERAPY, PAPER PRODUCT, TOOL CUTTING WORKSHOP, MUSIC AND A TRAINING ROOM FOR LATE BLINDS.



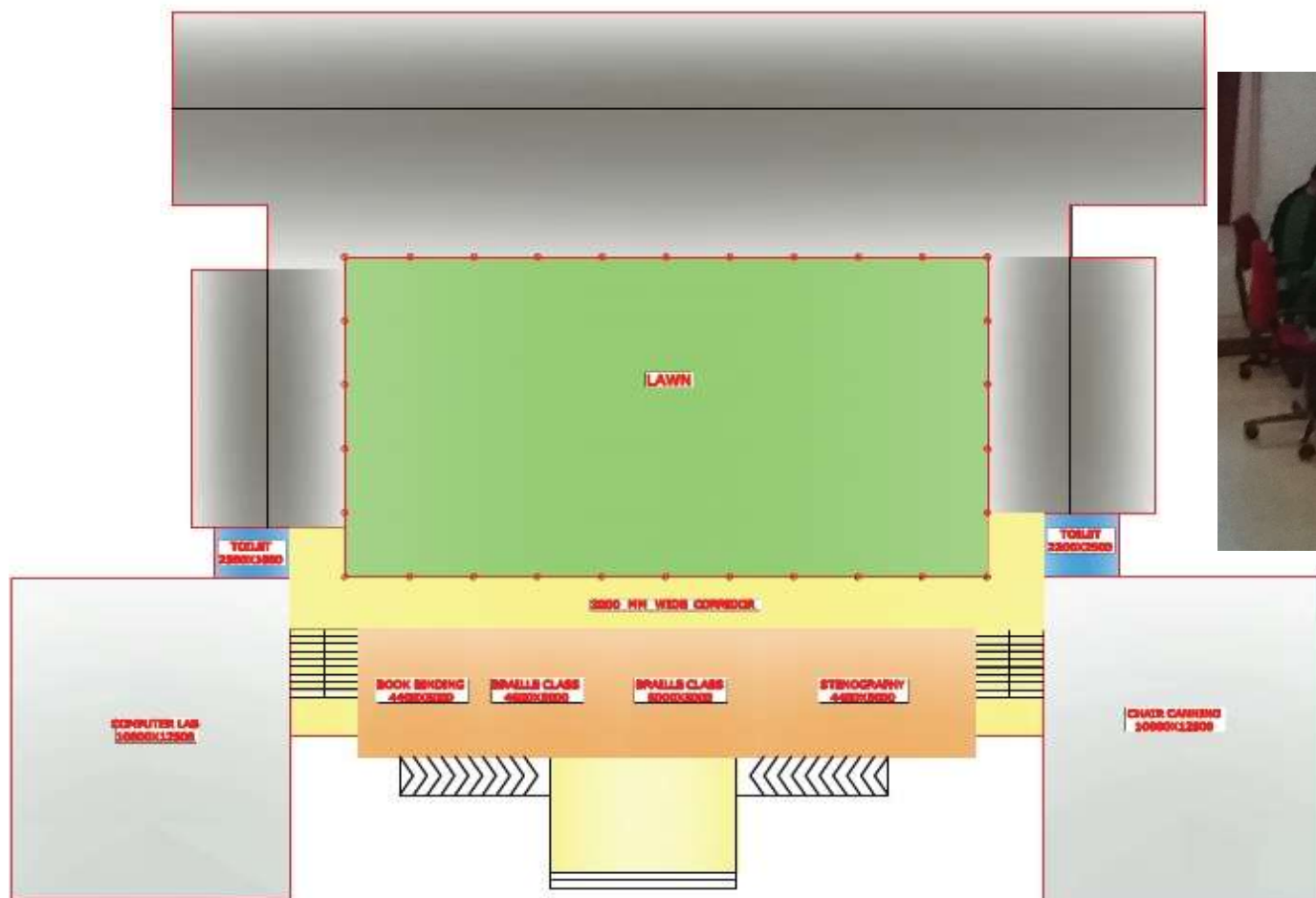
GROUND FLOOR PLAN



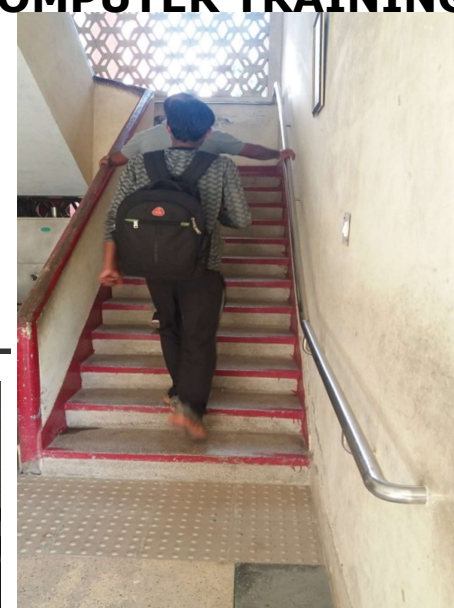
WORKSHOP OF PAPER WORK

FIRST AND SECOND FLOOR PLAN

FIRST AND SECOND FLOOR COVERS THE CHAIR CANING, BRAILLE CLASS ROOMS, STENOGRAPHY, COMPUTER LAB AND BOOK BINDER.



COMPUTER TRAINING



STAIR WITH HANDRAIL



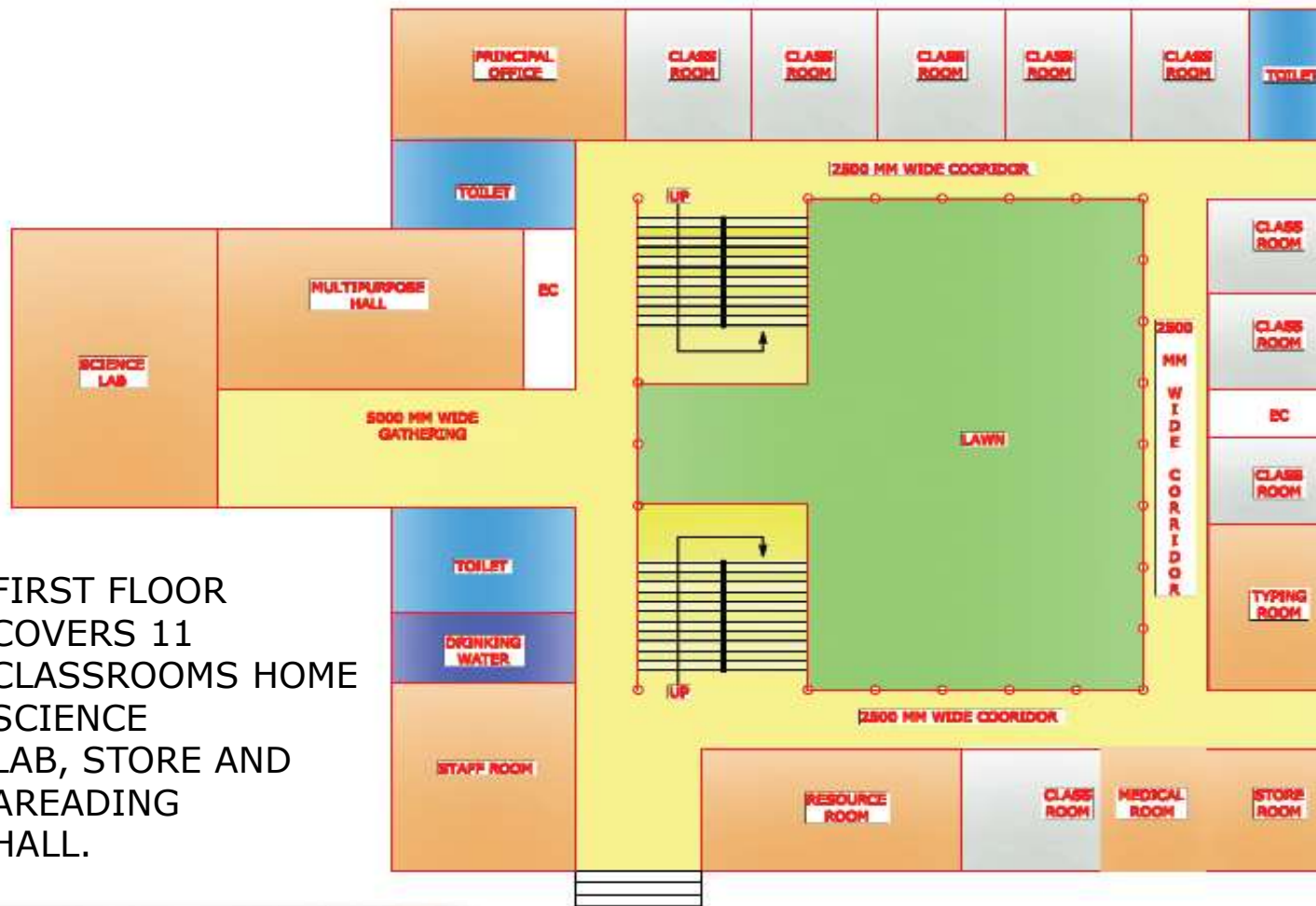
**USE OF
HANDRAIL**

STENOGRAPHY



MODERN SCHOOL

GROUND FLOOR PLAN



FIRST FLOOR
COVERS 11
CLASSROOMS HOME
SCIENCE
LAB, STORE AND
AREADING HALL.

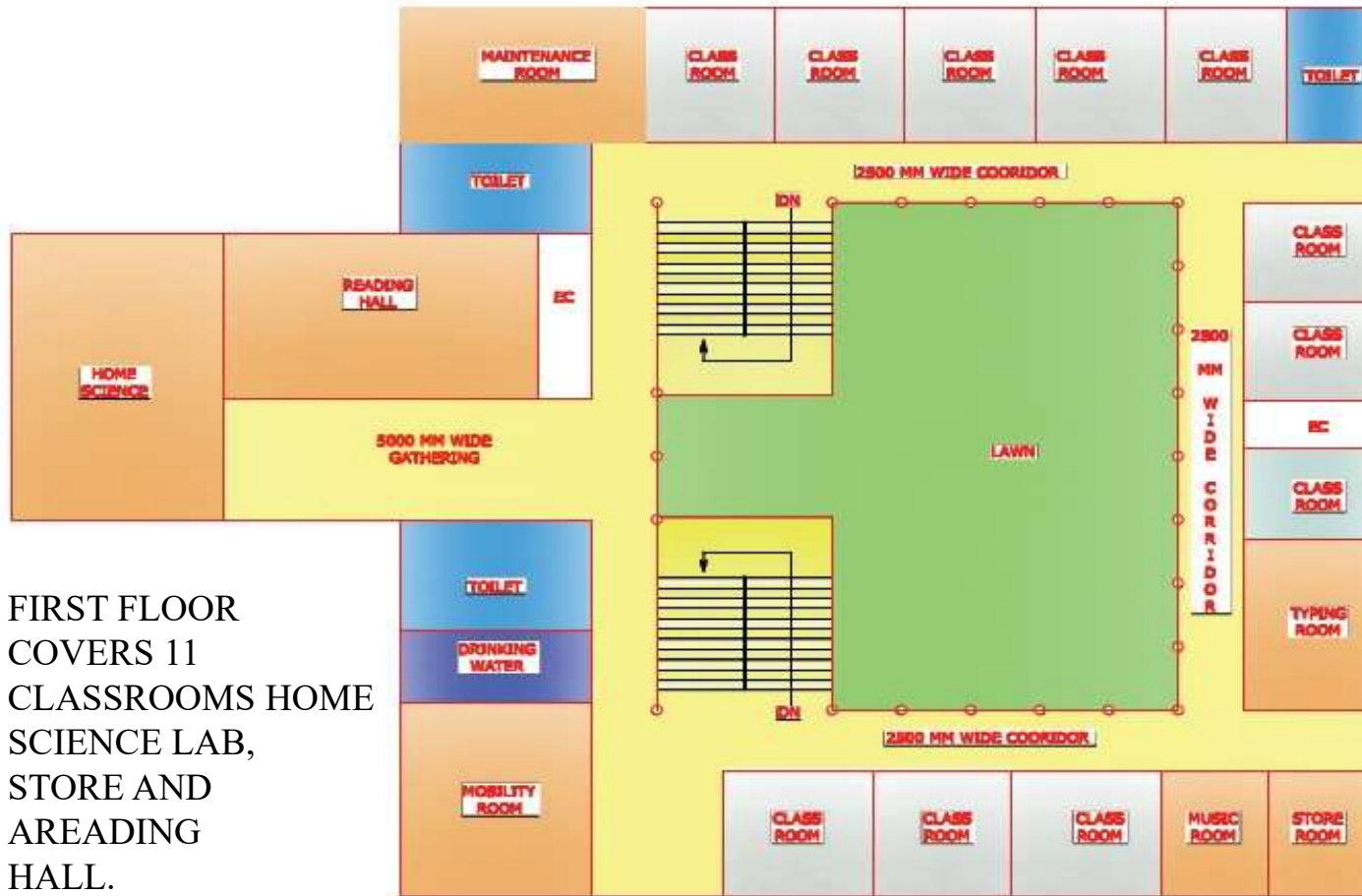


**FLOOR TEXTURE
AT THE DOOR OF
CLASSROOMS
AND USE OF
HANDRAILS**

IT IS A HIGHER SECONDARY
SCHOOL WITH 2 STORY
BUILDING WITH COURT YARD
PLANNING. 9 CLASS ROOMS,
RESOURCE/ PRAYER HAAL,
STAFF, MUSIC, SCIENCE LAB,
PRINCIPAL ROOM ARE ON THE
GROUND FLOOR.

IT FACILITATES
TEACHING AND
LEARNING FOR THE
BLIND. AT PRESENT,
THERE ARE 240
STUDENTS ENROLLED
IN THIS CO-
EDUCATIONAL
RESIDENTIAL SCHOOL.
THE PRIMARY
OBJECTIVE OF THE
SCHOOL IS TO
FACILITATE TEACHING
AND LEARNING OF
VISUALLY CHALLENGED
STUDENTS FOR WHICH
THE SCHOOL IS
GEARED WITH ALL
POSSIBLE RESOURCES
AND STAFF FOR THIS
PURPOSE. THE SCHOOL
INTENTS TO ENABLE
STUDENTS TO BE SELF
DEPENDENT IN THEIR
LIFE IN SPITE OF THEIR
VISUAL IMPAIRMENT.
EVERY EFFORT IS MADE
FOR ALL ROUND
PERSONALITY
DEVELOPMENT OF
STUDENTS.

FIRST FLOOR PLAN



FIRST FLOOR
COVERS 11
CLASSROOMS HOME
SCIENCE LAB,
STORE AND
AREADING
HALL.

LAYOUT OF CLASSROOM



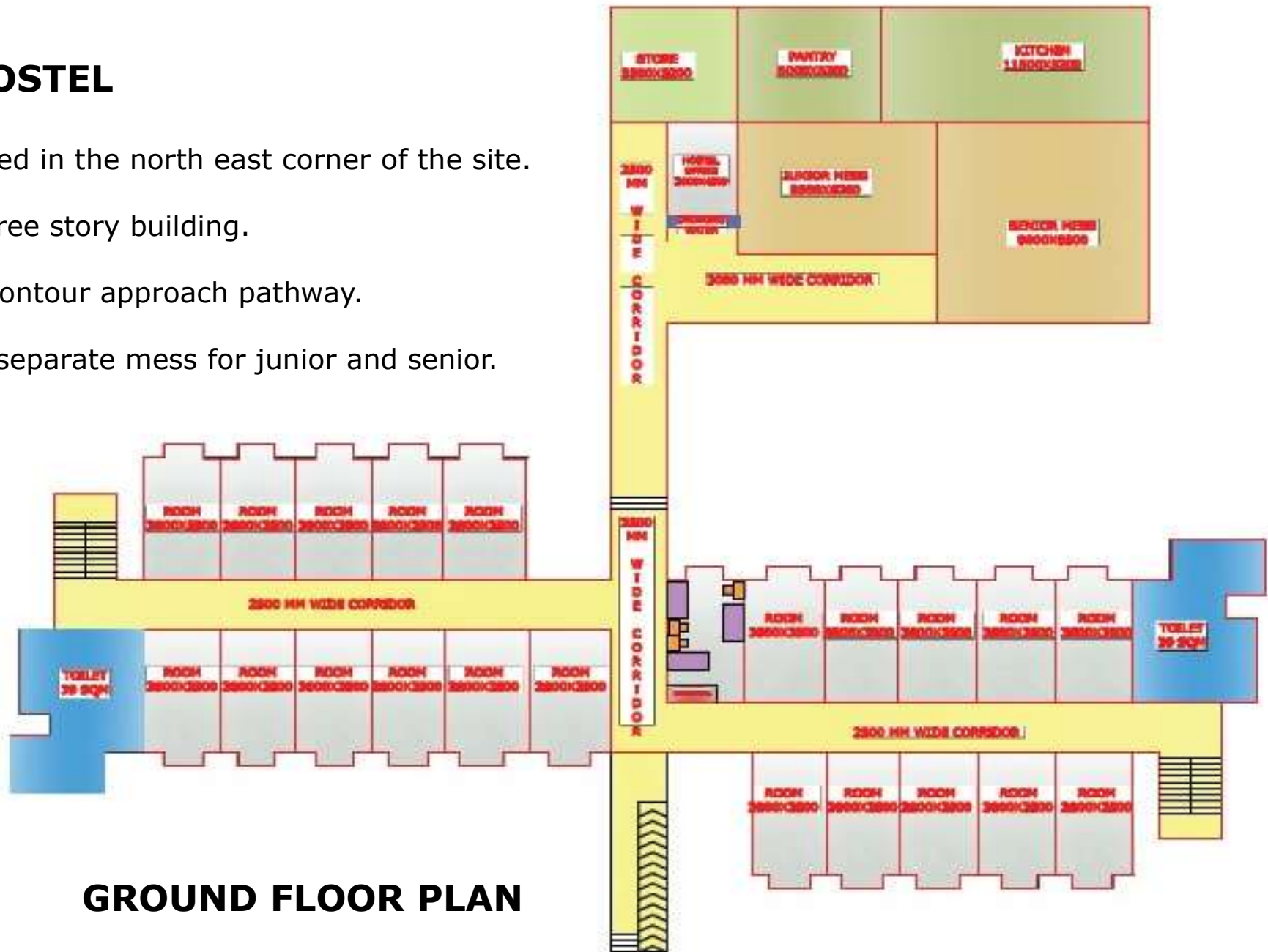
SCIENCE LAB

BRILLE CLASS



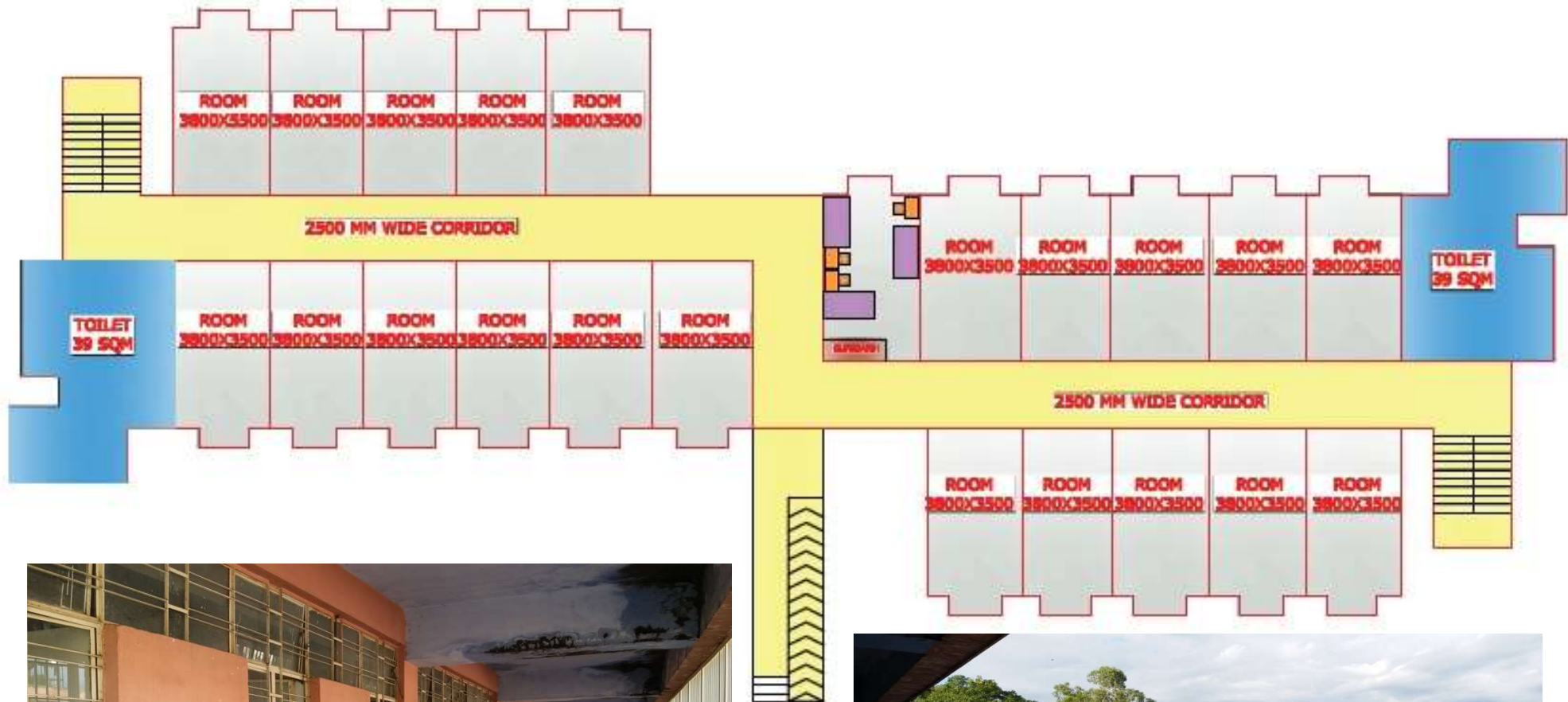
BOYS HOSTEL

- it is placed in the north east corner of the site.
- it is a three story building.
- it is on contour approach pathway.
- there is separate mess for junior and senior.



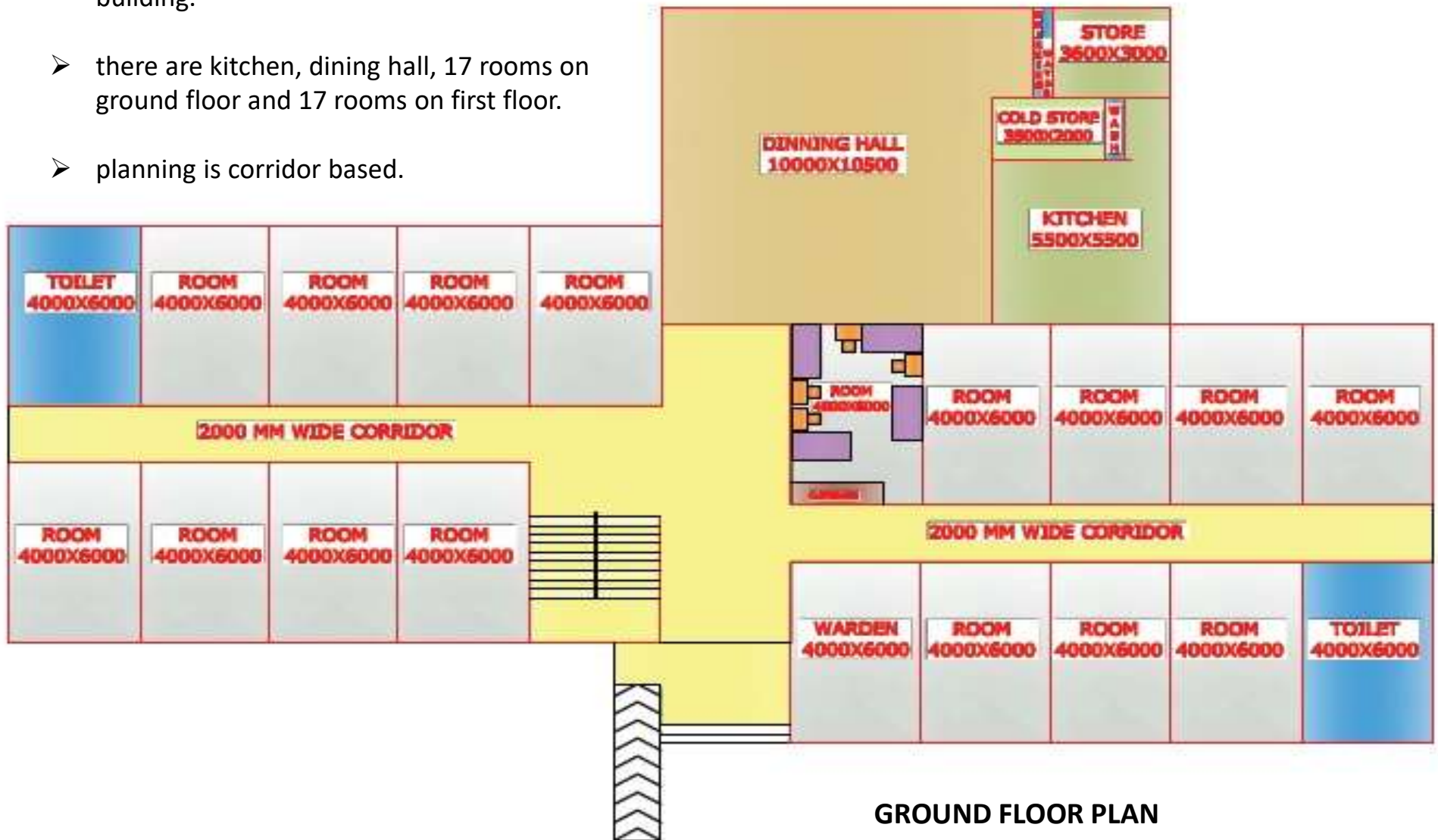
GROUND FLOOR PLAN

FIRST AND SECOND FLOOR PLAN

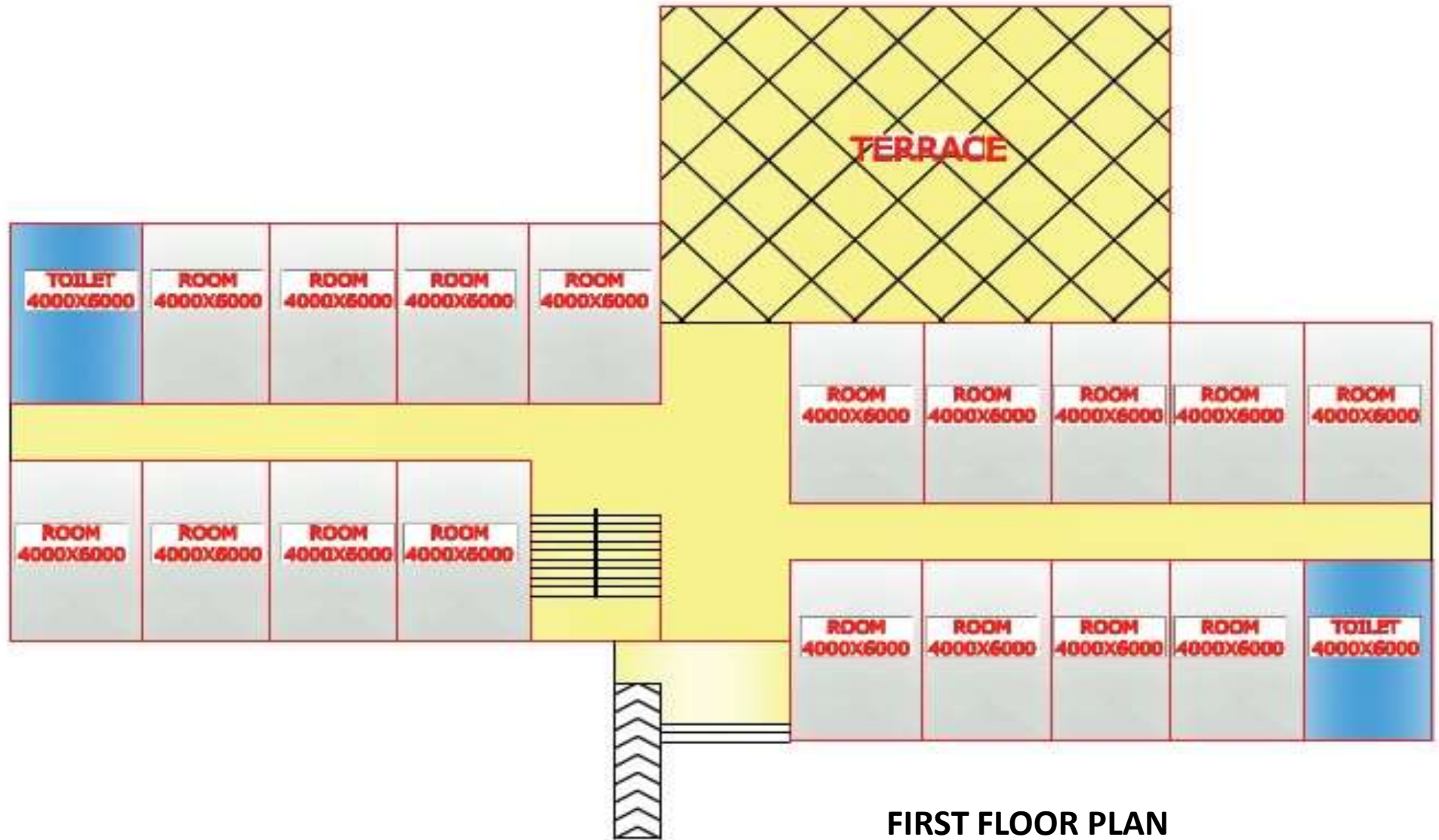


GIRLS HOSTEL

- it placed in front of school building, it's a 2 story building.
- there are kitchen, dining hall, 17 rooms on ground floor and 17 rooms on first floor.
- planning is corridor based.



GIRLS HOSTEL



BRaille WORKSHOP

- This workshop is the largest blind workshop of the asia.
- All the appliances related to visually impaired manufactured and exports all over the world.



SERVICES

Drainage and sewage are provided towards the canal road backside of the site.

WATER SUPPLY

Municipal corporation provides water supply and the additional obtained from borewell.

WATER STORAGE

Overhead tank 15 nos- 500 ltrs. hot water obtained from the solar panel. rain water harvesting.

MECHANICAL

2 public lift 340 kg- 5 passengers electric board are provided for each block.

2 nos transformer. diesel generator set

FIRE FIGHTING

Each and every outlet and common area are occupied with automatic fire detection/ alarm and sprinklers.

fire extinguisher are installed at each outlet.

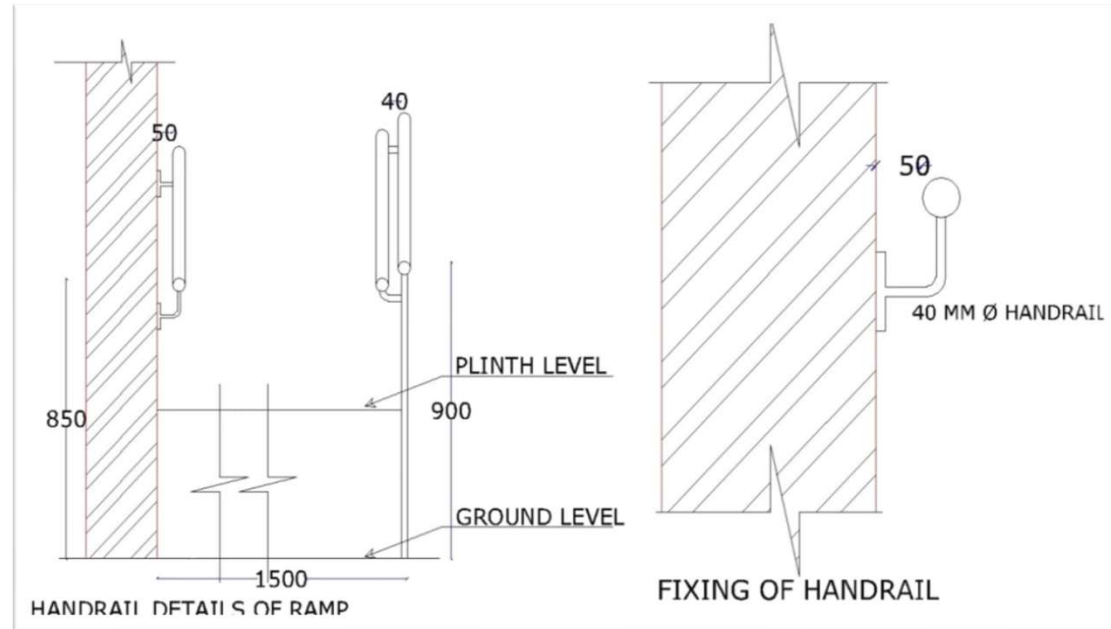
AIR CONDITIONING

central air conditioning only provided in talking library.

FEMALE	H.K. BHAWAN	MODEL SCHOOL	TCAB	HOSTEL
W.C.	2	4	3	6
WASH BASIN	2	2	3	3
MALE				
W.C.	2	4	3	9
WASH BASIN	2	2	3	6
URINAL	2	4	6	6
WATER COOLER	1	2	2	4

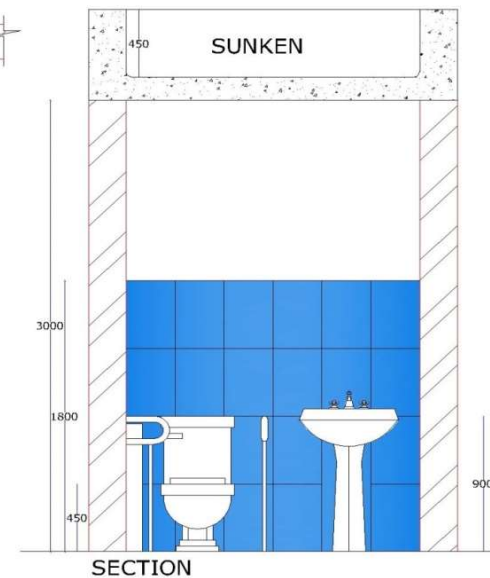
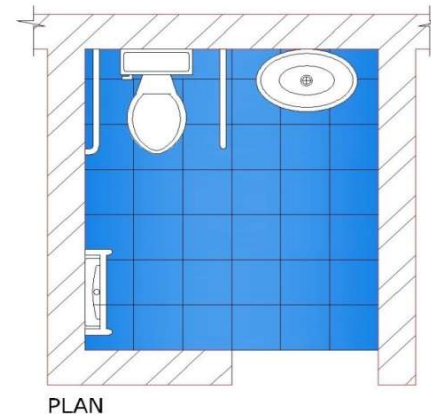
RAMP AND HANDRAIL DETAILS:

slope of ramps is 1:12. height of handrail is 900-950mm for pedestrian and 800-850 mm for wheelchair. distance of handrail from wall is 50 mm.



TOILET DETAILS:

There is provision of handrail in every toilet . height of handrail is 900 mm. handrail installed both sides of urinal and wc.



INFERENCES

ROAD NETWORK:

- Because of contour the road are hazardous for blinds.
- a very large area is useless.

BUFFFER CREATED BETWEEN ROADS AND SITE

USE OF HANDRAILS AND FLOOR TILES



The great use of handrails, floor tiles, audio indicator, braille signage to the entire campus. so the visually impaired person walk easily everywhere in the campus.

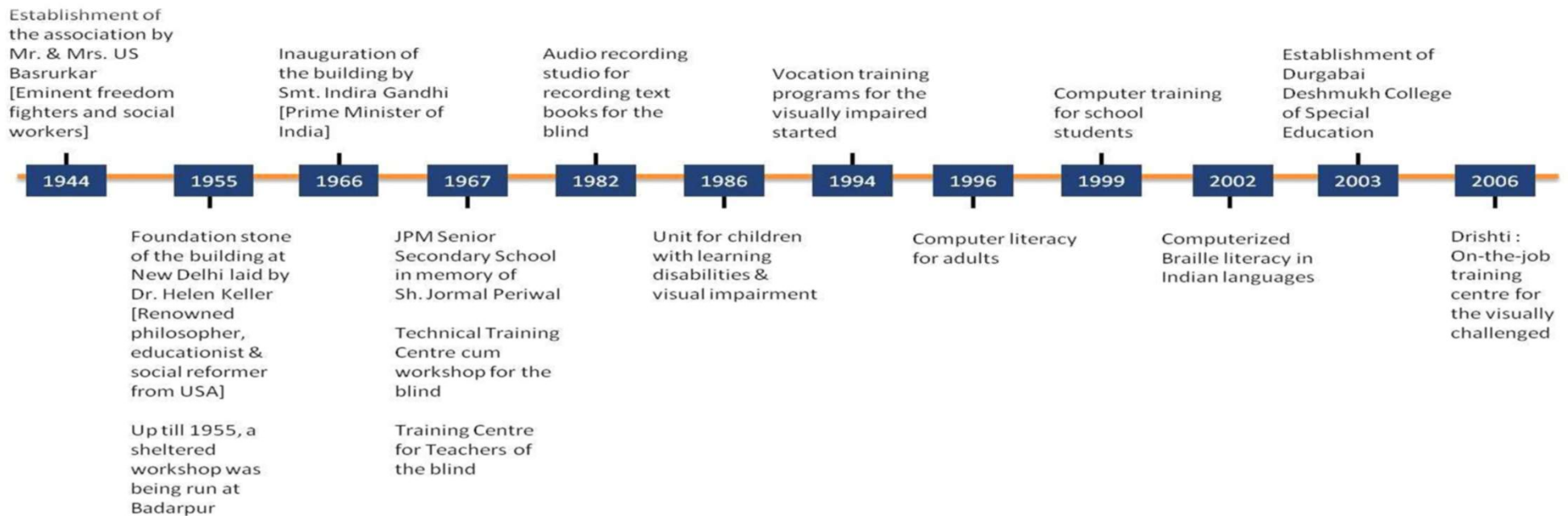
CASE STUDY 2

THE BLIND RELIEF ASSOCIATION, DELHI

CASE STUDY 2

THE BLIND RELIEF ASSOCIATION, DELHI

- Established in the year 1944, the blind relief association, delhi is a premier non-governmental organization in the country serving the visually impaired.
- The association is providing quality school education and conducting training programmes to prepare teachers for the visually impaired; running a range of vocational skill training courses in light engineering and other industrial trades; multi-skill training programme covering bookbinding/paper craft, candle making, packaging, sewing, chair caning, relaxation massage, making soap and cottage industry products etc; besides conducting computer training programmes for the visually challenged.
- The association offers other services like as production of study material in braille and audio recorded books for the visually challenged, either free or at nominal cost. the campus also has a hostel which houses nearly 300 children and adult students and trainees.



MAJOR DEPARTMENT

- ❑ J.P.M. SENIOR SECONDARY SCHOOL
- ❑ UNIT FOR CHILDREN WITH MULTIPLE DISABILITIES
- ❑ TEACHERS TRAINING
- ❑ DURGABAI DESHMUKH COLLEGE OF SPECIAL EDUCATION
- ❑ COMPUTER TRAINING CENTRE
- ❑ ADULT TRAINING CENTRE

LOCATION

ITS GREEN CAMPUS LOCATED PROMINENTLY IN THE HEART OF NATIONAL CAPITAL CITY OF NEW DELHI. IT IS SITUATED NEARBY THE HOTEL OBEROI AT LALA LAJPAT RAI MARG.



PROPOSED NATIONAL INSTITUTE FOR VISUALLY HANDICAPPED, HYDERBAD

ABOUT THE PROJECT

FOUNDED BY DR. HELEN KELLER, IT HOUSES 200 BOYS AND A COLLECTION OF OVER 400 BRAILLE BOOKS. THIS IS ONE OF EARLIEST RESIDENTIAL BLIND STUDENTS. THE SCHOOL PROVIDES SCHOOLING, TRAINING IN SPORTS AND ALSO ACTIVITIES LIKE CANDLE MAKING ETC TO MAKE THEM SELF DEPENDENT AND PROVIDE THEM EQUAL OPPORTUNITIES IN COMPETITION AND EMPLOYMENT.

PROGRAM

SCHOOL FOR VISUALLY IMPAIRED BOYS, WORKSHOPS FOR ADULTS BLIND. BRAILLE LIBRARY AND AUDIO, HOSTEL AND MESS FACILITIES, MULTIPURPOSE HALL (FOR

PROJECT DESCRIPTION

GRADES : GRADE 1 TO GRADE 12
CAPACITY : 200 STUDENTS
CLIENT : BLIND RELIEF ASSOCIATION, NEW DELHI
SITE AREA: 36140 SQ. M
BUILT-UP AREA: 4580 S.M.
COMPLETION: 1967

ABOUT THE SCHOOL

IT CONDUCTS PROGRAMS AS FOLLOWS:
SCHOOL FOR VISUAL HANDICAPPED BOYS.
WORKSHOPS FOR BLIND ABOVE 18 YEARS.
TYPING CLASSES FOR BLIND
MULTIPURPOSE HALL FOR RECREATION AND PHYSICAL EDUCATION.
LIBRARY AND AUDIO ROOM.
HOSTEL AND MESS FACILITIES
WORKSHOPS INCLUDE STITCHING, BOOK BINDING, CANDLE MAKING, CHAIR CANNING, SOAP MAKING AND ETC.



PROPOSED NATIONAL INSTITUTE FOR VISUALLY HANDICAPPED, HYDERABAD

UNDERSTANDING BUILDING SURROUNDINGS

- NURSERY GARDEN ADJACENT TO THE SITE PROVES TO BE AN EFFECTIVE SOUND BARRIER.
- AS PARKING IS RESTRICTED TO THE ENTRANCE, IT ALLOWS HASSLE FREE MOVEMENT OF BLIND PEOPLE THROUGHOUT THE CAMPUS.



ANALYZING THE SITE PLANNING

SITE: INTROVERTED ARRANGEMENTS OF SPACES

IN TWISTED "C" FORMATION ENCLOSING THE CENTRAL GREEN SPACE, THE SITE IS A CORNER PLOT, THE BUILDING IS PLACED AT THE REAR OF THE SITE AND AWAY FROM THE CORNER, AWAY FROM THE TRAFFIC NOISE A NURSERY GARDEN AT THE CORNER AREA PROVES TO BE AN EFFECTIVE SOUND BARRIER.

CIRCULATION

- LINEAR MOVEMENT THROUGHOUT THE PLAN
- 2M WIDE CORRIDOR WITH ROOMS AND CLASSROOM ON BOTH THE SIDES
- NO PROVISION OF RAMPS THROUGHOUT THE CAMPUS.

THREE MAIN BLOCKS ARE

- THE CLASSROOMS AND THE HOSTEL ON THE LEFT WING OF THE BUILDING.
- THE COMMON AREAS SUCH AS MULTIPURPOSE HALL, KITCHEN HALL AND LIBRARIES ARE IN THE CENTRAL WING.
- WORKSHOPS FOR ADULTS BLINDS, ADMINISTRATIONS, RECORDINGS STUDIO AND MESS IN THE RIGHT WING

GEOMETRY

THE CIRCULATION PATTERN IS VERY SIMPLE AND IN STRAIGHT LINES. THE INTERIOR OF THE BUILDING HAS A 2M WIDE DOUBLY LOADED CORRIDOR RUNNING ALL AROUND THE BUILDING. ZONING IS A VERY DISTINCT AND THUS ACTS AS MEMORY CLUE. THE LARGE OPEN GREEN IN THE CENTER IS UNDERUTILIZED BECAUSE A COMBINATION OF BUILT AND GIVES A BETTER LEGIBILITY OF SPACE RATHER THAN ALL THE OPEN ON ONE SIDE AND ALL THE BUILT ON THE EDGES. THE MOST USED PATHWAYS ARE THE ONES ALONG THE BUILDING RATHER THAN THE ONE IN THE CENTER.

J.P.M. SENIOR SECONDARY SCHOOL

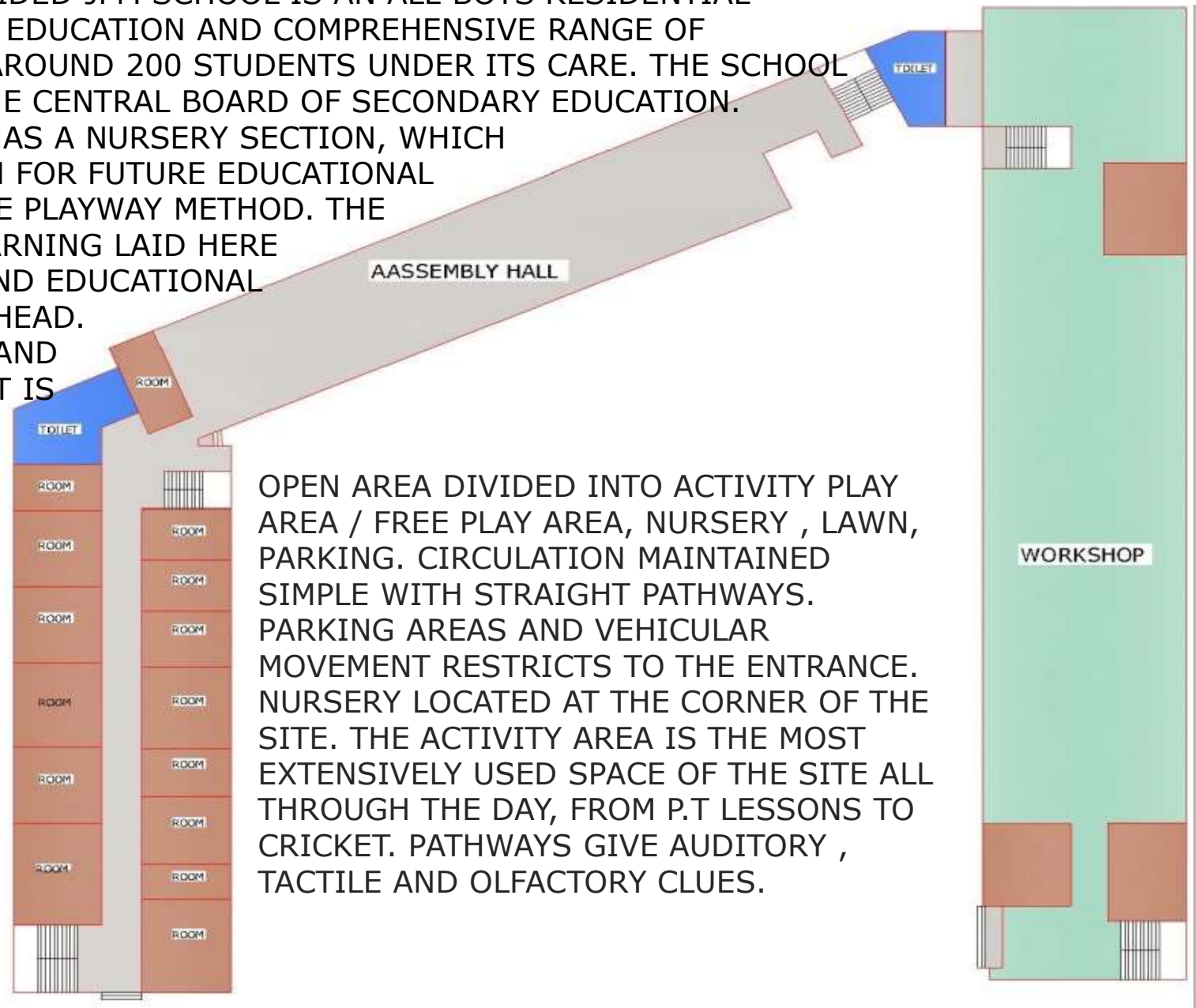
THE GOVERNMENT-AIDED JPM SCHOOL IS AN ALL-BOYS RESIDENTIAL SCHOOL PROVIDING EDUCATION AND COMPREHENSIVE RANGE OF SERVICES FREE TO AROUND 200 STUDENTS UNDER ITS CARE. THE SCHOOL IS AFFILIATED TO THE CENTRAL BOARD OF SECONDARY EDUCATION.

THE SCHOOL ALSO HAS A NURSERY SECTION, WHICH PREPARES CHILDREN FOR FUTURE EDUCATIONAL TASKS THROUGH THE PLAYWAY METHOD. THE

FOUNDATION OF LEARNING LAID HERE HELPS BUILD A SOUND EDUCATIONAL EDIFICE IN YEARS AHEAD.

SPECIAL ACADEMIC AND EQUIPMENT SUPPORT IS ALSO PROVIDED TO THE CHILDREN WITH LOW VISION.

ACTIVITIES LIKE MUSIC, DANCE, SPORTS, YOGA, MARTIAL ARTS, TREKKING ARE INTEGRAL TO THE SCHOOL PROGRAMME

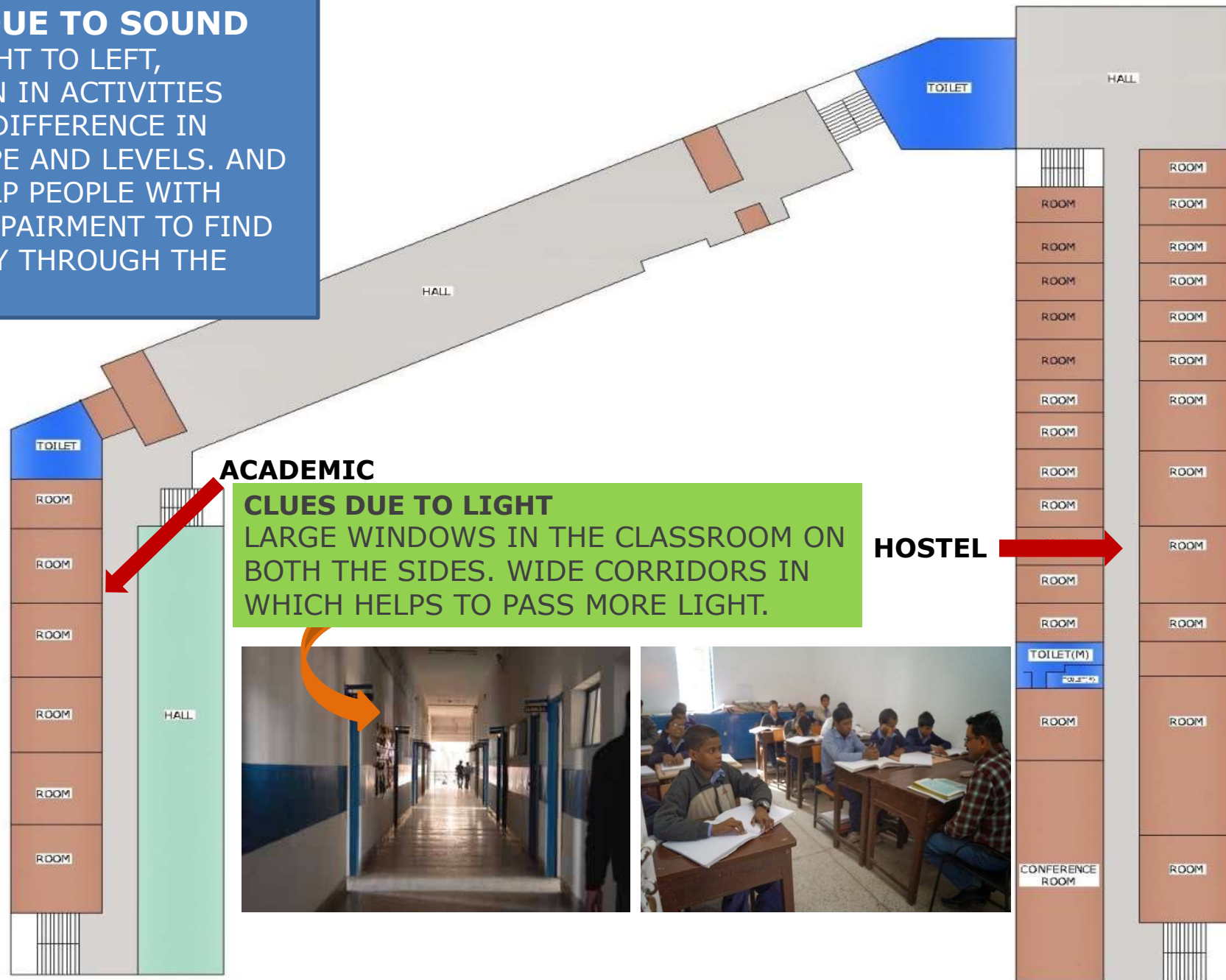


OPEN AREA DIVIDED INTO ACTIVITY PLAY AREA / FREE PLAY AREA, NURSERY , LAWN, PARKING. CIRCULATION MAINTAINED SIMPLE WITH STRAIGHT PATHWAYS. PARKING AREAS AND VEHICULAR MOVEMENT RESTRICTS TO THE ENTRANCE. NURSERY LOCATED AT THE CORNER OF THE SITE. THE ACTIVITY AREA IS THE MOST EXTENSIVELY USED SPACE OF THE SITE ALL THROUGH THE DAY, FROM P.T LESSONS TO CRICKET. PATHWAYS GIVE AUDITORY , TACTILE AND OLFACTORY CLUES.

GROUND FLOOR PLAN

CLUES DUE TO SOUND

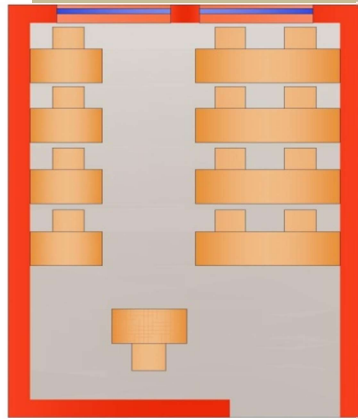
FROM RIGHT TO LEFT,
VARIATION IN ACTIVITIES
CREATES DIFFERENCE IN
NOISE TYPE AND LEVELS. AND
THUS, HELP PEOPLE WITH
VISUAL IMPAIRMENT TO FIND
THEIR WAY THROUGH THE
CAMPUS.



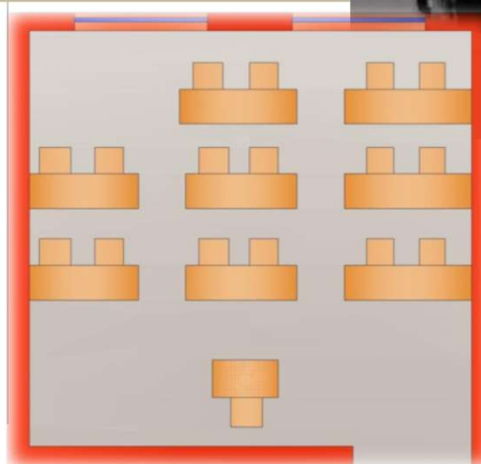
FIRST FLOOR PLAN

CLASSROOMS LAYOUT

EACH STUDENT NEEDS MORE INDIVIDUAL ATTENTION THAN IN AN ORDINARY SCHOOL. THE ARRANGEMENT FOR LOWER CLASSE DO PROVIDE ADEQUATE FOR GUIDING STUDENT



**PRIAMARY
CLASS
ROOM**



**SENIOR CLASS
ROOM**



LETTERS WRITTEN IN BRAILLE ARE PLACED OUTSIDE FROM TOILETS AND OTHER ROOMS SO THAT A VISUALLY DISABLE PERSON CAN ABLE TO IDENTIFY THE ROOM.



DIFFERENT COLORS ARE DONE ON THE TOILETS DOORS FOR PARTIAL BLINDS.

HAND RAILS ARE PROVIDED IN STAIRS AND A LIFT IS GIVEN SO THAT PERSON ON WHEELCHAIR CAN ACCESS THE FIRST FLOOR.



UNIT FOR CHILDREN WITH MULTIPLE DISABILITIES

UNIT FOR CHILDREN WITH MULTIPLE DISABILITIES AND VISUAL IMPAIRMENT, WAS STARTED IN 1986. IT CATERS TO THE NEEDS OF VISUALLY IMPAIRED CHILDREN WITH MODERATE MENTAL RETARDATION. DIFFERENT TEACHING APPROACHES ARE ADOPTED HERE WITH GOOD RESULTS. THE CHILDREN ARE TAUGHT IN SMALL GROUPS, WITH SPECIAL ATTENTION TO THEIR SPECIFIC NEEDS. THE UNIT IS SUPPORTED BY MILITARY ORDER OF THE COLLAR CHARITABLE FOUNDATION, SWITZERLAND

TEACHERS TRAINING

THE ASSOCIATION HAS BEEN RUNNING TEACHERS TRAINING PROGRAMME WITH THE CONSISTENT SUPPORT FROM THE GOVERNMENT OF INDIA/NATIONAL INSTITUTE FOR THE VISUALLY HANDICAPPED (NIVH) SINCE 1967. OVER 1000 SECONDARY AND PRIMARY LEVEL SPECIAL TEACHERS FOR THE VISUALLY CHALLENGED HAVE BEEN TRAINED BY THE ASSOCIATION UNDER DIPLOMA LEVEL PROGRAMMES CONDUCTED UNTIL 2007-08 AND DEGREE LEVEL PROGRAMME INTRODUCED FROM 2006-07.

DURGABAI DESHMUKH COLLEGE OF SPECIAL EDUCATION

ESTABLISHED BY THE ASSOCIATION IN 2006, THE COLLEGE IS THE FIRST COLLEGE OF ITS KIND AFFILIATED WITH THE PRESTIGIOUS UNIVERSITY OF DELHI OFFERING TWO-YEAR BACHELOR OF EDUCATION (SPECIAL EDUCATION, VISUAL IMPAIRMENT) COURSE PROGRAMME. THE COLLEGE HAS PERMANENT RECOGNITION FROM THE UNIVERSITY GRANT COMMISSION (UGC) AND REHABILITATION COUNCIL OF INDIA (RCI). IT HAS AN INTAKE OF 30 STUDENTS PER YEAR. THE COLLEGE HAS AN EXPERIENCED FACULTY AND SUPPORT INFRASTRUCTURE.

COLLEGE'S LEARNING RESOURCE CENTRE (LIBRARY) HAS RICH COLLECTION OF BOOKS ON SPECIAL EDUCATION.



DIPLOMA IN COMPUTER EDUCATION: THE FIRST OF ITS KIND ONE-YEAR DIPLOMA COURSE IN COMPUTER EDUCATION TRAINING (VISUAL IMPAIRMENT) APPROVED BY THE REHABILITATION COUNCIL OF INDIA (RCI) WAS LAUNCHED BY THE ASSOCIATION IN SEPTEMBER 2014. IT AIMS TO PREPARE A CADRE OF PERSONNEL SPECIALLY EQUIPPED TO PROVIDE EDUCATION IN COMPUTERS AND RELATED SERVICES TO THE VISUALLY IMPAIRED. MINIMUM QUALIFICATION IS SENIOR SECONDARY AND MAXIMUM INTAKE IS 25 TRAINEES



THE CENTRE CONDUCTS THE FOLLOWING COMPUTER LITERACY PROGRAMMES FOR VISUALLY IMPAIRED CHILDREN AND ADULTS TO HELP THEM IN THEIR ACADEMIC PURSUIT AND TO BE ABLE TO PROFESSIONALLY PERFORM OFFICE WORK IN MAINSTREAM ESTABLISHMENTS AS WELL AS IN THE GROWING IT-RELATED AND IT-SUPPORTED OFFICE OPERATIONS:

- COMPUTER LITERACY FOR THE STUDENTS OF JPM SCHOOL FROM CLASS VIII ONWARDS: COVERS MICROSOFT APPLICATIONS LIKE MS-WORD, EXCEL, POWER POINT, SCANNING, PRINTING AND USE OF INTERNET FOR BROWSING MAILS, SOCIAL NETWORKING ETC. WITH THE USE OF SCREEN READING SOFTWARE.
- 2-MONTH COMPUTER TRAINING FOR THE ADULT BLIND: CONDUCTED IN MAY-JUNE, THE TRAINING COVERS ALL THE ABOVE TOPICS, WITH FOCUS ON PREPARING THE ADULT BLIND TO HANDLE BASIC TASKS IN OFFICES, BANKS AND OTHER ESTABLISHMENTS.

VOCATIONAL TRAINING CENTRE

THE CENTRE OFFERS VOCATIONAL TRAINING IN A WIDE RANGE OF INDUSTRIAL AND OTHER OCCUPATIONS TO VISUALLY IMPAIRED ADULTS. THE TRAINING ALSO INCLUDE ORIENTATION AND MOBILITY, COMMUNICATION SKILLS ETC.



MACHINE OPERATING



PAPER CUTTING WORK



MASSAGE TRAINING



CANDLE MAKING: THE PROGRAMME PROVIDES TRAINING AND REMUNERATIVE WORK TO THE VISUALLY IMPAIRED. WIDE RANGE OF CANDLES PRODUCED AT BRA HAVE GREAT DEMAND, PARTICULARLY DURING DIWALI SEASON.

CALL CENTRE TRAINING: DESIGNED FOR COMPUTER LITERATE VISUALLY CHALLENGED ADULT BLIND, AN UPGRADED CALL CENTRE TRAINING IS BEING GIVEN SINCE 2014. TRAINING INCLUDES SOFT-SKILLS, KNOWLEDGE AND PRACTICAL EXPERIENCE OF WORKING ON AUTO-DIALLING CRM PROCESS FOR TELEMARKETING AT PAR WITH MAINSTREAM CALL CENTRES SO THAT THEY COULD COMPETE IN THE MAINSTREAM JOB MARKET. UNDER 6-MONTH TRAINING PROGRAMME THE TRAINEES RECEIVE STIPEND AND INCENTIVE AS THEY MASTER THE SKILLS OF TELEMARKETING.



CANDLE MAKING

INFERENCES

SAFETY ISSUES

THERE ARE NO RAMPS AND THEY ARE A CAUSE OF DISTRESS FOR MULTIPLE HANDICAP BLIND CHILDREN. THERE ARE NO RAILINGS TO GUIDE THE MOVEMENT. FREE STANDING COLUMNS OBSTRUCT THE MOVEMENT AND ARE POTENTIAL HAZARDS. FEW OF THESE ARE IN DINNING AREA NOW HAVE BLOCKS AND RAILING AROUND THEM. FREE STANDING TREES NOW HAVE SEATING AROUND THEM. FENCES AROUND SOME OF THE GREEN AREAS, ARE VERY EFFICIENT. NO SEGREGATION OF THE VEHICULAR AND PEDESTRIAN.

COLORS

INTERIORS ARE CREAM COLORED WITH A BLUE COLORED BAND THAT ACTS AS GUIDE THE EXTERIOR IS A MONOTONOUS GRAY. THE DOOR AND WINDOW FRAMES AND HANDLES HAVE BEEN PAINTED A BRIGHT



A BRICK LINING WAS PRESENT AT LEVEL DROPS ON SITE SUCH AS ON THE SIDES OF WALKWAYS, BEFORE FENCING OF PLAYGROUND ETC.



LITERATURE STUDY 1

HAZELWOOD SCHOOL

LITERATURE STUDY 1

HAZELWOOD SCHOOL



INTRODUCTION

HAZELWOOD SCHOOL IS DESIGNED FOR CHILDREN AND YOUNG PEOPLE AGED 2 TO 17 YEARS WHO ARE BLIND AND DEAF WITH COGNITIVE IMPAIRMENT AND PHYSICAL DISABILITIES. THE SCHOOL SNAKES THROUGH THE PARKLAND SITE, FORMING GENTLE CURVES AROUND THE EXISTING MATURE TREES. THE SINGLE STORY, BUILT WITH NATURAL MATERIALS CREATES A SERIES OF SMALL GARDEN SPACES IDEAL FOR SMALL CLASS SIZES AND MAXIMIZES THE POTENTIAL FOR MORE INTIMATE OUTDOOR COMPLEX DEMANDS FOR AN INSTITUTE WAY FINDING SYSTEM AS WELL AS THE SUBSTANTIAL STORAGE NEEDS FOR A WIDE RANGE OF EQUIPMENT USED BY CHILDREN WITH A VARIETY OF DISABILITIES.

PROGRAM

"HAZELWOOD IS A BEAUTIFUL BUILDING IN WHICH TO WORK AND LEARN. AS SOON AS YOU ENTER YOU FEEL THE VIBRANCY AND SENSE OF WARMTH THAT THE BUILDING EXUDES." THE NEW SCHOOL PLUS A SMALL LIFE SKILLS HOUSE (150 SQUARE METERS) IS 28,632 SQUARE FEET [2660 SQUARE METERS]. INTENDED TO BE USABLE AND EASILY NAVIGATED BY ANYONE, HAZELWOOD PROVIDES ACCOMMODATION FOR A MAXIMUM OF 60 PUPILS.



PROJECT DESCRIPTION

LOCATION: GLASGOW, SCOTLAND

COMPLETED: 2007

CLIENT: GLASGOW CITY COUNCIL EDUCATION SERVICES

DESIGN TEAM:
GORDAN MURRAY AND
ALAN DUNLOP
ARCHITECTS



LOCATION

HAZELWOOD SITS ON LAND OWNED BY GLASGOW CITY COUNCIL AT THE EDGE OF BELLAHOUSTON PARK. MAJOR ROADS CLOSELY BORDER THE SITE. THE SITE IS SHARED WITH THE DUMBRECK CONSERVATION AREA AS WELL AS RESIDENTIAL VILLAS AND A RESIDENTIAL TOWER AND WAS REQUIRED TO REFLECT NEIGHBOURING BUILDINGS IN SCALE AND HEIGHT.



ABOUT THE SITE

□THE SITE OF THE HAZELWOOD SCHOOL IS WITHIN THE SUBURBS OF GLASSGOW CITY. LOCATED CLOSE TO THE H77 EXPRESSWAY, THE SCHOOL IS EASILY ACCESSIBLE FROM ALL PARTS OF THE CITY.

□THE EXISTING SITE WAS SURROUNDED BY MATURE LIME TREES AND AT ITS CENTRE WAS A LARGE LIME TREE AND THREE BEACH TREES.

□THE SITE WAS ORIGINALLY THE DAIRY FARM BUT OVER THE PAST 150 YEARS HAS BEEN PUT TO USE AS A STORAGE AREA FOR RAILWAY.

□THE SITE IS SHARED WITH THE DUMBRECK CONSERVATION AREA AS WELL AS RESIDENTIAL VILLAS AND A RESIDENTIAL TOWER AND WAS REQUIRED TO REFLECT NEIGHBOURING BUILDINGS IN SCALE AND HEIGHT.

UNDERSTANDING BUILDING SURROUNDINGS

- BELLAHOUSTON PARK IS ADJACENT TO THE SITE FOR CHILDREN PROVES TO BE AN EFFECTIVE SOUND BARRIER.
- AS PARKING IS RESTRICTED TO THE LIMITED AREA, IT ALLOWS HASSLE FREE MOVEMENT OF CHALLENGED PEOPLE THROUGHOUTHE CAMPUS.



**MODEL OF THE SCHOOL
SHOWING
THE PLACEMENT OF
TREES**

CONCEPT

THE CREATION OF ARCHITECTURAL SPACE THAT PROMOTES PARTICIPATION, PERSONALIZATION AND PARTICULARITY THE PERSONAL INDEPENDENCE OF THE STUDENTS.



CURVED WOODEN WALLS SERVE TO INSTITUTIONALIZE THE FEEL OF THE SCHOOL AND REDUCE THE VISUAL SCALE. THE TIMBERS OFFER SENSORY STIMULATION: SMELL AND TOUCH GROUND.



MATURE TREES, WALKWAYS, AND A PLAY YARD WITH WOODEN CLIMBING STRUCTURES AND SWINGS CREATE A PARKLIKE SETTING FOR THE SCHOOL GROUNDS.

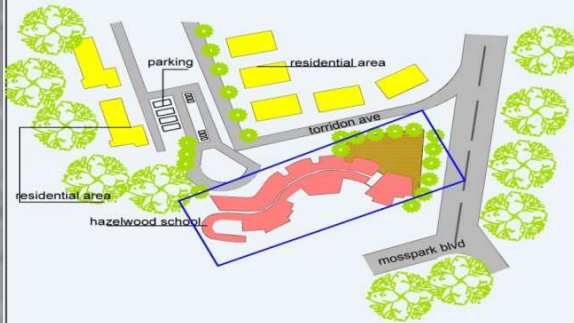


LARGE TIMBER BOARDING ON THESE EXTERIOR WALLS CREATES A NATURAL EXTENSION OF THE WOODED LANDSCAPE OUTSIDE THE SCHOOL.

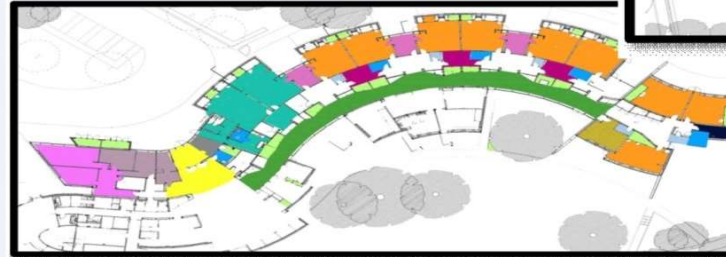
ENVIRONMENTALLY SUSTAINABLE FEATURES

- DESIGNED TO MAXIMIZE THE USE OF NATURAL AND DURABLE MATERIALS, AND WHEN FISCALLY POSSIBLE, LOCALLY SOURCED.
- NATURALLY VENTILATED AND INSULATED BEYOND THE SPECIFIC REQUIREMENTS OF THE NATIONAL TECHNICAL STANDARDS.
- FULLY GLAZED CIRCULATION SPACE FACES SOUTH AND OVERLOOKS LARGE SUNLIT GARDENS.
- ROOFING SLATES ON THE SOUTH ELEVATIONS ARE A STRONG HEAT SOURCE.
- NORTH FACING CLASSROOMS PITCH UP TO PROVIDE LARGE AREAS OF CLERESTORY GLAZING TO ALLOW MAXIMUM DAY LIGHTING TO PENETRATE DEEP INTO CLASSROOM SPACES AND ENSURE AN EVEN DISTRIBUTION OF LIGHT, CRITICALLY IMPORTANT FOR CHILDREN WITH VISUAL IMPAIRMENTS.
- THE OUTSIDE ENVIRONMENT IS CONSIDERED AS AN EXTERNAL CLASSROOM. AREAS HAVE BEEN LEFT UNPLANNED TO ALLOW THE SCHOOL'S INVOLVEMENT IN THE DESIGN AND DEVELOPMENT OF FUTURE SENSORY GARDENS.

PLANNING



LOCATION MAP



- Double bedroom
- Residences living area
- Ambulant WC
- Accessible WC

HIGH-LEVEL WINDOWS

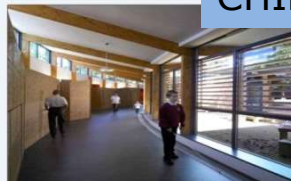
ARE USED AS SOME OF THE STUDENTS WITH VISUAL IMPAIRMENTS CAN BE EASILY DISTRACTED BY (MOVEMENTS/ACTIVITIES OCCURRING OUTSIDE.)



THE DEFINING COMPONENT OF THE INTERIOR DESIGN IS THE CORK - CLAD 'TRAIL WALL' THAT MEETS NAVIGATION NEEDS ON ONE SIDE AND THE EXTENSIVE NEEDS FOR STORAGE ON THE OPPOSITE SIDE. IT RUNS THE LENGTH OF THE BUILDING AND ENABLES CHILDREN TO NAVIGATE INDEPENDENTLY

MATERIALS USED

- ZINC ON THE ROOF
- TIMBER
- BRICK
- GLASS



Teaching room

staff room

cork clad wall

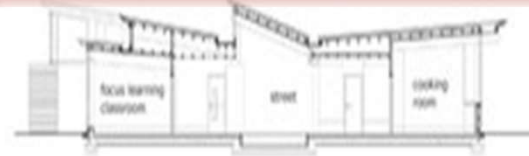
CORK CLADDING

INTERNAL ORGANIZATION

PLAN



ALL THE USERS AND VISITORS ENTER DIRECTLY INTO THE LARGE FOYER/ ASSEMBLY HALL. THIS PLACE DIVIDES THE CLASSROOMS WING FROM THE GYMNASIUM/POOL AND THE ADMINISTRATION AREA. THE DIVISION ALLOWS THE POOL AND GYM TO BE USED AFTER HOURS WHILE THE CLASSROOM WINGS CAN STAY CLOSED/SECURE.



THE LAMINATED TIMBER STRUCTURE IS CONSTRUCTED FROM EUROPEAN WHITEWOOD WHICH HAS BEEN CLAD IN SIBERIAN LARCH. A PALETTE OF HIGHLY TEXTURED NATURAL MATERIALS WAS USED WHICH WOULD BE STIMULATING TO TOUCH AND SMELL. NATURALLY WEATHERING TIMBER, RECLAIMED SLATE TILES AND ZINC WERE USED EXTERNALLY



HIGH LEVEL CLERESTORY GLAZING FORMS A SUBSTANTIAL PART OF THE FAÇADE OF THE NORTH-FACING CLASSROOMS, ALLOWING FOR MAXIMUM DAYLIGHT TO PENETRATE DEEP INTO THE SPACES AND ENSURING EVEN DISTRIBUTION OF LIGHT. STORAGE BOXES, TWO AND A HALF METRES TALL, CREATE A SOLID WALL BELOW THE CLEARSTORY GLAZING; THIS REDUCES EXTERNAL VISUAL DISTRACTION, HIGHLIGHTED BY TEACHING STAFF AS A SIGNIFICANT CAUSE OF LOSS OF CONCENTRATION LEVELS IN SOME VISUALLY IMPAIRED STUDENTS. DIFFUSED LIGHTS ARE APPLIED ALONG WITH NATURAL LIGHT FACILITY.

LITERATURE STUDY 2

CENTRE FOR THE BLIND AND VISUALLY IMPAIRED , MEXICO

INTRODUCTION:

THE CENTRE FOR THE BLIND AND VISUALLY IMPAIRED WAS CREATED AS PART OF A PROGRAM BY THE MEXICO CITY GOVERNMENT TO PROVIDE SERVICES TO ONE OF THE MOST DISADVANTAGED AND HIGHLY-POPULATED AREAS OF THE CITY. IZTAPALAPA IS THE DISTRICT WITH THE LARGEST VISUALLY IMPAIRED POPULATION IN THE MEXICAN CAPITAL.

MATERIAL:

THE SUSTAINABLE-COMPOSITE TEPETTE OFFERS AN ALTERNATIVE CONSTRUCTION MATERIAL BECAUSE OF LOCAL CONSTRUCTION MATERIAL, BEING LASTING, RESISTANT, AND ECONOMICAL, OF LOW CONSUMPTION ENERGY IN ITS PREPARATION. MOREOVER, IT IS ONE HUNDRED PERCENT RECYCLABLE AND THUS CAN BE USED FOR REINFORCED PLATFORMS OR FOR BLOCK ELEMENTS.

ARCHITECT: TALLER DE ARQUITECTURA-MAURICIO ROCHA

LOCATION: MEXICO CITY, MEXICO

LANDSCAPE ARCHITECT: JERÓNIMO HAGERMAN

CONTRACTOR: GRUPO QUART

SITE AREA: 8,500 SQM

PROJECT YEAR: 2001

ABOUT THE BUILDING :

THE BUILDINGS ARE RECTANGULAR PRISMS, BASED ON CONCRETE FRAMES AND FLAT ROOFS. EACH GROUP EXPLORES DIFFERENT SPATIAL AND STRUCTURAL RELATIONSHIPS, MAKING EACH SPACE IDENTIFIABLE FOR THE USER AND VARYING SIZE, LIGHT INTENSITY AND WEIGHT OF MATERIALS.

CLIMATE IN MEXICO:

THE **CLIMATE** IS WARM AND TEMPERATE IN **MEXICO CITY**. THE SUMMERS HERE HAVE A GOOD DEAL OF RAINFALL, WHILE THE WINTERS HAVE VERY LITTLE. THE **TEMPERATURE** HERE AVERAGES 15.9 °C. **PRECIPITATION** HERE AVERAGES 625 MM.

LEVEL OF EDUCATION: VOCATIONAL EDUCATION AND TRAINING

NO. OF STUDENTS : 600 PART-TIME (2010)

NO. OF TEACHERS: 24 PART-TIME (2010)

GROSS FLOOR AREA: 14000 M²

TOPOGRAPHY: FLAT TERRAIN

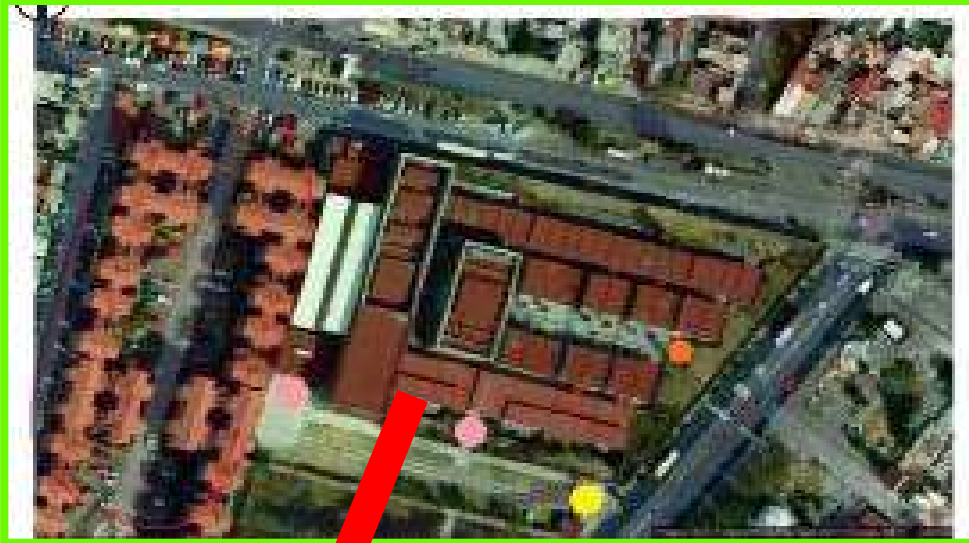
SURROUNDINGS: RESIDENTIAL

PARKING: 50 CARS

DESIGN CONCEPT :

THE 14,000 SQ.M. COMPLEX IS ON CORNER PLOT BORDERED BY TWO AVENUES. A BLIND WALL ENCIRCLES THE COMPLEX ON ITS FOUR SIDES AND ACTS AS AN ACOUSTIC BARRIER AS WELL AS A RETAINING WALL/BLANK TO HOLD THE EARTH MOVED FROM NEIGHBOURING WASTELAND AREAS. IN CONTRAST TO THE ABSTRACT EXTERIOR, THE INTERNAL FACADE OF THE BOUNDARY WALL CREATES BANKS THAT CHANGE SHAPE, HEIGHT, AND ORIENTATION, THUS CREATING VARIOUS COURTYARDS.

SITE



USE OF LIGHT AND SHADOW AT APPROPRIATELY TO DEVELOP THE SENSES OF LOW VISION PEOPLE



CROSS SECTION OF THE CLASSROOM WITH BUILT IN FURNITURE



CENTRAL AXIS



CLASSROOM VIEW



SWIMMING POOL



LIBRARY WITH COLUMN FREE AND STEEL BEAMS

DESIGN ZONING:

□ THE FLOOR PLAN, MEANWHILE, CAN BE READ AS A SERIES OF FILTERS WHICH STRETCH OUT FROM THE ENTRANCE IN PARALLEL STRIPS.

□ THE FIRST FILTER IS THE BUILDING THAT HOUSES THE ADMINISTRATIVE OFFICES, CAFETERIA, AND UTILITY AREA.

□ THE SECOND CONSISTS OF TWO PARALLEL LINES OF BUILDINGS ORGANIZED SYMMETRICALLY ALONG A CENTRAL PLAZA.

□ THESE BUILDINGS CONTAIN A STORE, THE SOUND AND TOUCH GALLERY AND FIVE ARTS AND CRAFTS WORKSHOPS.

□ THE THIRD FILTER HAS THE CLASSROOMS FACING THE GARDENS AND THE MOST PRIVATE COURTYARDS.

□ PERPENDICULAR TO THE ENTRANCE, A SERIES OF DOUBLE-HEIGHT VOLUMES HOUSE THE LIBRARY, GYMNASIUM, AUDITORIUM, AND SWIMMING POOL.



LIBRARY:

- ❑ STRUCTURE: STEEL BEAMS WERE USED TO ACHIEVE THE COLUMN FREE SPACE .
- ❑ INTERIORS: YELLOW WOODEN BANDS WITH BRAILLE ENGRAVED FOR THE EASE OF USERS TO ACCESS THE LIBRARY.

SENSORY ENVIRONMENT:

- ❑ THE CENTER AIMS TO ENHANCE SPATIAL PERCEPTION, ACTIVATING THE FIVE SENSES AS EXPERIENCE AND SOURCE OF INFORMATION.
- ❑ A WATER CHANNEL RUNS THROUGH THE CENTER OF THE PLAZA, SO THAT THE SOUND OF THE WATER GUIDES USERS ALONG THEIR WAY.
- ❑ HORIZONTAL AND VERTICAL LINES IN THE CONCRETE AT HAND HEIGHT OFFER TACTILE CLUES TO IDENTIFY EACH BUILDING.
- ❑ SIX TYPES OF FRAGRANT PLANTS AND FLOWERS IN THE PERIMETER GARDENS ACT AS CONSTANT SENSORS TO HELP ORIENTATE USERS WITHIN THE COMPLEX.



AREA ANALYSIS

S.NO.	SITE	CASE STUDY 1		CASE STUDY 2
1	AREA	174150 SQM		36140
2	F.A.R.	1.2		1.5
3	BUILT UP AREA	12178.46 SQM		4580
4	GROUND COVERAGE	30%		13%
5	PEDESTRIAN	5%		5-7 %
6	LANDSCAPE	55%		≤ 60%
7	ROADS	10%		10%

STANDARD COLLECTION:

FOR DISABLED

- THE MINIMUM WALK WAY WIDTH WOULD BE 1200 MM AND FOR MODERATE TWO WAY TRAFFIC IT SHOULD BE 1650 .MM - 1800 MM.
 - LONGITUDINAL WALK GRADIENT SHOULD BE 3 TO 5% (30 MM - 50 MM IN 1 METER)
 - WHEN WALKS EXCEED 60 METER IN LENGTH IT IS DESIRABLE TO PROVIDE REST AREA ADJACENT TO THE WALK AT CONVENIENT INTERVALS WITH SPACE FOR BENCH SEATS. FOR COMFORT THE SEAT SHOULD BE BETWEEN 350 MM - 425 MM HIGH BUT NOT OVER 450 MM.
- * TEXTURE CHANGE IN WALK WAYS ADJACENT TO SEATING WILL BE DESIRABLE FOR BLIND PERSONS

PARKING :-

FOR PARKING OF VEHICLES OF HANDICAPPED PEOPLE THE FOLLOWING PROVISIONS SHALL BE MADE:

- THE WIDTH OF THE INFORMATION STATING THAT THE SPACE IS RESERVED FOR WHEEL CHAIR USERS SHALL BE CONSPICUOUSLY DISPLAYED.
- GUIDING FLOOR MATERIALS SHALL BE PROVIDED OR A DEVICE WHICH GUIDES VISUALLY IMPAIRED PERSONS WITH AUDIBLE SIGNALS OR OTHER DEVICES WHICH SERVES THE SAME PURPOSE SHALL BE PROVIDED.
- PARKING SHOULD MAINLY BE AT 60 DEG. – 90 DEG. ANGLE.

FIRE FIGHTING-

A WATER STORAGE TANK OF MINIMUM 20 000 LITRES CAPACITY, WHICH MAY BE USED FOR OTHER CONSTRUCTION PURPOSES ALSO.

FOR THE EXTERNAL STAIRS FOR EXIT REQUIREMENTS, THE WIDTH AND TREADS HAVE BEEN INCREASED TO 1 250 MM AND 250 MM RESPECTIVELY.

UNDER THE REQUIREMENTS FOR INSTITUTIONAL BUILDINGS THE CLEAR WIDTH OF ALL REQUIRED EXITS WHICH SERVE ASEGRESS FROM HOSPITAL OR INFIRMARY SECTION HAS BEEN INCREASED FROM 1.5 M TO 2 M. ALSO, PROVISION OF PATIENT-LIFT HAS BEEN INCLUDED. OPENINGS IN WALLS OR FLOORS WHICH ARE NECESSARY TO BE PROVIDED TO ALLOW PASSAGES OF ALL BUILDING SERVICES LIKE CABLES, ELECTRICAL WIRINGS, TELEPHONE CABLES, PLUMBING PIPES, ETC, SHALL BE PROTECTED BY ENCLOSURE IN THE FORM OF DUCTS/SHAFTS HAVING A FIRE RESISTANCE NOT LESS THAN 2 H.

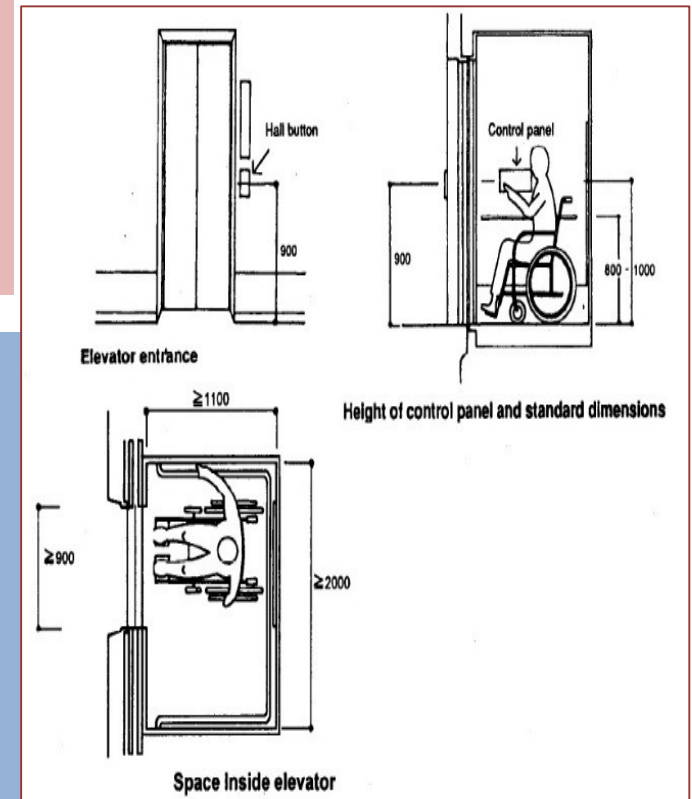
DRUMS FILLED WITH WATER OF 2 000 LITRES CAPACITY WITH TWO FIRE BUCKETS ON EACH FLOOR

THE MINIMUM CAPACITY OF SMOKE EXHAUST EQUIPMENT HAS BEEN INCREASED TO 12 AIR CHANGES PER HOUR

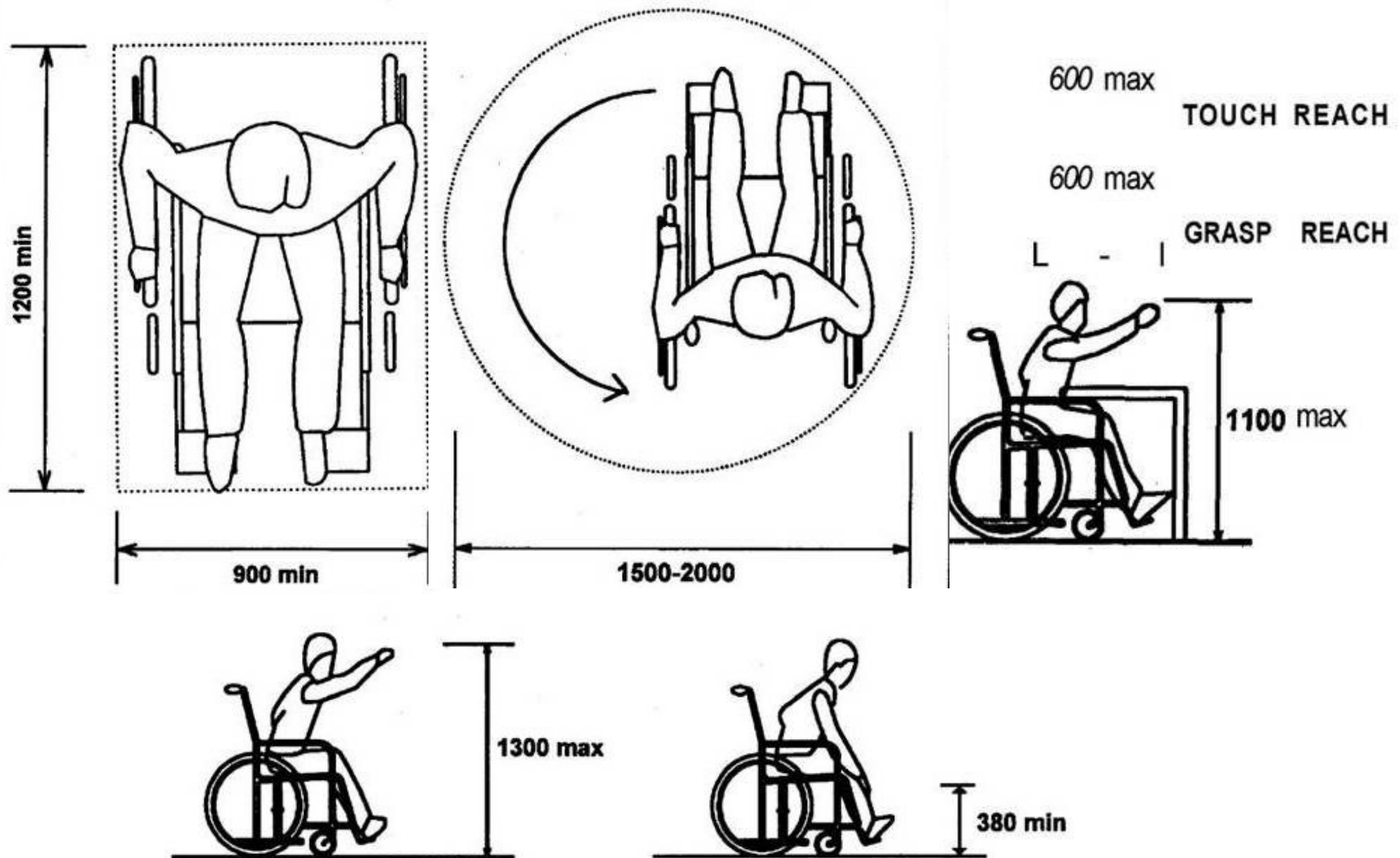
LIFT

FOR LEVEL CHANGES OF MORE THAN 2500 MM., THE LIFT SHOULD BE PLACED IN A CLOSED STRUCTURE WITH DOORS AT DIFFERENT ACCESSIBLE LEVELS WHEREVER LIFT IS REQUIRED AS PER BYE-LAWS, PROVISION OF AT LEAST ONE LIFT SHALL BE MADE FOR THE WHEEL CHAIR USER WITH THE FOLLOWING CAGE DIMENSIONS OF LIFT

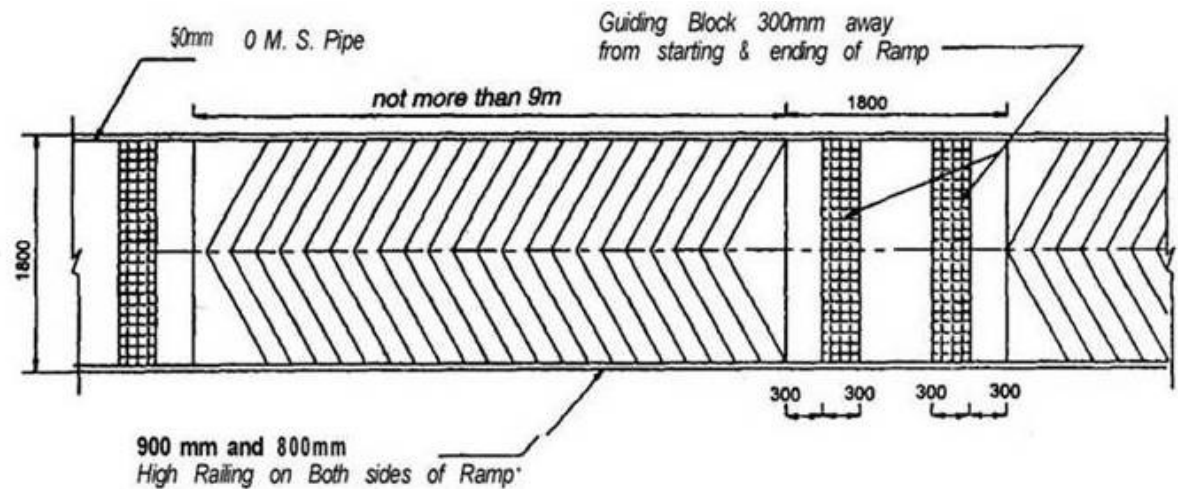
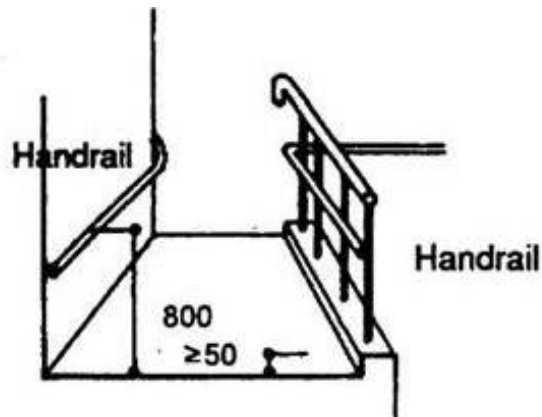
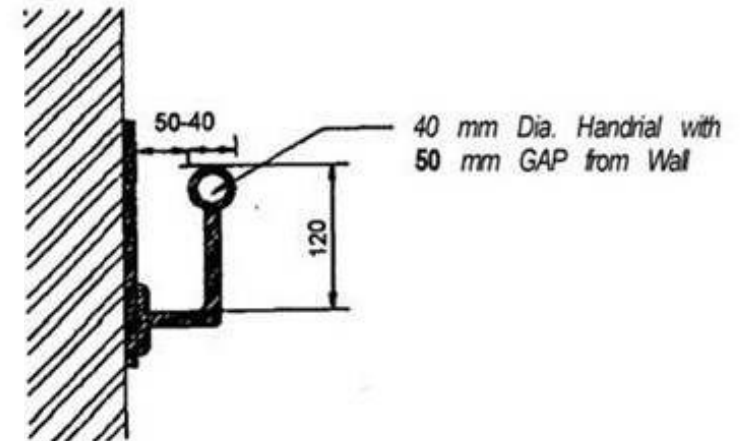
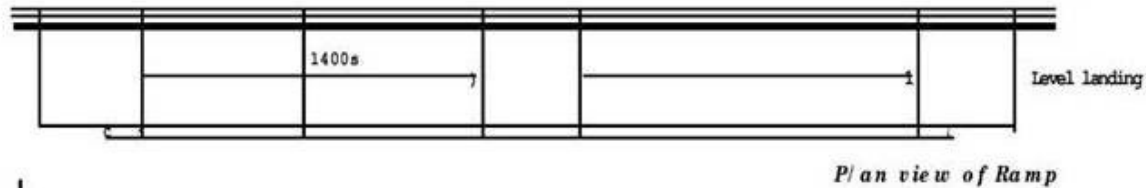
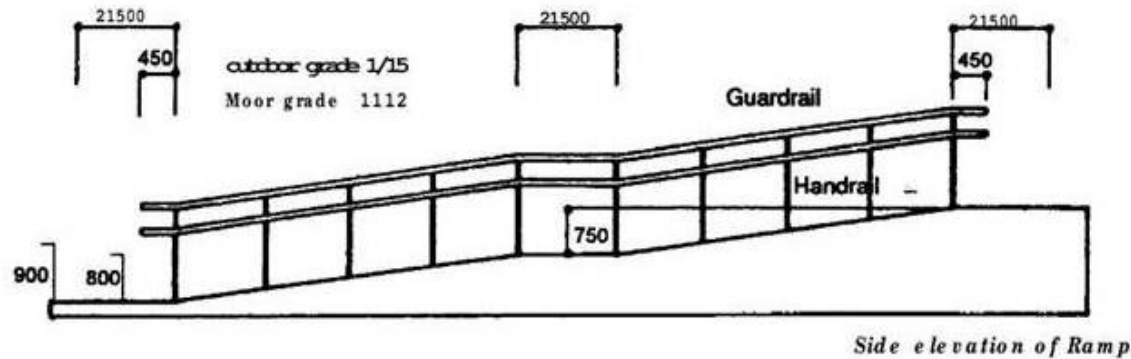
- RECOMMENDED FOR PASSENGER LIFT OF 13 PERSONS CAPACITY BY BUREAU OF INDIAN STANDARDS.
CLEAR INTERNAL DEPTH : 1100 MM.
CLEAR INTERNAL WIDTH : 2000 MM.
ENTRANCE DOOR WIDTH : 900 MM.
A) WA HAND RAIL NOT LESS THAN 600 MM. LONG AT 800-1000 MM. ABOVE FLOOR LEVEL
SHALL BE FIXED ADJACENT TO THE CONTROL PANEL. THE LIFT LOBBY SHALL BE OF AN INSIDE MEASUREMENT OF 1800 X 1800 MM. OR MORE.
B) THE TIME OF AN AUTOMATICALLY CLOSING DOOR SHOULD OR MINIMUM 5 SECONDS AND THE CLOSING SPEED SHOULD NOT EXCEED 0.25 M/ SEC.
C) THE INTERIOR OF THE CAGE SHALL BE PROVIDED WITH A DEVICE THAT AUDIBLY INDICATES THE FLOOR THE CAGE HAS REACHED AND INDICATES THAT THE DOOR OF THE CAGE FOR ENTRANCE/EXIT IS EITHER OPEN OR CLOSED.



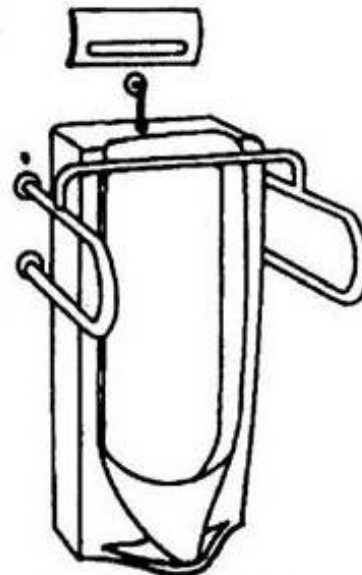
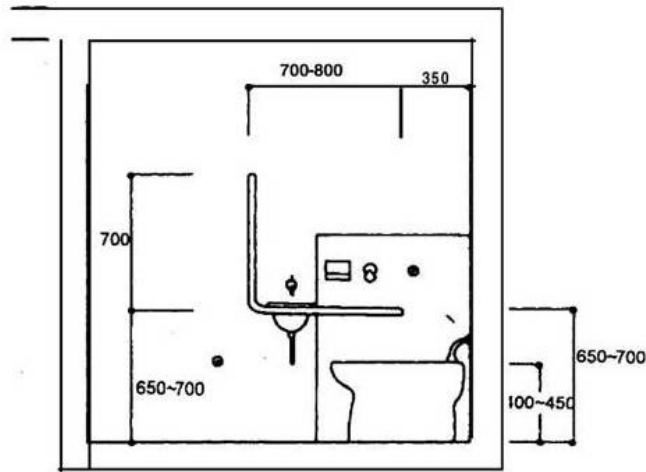
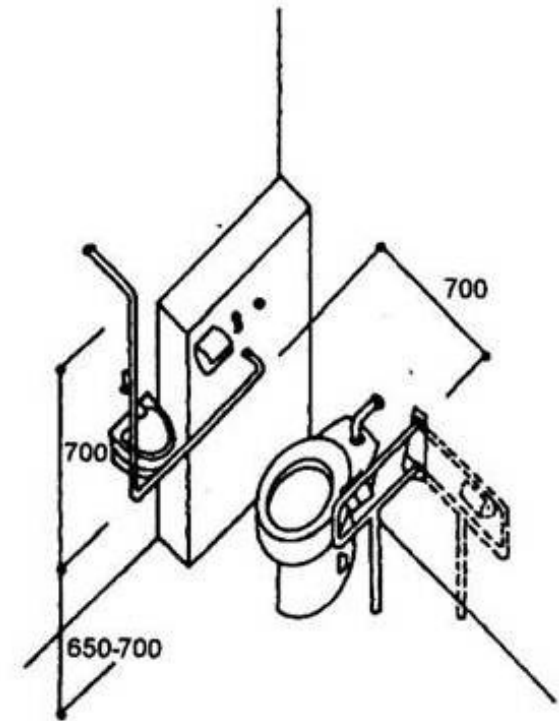
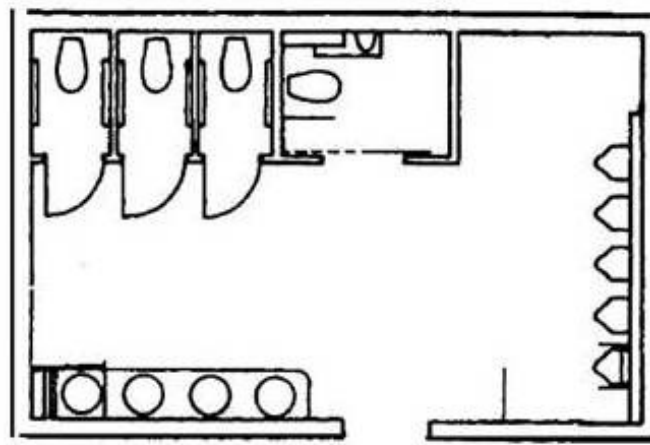
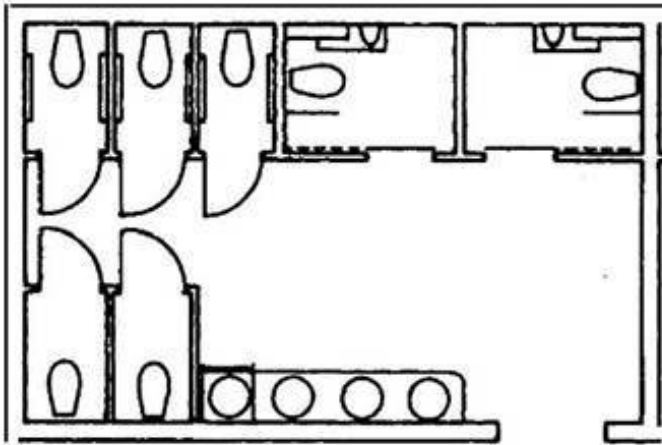
WHEEL CHAIR DETAILS



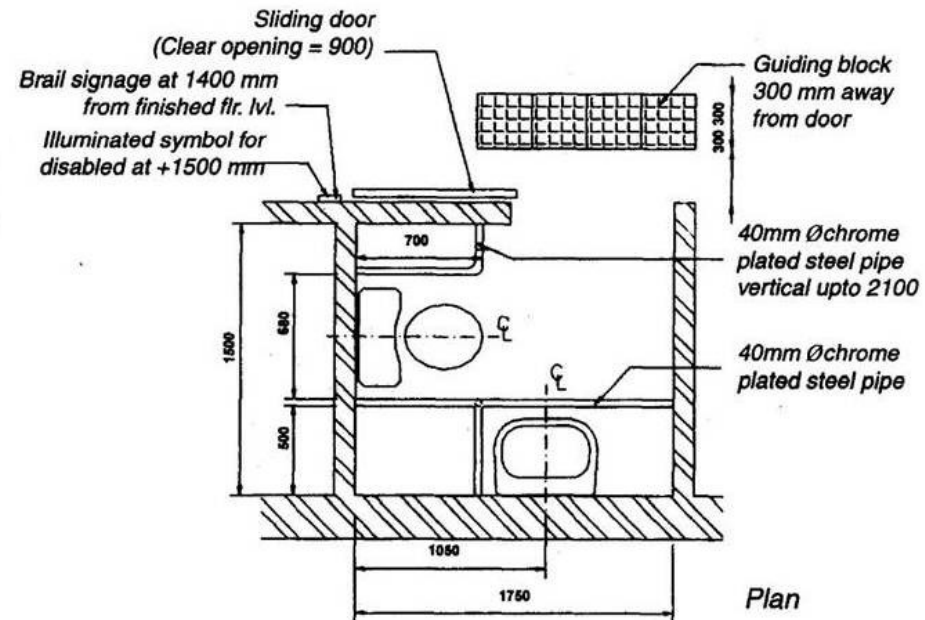
RAMP DETAILS



TOILET DETAILS



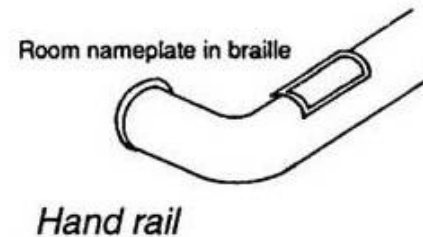
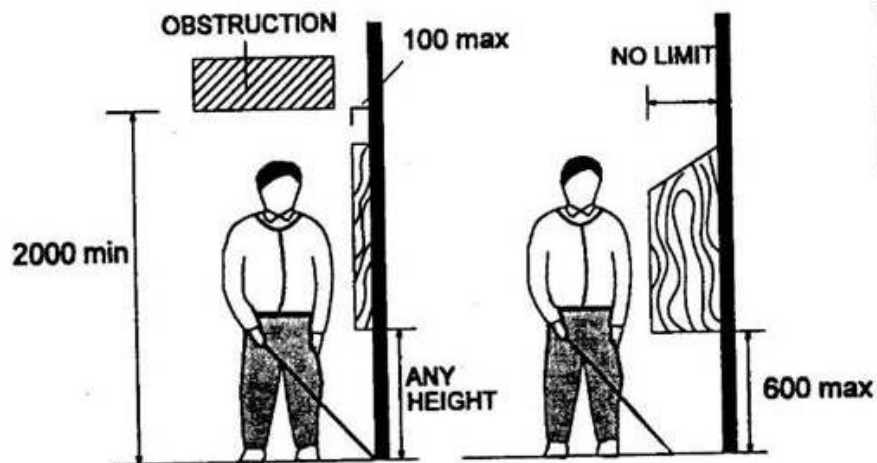
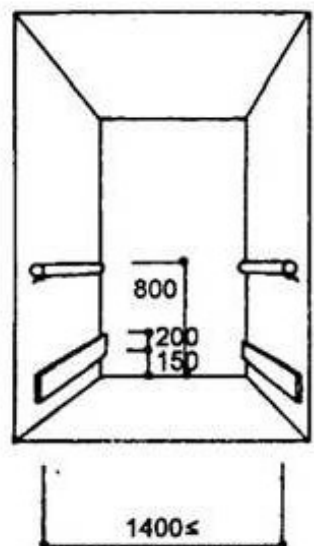
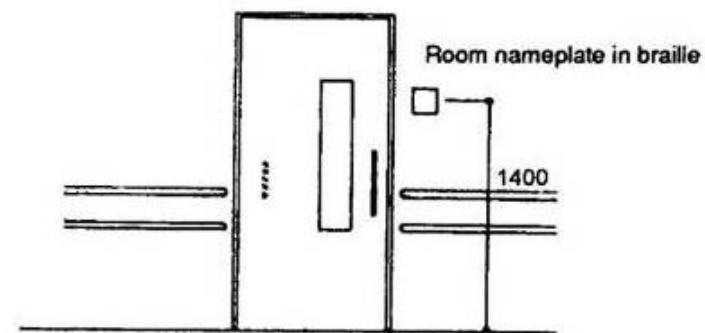
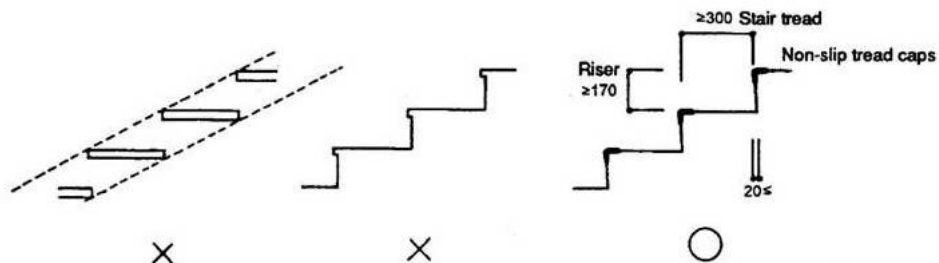
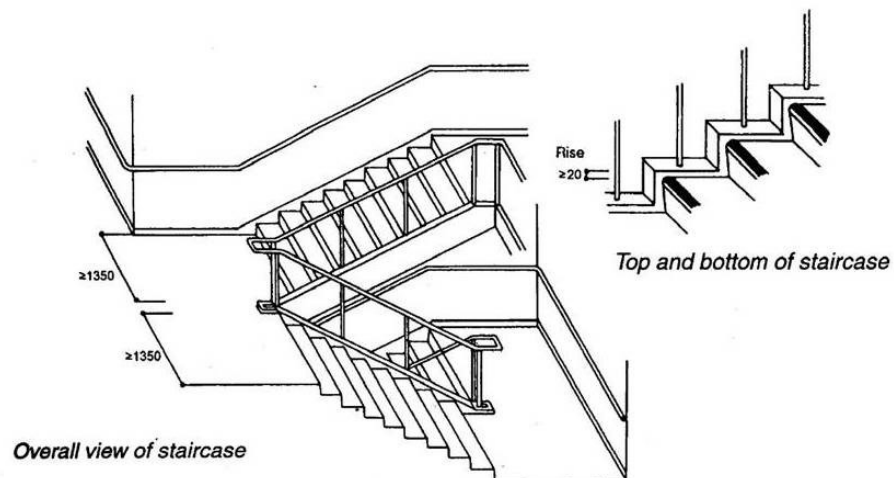
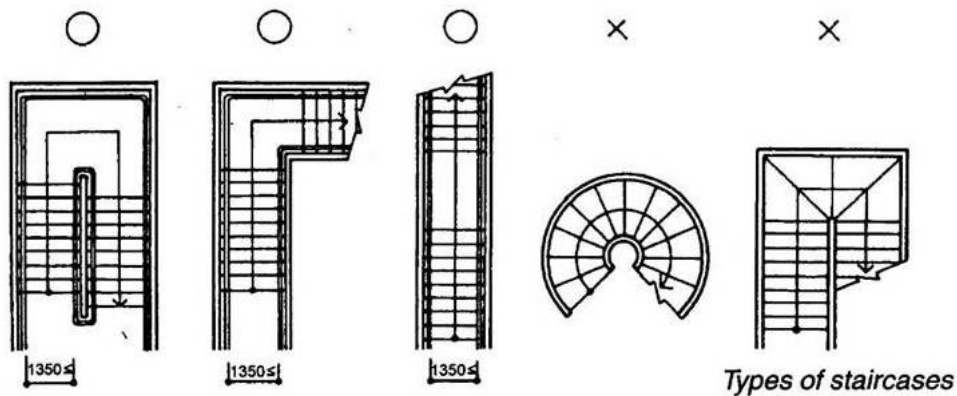
Urinal handrail



Plan

STAIRS AND CORRIDOR DETAILS

Steps and Stairs



AREA ANALYSIS

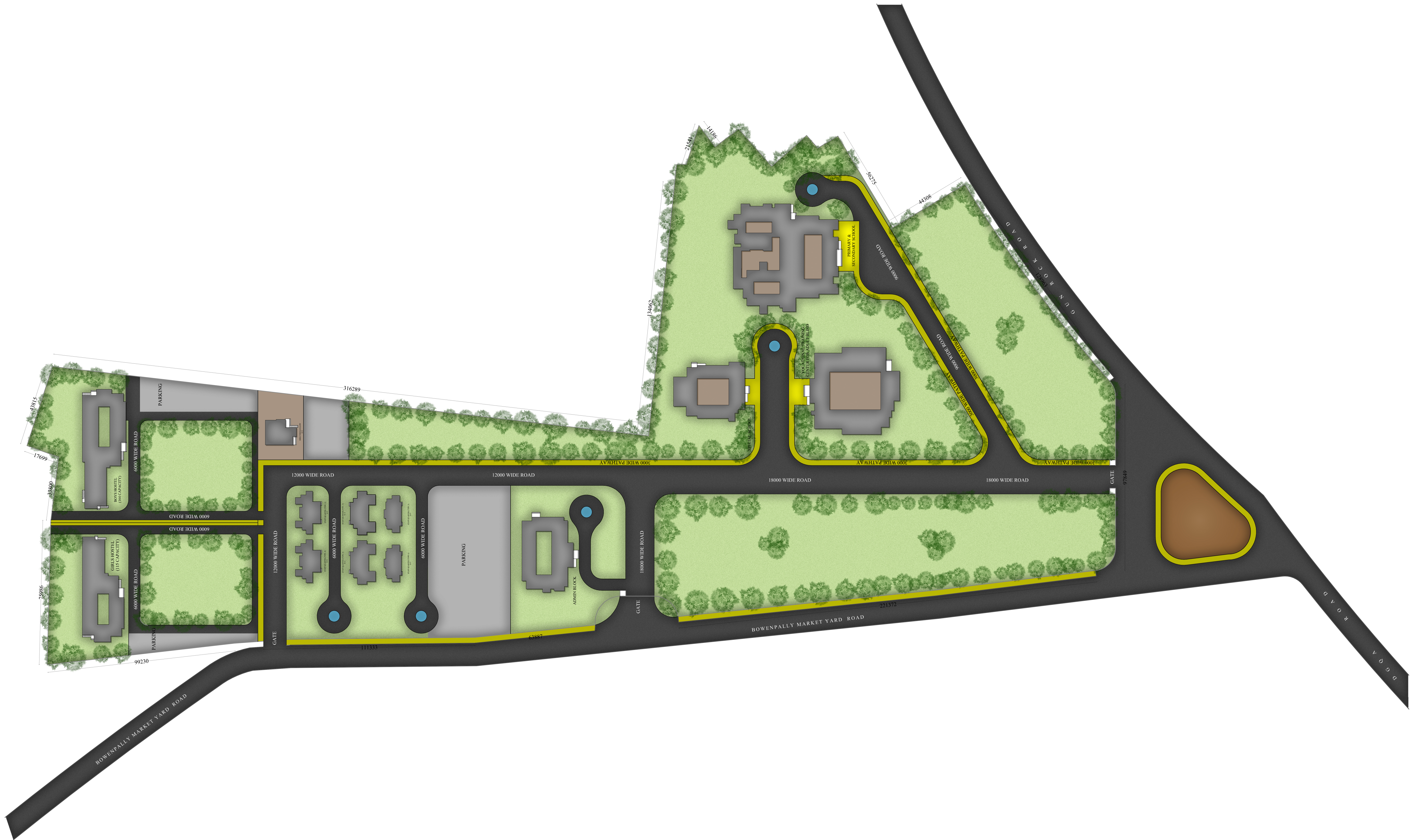
2	F.A.R.	1.2				1.2				1.5					
3	BUILT-UP ARE (SQ.-M)	12178.46 SQ-M					14201.46			35%					
4	GROUND COVERAGE (%)	20%				28%									
5	PEDESTRIAN (%)	5%				6%									
6	LANDSCAPE (%)	60%				50%									
7	ROADS (%)	10%				12%									
	SPACES	NIVH, DEHRADOON				THE BLIND RELIEF ASSOCIATION, DELHI				STANDARDS		PROPOSAL			REMARKS
B	ADMINISTRATIVE BLOCK	NO. OF UNIT	UNIT AREA (SQM)	TOTAL AREA SQM	FLOOR	NO. OF UNIT	UNIT AREA SQM	TOTAL AREA SQM	FLOOR		NO. OF UNIT	UNIT AREA SQM	TOTAL AREA SQM		
1	ENTERANCE/ LOBBY	1	150	150	GF	1	100	100	G.F.	1.5 SQM / PERSON	1	100	100		
2	DIRECTOR ROOM	1	30	30	GF	1	30	30	G.F.	20.25 SQM (TIME SAVER)	1	50	50		
3	REGISTRAR ROOM	1	25	25	FF						1	40	40		
4	PA ROOM	1	15	15	GF	1	25	25	F.F.	20.25 SQM	1	30	30		
5	ADMIN SECTION	1	60	60	FF	1	50	50	G.F.	AS PER LAYOUT	1	60	60		
6	STAFF ROOM	1	40	40	GF	1	30	30	G.F.	AS PER LAYOUT	2	50	100		
7	MEETING ROOM	1	40	40	GF	1	40	40	G.F.	1.5 SQM / PERSON	1	100	100		
8	ACCOUNT SECTION	1	30	30	FF	1	50	50	F.F.		1	60	60		
9	MAINTENANCE	1	25	250	FF						1	50	50		
10	STORE ROOM	1	30	30	FF	1	30	30	F.F.	30-40 SQM (TIME SAVER)	1	60	60		
11	RECORD ROOM	1	20	20	FF	1	20	20	F.F.		2	30	30		
	UTILITY														
1	PANTRY/ KITCHEN	1	9.5	9.5	GF	1	9	9	G.F.		1	15	15		
2	COMMON ROOM	1	50	50	GF		40	40	G.F.		1	60	60		
3	STAFF DINING	1	40	40	FF					1.8 SQM / PERSON	1	50	50		
4	STAFF TOILET (MALE)	1	15	15	GF	1	15	15	G.F.	1 WC / 25 PERSON, 1UR/50PERSON, 1WB/25 PERSON	1	15	15		
5	TOILET FEMALE	1	12	12	GF	1	12	12	G.F.	1WC/50 PERSON, 1WB/25 PERSON	1	12	12		
	SERVICES														
1	ELECTRICAL ROOM	1	9.5	9.5	GF	1	4	4				9	9		
2	STAIR/ RAMP		1:12									1:12			
				766				455							

C	SENIOR SECONDARY SCHOOL (TOTAL NO. OF STUDENT- 300) BOYS- 200, GIRLS- 100, IN EACH CLASS 25 STUDENT													
	ADMIN													
1	PRINCIPAL ROOM	1	30	30	GF	1	25	25	G.F.	20-30 SQM (TIME SAVER PART 2)	1	30	30	
2	VICE PRINCIPAL ROOM	1	20	20	GF	1	25	25	G.F.		1	25	25	
3	STAFF ROOM	2	30	60	GF & FF	1	30	30	G.F.		2	50	100	
4	MEDICAL ROOM	1	20	20	GF						1	30	30	
5	MAINTENANCE ROOM	1	20	20	FF						1	25	25	
	ACADEMIC													
1	CLASSROOMS	20	30	600	GF & FF	12	20	240	G.F.	2 SQM/STUDENT+ 5 SQM STORAGE	20	25	500	
2	RESOURCE ROOM	1	40	40	FF						2	45	90	
3	MUSIC ROOM	2	30	60	FF	1	30	30	G.F.	60-70 SQM	2	75	150	
4	MOBILITY TRAINING	1	25	25	FF						2	30	60	
5	SCIENCE LAB	1	150	150	GF					3.6 SQM/ STUDENT	1	3.6	160	
6	EXHIBITION ROOM	1	120	120	FF	1	90	90	G.F.		1	120	120	
7	TOILET BOYS	2	15	30	GF & FF	1	15	15	G.F.	1WC/15 PERSON,1WB/15 PERSON	2	20	40	
8	TOILET GIRLS	2	15	30	GF & FF	1	15	15	G.F.	1WC/15 PERSON,1WB/15 PERSON	2	20	40	
	LIBRARY													
1	LIBRARIAN ROOM	1	20	20	FF	1	20	20	F.F.		1	25	25	
2	STACKING AREA	2	120	240	GF	1	100	100	F.F.		2	0.009	260	
3	READING HALL	2	50	100	FF	1	50	50	F.F.	1.5 SQM / PERSON	2	1.5	300	
4	AUDIO SECTION	1	20	20	GF						2	50	100	
5	RECORDING STUDIO	2	15	30	GF	1	20	20	G.F.		2	20	40	
	UTILITY													
1	PANTRY / KITCHEN	1	12	12		1	9	9	G.F.		1	15	15	
2	COMMON ROOM	1	40	40		1	30	30	G.F.	1.5 SQM / PERSON	1	15	75	
3	STAFF DINING	1	30	30						1.8 SQM / PERSON	1	1.8	90	
4	STAFF TOILET (MALE)	1	15	15		1	12	12	G.F.	1WC/25 PERSON, 1UR/50 PERSON	1	12	12	
5	TOILET FEMALE	1	15	15		1	12	12	G.F.	1WC/15 PERSON, 1WB/25 PERSON	1	12	12	
	SERVICES													
1	ELECTRICAL ROOM	1	9.5	9.5			4	4			1	9 SQM		
2	STAIR / RAMP		1:12								1:12			
	TOTAL			1736.5				702						

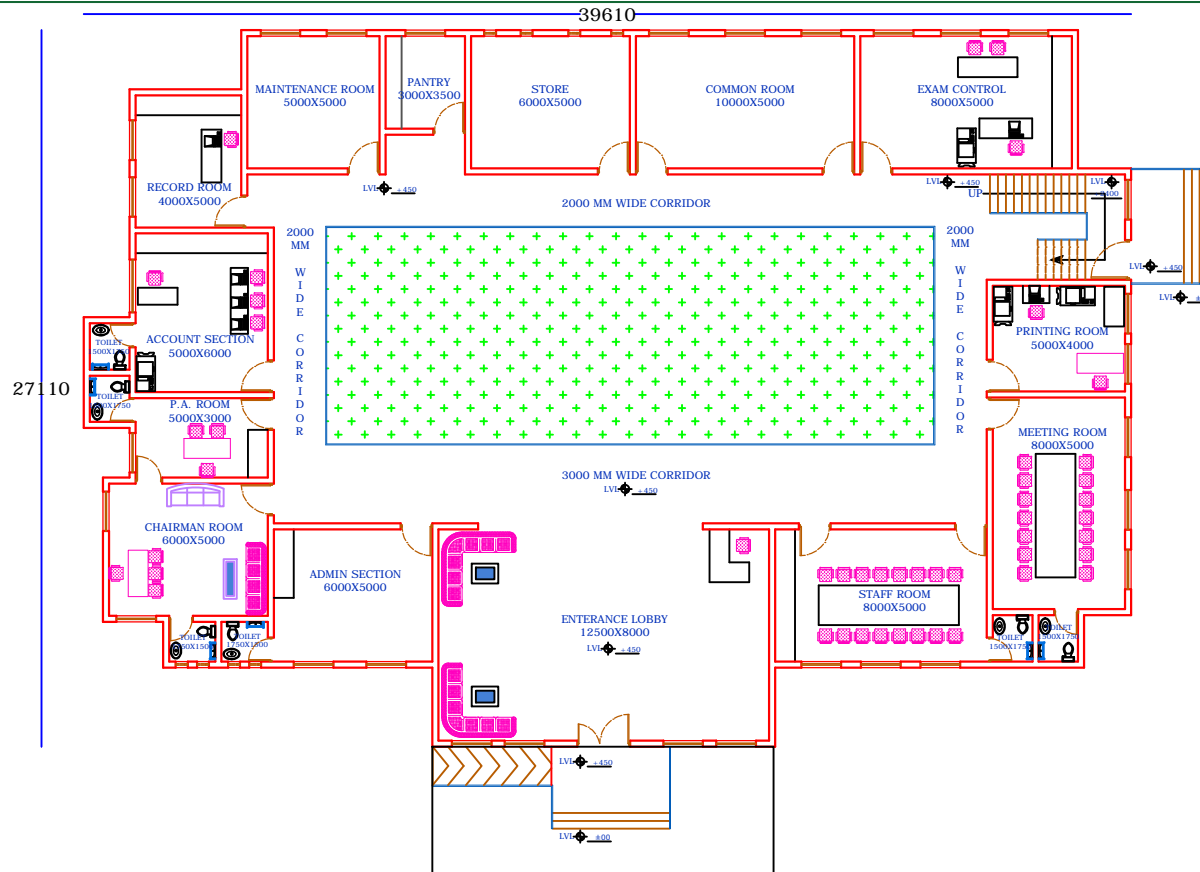
D	VOCATIONAL TRAINING CENTRE													
1	ENTERANCE/ WAITING	1	100	100	GF	1	50	50	G.F.	1.5 SQM / PERSON	1	1.5	100	
2	DIRECTOR ROOM	1	30	30	GF	1	20	20	F.F.	20-25 SQM (TIME SAVER)	1	30	30	
3	PA OFFICE	1	50	50	GF	1	30	30	F.F.		1	60	60	
4	STAFF ROOM	2	30	60	GF	1	30	30	G.F.		2	50	100	
5	CANDLE MAKING	1			FF	1	80	80	G.F.		1	240	240	
6	PAPER PRODUCT	1	150	150	GF						1	240	240	
7	PAPER RECYCLING	1	150	150	GF						1	165	165	
8	CHAIR CANING	1	120	120	FF					2.7 SQM / PERSON	1	120	260	
9	COMPUTER LAB	2	60	120	GF & FF	1	60	60	GF	2 SQM / PERSON	1	120	120	
10	MASSAGE TRAINING	1									1	75	75	
11	MOBOLITY TRINING	1	75	75	GF						1	100	100	
12	HOME SCIENCE	1	60	60	FF						1	80	80	
13	BRaille TYPING	1	40	40	FF					2 SQM / PERSON	2	2	80	
14	PHYSIOTHERAPY	1	150	150	GF						1	175	175	
15	BOOK BINDING	2	70	140	FF	1	60	60	G.F.		2	75	150	
16	ART & CRAFT ROOM	1			FF	1	50	50	G.F.		1	60	60	
17	DANCE ROOM	2	60	120	FF					2 SQM / PERSON	2	75	150	
18	MUSIC ROOM	2	50	100	FF						2	50	100	
UTILITY														
1	PANTRY	1	9.5	9.5	GF	1	9	9	G.F.		1	12	12	
2	STAFF ROOM	1	50	50	GF					1.8 SQM / PERSON	1	100	100	
3	TOILET (MALE)	2	20	40	GF & FF	1	20	20	G.F.	1WC/25 PERSON, 1UR/50 PERSON	2	20	40	
4	TOILET (FEMALE)	2	20	40	GF & FF	1	20	20	G.F.	1WC/15 PERSON, 1WB/25 PERSON	2	20	40	
	SERVICES													
1	ELECTRICAL ROOM	1	6.5	6.5				4			1		18	
2	STAIR/ RAMP		1:12								1:12			
	TOTAL			1611				433						

E	MULTIPURPOSE HALL													
1	SEATING	250 PERSON	125	125	GF				G.F.	.8 SQM / PERSON	250 PERSON	8	200	
2	FOYER AREA		50	50						25% OF SEATING			50	
3	GREEN ROOM		60	60							2	50	100	
4	EQUIPMENT STORE		30	30							1	40	40	
	TOTAL			265										
F	HOSTEL													
1	JUNIOR HOSTEL(88 BOYS)	1	44 ROOMS OF 21 SQM	924	GF & FF	3	168	500	F.F.		25	30	750	
2	SENIOR HOSTEL(140BOYS)	2	88 ROOMS OF 21 SQM	1848	GF & FF	5	168	840	F.F.		35	30	1050	
3	GIRLS HOSTEL(120 GIRLS)	1	34 ROOMS OF 30 SQM	1020	GF & FF						30	30	900	
4	WARDEN'S OFFICE	1	20	20	GF	1	20	20	F.F.		1	25	25	
5	HOSTEL OFFICE	1	20	20	GF						1	30	30	
6	COMMON ROOM	1			GF	1	50	50	F.F.		1	150	150	
7	GUEST ROOM				GF						2	50	100	
8	EQUIPMENT STORE				FF						1	30	30	
	UTILITY													
1	TOILET BOYS	1	39	39	GF & FF	2	20	40	F.F.	1WC/1WB/8 PERSON, 1UR/25 PER	10		120	
2	TOILET GIRLS	1	30	30	GF & FF	2	20	40	F.F.	1WC/6 PERSON, 1WB/6 PERSON	10		120	
3	DRINKING WATER	2				2					4		30	
	DINNING													
1	DINNING (JUNIOR)	1	100	100	GF	1	150	150	G.F.	1.5 SQM / PERSON	1	1.5	150	
2	DINNING (SENIOR)	1	150	150	GF					1.5 SQM / PERSON	1	1.5	210	
3	KITCHEN+ STORE	1	50	50	GF	1	50	50		40% OF DINNING AREA	1		144	
	OTHER													
1	MUSICAL ROOM	1	30	30	GF						2	60	120	
2	DANCE ROOM	1	50	50	GF					2 SQM / PERSON	2	75	150	
3	CLOCK ROOM										1	40	40	
4	SPORTS ROOM										1	255	255	
5	STOCK ROOM										1	100	100	
6	CLOTHING STORE	2	60	120	GF & FF	2	50	100	F.F.		4	60	240	
	TOTAL			4401				1790						

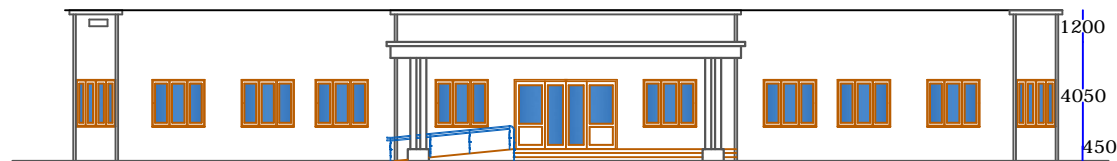
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<p>THESIS TOPIC:</p> <p>NATIONAL INSTITUTE FOR THE EMPOWERMENT OF THE PERSON WITH VISUALLY DISABILITIES</p>	<p>SHEET TITLE:</p> <p>SITE PLAN SCALE 1:1000</p>	<p>GUIDED BY: AR. AANSHUL SINGH</p> <p>SUBMITTED BY:</p> <p>DARSHIKA SRIVASTAVA B.ARCH 5TH YR (2024-25) ROLL NO. -1180101023 BABU BANARASI DAS UNIVERSITY, LUCKNOW</p>
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GROUND FLOOR PLAN



FRONT ELEVATION

THESIS TOPIC:

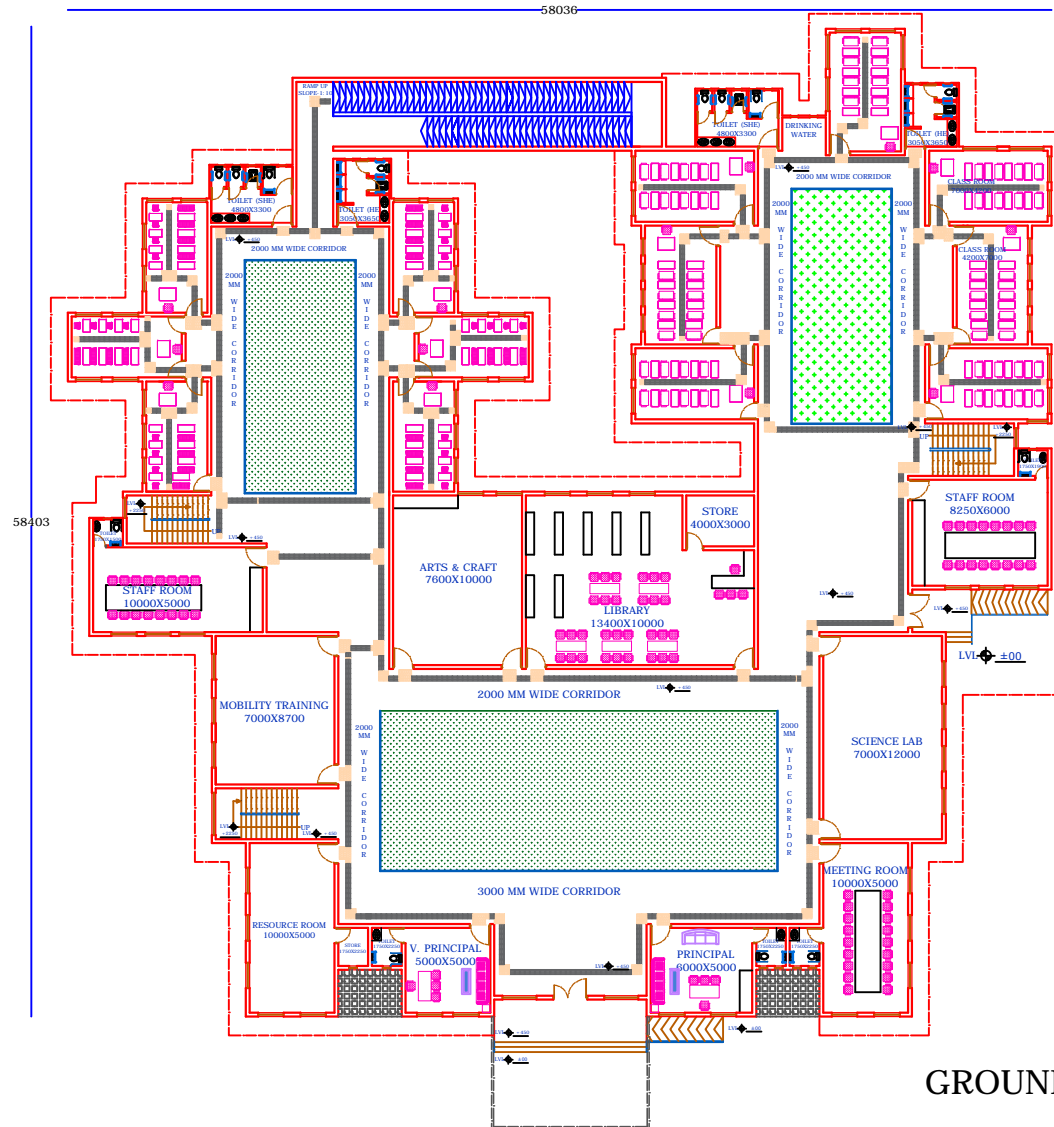
NATIONAL INSTITUTE FOR THE EMPOWERMENT
OF THE PERSON WITH VISUALLY DISABILITIES

SHEET TITLE:

ADMINISTRATION BLOCK

GUIDED BY:
AR. AANSUL SINGH

SUBMITTED BY:
DARSHIKA SRIVASTAVA
B.ARCH 5TH YR (2024-25)
ROLL NO. -1180101023
BABU BANARASI DAS UNIVERSITY, LUCKNOW



GROUND FLOOR PLAN

THESIS TOPIC:

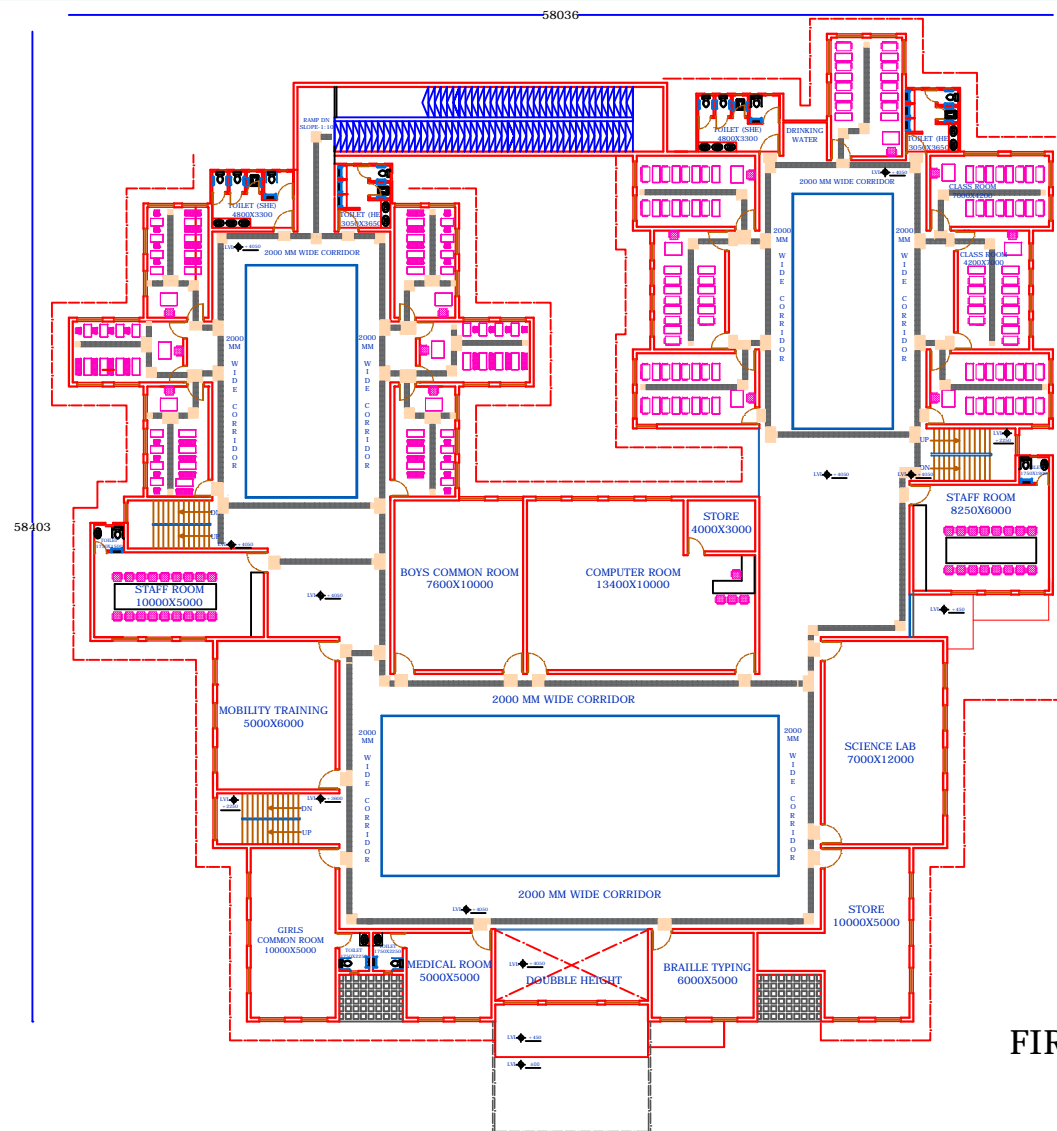
NATIONAL INSTITUTE FOR THE EMPOWERMENT
OF THE PERSON WITH VISUALLY DISABILITIES

SHEET TITLE:

PRIMARY & SECONDARY SCHOOL

GUIDED BY:
AR. AANSHUL SINGH

SUBMITTED BY:
DARSHIKA SRIVASTAVA
B.ARCH 5TH YR (2024-25)
ROLL NO. -1180101023
BABU BANARASI DAS UNIVERSITY, LUCKNOW



THESIS TOPIC:

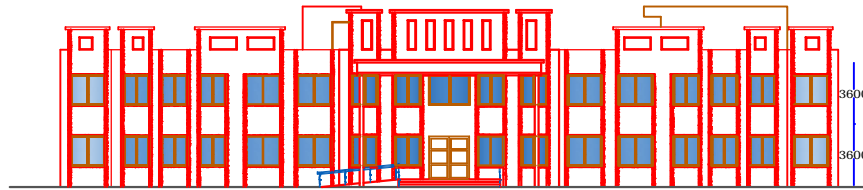
NATIONAL INSTITUTE FOR THE EMPOWERMENT
OF THE PERSON WITH VISUALLY DISABILITIES

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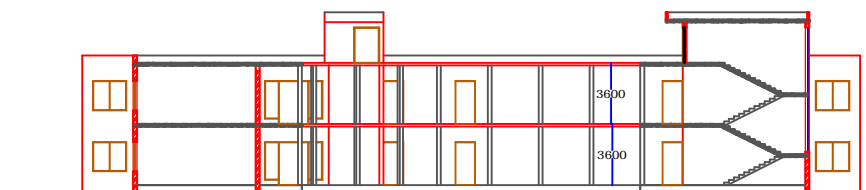
PRIMARY & SECONDARY SCHOOL

GUIDED BY:
AR. AANSHUL SINGH

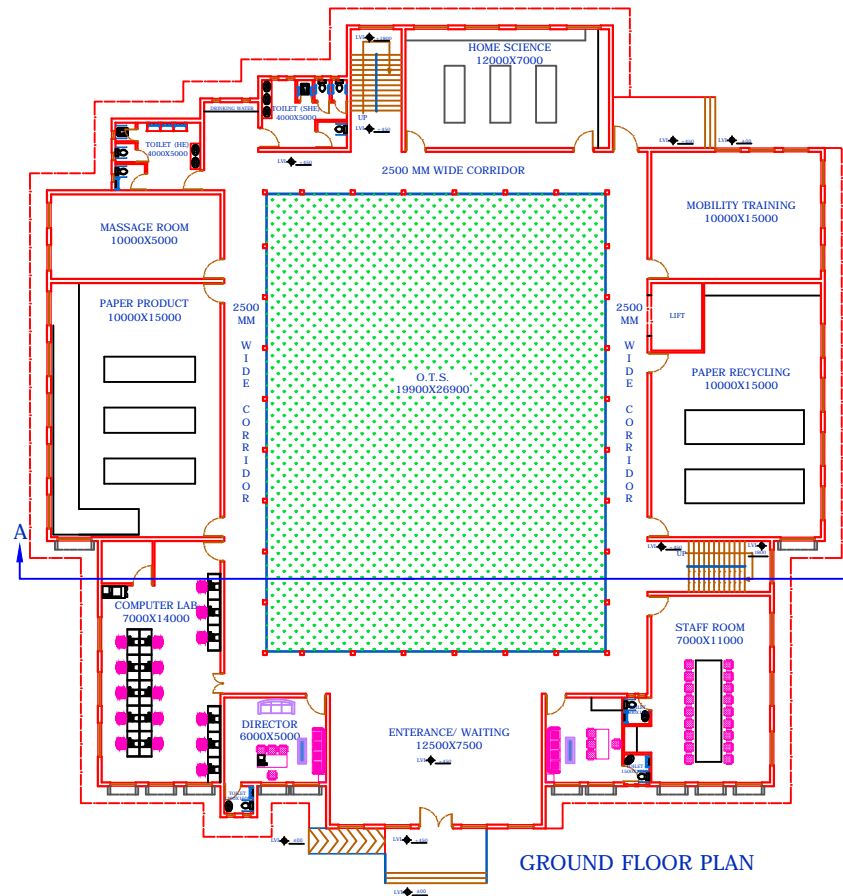
SUBMITTED BY:
DARSHIKA SRIVASTAVA
B.ARCH 5TH YR (2024-25)
ROLL NO. -1180101023
BABU BANARASI DAS UNIVERSITY, LUCKNOW



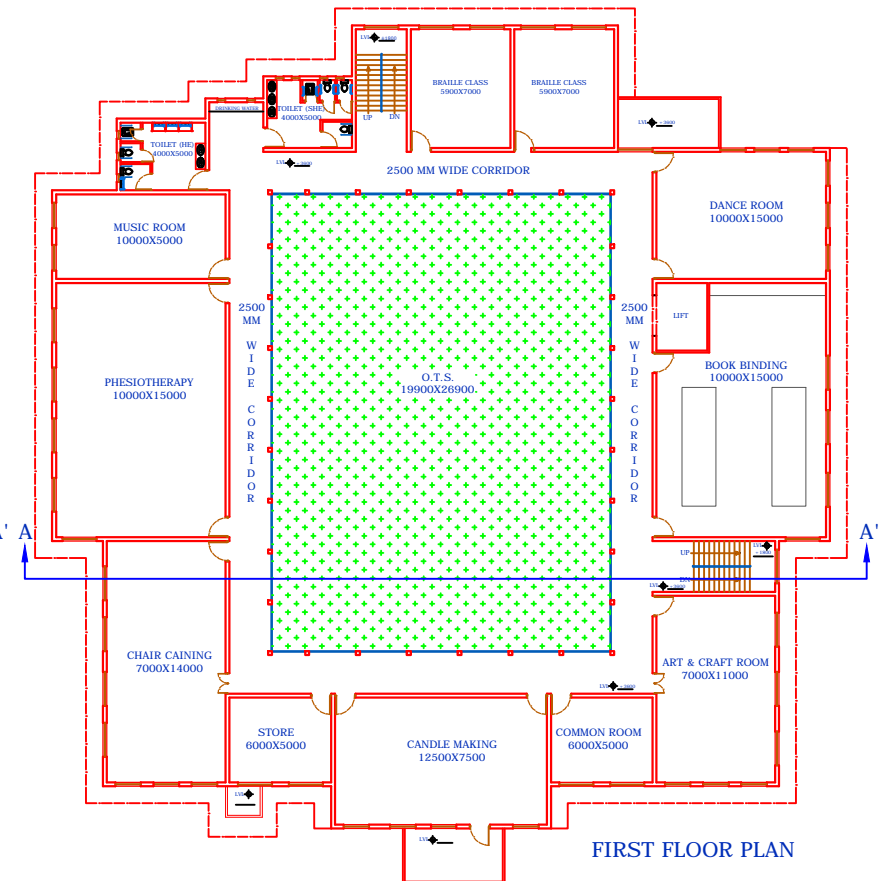
ELEVATION



SECTION A-A'



GROUND FLOOR PLAN



FIRST FLOOR PLAN

THESIS TOPIC:

NATIONAL INSTITUTE FOR THE EMPOWERMENT
OF THE PERSON WITH VISUALLY DISABLITIES

SHEET TITLE:

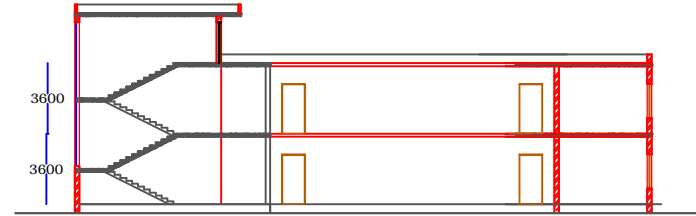
VOCATIONAL TRAINING
CENTER FOR ADULT BLIND

GUIDED BY:
AR. AANSHUL SINGH

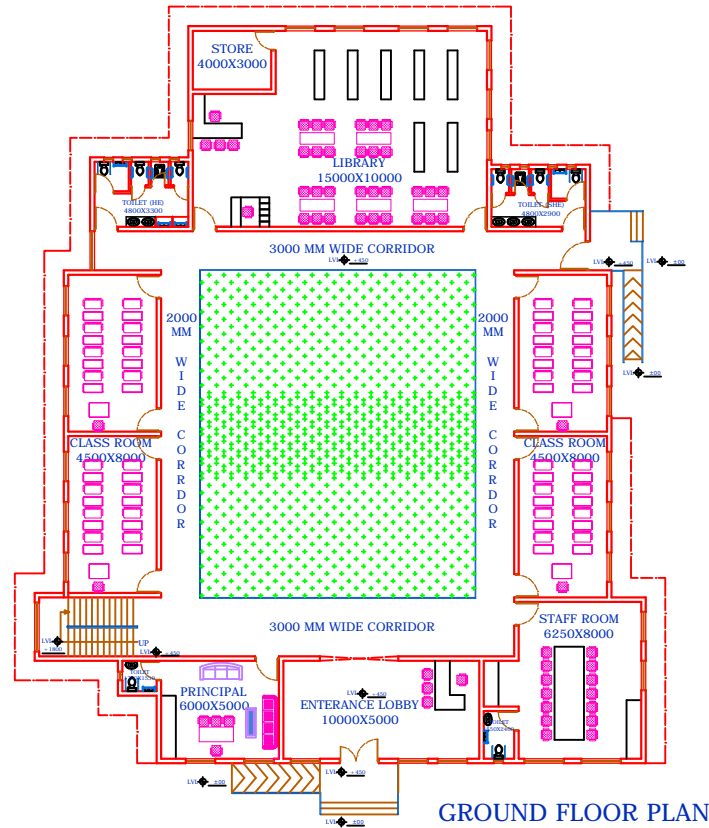
SUBMITTED BY:
DARSHIKA SRIVASTAVA
B.ARCH 5TH YR (2024-25)
ROLL NO. -1180101023
BABU BANARASI DAS UNIVERSITY, LUCKNOW



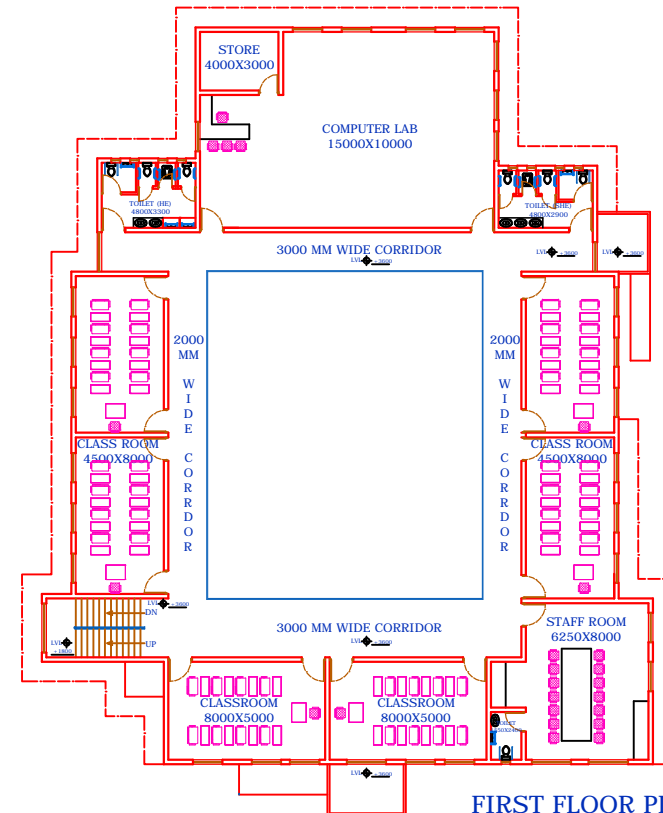
ELEVATION



SECTION A-A'



GROUND FLOOR PLAN



FIRST FLOOR PLAN

THESIS TOPIC:

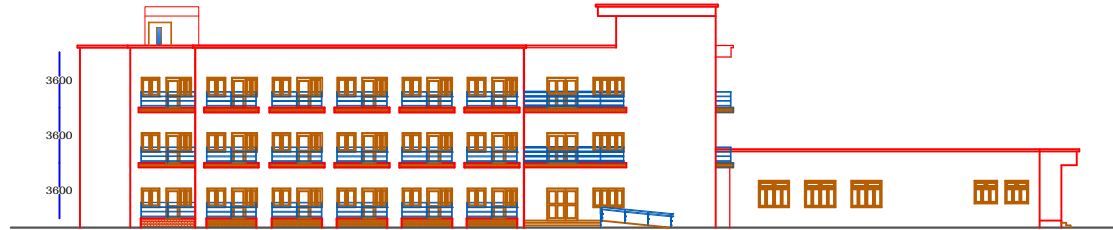
NATIONAL INSTITUTE FOR THE EMPOWERMENT
OF THE PERSON WITH VISUALLY DISABILITIES

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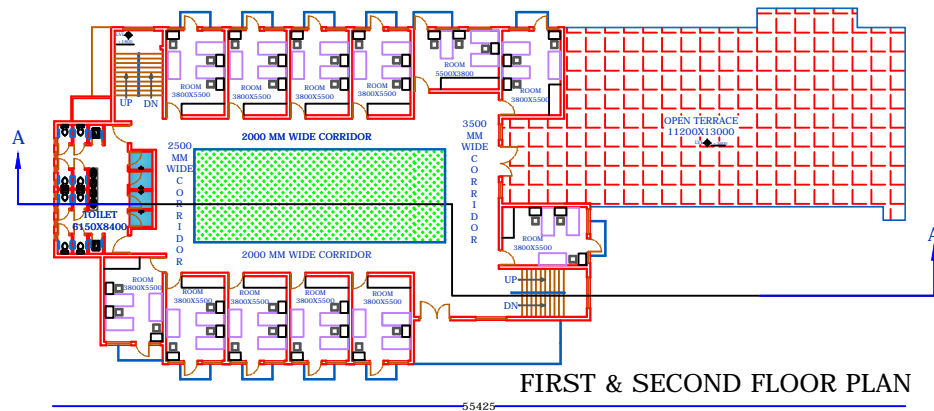
SPECIAL SCHOOL

GUIDED BY:
AR. AANSHUL SINGH

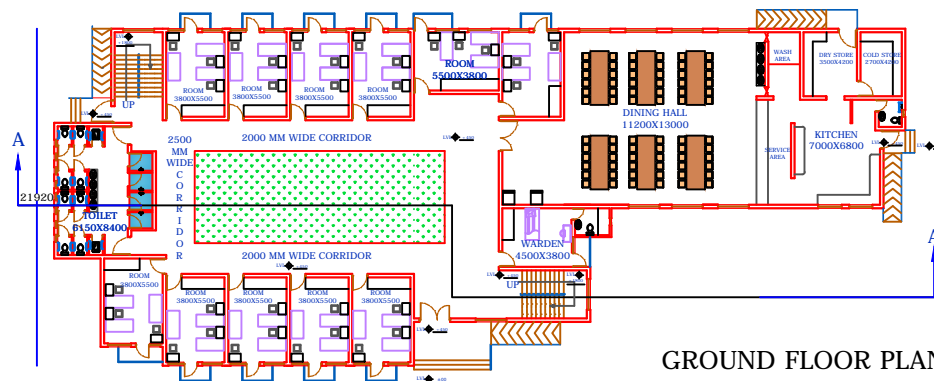
SUBMITTED BY:
DARSHIKA SRIVASTAVA
B.ARCH 5TH YR (2024-25)
ROLL NO. -1180101023
BABU BANARASI DAS UNIVERSITY, LUCKNOW



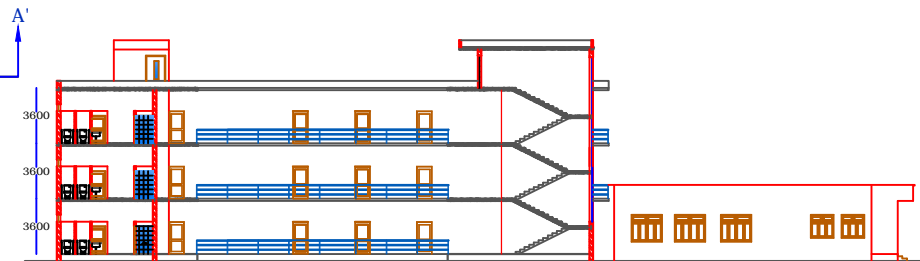
ELEVATION



FIRST & SECOND FLOOR PLAN



GROUND FLOOR PLAN



SECTION A-A'

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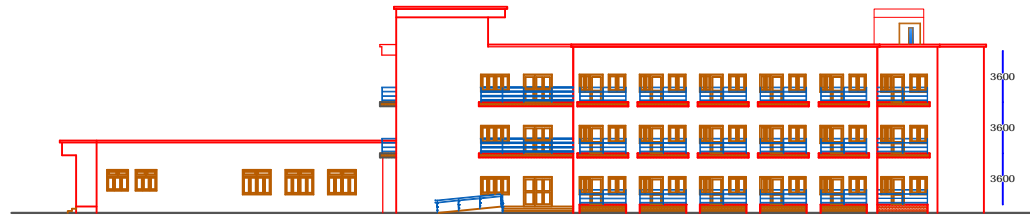
NATIONAL INSTITUTE FOR THE EMPOWERMENT
OF THE PERSON WITH VISUALLY DISABILITIES

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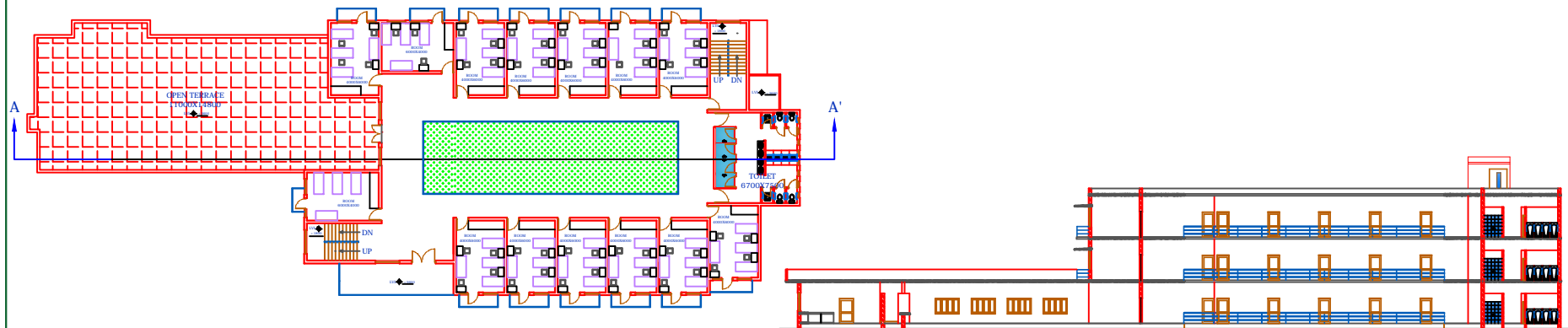
GIRLS HOSTEL (115 CAPACITY)

GUIDED BY:
AR. AANSUL SINGH

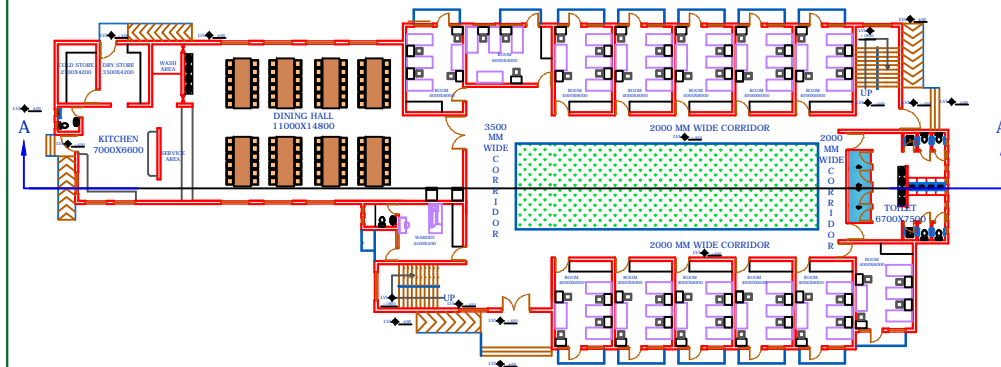
SUBMITTED BY:
DARSHIKA SRIVASTAVA
B.ARCH 5TH YR (2024-25)
ROLL NO. -1180101023
BABU BANARASI DAS UNIVERSITY, LUCKNOW



ELEVATION



SECTION A-A'



THESIS TOPIC:

NATIONAL INSTITUTE FOR THE EMPOWERMENT
OF THE PERSON WITH VISUALLY DISABILITIES

SHEET TITLE:

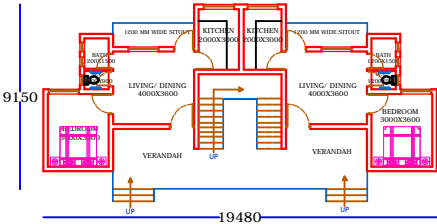
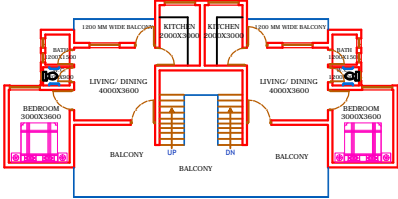
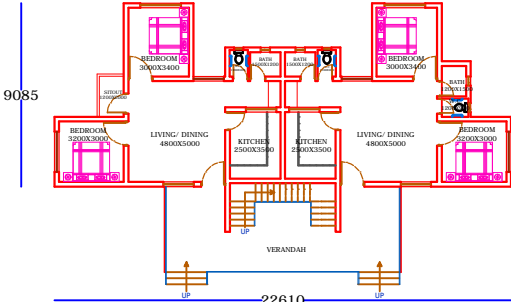
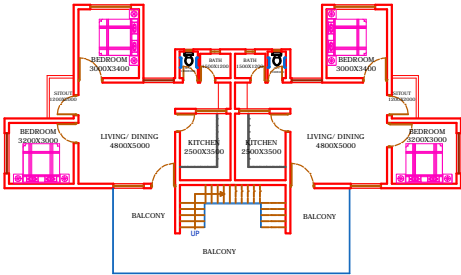
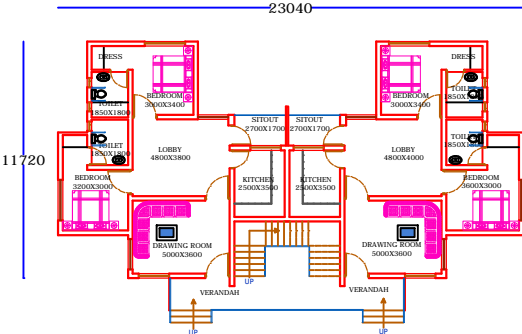
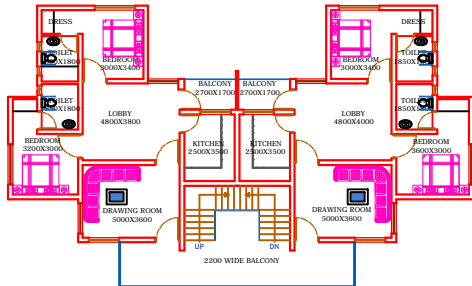
BOYS HOSTEL (164 CAPACITY)

GUIDED BY:

AR. AANSHUL SINGH

SUBMITTED BY:

DARSHIKA SRIVASTAVA
B.ARCH 5TH YR (2024-25)
ROLL NO. -1180101023
BABU BANARASI DAS UNIVERSITY, LUCKNOW

STAFF QUARTER (TYPE - 1)	STAFF QUARTER (TYPE - 2)	STAFF QUARTER (TYPE- 3)
 <p>GROUND FLOOR PLAN</p>  <p>FIRST & SECOND FLOOR PLAN</p>	 <p>GROUND FLOOR PLAN</p>  <p>FIRST & SECOND FLOOR PLAN</p>	 <p>GROUND FLOOR PLAN</p>  <p>FIRST & SECOND FLOOR PLAN</p>
<p>THESIS TOPIC:</p> <p>NATIONAL INSTITUTE FOR THE EMPOWERMENT OF THE PERSON WITH VISUALLY DISABILITIES</p>		<p>STAFF QUARTER</p> <div> <p>GUIDED BY:</p> <p>AR. AANSHUL SINGH</p> <p>SUBMITTED BY:</p> <p>DARSHIKA SRIVASTAVA B.ARCH 5TH YR (2024-25) ROLL NO. -1180101023 BABU BANARASI DAS UNIVERSITY, LUCKNOW</p> </div>

