

POLICE TRAINING ACADEMY - MADURAI

THESIS

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Architecture degree

By

Manisha.S
(37210024)



**DEPARTMENT OF ARCHITECTURE SCHOOL OF BUILDING AND
ENVIRONMENT**

SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
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DEPARTMENT OF ARCHITECTURE

BONAFIDE CERTIFICATE

This is to certify that this Thesis Report is the bonafide work of Manisha S (37210024) who carried out the Thesis entitled "Police Training Academy- Madurai" under our supervision from July 2021 to November 2021.

Internal Guide

Ar.Shobana
Shankar

Internal Review Member

Ar.Shankar.V

External Guide

Ar. Lavanya

A handwritten signature in blue ink, appearing to read "Devyani", with a stylized flourish at the end.

Dean and Head of the Department

Dr. DEVYANI
GANGOPADHYAY

Submitted for Viva voce Examination held on 6.12.2021

Internal Examiner

Ar.Sheethal Amroatkar

External Examiner

Ar. T. Vennila

DECLARATION

I, **Manisha**.Shereby declare that the Thesis Report entitled “**POLICE TRAINING ACADEMY-MADURAI**” done by me under the guidance of **Ar. Shobana**(Internal Guide), **Ar. Shankar** (Internal Review Member) and **Ar.Lavanya** (External Guide) Sathyabama Institute of Science and Technology is submitted in partial fulfillment of the requirements for the award of Bachelor of Architecture Degree.

DATE: 6.12.2021

Manisha. S

PLACE: Chennai

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **Sathyabama** for their kind encouragement in doing this dissertation and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr. Devyani Gangopadhyay**, Dean and Head of the Department, **Dr.Suresh Kuppuswamy**, Design Chair of School of Building and Environment, Department of Architecture and providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Dissertation Internal Guide **Ar. shobana** Internal Review members, other faculty members for their guidance, suggestions and constant encouragement which paved the way for the successful completion of my thesis works.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **Department of Architecture** who were helpful in many ways for the completion of the Thesis.

ABSTRACT

This thesis is about the expression of police academy and police recruit's process of learning in academy. Maintaining law and order in the world's largest democratic country is an arduous task. In view of the growing violence, social conflicts and serious threats of terrorists, and their activities. The role of police is becoming even more important. The functions of police encompass preservation of law and order, to safeguard people's life and property.

Police Academy training for newly hired officers, and also work space for police officers. A quiet well comfortable space for both of them. The Study is explaining, what are all the needy spaces required for police training academy and primary academic training spaces, like parade and obstacles ground, forensic and cyber labs, shooting ranges, etc.,

Our analysis and study showed the needs and demands of modern-day need on Police Training Academy. And applied on the design process. And concluding that the study compromises the modern day needs on police academy.

TABLE OF CONTENTS

ABSTRACT.....	v
---------------	---

CHAPTER1.....	1
----------------------	----------

INTRODUCTION

1.1 INTRODUCTION.....	1
1.2 AIM OF THE PROJECT.....	1
1.3 OBJECTIVE OF THE PROJECT.....	1
1.4 SCOPE AND LIMITATIONS.....	2

CHAPTER 2.....	3
-----------------------	----------

CASE STUDY

2.1 LIVE CASE STUDY.....	3
2.2 NET CASE STUDY.....	10

CHAPTER 3.....	20
-----------------------	-----------

LITERATURE STUDY

3.1 STANDARDS.....	20
3.2 USER DETAILS.....	23
3.3 AREA STATEMENT.....	24

CHAPTER 4.....25

SITE ANALYSIS AND CONCEPT

4.1 SITE JUSTIFICATION.....25

4.2 SITE ANALYSIS.....28

4.3 CONCEPT.....29

CHAPTER 5.....30

DESIGN SHEETS

CHAPTER-1

SYNOPSIS

1.1 INTRODUCTION

A police academy is a space for studying and training for police officers. It has a various typology of buildings for different kind of departments like forensic, investigation, data record, law & order, etc.

1.2 AIM

To design a National Police officers training academy to provide good ambience and environment for police training, committed to significant enhancement of its facilities and buildings, essential for Police Training.

Architectural solution of quality environment and learning space for police recruits.

1.3 OBJECTIVE

To provide for an important centre where new ideas and modern techniques are tried out, tested and put into effect while ensuring systematic and progressive training both physically and mentally.

To create a suitable environment to accommodate the increasing number of volunteering cadets and train the preliminary, refresher and police courses.

And to study an already proposed police academy for gain a knowledge of the functions, requirements, site nature, and the services.

1.4 SCOPE

This study covers designing a Healthy campus environment for police recruit officers. Police academy training and education develops the minds, career goals, and attitudes of future law enforcement

officers who will be in charge of social order.

Design an academic campus and training fields with Shooting range field with details.

1.5 LIMITATIONS

This study only covers area for police academic study and technical study area, indoor and outdoor training and shooting range.

It will also exhibit investigation on materials and methods, delighting, indoor and outdoor spaces, colour and nature to create a healthy environment for the occupant's wellness and efficiency.

CHAPTER- 2

CASE STUDY

2.0 LIVESTUDY

TAMIL NADU POLICE ACADEMY

Location:Oonam
aancheri Village,
Kelambakkam,
Vandalur - 35
kms from
Chennai.
Site area:445154sq.
m, 129 acres.
Built up area : 4.46
lakh sq.ft, 41434
sq.m, 10 acres.
Architect:Ar.Roo
pamathy Anand,
Chennai.
Client: Tamil Nadu
police Housing.
Capacity : 1200+
cadets at a time.
Formed : 15th
March 2008.
Function :
State
Police Academy
.



2.0.1.INTRODUCTION

Tamil Nadu Police Academy, an ISO 9002-2001 certified institution, is dedicated to being a world-class police training institution encouraging the highest standards of

performance, adopting the latest training technologies, employing best practices in policing and enhancing the quality of training to achieve excellence in both substance and methods of delivery

2.0.1.HISTORY

1900-A recommendation was made by H.A. Stuart, I.C.S., to make the training school a permanent one.

1902 - 1905 The first National Police Commission was constituted. With regard to training, the Commission recommended that every province should have a well equipped training school headed by a Superintendent of Police for Sub Inspectors and above

1998-An new site of 53.3 hectares Land (132 acres) was located at Oonamancheri, near Vandalur for the Tamil Nadu Police Academy.

2008-The complete phase of Tamil Nadu Police Academy infrastructure was built during March 2008.

2.0.2.SITEPATTERN

Concentric Expansion Growth Pattern.

2.0.3.ROADPATTERN

Radial Conjunction with a Rectangular Road pattern

2.1.6 STUDY IN INFRASTRUCTURE

ENTRANCE

The Tamil Nadu Police Academy, (Lat. 12°51'25" N, Long. 80°05'52" E, elevation 57 metres), is located at Oonamancheri village near Vandalur - 35 kms from Chennai. An impressive Memorial Pillar has been erected near the entrance to commemorate the police martyrs. The commemoration day parade is held each year on 21st October.



ADMINISTRATION BLOCK

The Administration Block of the Academy is the nerve centre, with administration officers and the office staff functioning from well laid out, modern offices, furnished with the latest modular work stations.



ACADEMIC BLOCK

The campus has class room facilities in the Academy Block, where Faculty rooms are also available for trainers. All the eight class rooms are equipped with computers, LCD projectors, and other training aids, such as white boards etc. Each class room has a capacity of 50 trainees at a time.



LIBRARY

The Library Block contains computer class rooms, a modern library and reading room with a wide collection of books. The book collection, including the 'Cowie library' of erstwhile Police Training College, is about 25,000 books



AUDITORIUM

The Auditorium is constructed with state of art Digital Track Stereo Sound System with a Capacity of 1000 high quality seats. Further it has been completely air conditioned and latest electrical appliances are placed.

Ground Floor: Portico, Veranda, Stage, Side Room, Seating, EB Room, Store Room, Staircase, Toilets.



ARMORY BLOCK

The Armoury building is a storehouse of arms and ammunition as also the headquarters for the guards.



SPORTS COMPLEX

A Modern Gym is available for Cadets and Officers to workout.



SWIMMING POOL

Swimming pool with Modern amenities for the use by the trainees provides a healthy treat to everyone. Swimming pool: 1. 600 Sq. m, 2. 50 meters length, 3. 6 Lanes, 4. 2mts. Per Lane, 5. Water Treatment block



CRIME MUSUEM

This Crime Museum is extensively used to lay Crime Scenes for the purpose of simulation exercise for basic and other special courses.



GUEST HOUSE BLOCK

The TNPA House Caters to the needs of the visiting Senior Officers and Guests.



HOSTEL BLOCK

No. Of Floor: G+3 No. Of Room: 240

Rectangular Hostel as a Mess at a centre of the hostel.



POLICE QUARTERS

No. Of floor: G+2

No. of Room: 80

Faculty members of Tamil Nadu Police Academy are provided quarters within the campus with all facilities.



OFFICER SUITS

The various suites provided for the purpose of the usage by the Officers of the TNPA has all the facilities which Make the Officers feel at home.



PORTE CABINS

Porte cabins are available on the campus to provide transit accommodation to guards, sentries and outdoor trainers.



PARADE GROUND

The Commodious Ceremonial Parade Ground is located at a suitable place where hundreds of cadets can take part in the Parade drill at a time.



OBSTACLES GROUND

An obstacle course has been erected with the standard ropes, confidence climbs, pits and wall etc.



DISPENSERY

A Medical officer along with nursing assistants attend to the basic health care of trainees. 3 DOCTORS (3SHIFTS)



AMBULANCE:

TNPA has an ambulance fitted with required gadgetry, which is available 24/7 on the campus.



SEWAGE TREATMENT PLANT

At TNPA, the water used on the campus for bathing, cleaning and cooking is put through a chemical water treatment plant erected on the campus. The treatment plant has the capacity of treating 2 lakh litres of water at one cycle



1. 2 NET CASESTUDY

2.2.1 Sardar Vallabhbhai Patel National PoliceAcademy

Location :
Raghavendra
Nagar,
Shivarampally
Jagir, Telanga
na 500052

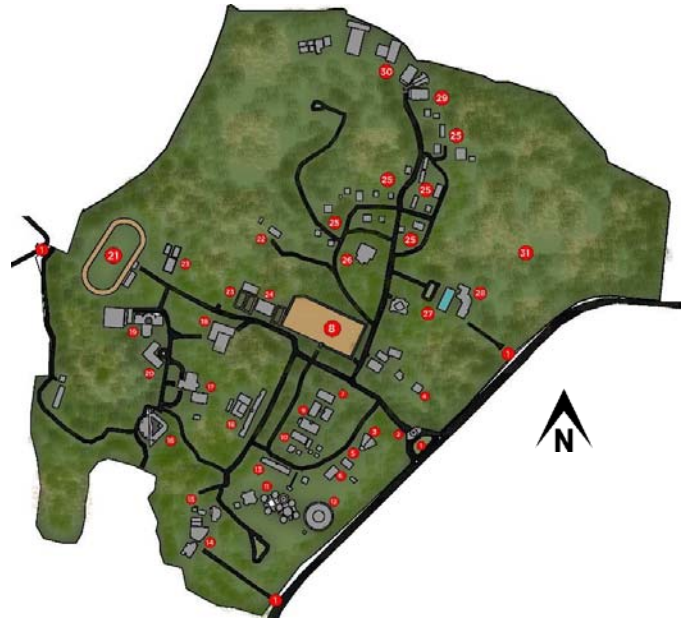
SiteArea : appo.
1115000 sqm,
275 acres.

Architect :
CPWD
Architects.

Client :
Andhra
Pradesh police
HousingCorpor
ation.

Capacity :
698+ cadets at
a time. Formed
:1948

Function : National PoliceAcademy.



2.2.1.1HISTORY

After Independence, Sardar Vallabhbhai Patel, the first Union Home Minister emphasized the importance of having a ring of services which would keep the country intact under an Indian Constitution. To the memory of Sardar Vallabhbhai Patel, the Iron Man of India, who had the foresight and dynamism to think in terms of all India level Police Service, the Academy was named after him in 1974.

2.2.1.2OBJECTIVE

The National Police Academy (NPA) is situated on the Hyderabad – Bangalore highway, 8 kms from the city. It is spread over 277 acres.

2.2.1.3 SITE PATTERN

Linear Cluster pattern growth

2.2.1.4 ROAD PATTERN

Linear and Rectangular

MODERN CLASSROOM

The academy has a well-established classroom and all the classrooms are equipped with high end audio systems that reach every dimension of the room and mics that are highly definitive and accommodate 50 cadets.



MCTP BLOCK

The Ministry of Home affairs introduced Mid-Career Training Program (MCTP) for IPS Officers, which would be a mandatory requirement for promotion / drawing of next increment at certain stages in an officer's career.



INDOOR SPORTS COMPLEX

This is an integrated multi-storey sports complex having Badminton, Table Tennis & Squash courts, Gymnasium, Weight Training Hall, Cardiovascular training area, Aerobic Exercise training centre, spa with Steam & Sauna.



MULTIMEDIA CENTER

The academy has state of the art classroom of capacity varying from 100 to 450 cadets at a time



BASIC COURSE TRAINING CENTER

This complex has a one Main Lecture Hall, (having Seating for more than 250 seating), two class rooms, Eleven syndicate room, a publication room, a language reference lab, a state of art visual classroom, and two Computer classroom (up to 70 seating), and Lounge & activity rooms.

Apart from this, the complex has a faculty chamber and work station for supportive staff. It caters to the training need of basic course training for IPS cadets.



STW (SPECIAL TACTIC WING)

This complex has a one Main Lecture Hall, (having Seating for more than 250 seating), two class rooms, Eleven syndicate room, a publication room, a language reference lab, a state of art visual classroom, and two Computer classrooms (up to 70 seating), and Lounge & activity rooms. Apart from this, the complex has a faculty

chamber and work station for supportive staff. It caters to the training need of basic course training for IPS cadets.



CENTRAL LIBRARY

This Academy Central Library is one of the best Library on police subject in the country. It has more Than 1,00,000 books and journals. In 2012, a photo Gallery display established on second floor of this library. It displays all the activities of all batches passed out from year 1948 to till date.



DJC (DIAMOND JUBILEE COMPLEX)

This Complex house has the outdoor section classroom, sand model room and state of art classroom for 150 cadets



ADMINISTRATION-

The Admin Block is the main administrative office area of the Academy which was constructed at in year 1975. Director and other senior faculty member sit in this building. Now, new Administration Block constructed adjacent to AP conference houses. main sections are the Establishment Section, Research wing, Examination Cell, Board Room, and chamber for the faculty members.



MTC (MILLIENNIUM TRAINING CENTER)

It has two Double Storey octagonal shaped inter connected block and main training facility of this Academy, equipped with modern training instruments. This complex has for four classrooms., four syndicate room, two computer classroom, two cyber & forensic lab, cafeteria support staff room, Language lab, Modern police control room, office chambers for senior officers and conference room.



CENTRAL IPS MESS

The Central IPS Mess is a home for IPS Probationers away from their home. It has 140 single bed room with attached toilets and all modern amenities. It is supposed to be the centre of community life of IPS Probationers at the Academy during basic training.



SENIOR OFFICE MESS:

The Mess Committee organises formal and informal evenings. It is supposed to be the centre of community life of IPS Probationers at the Academy during basic training.



IPS OFFICER MESS:

The Central IPS Mess is a home for IPS Probationers away from their home. It has 140 single bed room with attached Toilets and all modern amenities.



PUNJAB POLICE ACADEMY

Location : Phillaur Dist - Jalandh
Punjab, India.

Site area :
218530 sq.m, 54
acres. **Architect :**
PPWD, Punjab.

Client : Punjab
police Housing dept.

Capacity : 900+
cadets at a time.

Formed : 1995.

Function : State Police Academy.

- Entrance & Exit 1
- MRS Fort & Admin 2
- Academic Block 3
- Play & Parade ground 4
- Punjab Traffic Training 5
- Library 6
- Ashwinikumar Stadium 7
- Dormitory 8
- Shooting range 9
- State Firearms Bureau 10
- Staff Quarters 11
- IT Block 12
- Officers Mess 13
- Administrative Block 14
- Forensic Lab 15
- Library 16
- Auditorium 17
- Hospital 18



2.2.1.5 INTRODUCTION

The present new academic look was added in April, 1995, when the institution was Christened as Maha raja Ranjit Singh, Punjab Police Academy.

The indoor training ensures that the trainees acquire maximum knowledge, skills and attitudes required for effectively discharging the duties at the place of posting. The methods adopted are: -Police Studies, Legal Studies, Social Science, Forensic Science.

2.2.1.6 ROAD PATTERN

Linear conjunction with cluster

2.2.1.7 SITEPATTERN

Linear pattern of growth

2.2.1.8 HISOTRY

Maharaja Ranjith Singh Fort (1658)



Police training school (1892)



Police training College (1967)



Police training Academy(1995)

ADMINISTRATIVE COMPLEX:

The administrative complex houses the offices of senior officers and the supporting staff. The offices are well furnished and equipped with latest office automation gadgets.



OFFICERS MESS

This mess has 6 rooms in 'A' Block with A.C.and TV for DIG and above rank officers, and 20 rooms in 'B' Block for DSPs, SPs and GO trainees. This mess has one air-conditioned Drawing room and one air- conditioned Dining Hall.



IT BLOCK

The Information Technology Block With a view to train police officers in the field of Cyber Crime or other crimes related to the computer technologies which are under I.T. Act



LIBRARY

There are around 40,240 books in the Library. Special emphasis has been laid on the books related to police working. It also has books on Social Sciences, literature, reference books for research purpose.



FORENSIC SCIENCE LAB

Mini Forensic Science Laboratory(FSL) was established in Academy,to impart theoretical and practical training in the field of forensic science.



HOSTEL

There are 6 hostels in the Academy which cater to various categories of trainees. The hostels are well furnished.



TRAFFIC TRAINING CENTER

The task of ensuring road safety is fast gaining momentum. Road Traffic Safety involves three inseparable parts-mobility, risk and resources. The ideal solution is the lowest risk, maximum mobility and the lowest cost.



RESIDENTIAL COMPLEX

Residential accommodation to its officers and staff and for this purpose, has established residential colonies in the complex and around it. Presently, around 450 families are availing this housing facility.



SHOOTING RANGE

There are 5 ranges with the Punjab Police Academy: -

10 metre range for air weapon (Sarabjit Singh Shooting Range). 25 metre range for revolver and pistol.

50 metre range for rifle and pistol (G.S. Bhullar Range).

Trap and Skeet range for .12 bore rifle. Long range for rifle and machine gun.



AUDITORIUM

Police Academy as a modern auditorium with a seating capacity of 1400 seats.



COMPARETIVE ANALYSIS

	TNPA – TAMIL NADU POLICE ACADEMY	SVPNSA – SARDAR VALLABHAI PATEL NATIONAL POLICE ACADEMY	MRSPPA – MAHARAJ RAJITH SINGH PUNJAB POLICE ACADEMY
LOCATION	CHENNAI 	TELANGANA 	PUNJAB 
CLIMATE LANDSCAPE	Climate: Tropical wet & dry Landscape: Properly designed and developed.	Climate: Hot & dry Landscape: Designed and developed with interval time period.	Climate: Humid and subtropical Landscape: Designed and developed with interval time period.
YEAR OF DEVELOPMENT	2008	1948	1995
ARCHITECT	Ar. Roopamathy, Chennai.	CPWD, Hyderabad.	Dewan Mohkam Chand, French General
SITE AREA	445154sq.m, 129 acres. Built up : 4.46 lakh sq ft, 41434 sq.m, 10acres.	approx. 1115000 sq m, 275 acres.	218530 sq. m, 54 acres.
FUNCTION	State Police Academy for DYSP and SI.	National Police Academy for IPS Recruits.	State Police Training Academy for DYSP, Inspectors.
SITE CONTEXT	The site is situated at 7km far from main highway. To enhance the silent ambience.	The site is situated in Hyderabad. It gives natural boundary and good ventilation for academy.	The site is located near state highway and railway line at Jalandhar. Phillaur fort is the base infrastructure for site.
CIRCULATION	Pattern of growth: Concentric expansion growth. Road pattern: Radial conjunction with rectangular expansion. Radial and rectangular development planned at the stage of designing.	Pattern of growth: linear expansion growth. Road pattern: Linear cluster pattern. Cluster development throughout the campus since the independence of India.	Pattern of growth: Linear expansion growth. Road pattern: Linear cluster pattern. Horizontal development since it's old police school.
SECURITY	Campus has a 3 security house at the entrance and port cabin security house and have a surveillance system.	Campus has security house at the every entrance and watching towers at the boundaries and has surveillance system.	The campus has security house and surveillance security officers over Phillaur fort.
ZONING	Administrative zoning, academic training, indoor / outdoor training zone, Residence Zone.	Administrative zoning, basic course training zoning, academic training, indoor / outdoor training zone, Central zone, Residence Zone.	Administrative zoning, indoor / outdoor training zone, accommodation Zone.
MERITS AND DEMERITS	MERITS: Designed with locally available materials. Good ambience. DEMERITS: less provision.	MERITS: Designed with locally available materials. More green spaces. Easy access to amenities. DEMERITS: Populated and Noisy.	MERITS: Easy connectivity, natural lighting, and good ventilation. DEMERITS: located near highway and railway line.
INFERENCE	Circulation and accessibility has to be at ease the communication with every block.	Space for future development with regular and irregular time period.	Design has to be flexible for future expansion and separate space for training.

CHAPTER- 3

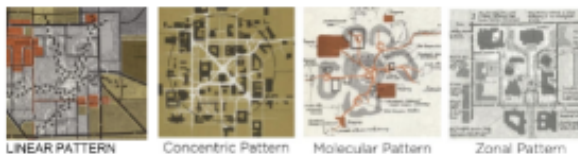
LITERATURE STUDY

CAMPUS PLANNING

A Campus is compared to small scale city because it has to provide a every need of cadets within the campus. It is unified cluster of buildings, pathways, pedestrians and open spaces. proper designed campus provides a space where large number of cadets can congregate or extra-circular activities.

PATTERN OF GROWTH

A Campus design is mostly concentrating on flexibility and moveability of paths and pedestrians. That factor determines the form of the campus firstly. There are various types of patterns of growth which are



CAMPUS DEVELOPMENT

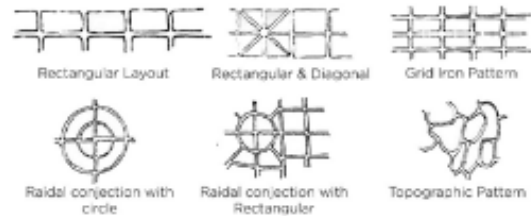
The Guidelines for development of campus can be divided into three types.

Efficiency - Balanced Growth, Use, and Circulation.

Flexibility - Expansion, and Design Approach Imageability - Symbolic Form, Identity, and Node.

ROAD AND LAYOUT

A road should sequence of buildings in a campus moving from one place to another be a pleasant experience. Generally, road occupies a 7.5% to 13% area of a total campus area. And feature like Soil Condition, Ecological character of site, Contours of site, Site boundary, Site Surroundings, are effect the Road Layout.

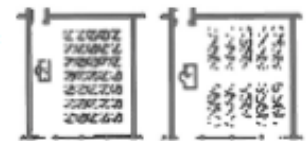


CLASSROOM

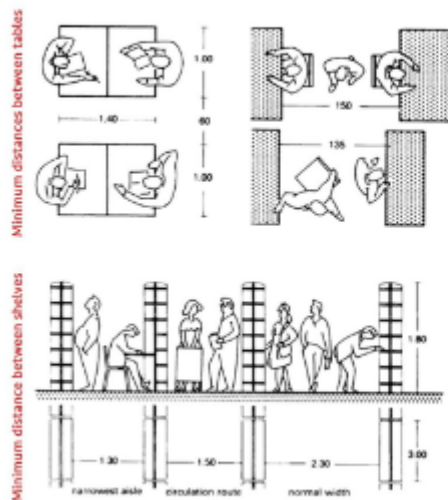
22 square feet of space per cadet.

Folding tablet arms may allow 15 square feet or less per cadet.

An arrangement permitting a class of 30 to spread out for examination purposes in 26' X 26' classroom seating 40 students



LIBRARY



SERVICES:

In a Police Academy, a building services engineering comprises mechanical, electrical, & plumbing (MEP) all of which are:

Escalators and Lifts, Fire detectors and Sprinklers, HVAC, Natural Lighting and Artificial Lighting, Building Facade, Security and Alarm System, Water Drainage and Plumbing, Communications.



STAIRCASE:

Direction and flow: The direction of travel that people will take to and from the top and bottom of the stair will be effected by the stair layout, and vice versa.

• Stair shape, area, and performance: The amount of floor space a staircase occupies is related to its shape.

Some layouts use less space than others, and some are more effective than others for moving stretchers, furniture, crowds of people, and so on.

Parade Ground (will also be used for PT)

Approximately – 8 acres

Obstacle Course

Approximately 5 acre

Demo Area

Approximately 35 acres.

For ambush – counter ambush practice, map reading, night marches, setting up of pickets, IED demonstration, grenade throwing, cordon and search, police tactics, etc.

Stadium

The Stadium should have a seating capacity of 1000 persons with rooms for people to change, toilet, storeroom for sports equipment, etc. – approximately 3000 sq ft.

Gymnasium

Gymnasium (2 floors each of 50 feet by 30 feet with all necessary gym equipments) – 3000 square feet

Swimming Pool

It should be L-shaped with the smaller side for diving etc. The depth of the main side should start from 3.5ft and go upto 5.5ft only.

Shooting Range

The number of targets should be 2% of the training capacity of the institute. The range should provide for LMG firing from 400 metres. There should also be scope for night firing practice.

Equipment Room for driving simulators

400 square feet for 2 driving simulators

Auditorium

For 700 person @ 9 square feet per person

Generator Room - 1 (30 ft by 14 ft) **2** (14 ft by 10 ft for keeping kerosene/diesel, grease etc.)

Family Welfare room/hall - 800 square feet.

Hospital (15 bed; 2 floors of 1000 square feet each) – 2000 square feet (patient ward, stores, rooms for doctors and examination room, test rooms, etc.)

Post Office – 1200 square feet

Size of classrooms: @1.85 square meter (20sq ft) per trainee including space for toilets/urinals for men and lady trainees.

Computer Centre: - 900 square feet

Mini Forensic Science Lab – 1200 square feet

Study room/ Study Cubicle

Cubicle @ of 15 square feet per trainee, for 50% of the training capacity.

Library: - 1200 square feet (with cubicles for Internet, video films)

Living accommodation / Barracks:

For Sub Inspectors single room of 10 ft by 12 ft. (Common toilets for men. Ladies will have to be provided attached toilets)

DySP (Men & Ladies):-

Single room of size 14ft by 14ft with attached Bathroom of 6ft by 6ft.

Family Rooms: For Women trainees with very small (less than 2 years) Children. Two rooms (10ft by 12ft), toilet and kitchenette.

Toilet

1 Toilet (20 square feet) per 6 trainees (separate for ladies)

1 Bathroom (36 square feet) per 6 trainees (separate for ladies)

1 Basin per 6 trainees (separate for ladies)

Dining Hall:

Dining Hall of 60'x45' for 350 trainees with table size of 30'x3' (made up of one or more tables) and Benches.

Wash Basin attached to the Dining Hall:15'x20' Bathroom having Washing Basin and Urinal and 10'x10' Bathroom for ladies.

Kitchen:

- Kitchen (Cooking area) of the size of 20'x20'

- Vegetable cutting and dressing room of the size of 10'x12'

- Room for Washing of dishes, cutleries, utensils etc: 20'x20'

- Pantry for keeping utensils = 20'x15'

- Air conditioned store room having place for refrigerator, freezer, etc. = 16'x10'

- Restroom for kitchen staff = 20'x15'

- Drinking water (4 rooms of 10ft by 10 ft) for drinking water having water cooler, aqua-guard, etc.

(Toilets/urinals as required will have to be provided for the kitchen staff)

Cooperative/Provisioning Stores - 6 (15ft by 10 ft) = 900 square feet

Canteen – 1500 square feet (includes kitchen, pantry,etc.)

Recreation room/ Sabha Room - 40 ft by 50 ft

Bank – 1200 square feet

Mini Theatre (100 persons) 40 ft by 35 ft. – 1400 square feet.

For showing of training films, small seminars/ lectures.

Office Accommodation / Administrative Building For Commandant (or equivalent) –

16ft by 12ft for office; toilet of 8ft by 6ft;
10 ft by 10 ft, reception room.
12ft by 12ft for confidential section,
Commandant's Office
Reprographic room – Risograph, photo-copying, etc; 16 ft
by 12 ft
Head Clerk's office 16 ft by 16 ft
Accounts Section 16ft by 16 ft
General Section 16 ft by 16 ft
Record Room 20 ft by 20 ft
Office Stores/forms/stationery etc. 20 ft by 20 ft
Conference room/ Presentation room / Briefing room
25ft by 20ft

Addnl. SP / DySP or equivalent rank

14ft by 10 ft for office; toilet 6 ft by 6ft
16 ft by 12 ft for office of staff

Inspector/Sub Inspector or equivalent rank –
12 ft by 10 ft for office.

ASI / Head Constable or equivalent rank –
10 ft by 10 ft for two ASI / Head Constable

Constables or equivalent rank
Cubicle of 24 square feet per constable
Reserve Office – 600 square feet.
GP Store - 600 square feet;
Clothing Store - 600 square feet
Stationery Store – 300 square feet
Wireless Room - 300 square feet;
Old Record Room - 600 square feet
Equipment Display Room – 600 square feet.

Residential Accommodation for Staff

Commandant or equivalent – 1600 sq ft
Addnl. SP / DySP or equivalent rank – 1400 sq ft.
Inspector/Sub Inspector or equivalent rank – 950 sq ft.
ASI / Head Constable or equivalent rank – 550 square ft

Armoury/Magazine

2 floors of 800 square feet each – 1600 square feet
1st Floor for weapons @ 6 inches by 40 feet for 15 rifles.
Shelves can be provided for keeping ammunition and
sidearms/carbines. Ground floor for used ammunition,
armorer stores, Guard Room etc.

Vehicles:

1 Bus per 150 trainees
1 Tata 407 per 150 trainees
1 Small vehicle per 150 trainees
Vehicle for Commandant/Deputy Commandant as required
1 Ambulance for 400 trainees
15 Motorcycles for training @ 1 per platoon.

TRAINEE DETAILS:

DSP: Deputy Superintendent of Police is a rank in the Police force of India, equivalent to the Assistant Commissioner of Police. Deputy Superintendent of Police are equal in every way to IPS (Indian Police Service), and could be promoted to the IPS after some limited years of service.

SI: A sub-inspector (SI) is generally in command of few police personnel (with head constables, the equivalent of corporals, commanding police outposts). He is the lowest ranked officer who under Indian Police rules and regulations can file a charge sheet in court, and is usually the first investigating officer.



NO OF INTAKES:

No of intakes varies from year to year according to the requirement calculated having the current affairs and retiring staffs in mind.

150 DSP Recruits

In 2019, 64 Deputy Superintendent of Police Officers were selected by directed state level public examinations from TNPA.

250 + 150 Sub-Inspector Recruits - 500 Police Recruits

General – 60, OBC – 100, SC – 80, ST – 10 Total – 250. This is a total Number of Sub Inspector Candidates Recommended by TNPA in 2019.



DSP



Sub-Inspector

STAFF DETAILS

- Director (DGP)- 1
 - Additional director (IG)-1
 - Deputy director admin (SP)-1
 - Deputy director training (sp)-1
- } NON TEACHING

AREA STATEMENT

ADMINISTRATION

	QUANTITY	AREA	NET AREA
reception	1	40	40
Waiting room	2	20	40
Dy Director room	2	40	80
DSP+ ADSP	2	30	60
Inspector (admin)	1	30	30
Seminar (office)	1	30	30
Seminar (hall)	1	50	50
Director room	1	30	30
Add. Director room	1	30	30
Conference	1	50	50
office bearer cabin	20	12	36
lounge	1	50	50
ADSP (2)	2	30	60
Clerical Room	4	15	60
Record room	2	40	80
General section		25	25
Accounts Section		25	25
Toilets		300	300
Examination Control room	1	60	60
Total Carpet area			1136
Circulation (25%)			284
TOTAL FLOOR AREA			1420

ACADEMICS			
	QUANTITY	AREA	NET AREA
Classroom (1000 trainees)	25	75	1875
Computer Lab	4	170	680
Mini forensic Science lab	2	220	440
Faculty room (150 x 2 sqm)	3	100	300
HOD's Cabin (with toilet)	3	25	75
Audio visual rooom	3	12	35
Department office	5	75	375
Common toilets	3	50	150
(1 toilet per 6 trainees)	150	4	600
Total Carpet area			4530
Circulation (25%)			1132.5
TOTAL FLOOR AREA			5662.5

ACCOMODATION			
	QUANTITY	AREA	NET AREA
officers suite	10	30	300
officers mess	1	300	300
mess	4	750	3000
2 sharing room	400	25	10000
single room	100	15	1500
mess for trainee	4	500	2000
laundry	4	250	1000
kitchen	4	150	600
utility space	1	240	240
warden room	6	30	180
hospital (15 beds)	2	120	240
store rooms	1	30	30
Total Carpet area			19390
Circulation (25%)			4847.5
TOTAL FLOOR AREA			24237.5

TRAINING AND FACILITIES			
	QUANTITY	AREA	NET AREA
gym	2	900	1800
swimming pool	1	1250	1250
auditorium	1	1400	1400
weapon stimulator	1	2500	2500
armory block	1	100	100
syndicate block	1	350	350
cyber lab	1	100	100
Model police station	1	200	200
post office	1	120	120
bank	1	120	120
Total Carpet area			7940
Circulation (25%)			1985
TOTAL FLOOR AREA			9925
TOTAL FLOOR AREA CALCULATED	41245	sgm	
	10.2	acres	

CHAPTER- 4

SITE ANALYSIS AND CONCEPT

SITE JUSTIFICATION

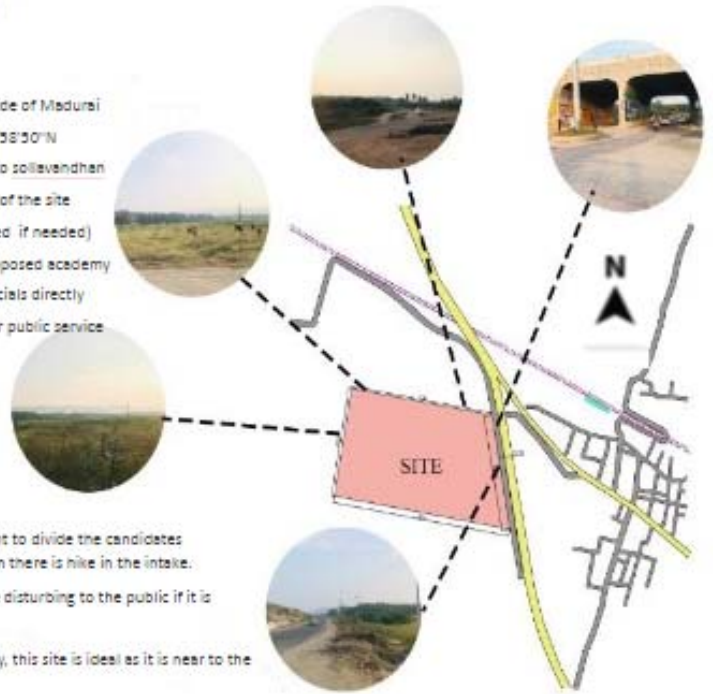


SITE DETAILS

The site located in the north-west side of Madurai and located near samayanallur at 9°58'50"N 78°01'47"E -150 m, the road NH44 to sollevandhan is connecting the site the total area of the site chosen is 44 acres (might be adjusted if needed) for police training academy. The proposed academy will also train trainers for police officials directly recruited by the states through their public service commission.

SITE JUSTIFICATION

- *The TNPA vandallur is the only police training academy in the state and all the candidates from the middle and down south of Tamil Nadu has to reach Chennai for the training.
- *By providing a academy in the middle of Tamil Nadu can help the government to divide the candidates accordingly and provide more focused training. And it will also be useful when there is hike in the intake.
- *The campus includes training which deals with heavy sound, which might be disturbing to the public if it is located in a crowded area
- *Since police academy needs a larger site which is not available inside the city, this site is ideal as it is near to the city and there is a By-pass road
- *connected to the National highway making the transportation easy.



SOIL

The land is agricultural land and it contains alluvial soil.



RAINFALL

Analysis of the long term rainfall data shows that the district receives rainfall during NE monsoon(47%), SW monsoon (32%), summer (17%), and winter (4%).



NATURAL FEATURE

Flat terrain with almost no variation in topography and has a wide spread of wild grass and fields.



WHEATHER CHANGE

The driest month is february, with 14mm of rain. The greatest amount of precipitation occurs in october, with an average of 191mm.



WIND

The neighbourhood context does not have tall building which will not affect the wind flow.



CONNECTIVITY

The site have major connectivity, where the flyover runs NH44 which connect to Dindugal. It also connect madurai bye pass road. The road from our site connects major road as NH44, sholevanthan road and madurai bye pass.

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	24.9 °C (76.8 °F)	26.8 °C (80.2 °F)	29.1 °C (84.4 °F)	30.9 °C (87.6 °F)	31.1 °C (88.0 °F)	30.2 °C (86.4 °F)	28.7 °C (83.7 °F)	26.3 °C (79.3 °F)	24.3 °C (75.7 °F)	21.5 °C (70.7 °F)	20.4 °C (68.7 °F)	24.9 °C (76.8 °F)
Min. Temperature °C (°F)	16.6 °C (61.9 °F)	18.9 °C (66.0 °F)	20.4 °C (68.7 °F)	21.4 °C (70.5 °F)	21.1 °C (70.0 °F)	20.8 °C (69.4 °F)	19.1 °C (66.4 °F)	14.7 °C (58.5 °F)	14.8 °C (58.6 °F)	13.7 °C (56.7 °F)	12.1 °C (53.8 °F)	16.6 °C (61.9 °F)
Max. Temperature °C (°F)	35.3 °C (95.5 °F)	33.2 °C (91.8 °F)	35.9 °C (96.6 °F)	37.1 °C (98.8 °F)	37.8 °C (100.0 °F)	36.3 °C (97.3 °F)	35.9 °C (96.6 °F)	36.1 °C (97.0 °F)	35.1 °C (95.2 °F)	32.1 °C (90.0 °F)	28.9 °C (84.0 °F)	35.3 °C (95.5 °F)
Precipitation - Rainfall mm (in)	10 (0.4)	17 (0.7)	27 (1.1)	51 (2.0)	66 (2.6)	46 (1.8)	53 (2.1)	71 (2.8)	94 (3.7)	190 (7.5)	188 (7.4)	66 (2.6)
Humidity(%)	64%	67%	62%	60%	60%	64%	69%	67%	67%	71%	77%	71%
Rainy days (d)	2	2	3	7	9	7	9	9	10	14	12	7
avg. Sun hours (hours)	8.0	8.1	8.8	10.4	10.9	10.9	10.7	10.8	10.2	9.0	7.4	7.1



MADURAI RAILWAY STATION- 21kms

SAMAYANALLUR RAILWAY STATION -

1.1kms



MADURAI AIRPORT- 36kms



MADURAI BUS TERMINAL- 20kms

ARAPALAYAM BUS STAND - 11kms

SWOT:



STRENGTH

Since it is located in the middle of the state. It is possible to attract recruits from all over the state.



WEAKNESS

Even though the site is located away from the city it is very near by to the samayanallur town settlement which has to be in mind while designing the security provisions.



OPPORTUNITY

The sites position can wholefully contribute to the potential growth of the intake of the recruits coming from the southern side by providing more training space



THREAT

Visual disturbance from the highway.



CONCEPT

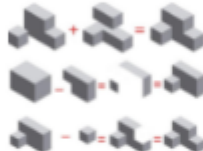
INCORPORATING GREEN SPACE IN INORGANIC FORM

Green entrances to buildings, which allow users to experience some nature, as well as cleaning and cooling the air that enters the building. Bring nature nearby: Provide small green spaces throughout the built forms where people can have a good feel near plants.

FORM

Additive forms are produced by relating or attaching one or more subordinate forms to its volume.

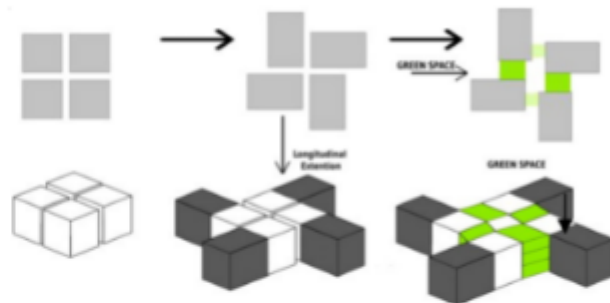
Subtractive forms will have portions removed from its volume, but they often retain their identity until the profile is drastically altered.



INTERPRETATION OF BLOCKS AND GREENS

longitudinal orientation of building blocks. the rotation block allow cross ventilation. including landscape and green area for interaction and meet

1. Green spaces also help in reduction of the energy costs of cooling buildings effectively.
2. The land that is partly or completely covered with grass, trees, shrubs, or other vegetation.



ARCHITECTURAL STYLE – BRUTALISTIC STYLE

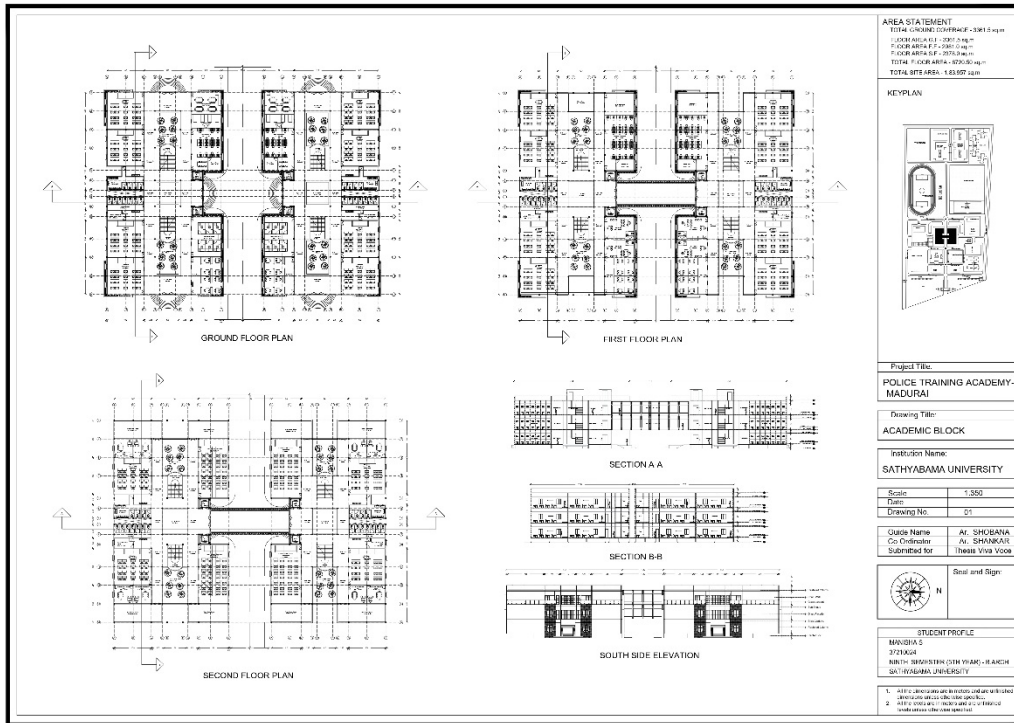
Brutalist buildings are characterised by their massive, monolithic and 'blocky' appearance with a rigid geometric style and large-scale use of poured concrete.



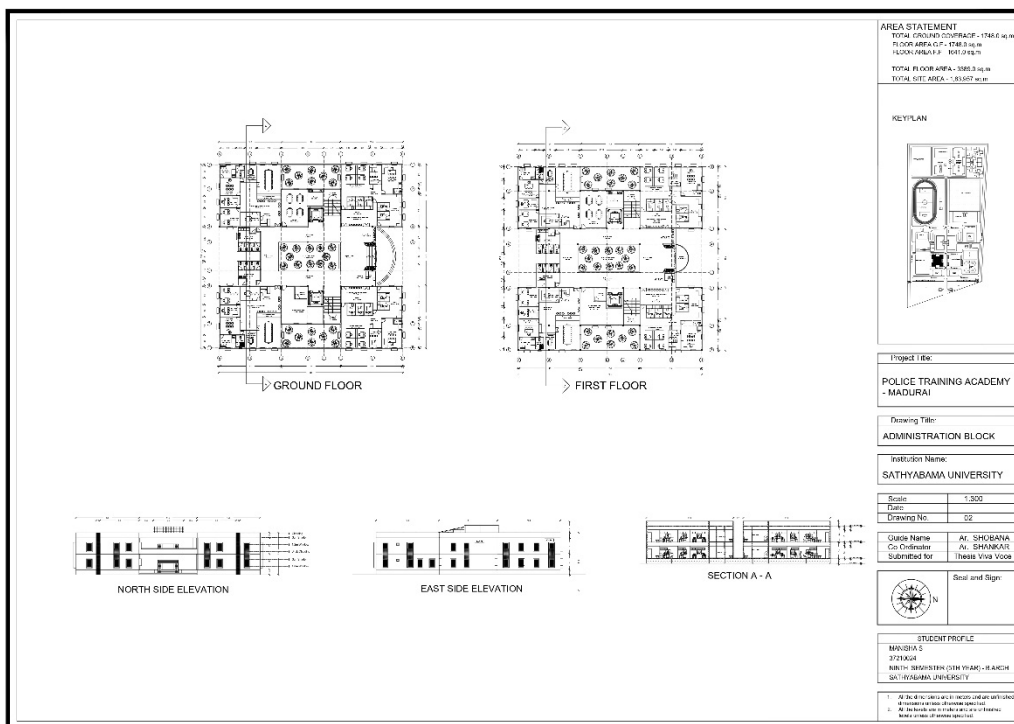
CHAPTER-5 DESIGN SHEETS



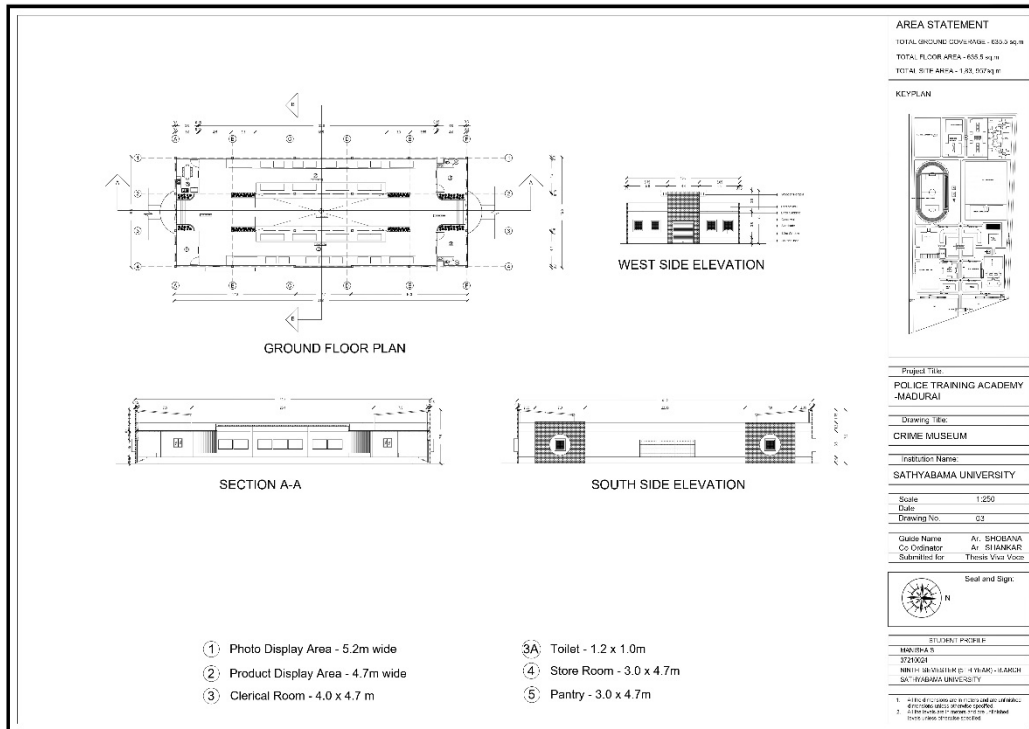
ACADEMIC BLOCK



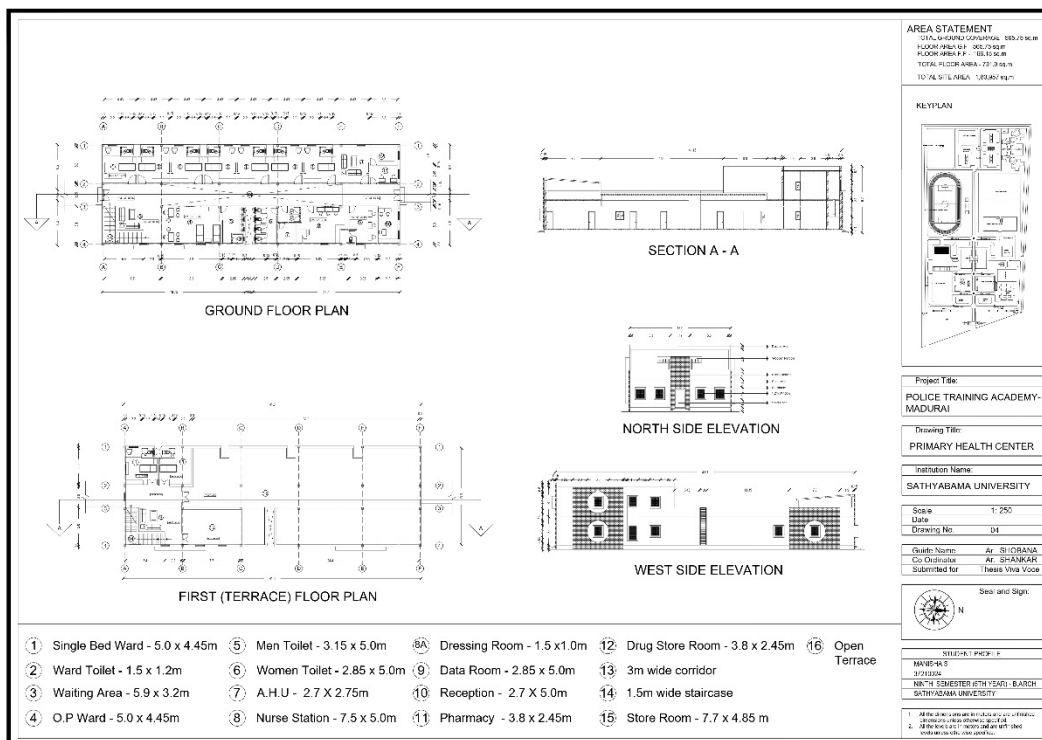
ADMINBLOCK



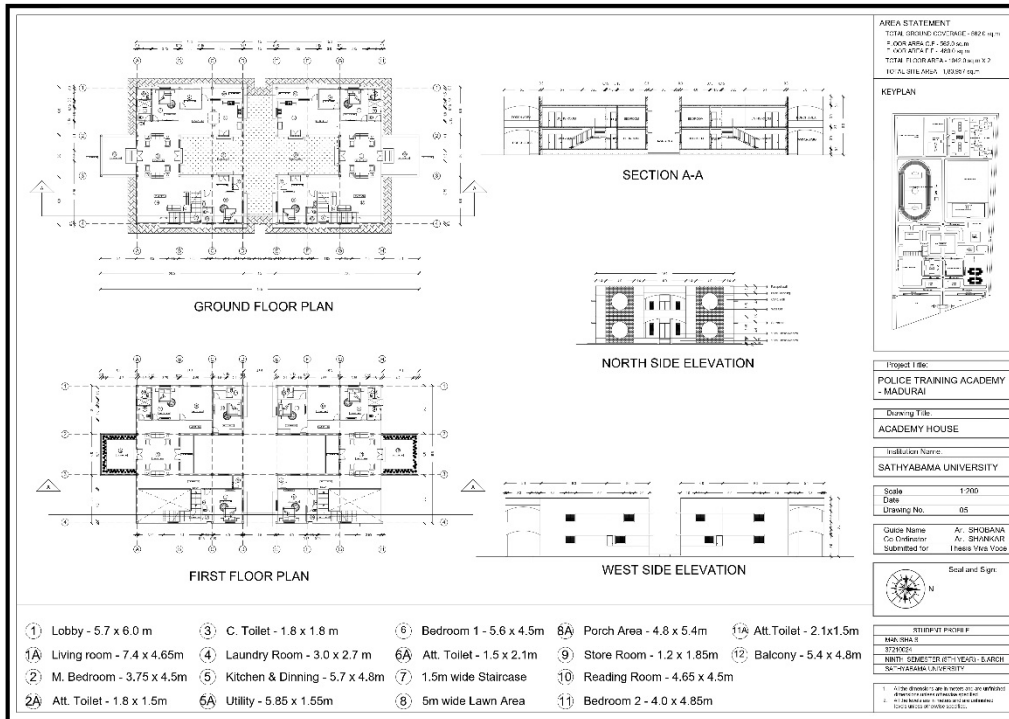
CRIME MUSEUM



CLINIC



ACADEMIC HOUSE



AUDITORIUM

