## INTERNATIONAL SPORT COMPLEX, NAJAFGARH, NEW DELHI

A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of

# BACHELOR OF ARCHITECTURE in ARCHITECTURE

by

# AZAD KHAN (Enrolment No.- 11501010024)

Under the Supervision of PROF.. MOHIT KUMAR AGARWAL AR. RAMAKANT

to the
SCHOOL OF ARCHITECTURE
BABU BANARASI DAS UNIVERSITY
LUCKNOW

JUNE,2020

#### **CERTIFICATE**

I hereby recommend that the thesis, entitled "INTERNATIONAL SPORTS COMPLEX, NAJAFGARH, NEW DELHI", prepared by MR. AZAD KHAN under my supervision, is the bonafide work of the student and can be accepted as a partial fulfilment for the award of Bachelors Degree in (Architecture) School of Architecture BBDU, Lucknow.

PROF. MOHIT KUMAR AGARWAL DEAN SCHOOL OF ARCHITECTURE PROF. SANGEETA SHRAM HEAD OF DEPARTMENT SCHOOL OF ARCHITECTURE

Recommendation:

Accepted

Not Accepted

**External Examiner** 

**External Examiner** 

# BABU BANARASI DAS UNIVERSITY, LUCKNOW CERTIFICATE OF THESIS SUBMISSION FOR EVALUATION

1.Roll No.	1150101024		
2.Name	AZAD KHAN		
3. Thesis title:			
INTERNATIONAL SPOR	TS COMPLEX,NAJAFGARH, NEW DELHI		
4. Degree for which the the	esis is submitted:		
5. Faculty of the Universit	y to which the thesis is submitted		
7. Specifications regarding 8. The contents of the thes 9. The thesis has been pre 10. All sources used have b	n submitted elsewhere for a degree.	YES	
PROF.MOHIT KU THESIS GUIDE SCHOOL OF ARC			

(Signature of the Candidate)

Enrollment No.:....

Name AZAD KHAN Roll No 1150101024

#### **ACKNOWLEDGEMENT**

Time demands that I express my gratitude to those who have been a part of my stay in

B.B.D.U. It's been great, all these years, but life moves on.. and so do we..

I express my deepest gratitude to my thesis guide PROF. MOHIT KUMAR AGRAWAL and AR. RAMAKANT for his valuable passionate guidance, critical discussions, suggestions and continuous support all through my B.Arch thesis.

I express my gratitude to **DEAN, AR. MOHIT AGARWAL**, Department of Architecture, B.B.D.U., Lucknow, for being there to solve our problems.

I am grateful to thesis coordinators AR. SHAILESH KUMAR YADAV and AR. URVASHI TIWARI.

for providing their useful comments at the various stage submissions.

My all teachers, your support, encouragement and guidance have given us the strength to embark on this rigorous journey.

I also want to express my love and gratitude to my beloved families; for their understanding & endless love.

Last not but the least, I convey my gratitude all friends and class fellow, who help me through out of the 5 years of Architecture academia. A special thanks to GUFRAN KHAN and ALOK VERMA, who helped me to escape from the phobia of Thesis project.

AZAD KHAN

### **CONTENTS**

- 1. INTRODUCTION TO THE TOPIC
- 2. SITE ANALYSIS
- 3. CASE STUDY 1: MINI STADIUM, LUCKNOW
- 4. CASE STUDY -2: JAWAHAR LAL NEHRU STADIUM, NEW DELHI
- 4. CASE STUDY -3: K.D. SINGH BABU STADIUM, LUCKNOW
- 5. LITERATURE STUDY-1: STANDARDS PITCHES SPORTS COMPLEX,
- 6. LITERATURE STUDY-2: : YAMUNA SPORTS COMPLEX, NEW DELHI
- 7. CONCEPT
- 8. AREA ANALYSIS
- 9. DRAWINGS

# INTRODUCTION SITE STUDY & CLIMATE

#### INTRODUCTION

- SPORTS IS EMBEDDED WITH THE INNUMERABLE QUALITIES WHICH COULD HELP PRODUCE IDEAL HUMAN BEING THUS HELPS IN NATION SHAPE THEIR DESTINIES BY HAVING DECIPLINE SOCIETY LIVING IN A HEALTHY ENVIRONMENT. SOME OF QUALITIES WHICH COULD BE TRANSMITTED IN TO THE PUBLIC LIFE BY AMPLE SPORTS FACILITIES IN A LARGE NUMBER.
- THE **PLAYGROUND** IN MANY WAYS AN EXTENSION OF THE CLASSROOM. IT OPENS UP A WIDER VISION AN EDUCATES IN COPYING WITH DIFFERENT SITUATION. ITS TEACH SELF DICIPLINE BY OBEYING THE RULE OF GAME. ITS HELPS IN SURVIVING TO OVER COME TO THE HANDICAPES AND SHORT COMINGS IN DOING SO HELPING IN GAINNING SELF CONFIDENCE ITS PROVIDES OPPORTUNITY TO LEARN TO TAKE DEFEAT GRACEFUL AND TO PRESERVE FOR EXCELLENCE.
- THE **PHYSICAL EMOTION** AND **MENTAL ASPECTS** OF THE PERSONILITY CAN BE CHALLENGED AND RESULTANT GROWTH CAN HELP IN HARMUNIOUS GROWTH.

#### NEED OF THE PROJECT

- SPORTS AND RECREATION ARE IMPORTANT COMPONENT OF CIVILIZED LIFE.
- THIS HECTIC LIFE SCHEDULE ENSURE THAT PEOPLE ARE DRIVEN TO FULLY EXPLOIT THEIR LIMITED FREE TIME. WE SEEK AN ATMOSPHERE WHICH EXPOSES US WITH EXPORT ACTIVITIES AND SUCH NEEDS GIVE RISE TO A PLACE LIKE A **SPORTS COMPLEX**, WHICH PROMISES A HEALTHY AND GORGEOUS ENVIRONMENT, ALOND WHICH ITS ENORMOUS SIZE.
- A NEW SYSTEM SHOULD BE STOPPED SO THAT THE PEOPLE CAN PARTICIPATE IN AND ENJOY THESE ACTIVITIES REGARDLESS OF THEIR INCOMES. THESE REQUIREMENTS CAN BE EASILY MET BY A SPORTS COMPLEX.
- SUCH SPORTS COMPLEX CAN ACTULLY PROVIDED OPPORTUNITIES FOR OUT COMING SPORTING TALENTS WHO CAN BRING PRIDE TO INDIA IN DIFFERENT TOURNAMENTS AND COMPETITION.
- **CLIENT: P.W.D GOVERMENTS OF N.C.T DELHI**

#### **SCOPE AND LIMITATION**

- **SCOPE:-** BEING A MULTIPURPOSE SPORTS COMPLEX. ITS PROVIDES VARIOUS INDOOR AND OUTDOOR SPACES TO HOLD VARIETY OF EVENTS AND GIVES A HIGH DEGREE OF FLEXBILITY TO THE EVENT ORGANIZATION. THE BUILDING TYPE DEALS WITH PUBLIC IN GENERAL. SO THERE WILL BE TREMENDOUS SCOPE IN DESIGN AS FAR AS STRUCTURE. OVER ALL FROM, CIRCULATION PARKING AND CROWED MANAGMENT IS CONCERNED.
- **LIMITATION:-** THE THESIS PROJECT WOULD BE LIMITED TO THE OVERALL LAYOUT AND THE DESIGN AND DETAILING OF MULTIPURPOSE. THE REASON BEING THAT INDOOR CONDITION OFFER LONGER HOURS OF PLAY AND MORE CONTROLLED CONDITION OF LIGHTING VENTILATION AND TEMPREATURE WELL AS BETTER CONTROLL MOREOVER, FROM AND STRUCTURE-WISE, IT IS QUITE CHALLENGING.

#### **VALIDITY OF THE PROJECT**

THE DEMANDS AND TENSION OF A HECTIC MODERN DAY LIFE ALLOWS FOR A VERY LITTLE ALLOWS FOR A VERY LEISURE TIME IT IS THUS ESSENTIAL TO USE THID LEISURE TIME TO ENHANCE ONES PERSONAL WELL BEING SPORTS PROVIDE AN OPPORTUNITY FOR THE REST

RESPITE RESTORATION ENTERTAINMENT INCREASE IN KNOWLEDGE DEVELOPMENT OF SKILL

AND OPPORTUNITY FOR SOCIAL INTERACTIONS

THE NEED OF SPORTS COMPLEX IN ANY CITY IS MUST AS ITS REQUIREMENT OF EVERY AGE

FROM CHILD TO OLD MAN EVERYONE NEEDS A COMPLEX AS IT PROVIDES VARIOUS ACTIVITIES FOE ALL THE AGE GROUPS SUCH PLACES NOT ONLY PROVIDE ENTERTAINMENT THEY ALSO ACT AS PLACE OF REJUVENATION SKILL DEVELOPMENT THE CIYTY VALUE IS ENHANCED BY SUCH INFRASTRUCTURE AND IT IS ONE OF THOSE IMPORTANT PROJECT WHICH ARE GENERALLY PRE-PLANNED IN NEW CITIES AND A MUST ADD ON EVEN IN OLD CITIES WITH PLACEMENT SUCH AS WHICH CATERS A LARGE SECTOR OF SOCIETY THE PROJECT IS REQUIRED AS ITS INFRASTRUCTURE AND QUALITY WOULD BE OF INTERNATIONAL LEVEL WHICH WOULD ENCOURAGE YOUNGSTERS TO PERFORM AND DEVELOP THERE SKILLS AND FINALLY MOTIVATING THEM TO PERFORM ON BIGGER LEVELS

#### AIMS AND OBJECTIVE

- 1. TO PROVIDE AND ENHANCE PROSPECTS OF SPORTS
- 2. TO PROVIDE FOR ALL CITIZENS A VARIETY OF ENJOYABLE LEISURE OPPORTUNITIES THOSE ARE ACCESSIBLE SAFE PHYSICALLY ATTRACTIVE AND UNCROWNED
- 3. TO CATERS NATIONAL AND INTRNATIONAL MEETS
- 4. TO TRAIN YOUNG PEOPLE IN VARIOUS SPORTS
- 5. TO ADD UP SUCH ANY ANCILLARY FACILITIES SO AS TO EARN MOREAND MORE REVENUE THEREFORESPORTS COMPLEX MAKES MORE FINANCIALLY FEASIBLE
- 6. TO ENHANCE A SENSE OF NATIONAL COHESIVE AND COMMON INTERST THISWOULD ACT AS MAJOR BUILDING FORCE IN SOCIETY AS A WHOLE
- 7. TO ACCESS THE REQUIREMENT OF SPORTS COMPLEX IN THE LIGHT OF REGIONAL POTENTIAL AND ASPIRATION OF THE PEOPLE

#### **ABOUT THE SITE**

NAJAFGARH IS A TEHSIL OF KAIR VILLAGE, LOCATED IN THE SOUTH WEST DELHI DISTRICT OF NCT OF DELHI.

(IT IS SURROUNDED BY 2 ROAD ( NORTH SIDE ROAD 6 M AND WEST SIDE ROAD 10 M.)



#### THE PROJECT REQUIRMENT

#### ZONE 1: INDOOR

- 1. TABLE TANIS
- 2. BADMINTTON
- 3. JUDO / KARATE HALL
- 4. CARROM /CARD ROOM
- 5. GYM

#### ZONE 2: OUTDOOR

- 1. FOOTBALL FIELD
- 2. ATHLETICS RUNNING TRACK
- 3. TENNIS COURT
- 4. VOLLYBALL COURT
- 5. SWIMMING POOL

**ZONE 3**: ADMINISTRATION **ZONE 3**: INFRASTRUCTURE

**ZONE 4**: OTHER SUPPLEMENT/ ANCILLRY AREAS

**ZONE 5**: TRAFFIC FLOW INCLUDING PARKING FACILITIES

#### SITE ANALYSIS

#### ABOUT THE KAIR VILLAGE

KAIR VILLAGE IS LOCATED IN NAJAFGARH ASSEMBLY AND SOUTH WEST DELHI CONSTIUENTIES. AND FORMS THE BORDER OF THE DELHI STATE WITH HARYANA. THE KAIR VILLAGE IS 'AGRICULTURE AREAS.

THE FAMOUS TEMPLE OF KAIR VILLAGE IS 'DADA JI JAKHDE TEMPLE' AND 'SHANI TEMPLE'.

#### **LOCATION**

NAJAFGARH IS A TEHSIL OF KAIR VILLAGE, LOCATED IN THE SOUTH WEST DELHI DISTRICT OF NCT OF DELHI

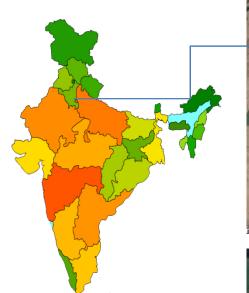
#### **ACCESSIBILITY**

ITS NEARBY TOWNS BAHADURGARH, GURGAON, JHAJJAR ARE THE NEAR BY CITIES TO SOUTH WEST DELHI.

- •NAJAFGARH METRO STATION TO KAIR VILLAGE = 7KMs
- •KAIR VILLAGE TO NEW DELHI RAILWAY STATION = 47KMs
- •KAIR VILLAGE TO I.G.I INTERNATIONAL AIRPORT = 32KMs

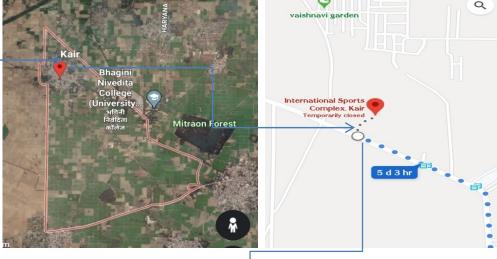
• HAZRAT NIZAMUDDIN RAILWAY STATION DISTANCE = 50KMs





#### SITE LOCATION

PROPOSED SITE FOR SPORTS COMPLEX (KAIR VILLAGE NAJAFGARH)



ernational Sports

Complex, Kair Temporarily closed

#### **NEAREST AMINITIES**

**LINKAGE**:- THE SITE IS 47 KM AWAY FROM THE NEW DELHI RAILWAY STATION. INDIRA GANDHI INTERNATIONAL AIRPORT IS 32 KM FROM KAIR VILLAGE SPORTS COMPLEX SITE.

FIRE STATION: - THE SITE IS 8 KM AWAY FROM THE FIRE STATION.

**HOSPITAL**: GNCT DISPENSERY IS 7 KM AWAY FROM THE SPORTS COMPLEX SITE.

#### **SERVICES**

**DRAINAGE:-** 2MT. NALAH IS RUNNING ON THE NORTH SITE OF THE SITE.

**ELECTRICITY**:- LINES RUNS TO ONE SIDES OF THE SITE PARALLED TO WEST SIDE OF THE ROAD.



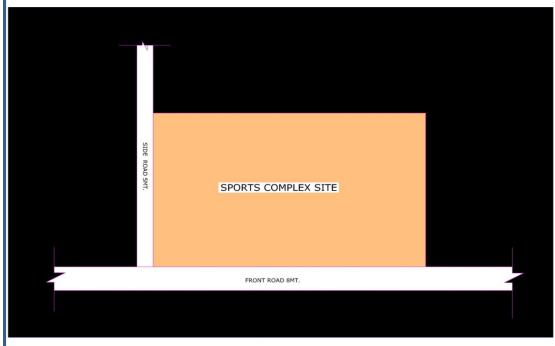




SITE PHOTOS

MAIN GATE

NALAH





**INSIDE PHOTOS** 







SITE PHOTOS

**ELECTRIC POLE** 

**FRONT ROAD** 

#### SITE CLIMATIC CONDITION

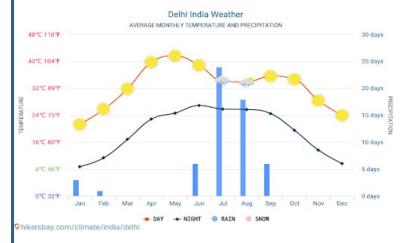
THE CLIMATE OF DELHI IS AN OVERLAP BETWEEN MANSOON INFLUENCED HUMID SUBTROPICAL AND SEMI ARID WITH HIGH VARIATION BETWEEN SUMMER AND WINTER TEMPERATURES AND PERCIPATION.DELHI'S VERSION OF A HUMID SUBTROPICAL CLIMATE IS MARKEDLY DIFFERENT FROM A MANY OTHER HUMID SUBTROPICAL CITIES SUCH AS <u>SAO PAULO</u>, <u>NEW ORLEANS</u>, AND <u>BRISBANE</u> IN THAT THE CITY FEATURES DUST STROMS AND WILD FRE HAZE DUE TO ITS <u>SEMI-ARID</u> CLIMATE.

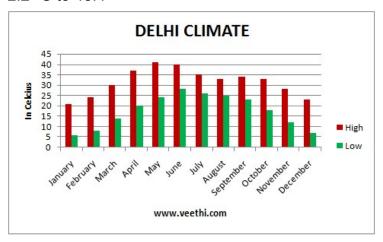
SUMMER IS CERTAINLY NOT THE BEST TIME TO VISIT DELHI. IT STARTS IN EARLY APRIL AND PEAKS IN LATE MAY OR EARLY JUNE, WITH AVERAGE TEMPERASTION ON 32 °C ALTOUGH OCCASIONAL HEAT WAVES CAN RESULT IN HIGHS CLOSE TO ON SOME DAYS AND THEREFORE HIGHER APPARENT TEMPERATURE

THE MANSOON STARTS IN LATE JUNE AND LAST UNTIL MID -SEPTEMBER, WITH ABOUT 797.3 (31.5INCHES) OF RAIN. THE ACT TEMPREATURE AROUND 29 °C (85 °F ALTHOUGH THEY CAN VERY FROM AROUND ON RAINY DAYS TO 32 °C (90 °F) DURING DRY SPELLS. THE MANSOONS RECEDE IN LATE SEPTEMBER, AND THE POST-MANSOON SASON CONTINUES TILL LATE OCTOBER, WITH AVERAGE TEMPREATURE SLIDING FROM 29 °C (85 °F) to 21 °C (71 °F).

WINTER STARTS IN NOVEMBER AND PEAKS IN JANUARY WITH AVERAGE TEMPREATURES 6-7 °C. ALTOUGH WINTERS ARE COLD, DELHI'S PROXIMITY TO THE HIMALAYAS RESULTS IN COLD WAVES LEADING TO LOWER APPARENT TEMPREATURE DUE TO WIND CHILL. DELHI IS NOTORIOUS FOR ITS HEAVY FOGS AND HAZE DURING THE WINTER SEASON. IN DECEMBER, REDUCED VISIBILITY LEADS TO DISRUPTION OF ROAD, AIR AND RAIL TRAFFIC. WINTER ENDS BY THE FIRST WEEK OF MARCH

\* EXTREME TEMPREATURE HAVE RANGED FROM-2.2 °C to 48.4 °







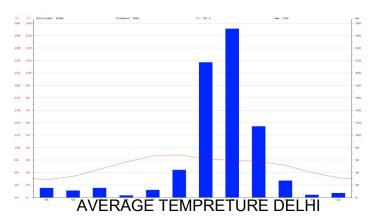


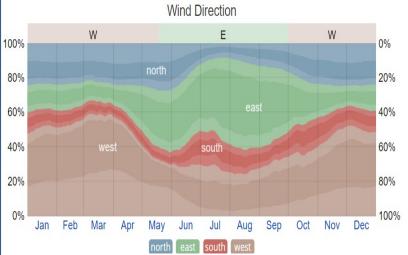


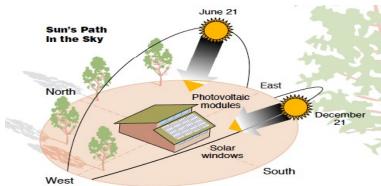
WINTER MONSOON SUMMER

#### SITE CLIMATIC CONDITION









WIND DIRECTION

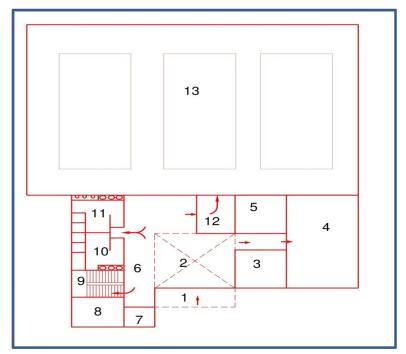
#### **CLIMATE INFRENCES**

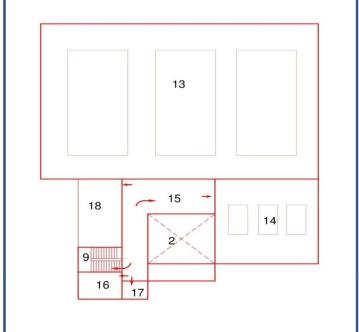
- •THE SITE CLIMATE IS COMPOSITE CONSIDER-ATION WILL BE GIVEN TO BOTH EXTREME SUMMER AND WINTER SEASON ORIENTATION OF BUILDING WILL BE NORTH EAST
- OF BUILDING WILL BE NORTH EAST DIRECTION.
- •PEDUCTION OF SURFACE EXPOSED TO SOA-AR RADIATION SHADING OF EXTERNAL WALLS

THROUGH PROVISION OF LOWYER, FINS AND RECESSED WINDOW.

CASE STUDY -1	

#### CASE STUDY -1 MINI STADIUM, GOMATI NAGAR





#### **GROUND FLOOR**

#### **FACILITY**

- 1. PORCH 6.0 X 2.0M
- 2. ENTRANCE LOBBY DOUBLE Ht. 10.0X 6.5X 8.0M
- 3. STORE 4.75X 4.20M
- 4. GYMNASIUM 5.0X 10.0M
- 5. FOR HANDICAPPED 4.75X 4.20M
- 6. PASSEGE 2.5M WIDE
- 7. PANTRY 2.50 X 2.10M
- 8. STAIRCASE (T-300mm, R-150mm, W-1.50M
- 9. TOILET (SHE) 4.75X 4.20M
- 10. TOILET (HE) 4.75X 4.20M
- 11. LOBBY 3.50X 4.20M
- 12. BADMINTON HALL 33.0X 20.0M

#### **FIRST FLOOR**

- 13. TABLE TENNIS 3 nos. 12.0X 11.0M
- 14. PASSEGE 2.5M WIDE
- 15. OFFICE 4.85X 3.50M
- 16. STORE 2.50X 2.10M
- 17. OPEN TERRACE 4.75X 8.40M



SITE PLAN



TOILET (HE & SHE)



**ROAD LIGHTING** 





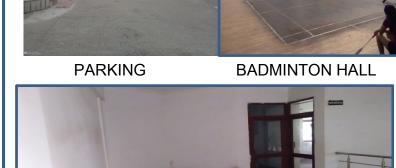
**ALUMINIUM DOOR** 



**BADMINTON HALL** SPACTATOR SEAT

AND WALL **COLOUR** 

FRAME.









**GYMNASIUM** 



**ENTRANCE LOBBY** 



**PORCH** 





**LIGHTING** 





**GRANITE FLOOR FOR SPECTATOR SEATS & WOODEN FLOORING** OF BADMINTON HALL



•MCB FOR **LIGHTING •SKY BLUE PAINT** IS USED FOR WALL FINISH



**LIGHTING ARRANGEMENT** 



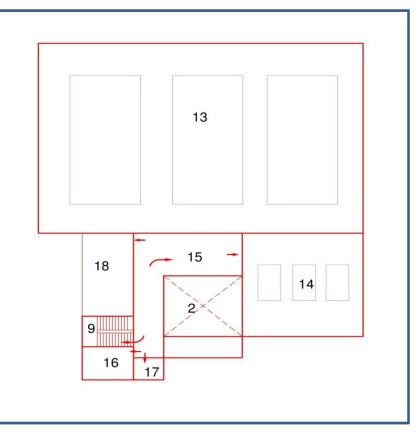
**COMMON AREA FLOORING** 15MM THICK **GRANITE STONE IS USED FOR FLOORING** 

#### CASE STUDY -1 MINI STADIUM, GOMATI NAGAR

#### FIRST FLOOR

- TABLE TENNIS 3 nos. 12.0X 11.0M
- PASSEGE 2.5M WIDE
- OFFICE 4.85X 3.50M
- > STORE 2.50X 2.10M
- > OPEN TERRACE 4.75X 8.40M





SITE PLAN

#### •TABLE TENNIS HALL-

- •IN TABLE TENNIS HALL ALL THE WALLS WERE SIMPLY PLASTERED AND PAINTED.
- •IN TABLE TENNIS COURTS, MAT FINISHES SHOULD BE GIVEN BECAUSE HARD FINISHES MAKE IT VERY UNCOMFORTABLE FOR PLAYERS TO RUN ON IT.
- •HE WALL AT THE BACK OF THE BUILDING WAS FINISHED WITH PLASTER AND PAINT.
- •ORIENTATION OF TABLE TENNIS HALL IS EAST WEST.
- •MOST OF THE WINDOW IS FIXED IN SOUTH AND WEST WALL, SO IT GET HEAT FROM WINDOW AND CURTAIN IS NOT USED OVER WINDOW FOR HEAT PROTECTION.
- •THERE WAS NO FALL CEILING IN THE ROOMS AND THAT WAS AFFECTING THE AESTHETICS OF IT ADVERSELY.
- •IN TABLE TENNIS HALL MOST OF THE WINDOWS WERE ON THE WALLS FACING SOUTH OR WEST AND BECAUSE OF THAT ALOT OF HEAT WAS COMING IN.
- •NO CURTAINS WERE USED OVER WINDOW TO ELIMINATE HEAT AND LIGHT.









**CORRIDOR** 

TABLE TENNIS HALL

TABLE TENNIS HALL CEILING LIGHT

#### **•CLIMATE- COMPOSITE CLIMATE**

- •WEST FACING BUILDING MOST OF THE WINDOW FIXED IN SOUTH WALL SO IT GET UP WARM IN SUMMER.
- •THERE WAS NO CHANGING ROOM PROVIDED THERE. AT LEAST 2 CHANGING ROOM SHOULD HAVE BEEN PROVIDED FOR EACH SEX.
- •THE LAWN TENNIS COURT WAS NOT PROVIDED WITH A PROPER SLOPE AND THUS RAIN WATER GETS COLLECTED ON DIFFERENT PLACES ALL OVER THE COURT.
- •RAIN WATER GETS COLLECTED ON THE FOOTBALL FIELD.
- •THE LIGHTS IN FOOTBALL FIELD WERE NOT TO THE SATISFACTORY LEVEL.
- •THE SPACE FOR THE SPECTATORS IN BADMINTON COURT WAS VERY SMALL. THERE WAS NO SHADE OVER THE LAWN TENNIS COURT. BECAUSE OF THAT, IF IT RAINS PLAYING ON THE COURT WAS NOT POSSIBLE.
- •THERE WAS NEITHER CAFETERIA NOR A HOSTEL FOR PLAYERS IN THE CAMPUS. THIS WAS A MAJOR DRAWBACK OF IT.
- •THE COLOR OF THE INNER WALL OF BADMINTON COURT WAS SKY BLUE AND THIS WOULD NOT LET THE EYES OF PLAYERS DIFFER THE SHUTTLE COCK FROM THE WALL AND THIS WAS ALSO A DRAWBACK.
- •IN TABLE TENNIS HALL, WOODEN TILES WERE USED AND THUS IT WAS NOT SLIPPERY. AND IT'S COLOR WAS DARK BROWN AND THE WALLS WERE PAINTED IN LIGHT CREAM COLOR. THERE WERE 3 TABLES IN THE TABLE TENNIS HALL.



EXTERIOR FAÇADE
FLOORING BALCONY



DOUBLE Ht. LOBBY
LIGHT SIDE ELEVATION



WOODEN PANNEL IS USED FOR FLOORING



•DOUBLE HEIGHTED LOBBY SPACE CREATES A HUGE ENTRY



LIGHTING ARRANGEMENT



EXTERIOR WALL OF BUILDING IS FINIS



VEGETATION

- •THIS STADIUM IS SITUATED IN PEACE FUL AREA.
- •IN ALL THE WINDOWS NORMAL GLASS WERE USED WHICH WILL LET THE TRANSFER OF HEAT HAPPEN EASILY.
- •THE ROOM FOR CHIEF GUEST WAS ACCESSED FROM THE PARKING SPACE.
- •ALL FITTINGS ARE USED WITH BRAND.
- •DRINKING WATER IS NOT PROVIDE FOR VISITERS AND PLAYERS.

#### CASE STUDY -1 PADMASHRI MD SHAHEED SYNTHETIC HOCKEY STADIUM

**DEVELOPER- U.P. AWAS VIKAS LUCKNOW** 

Area-33560.00 SQM 8.40 ACRE.

BUILT UP AREA- 2995.0 SQM.

#### INTRODUCTION

THE STADIUM AT VIJAYANT KHAND WILL BE CONSTRUCTED BY THE LUCKNOW DEVELOPMENT AUTHORITY (LDA) AT AN ESTIMATED COST OF RS 8 CRORE, IT WILL INCLUDE TWO BADMINTON COURTS. A SQUASH COURT, TWO TABLE TENNIS TABLES, A GYMNASIUM, A MULTI-PURPOSE HALL, A LIBRARY, TWO LAWN TENNIS COURTS AND ONE COURT EACH FOR BASKETBALL AND VOLLEYBALL. A 1,250 SQUARE METRE AREA (50 METRE X 25 METRE) SWIMMING POOL. A 600 METRE LONG JOGGING TRACK AND A FOOTBALL GROUND WILL BE ITS OTHER ATTRACTIONS.

#### **FACILITIES**

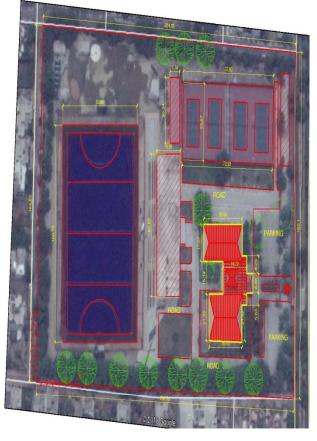
- INDOOR GAMES
  - •4 Nos . TABLE TENNIS 30' X 30'X 15'
  - •2 Nos .BADMINTON COURT 100' X 50' X 35'
  - •GYMNASIUM 20' X 30' X 15'
  - •LIBRARY
  - •VIP SEAT FOR HOCKEY MATCH
  - •CHIEF GUEST ROOM
  - CONTROL ROOM/ELECTRIC ROOM
  - TOILET
  - SECURITY ROOM
  - •MULTIPURPOSE HALL
  - •WAITING AREA
- **•OUTDOOR GAMES** 
  - **•LAWN TENNIS COURT**
  - HOCKEY FIELD
  - SQUASH COURT
- **•**OTHER FACILITY
  - PARKING SPACE
  - JOGGING TRACK 750METER
  - •SPACE FOR YOGA
  - •OFFICE
  - •PANTRY
  - •TOILET (HE & SHE)
  - STORE ROOM

**COURT MATERIA** 





**PVC DRAINAGE PIPE IS** PROVIDED. IN CASE OF



SITE PLAN

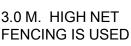


**NET STAND** 

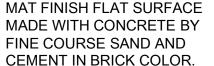


FENCING IS USED









RAINY DAYS. FOR LAWN TENNIS.



**ENTRANCE GATE** 

FRONT ENTRANCE GATE IS MADE BY MILD STEEL.

IT HAD 4 MAIN GATE FOR IN & OUT. BOUNDARY WALL IS MADE BY BRICKWORK AND FINISHED BY CEMENT MORTSR

PLASTER.



**BACK ELEVATION** 

FRONT ELEVATION OF BUILDING-EXTERIOR WALL IS FINISHED BY 10MM AGGREGATE WITH NEAT CEMENT MORTAR.



CONNECTING PATHWAY PAVED BY CEMENT BRICK

THE 800 METER LONG JOGGING TRACK IS DESIGNED FOR PLAYERS AND OTHER **VISITORS** 



PARKING-

MORTAR.

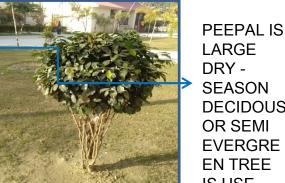
40 Nos. 4-WHEELER 100 Nos. 2-WHEELER. GROUND OF PARKING SPACE IS MADE BY **CEMENT MORTAR AND** FINISHED BY **GRANULAR COURSE** SAND AND CEMENT



PARKING

THE CONTROL ROOM IS BUILT TO PREVENT ANY KIND OF ACCIDENTAL OCCURRENCE AND IN VIEW OF SECURITY.

> MILD STEEL FRAMED **STRUCURE** SHED IS USED VER THE **VERANDAH TO** ACHIVE DIFFUSE **SUN LIGHT AT ENTRANCE** DOOR.



LARGE SEASON **DECIDOUS** OR SEMI **EVERGRE EN TREE** IS USE.



LAWN TENNIS COURT-



**VEGETATION** 

CASE STUDY -2	

#### CASE STUDY-2 JAWAHAR LAL NEHRU STADIUM DELHI

AREA:-

TOTAL LAND AREA : 40.55 HEC. OR 100.2 ACERS

OR 405495.012 SQM.

LAND ACQUIRED BY STADIUM : 15 ACERS OR 60702.85SQM.

TOTAL FLOOR AREA : 43500SQM.

**HEIGHT:-**

MAXIMUM HEIGHT : 23 MT. FLOOD LIGHT TOWER HT : 57.5 MT.

**CAPACITY:-**

LOWER TIER CAPACITY : 19,705 UPPER TIER CAPACITY : 57,782 TOTAL CAPACITY : 77,487

**ENTRIES:-**

PLAYER'S : 04
OFFICE'S : 14
LOWER SITTING AREA : 10
RAMPS FOR UPPER TIER : 08

SUB ENTRIS ON UPPER

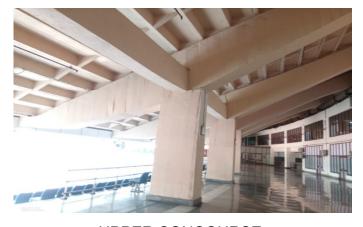
CONCOURSE : 56

**COMPETITION FACILITIES:-**

FOOTBALL GROUND : 105m X 70m (NATURAL GRASS)

ATHLETIC GROUND : 8 LANES OF SYNTHETIC SURF-

ACE (1.2 m WIDE EACH LANE



**UPPER CONCOURSE** 







SITE

#### **UPPER CONCOURSE:-**

APPROCHED BY THE 8 RAMPS, THIS LEVEL ACTS AS A LOADING, WHICH PROVIDES AN ACCESS TO UPPER TIER SITTING THROUGH 56-SMALL ENTRIES.

THIS LEVEL HAS BEEN PROVIDED WITH PUBLIC UTILITIES LIKE TOILETS, DRINKING WATER, SNACK COUNTER AND OTHER SHOPS, SO THAT PEOPLE DON'T HAVE TO GO DOWN DURING INTERVAL.

\*LOCAL POLICE CONTROL IS PROVIDED TO CHECK CROWED



**VIEW OF LOWER \$ UPPER TIERS** 

**SCORE BOARD** 

TWO SCORE BOARDS OF SIZE 20m X 9m IN THE NORTH AND 13m X 6m IN THE SOUTH. THE 21,000 ELECT-

RONIC BULBS FLASH RESULTS IN ENGLISH AS WELL AS HINDI

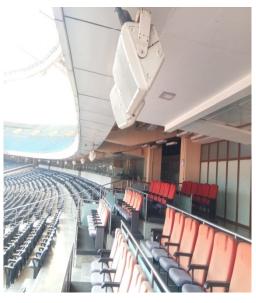




PLAYER'S ENTRIES

#### **BASEMENT:-**

- (a) MEDICAL OFFICE
- (b) CHANGING ROOM
- (c) TOILETS FOR PLAYERS



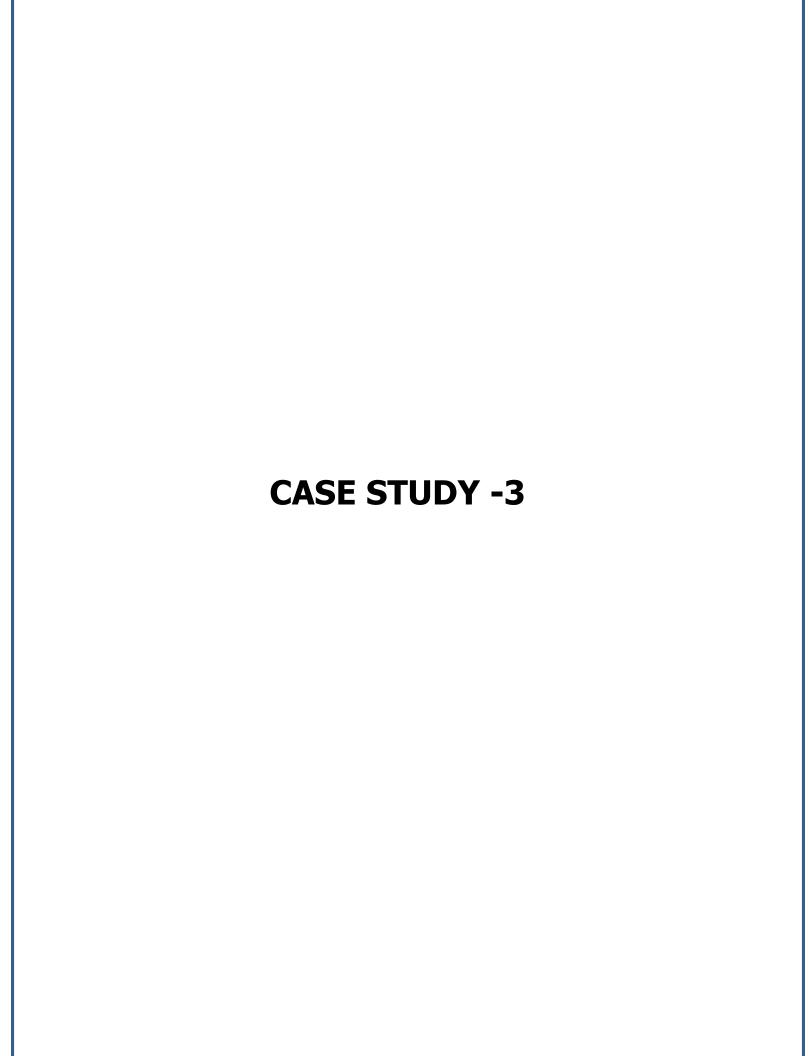




PLAYER'S SEAT

**EXIT FROM LOWER TIER** 

LOBBY 8 MT.



#### CASE STUDY-3 K.D.SINGH BABU STADIUM LUCKNOW

# OWNER- UTTAR PRADESH GOVERMENT *Area-97124.55 SQM* 24. ACRE, INTRODUCTION.

THE KD SINGH BABU STADIUM, FORMERLY KNOWN AS THE CENTRAL SPORTS STADIUM, IS MULTIPURPOSE STADIUM NAMED AFTER THE FAMOUS HOCKEY PLAYER

K. D. SINGH.

THE STADIUM WAS ESTABLISHED IN 1957 AND IT IS LOCATED NEAR THE BUSY <u>HAZRATGANJ</u>, AREA OF DOW-

NTOWN **LUCKNOW**, IN THE HEART OF THE CITY.IT HAS A

<u>SEATING CAPACITY OF 25,000</u> AND DOES NOT SUPPORT

FLOOD LIGHTS FOR DAY-NIGHT MATCHES. THE STADIUM IS ALSO THE HOME GROUND OF FOR UP CRICKET TEAM.

#### **FACILITIES:-**

K.D. SINGH BABU STADIUM IS THE

**MAIN** 

SPORTS HUB OF LUCKNOW.

(1) INDOOR GAMES COMPLEX:-

- (a) BADMINTON ARENA
- (b) WEIGHT LIFTING

**ARENA** 

(c) GYMNASTICS

**ARENA** 

- (2) SWIMMIING COMPLEX:-
- (3) SYNTHETIC TENNIS COURT:-
- (4) BOXING ARENA:-
- (5) CRICKET FIELD:-
- (6) HAND BALL COURTS :-
- (7) VOLLYBALL ARENA:-
- (8) BASKETBALL COURTS:-





**CRICKET GROUND** 



**PORCH** 



MILD STEEL FRAMED STRUCURE SHED



**UPPER TIER V.I.P SITTING** 



LOBBY



**BADMINTON HALL** 



**TENNIS COURT** 



**GYMNASIUM HALL** 



CHANGING ROOM FOR BADMINTON PLAYERS



BADMINTON HALL SPACTATOR SEAT AND WALL COLOUR



**BOXING COURTS** 



WEIGHT LIFTING HALL



**VEGETATION** 



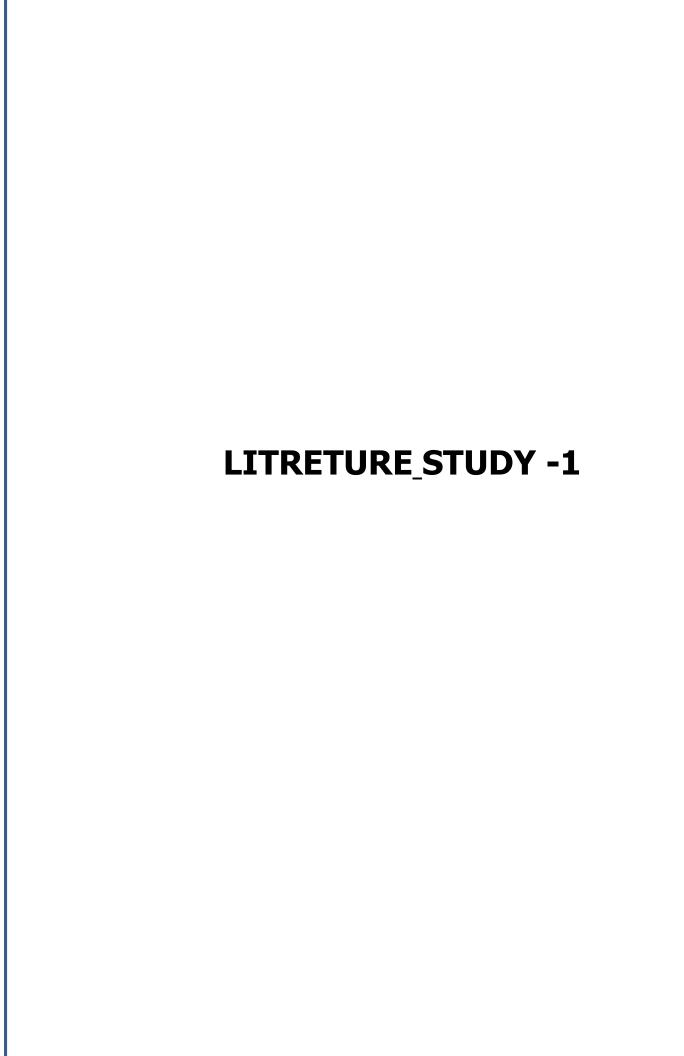
PATHWAY



**GYMNASIUM HALL** 



**BASKETBALL COURTS** 



#### LITRETURE STUDY-1

#### INTRODUCTION ...

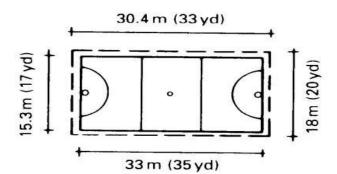
A sports complex is an enclosed area, designed to showcase and practice of various sports.

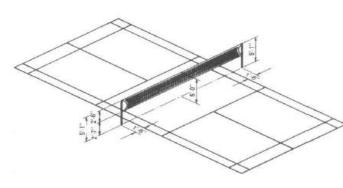
Provision for practicing various sports

Provision for parking at the drop off zones and should be directly connected to various stadiums.

Proper signages should be provided.

The orientation of the stadiums should be NE-SW





ISOMETRIC VIEW

#### INDOOR BADMINTON

All measurements for court markings are to the outside of lines except for those involving the centre service line which is equa-lly divided between right and left service courts.

All court markings to be 1'/2" wide and preferably white or in colour.

Minimum distance between sides of parallel courts to be 5'-0".

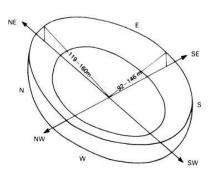
Side to side between courts > =0.3m

End to end distance between courts > =1.3m

Between courts and walls > =1.5m Spectators are accommodated behind the safety strip.

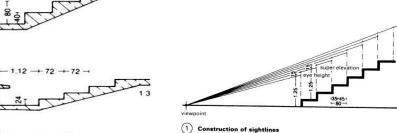
Floor should be lightly sprung.

Hall should have no window, should be lit by roof lights



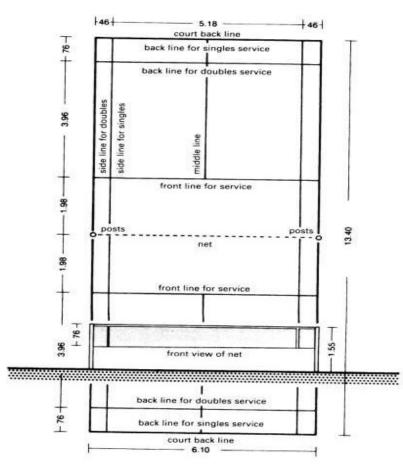
(6) Viewing distance determines the stadium size

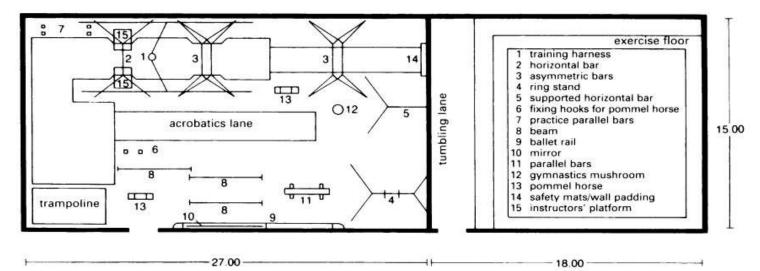
### Seating provisions



8) Stand profiles

Depending upon the planned capacity, seating is provided either along the long side of the ground (to take advantage of the shortest viewing distance) or, for capacities above 1000, around the whole ground. As most events take place in the afternoon, the best position for spectators is on the west side so that the sun is at their backs

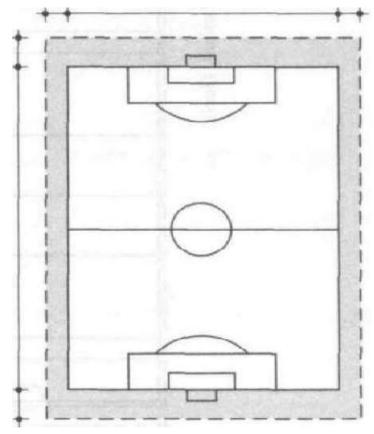




Gymnastic apparatus hall with adjacent floor exercise hall

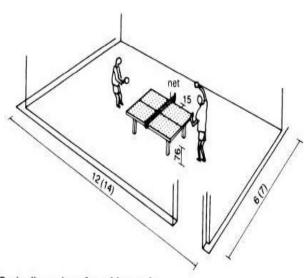
#### Table tennis hall

- •The table matt is green with white border lines and has the following dimensions.
- Area 1525x2740mm, Height 760mm, thickness of the top > =25mm
- The playing area is cordoned off with 600-650 mm high canvas screens.
- The spectators are seated beyond on screen.



#### Football, Association (Soccer).

L B
International: 100–110m 64–75m
Senior: 96–100m 60–64m
Junior: 90m 45–55m

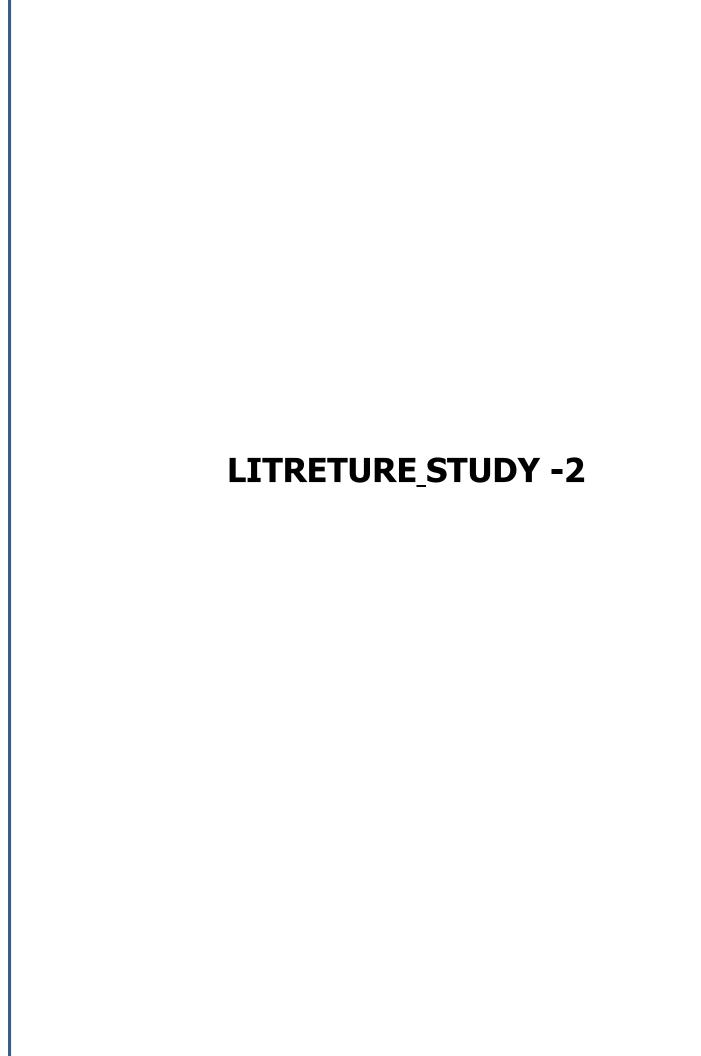


4) Basic dimensions for table tennis

### Outdoor pitches



Orientation diagram, based on the following seasons (northern hemisphere): association football, August-May; hard court tennis, basketball, netball, all year round; cricket, baseball, grass court tennis, May-September. Pavilions should avoid SW-NW aspect (225°-315°)



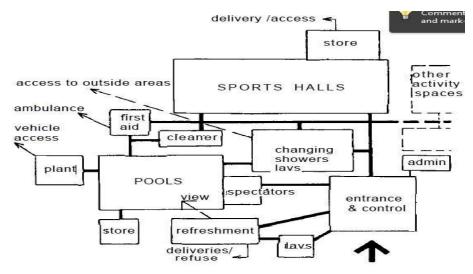
#### LITRETURE STUDY-2

- sports complex is an enclosed area, often circular or oval-shaped, designed to showcase and practice of various sports events.
- •Sports complex will have a stadium complex that is to be the most modern and advance which will be able to facilitate international sports and mega-events.
- •It will have a dedicated cricket stadium, an outdoor multipurpose stadium for sports like football and rugby.

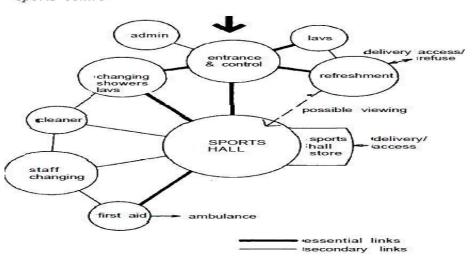
An indoor multi-purpose stadium for sports like basketball swimming pool, skating rink, volleyball and a dedicated hockey stadium

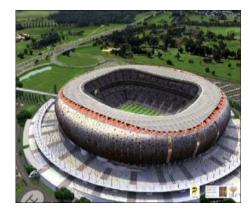
In relation to acity asports complex must fit in well with thefollowing

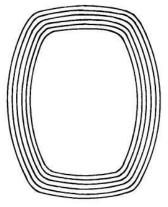
- local topography
- Goodtransport
- Supplyfacilities
- · Closenessto industrial area
- Climatic conditions
- •As a rule the stadium is partly below the ground IvI with the excavated earth heaped up around it.
- •The size of the inner sports field can be based loosely on the size of a football pitch.
- For athletics stadium there should be arunning track surroundingthe field



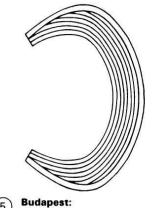
25.1 Space and circulation diagram of a large wet and dry sports centre



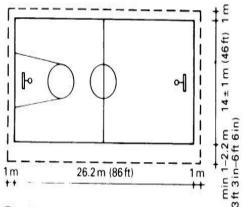




Rotterdam:



Budapest:
horseshoe around long axis



Basketball: minimum height 7.0 m
(see also previous page)

#### BASIC REQUIREMNTS OF A SPORTS COMPLEX

- Full provision for all field events
- Aseparate warming-up area (desirable)
- Changing and washing facilities for 200 athletes in the proportion two-thirds male to one-third female
- Additional separate changing accommodation for boys and girls is desirable
- Acovered stand to seat least 2000 spectators.
- Appropriate toilet and car parkingfacilities.
- An announcer's box and provision for the press, broadcasting and television
- Officials' room
- Equipment rooms and store
- The perimeter of the track not covered by the stand should, if possible, be terraced to provide furtherspectator

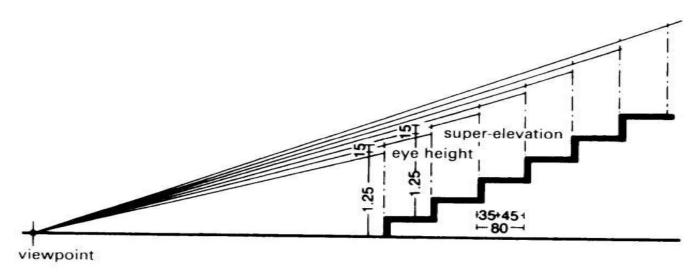
### **Seating Areas**

The necessary space for seating areas is calculated as follows:

width of seat  $0.5 \, \mathrm{m}$ overall depth  $0.8 \, \mathrm{m}$ of which:

seat depth

 $0.35 \, \text{m}$ 



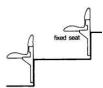
#### TYPES OF SEATING

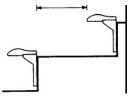
#### Seating with backs, fixed and fold-up

- Rowwidth 780–800mm recommended
- Minimum clear seatway 305 mm
- •Width of seats 460–500mm for seats without arms 500mm for seats with arms

#### Benches without backs.

- Rowwidth 610mm min recommended
- Minimum clear seatway 400mm
- Width of seats460–500mm
- These allow closer spacing but are less comfortable.





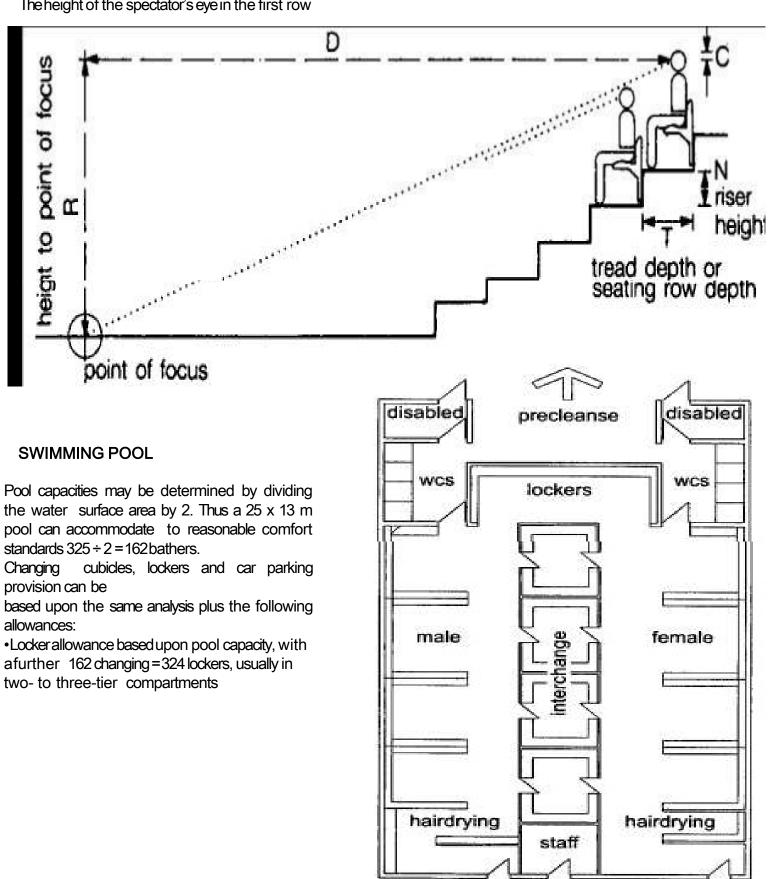
#### SIGHT OF SPECIATOR

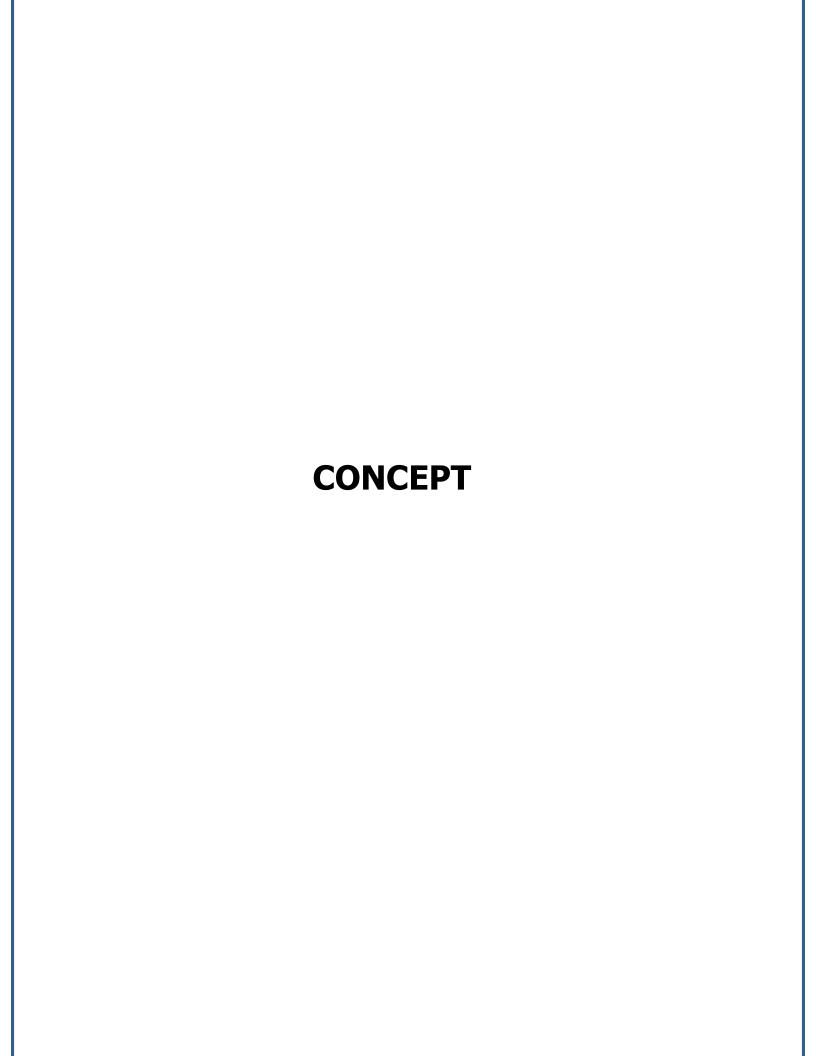
#### The sight of spectator is determined by the following principal factors:

The assumed constant of 'the crown', i.e. the distance from the eye to the top of the head which is known as the C value Thetread depth or seating rowdepth

The point of focus (the middle of the innermost athletics track or the near touchline in football orrugby)

The height of the spectator's eye in the first row





#### CONCEPT

#### <u>A THEORICITAL ANALYSIS OF SPORT :-</u> OVERVIEW

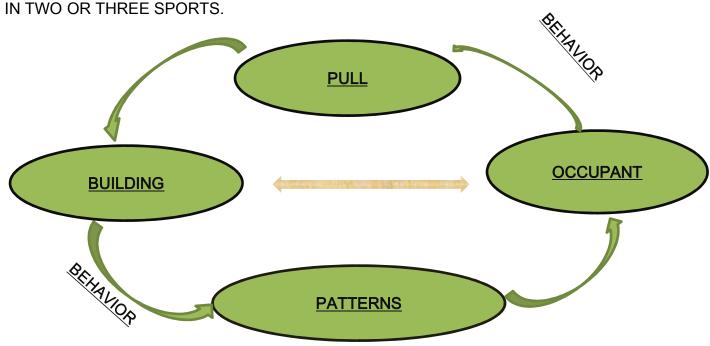
IN THIS ACTIVITY, YOU WILL EXAMINE THE STRUCTURAL-FUNCTIONAL, AND SYMBOLIC INTERACTION ANALYSIS OF SPORTS.

YOU WILL IDENTIFY THE MAINFEST AND LATENT FUNCTION OF SPORTS, AS WELL AS SELECT EXAMPLE OF DYFUNCTION. IN THE SOCIAL CONFLICT ANALYSIS OF GENDER, YOU WILL IDENTIFY THE MANY INEQUALITIES OF SPORT-RELATED IN ACTIVITIES WITH IN OUR SOCITY.

#### **SPORTS**

SPORTS ARE PART OF EVERYDAY IN LIFE IN THE INDIA MOST PEOPLE ENJOY SOME TYPE OF SPORTING EVENT RANGING FROM TENNIS TO POOL.

MANY CHILDREN AS YOUNG AS AGE 6 OR 7 PARTICIPATE



#### **CONCEPT**

BUILDING COMMUNICATION WITH OCCUPANTS WHAT COE BETWEEN TO OPEN UP THE MIND BETWEEN THE TO. ONE MAJOR THING WAS PATTERNS BECAUSE THE BUILDING HAVE ITS OWN BEHAVIOR AND WITH ITS BEHAVIOR IT NEED PATTERNS THAT ALTIMETLY EFFECTS OCCUPENTS AND AS OCCUPENTS TREVEL IN BUILDING AND EXPIRENCE IT.

SO NOW ALL THESE
PATTERNS HAS BEEN PULLED IN TO MY
DESIGN. WITH THIS WE CAN OPEN UP
THE COMUNICATION BETWEEN BUILDING
AND OCCUPANTS.





#### GEOMETRY CONCEPTS IN ARCHITECTURAL DESIGN

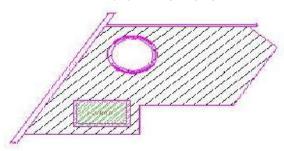


THE ARCHITECTURAL SPACE IS BASED ON A GEOMETRIC SPACE CONCEPT. ESPICALLY IN THE CREATION PROCESS

ARCHITECTURE IS THOUGHT IN RELATION TO A GEOMET-RIC SPACE. ROBIN EVANS ANALYZE THE RELATIONSHIP BETWEEN GEOMETRY AND ARCHITECTURE. THE FIRST PLACE ANYONE LOOKS TO FIND THE GEOMETRY IN ARCH-ITECTURE IS IN THE SHAPE OF BUILDINGS. THESE ARE THE LOCATION WHERE GEOMETRY HAS BEEN, ON THE WHOLE, STOLID AND DORMANT. BUT GEOMETRY HAS BEEN ACTIVE IN THE SPACE BETWEEN AND THE SPACE EITHER END

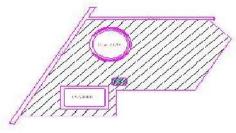
#### **ZONNING OF SITE**

#### THERE ARE 10 STEPS TO CREATE ZONNING.



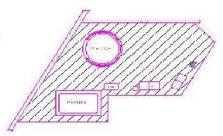
#### STEP-1

THE PURPOSE OF PLACING THE FOOTBALL STADIUM AND ATHLETICS RUNNING TRACK IN THE FRONT OF THE IS TO DISTRIBUTE THE SPECTATORS PROPERLY SO THEY CAN EASILY EXIT.



#### STEP-2

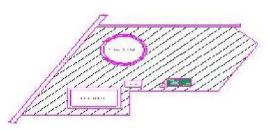
ADMINISTRATION BUILDING HAS BEEN PLACED AT THE RIGHT SIDE OF THE INDOOR STADIUM.



#### STEP-3

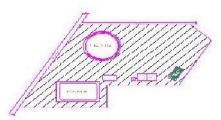
SWIMMING POOL NEXT

TO THE LANDSCAPING AREAS.



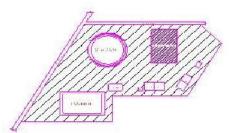
#### STEP-4

LAWN TENNIS COURT IS PLACED AT THE FRONT OF INDOOR GAMES.



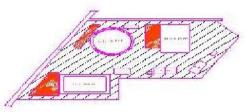
#### STEP-5

VOLLYBALL COURT AT THE OTHER CORNER OF THE SITE . AND THE DIRECTION OF THE FIELD IS NORTH- SOUTH.



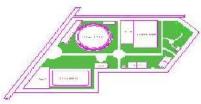
#### STEP-6

INDOOR BUILDING HAS BEEN PLACED AT THE NORTH SIDE AND A GOOD CONNECTIVITY HAS BEEN GIVEN TO ENTER A BUILDING.



#### STEP-7

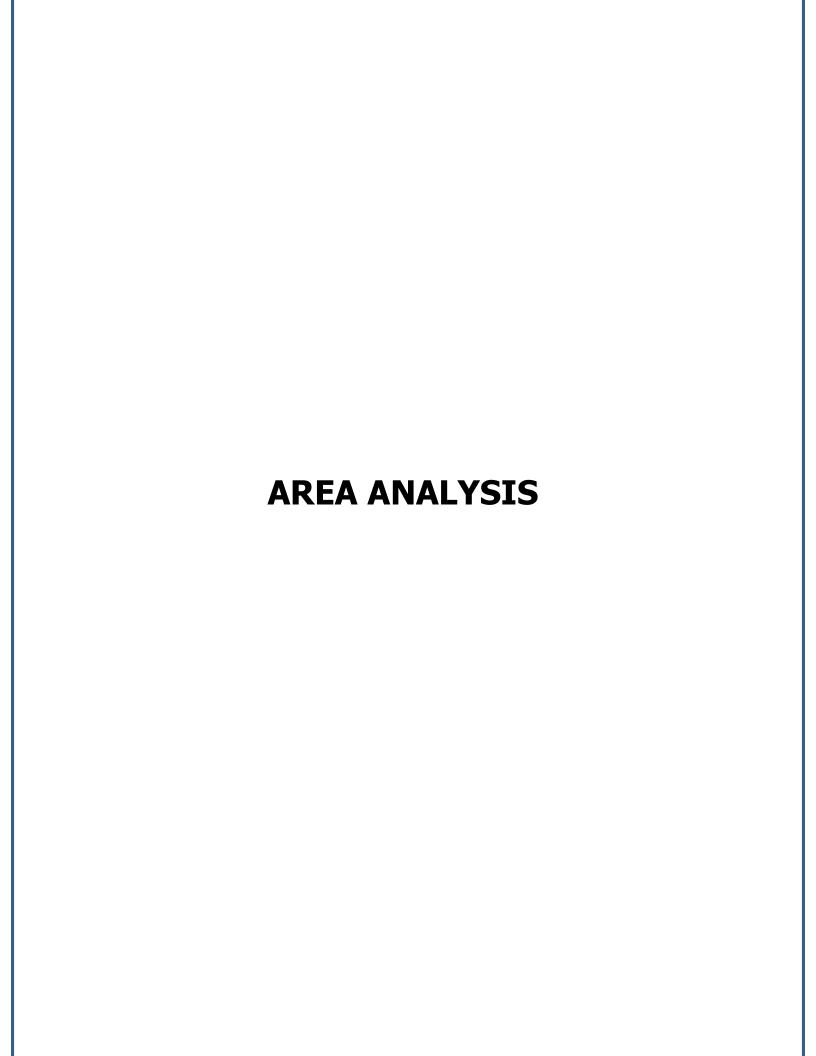
ON SITE PARKING HAS BEEN PROVIDED FOR USERS AND VISITOR. PLAYERS AND VIP PARKING BESIDE OF INDOOR BUILDINGS.



#### STEP-8

PUBLIC PARK, PROPER LANDSCAPING, WITH A GOOD ENVIRONMENT. AND GREEN AREA IS THE MOST IMPORTANT PARK OF SPORTS COMPLEX.

TYPES OF SPORT	PERMI SSIBLE	DIMEN SION	STANDA RD	DIMENSI ON	ADDITIO NAL	FREE ZONE	FREE GROSS	USUABL E AREA	CLEAR HEIGHT
	LENG TH- M.	WIDT H- M.	LENGH T- M	WIDTH- M.	LONG SIDE- M.	SHORT SIDE- M.	LENGT H-M.	WIDTH- M.	
BADMINT ON	13.4	6.1	13.4	6.1	1.5	2.0	17.4	9.1	7.5
BASKETB ALL	24-28	13-15	28	15	1	1	30	17	7
CRICKET	29.12- 33.12	3.66- 4.0	33.12	4.0	1	1	35	6	4.0-4.5
FOOTBAL L	30-50	15-25	40	20	0.5	2.0	44	21	5.5
VOLLY BALL	18	9	18	9	5	8	34	19	12.5
TABLE TENNIS	2.74	1.525	2.74	1.525	5.63	2.74	14	7	4
LAWN TENNIS COURT	23.77	10.97	23.77	10.97	3.65	6.4	36.57	18.27	7
GYMNAST ICS	25	18	52	27	-	-	52	27	4
WEIGHT LIFTING	4-7	4-5	4	4	1	1	20	14	4
JUDO	9-10	9-10	10	10	2	2	14	14	4



SR NO.	AREA	SITE
Α-	SITE INFORMATION	
	TOTAL PLOT AREA	80937. SQ-MT.
	PERMISSIBLE GROUND COVERAGE	20 % OF PLOT AREA
	OPEN SPACE	80 % OF PLOT AREA
	PERMISSIBLE F.A.R	.5
	FRONT SETBACK	12 MT.
	SIDE SETBACK	09 MT.
	REAR SETBACK	09 MT.
	PARKING(2 WHEELER & 4 WHEELER)	2 ECS PER 100 SQ-MT
В-	BULIDING BLOCKS	
	ADMIN BLOCK	1795 SQ-MT.
	INDOOR FACILITY / BLOCK	5341 SQ-MT.
	SWIMMING POOL AREA	1300 SQ-MT.
	OUTDOOR FACILITY	31899 SQ-MT.
	TOTAL	40,335 SQ-MT.

SR.NO.	SPACE	SITE (IN SQ.M	IT.) NO.	
	A DAVINI DI GOLG	(	,	
A -	ADMIN BLOCK			
1	REGISTER OFFICE AND ADMIN	136	NO.1	
2	CONTROLL OF EXAMINITION OFFICE	136	NO.1	
3	FINANCE OFFICER OFFICE	105	NO.1	
4	ADMIN AND ACCOUNT STAFF	150	NO.1	
5	LIFT LOBBY	5	NO.1	
6	TOILET FOR MALE	13	NO.2	
7	TOILET FOR FEMALE	18	NO.2	
8	HANDICAP TOLET	3	NO.2	
9	ELECTRICAL AND UTILITY ROOM	5	NO.1	
10	EQIPMENT ROOM	8	NO.1	
11	ENTRANCE LOBBY	112	NO.1	
12	CONTROLLER OF EXAMINATION OFF.	136	NO.1	
13	DIRECTOR OF SPORTS	80	NO.1	
14	DEAN OF FACULTY	68	NO.1	
15	CHIEF VIGILANCE OFFICERS	52	NO.1	
16	BOARD ROOM AND MEETING ROOM	139	NO.1	
17	OFFICES	70	NO.1	

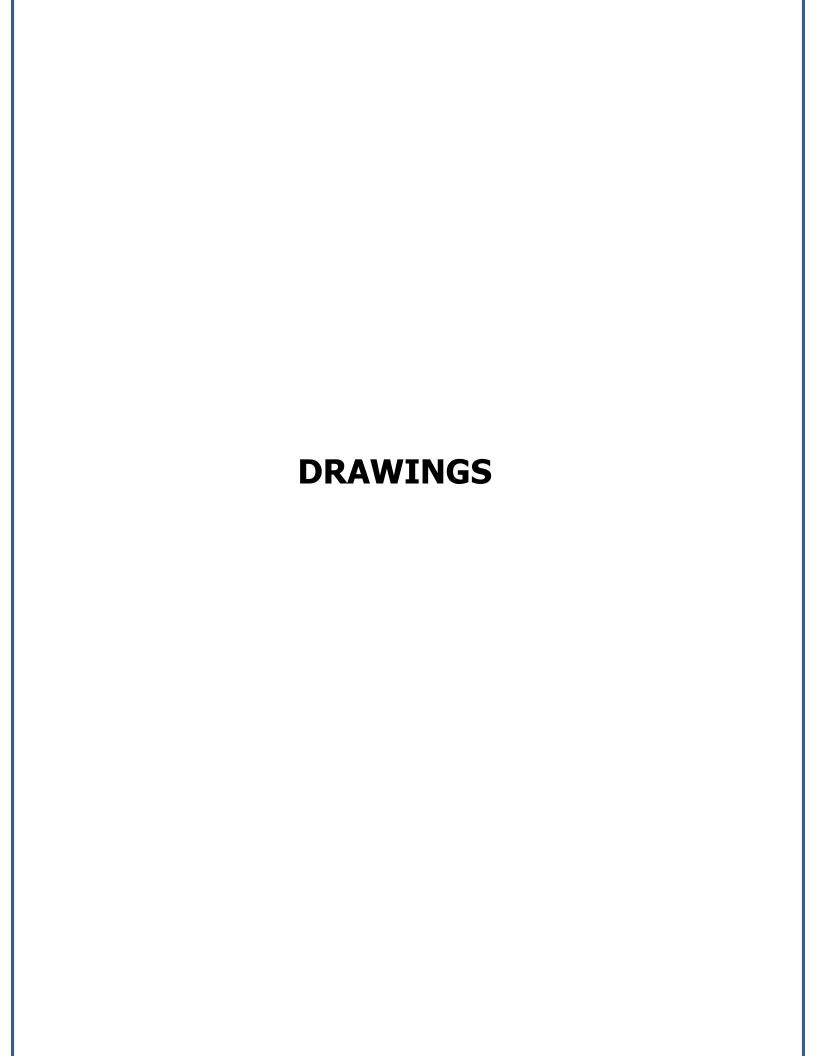
SR.NO.	SPACE	SITE (IN SQ.MT.)	NO.
18	ADMINISTRATIVE OFFICE	136	NO.1
19	CONFENCE ROOM	55	NO.1
20	PANTRY	5	NO.1
21	TOILET FOR STAFF	2.25	NO.1
22	VICE CHANCLOR OFFICE	32	NO.1
23	PUBLIC INFORMATION OFFICE	80	NO.1
24	DEAN STUDENT WELFARE	74	NO.1
25	P.A OFFICE	18	NO.1
26	SECRETRAIT	32	NO.1
27	GENERAL WAITING AREA	28	NO.1
28	V.I.P WAITING AREA	28	NO.1
29	BOARD ROOM AND MEETING ROOM	145	NO.1
30	STORE ROOM		
31	ELECTRICAL ROOM	8	NO.1
32	GRIVENCE CELL	80	NO.1
33	SEMINAR HALL	90	NO.1
34	SEXUAL HARRESMENT CELL	62	NO.1
35	OVERSEAS CELL	52	NO.1

SR.NO.	SPACE	SITE (IN SQ.MT.)	NO.
36	CALTURAL PROGRAMME CELL	74	NO.1
37	MINIROTIES CELL	60	NO.1
38	PLACEMENT COUNSELLING CELL	54	NO.1
39	PUBLIC RELATION CELL	68	NO.1
	TOTAL	1795 SQ MT	

SR.NO.	SPACE	SITE (IN SQ.MT.) NO.		STANDARD (TIME SAVER)
В-	INDOOR FACILITY			
1.	RECEPTION	16	NO.1	5 SQ-MT.
2.	ENTRANCE LOBBY	150	NO.1	350 SQ-MT.
3.	DIRECTOR ROOM	25	NO.1	
4.	MEDIA WORK AREA	100	NO.1	1.2 SQ-MT.
5.	JUDO	96	NO.1	196 SQ-MT.(8x8)
6.	BADMINTON COURT	300	NO.3	13.4x6.1 (81.7)
7.	MULTIGYM	450	NO.1	600 SQ-MT.
8.	MEDITATION CENTRE	450	NO.1	
9.	TABLE TENNIS	750	NO.3	10.7x23.7
10.	TOILETS FOR VISITORS	16	NO.1	1.5x1.5
11.	TOILETS FOR STAFF	20	NO.1	1.2x1.5
12.	TOILET	520	NO.8	1.2x1.5
13.	MULTIPURPOSE HALL	300	NO.1	
14.	FIRST AID ROOM	15	NO.1	
15.	POWER LIFTING	35	NO.1	
16.	CAFETERIA	150	NO.1	
17.	ELECTRICAL ROOM	20	NO.1	6 SQ-MT.
40	VIEWING CALLEDY	440	NO 4	

SR.NO.	SPACE	SITE (IN SQ.M <sup>-</sup>		STANDARD (TIME SAVER)
19.	EXHIBITION HALL	218	NO.1	210 SQ-MT.
20.	BASKET BALL COURT	420	NO.1	400 SQ-MT.
21.	COACH ROOM	28	NO.4	115 SQ-MT.
22	V.I.P WAITING AREA	60	NO.1	
23	A.H.U	24	NO.1	
24.	CIRCULATION	20 %		20 %
	TOTAL	5,341 SQ.	MT.	
C -	OUTDOOR FACILITY			
1.	FOOTBALL FIELD AND ATHLETICS TRACK	7140 +163	364	(45-90m) (90-120m)
	SEATING CAPACITY (9500)	6175		0.65 SQ.M (1 PERSON)
2.	VOLLY BALL COURT	400	NO. 2	200 SQ-MT. (9x18)
3.	LAWN TENNIS COURT	520	NO.2	260 SQ-MT.
4.	SWIMMING POOL AREA	1300	NO. 1	56 SQ-MT.

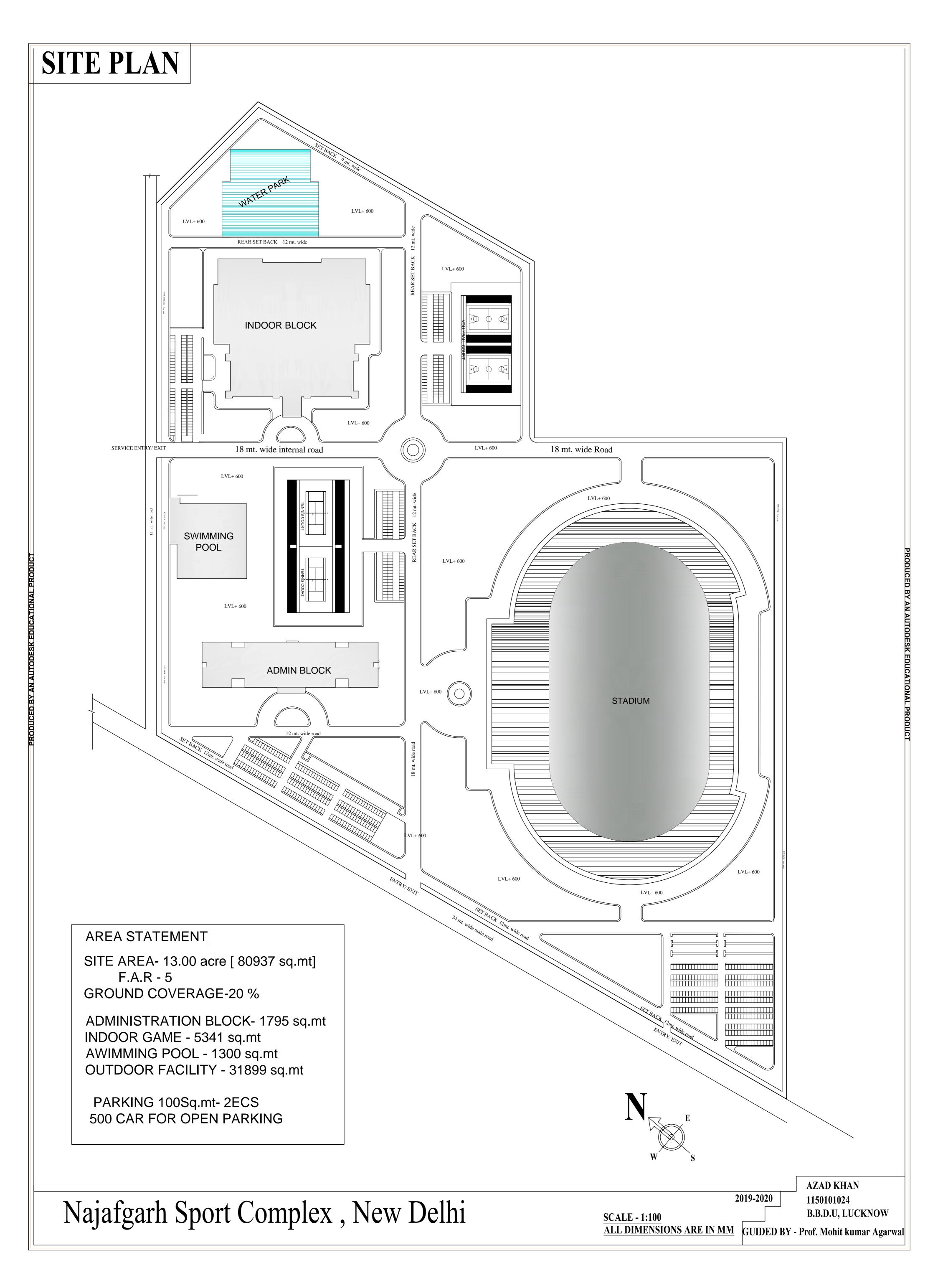
TYPE OF HALL	DIMENSION(M)	USUAB LE SPORT S AREA (m2)	INDOOR GAMES	NO OF TRAININ G COURT / PITCHES	NO OF COMPE TITION COURT S / PITCHE S
GAMES HALL					
SINGLE HALL	22x44x7	968	BADMINTON BASKET BALL VOLLY BALL FOOTBALL	6 3	5 1 1 1
TRIPLE HALL	44x66x8 DIVIDE INTO 3 SECTION (22x44)	2904	BADMINTON BASKET BALL VOLLY BALL FOOTBALL 20x40 30x60	<ul><li>24</li><li>9</li></ul>	15 4 3 3 1
QUADRUPLE HALL	44x88x9 DIVIDE INTO 4 SECTION (22x44)	3872	BADMINTON BASKET BALL VOLLY BALL FOOTBALL 20x40 40x80	32 5 12	25 4 4 4 1



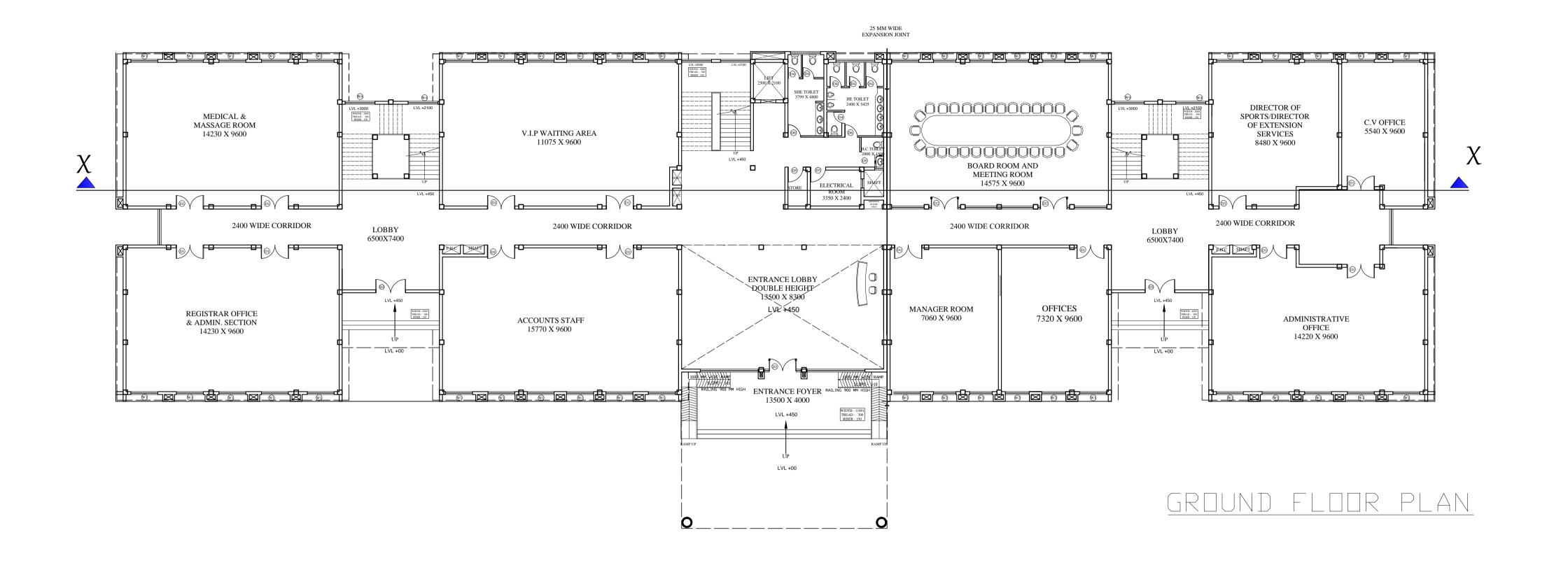
## DRAWINGS

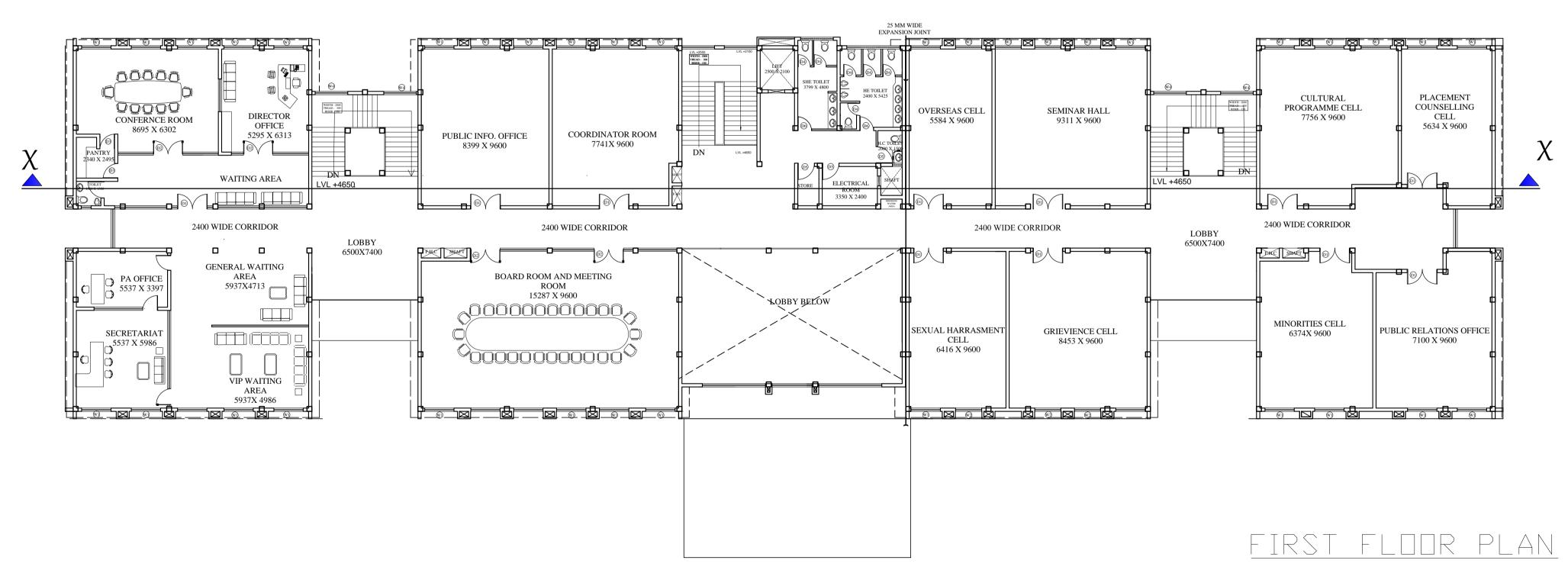
Najafgarh Sport Complex, New Delhi

AZAD KHAN
1150101024
B.B.D.U, LUCKNOW



#### ADMINISTRATION BLOCK





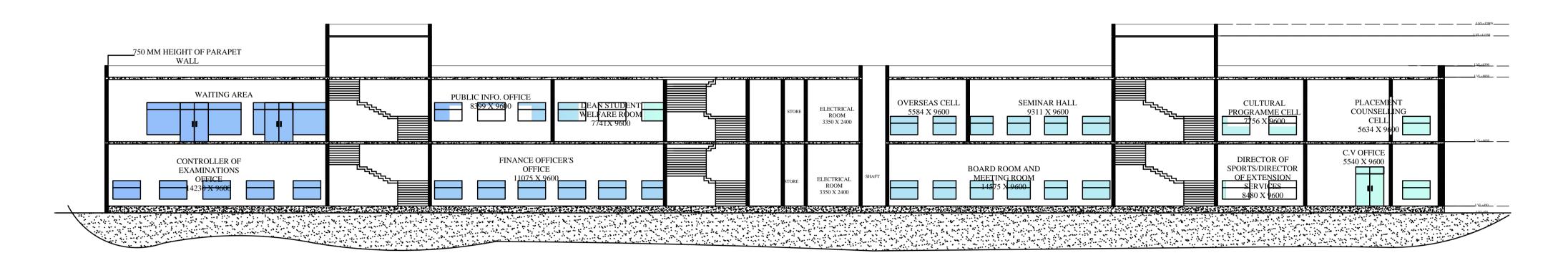
Najafgarh, Sport Complex New Delhi

AZAD KHAN

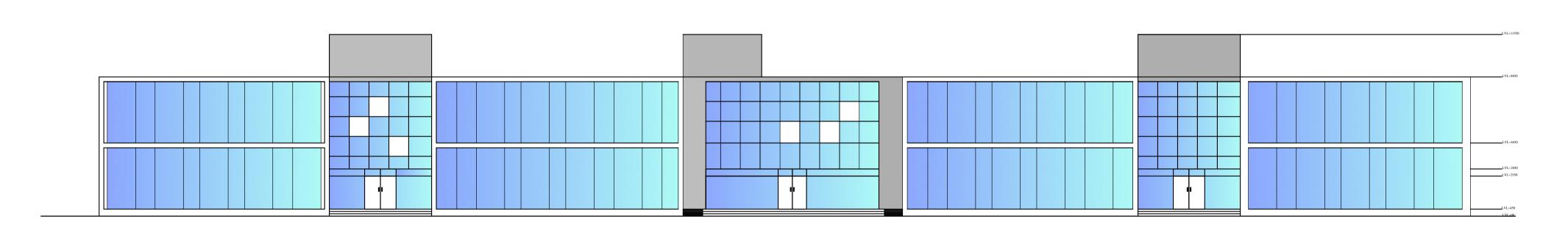
2019-2020 1150101024

SCALE - 1:100
ALL DIMENSIONS ARE IN MM GUIDED BY - Prof. Mohit kumar Agarwal

#### ADMINISTRATION BLOCK



SECTION AT XX,

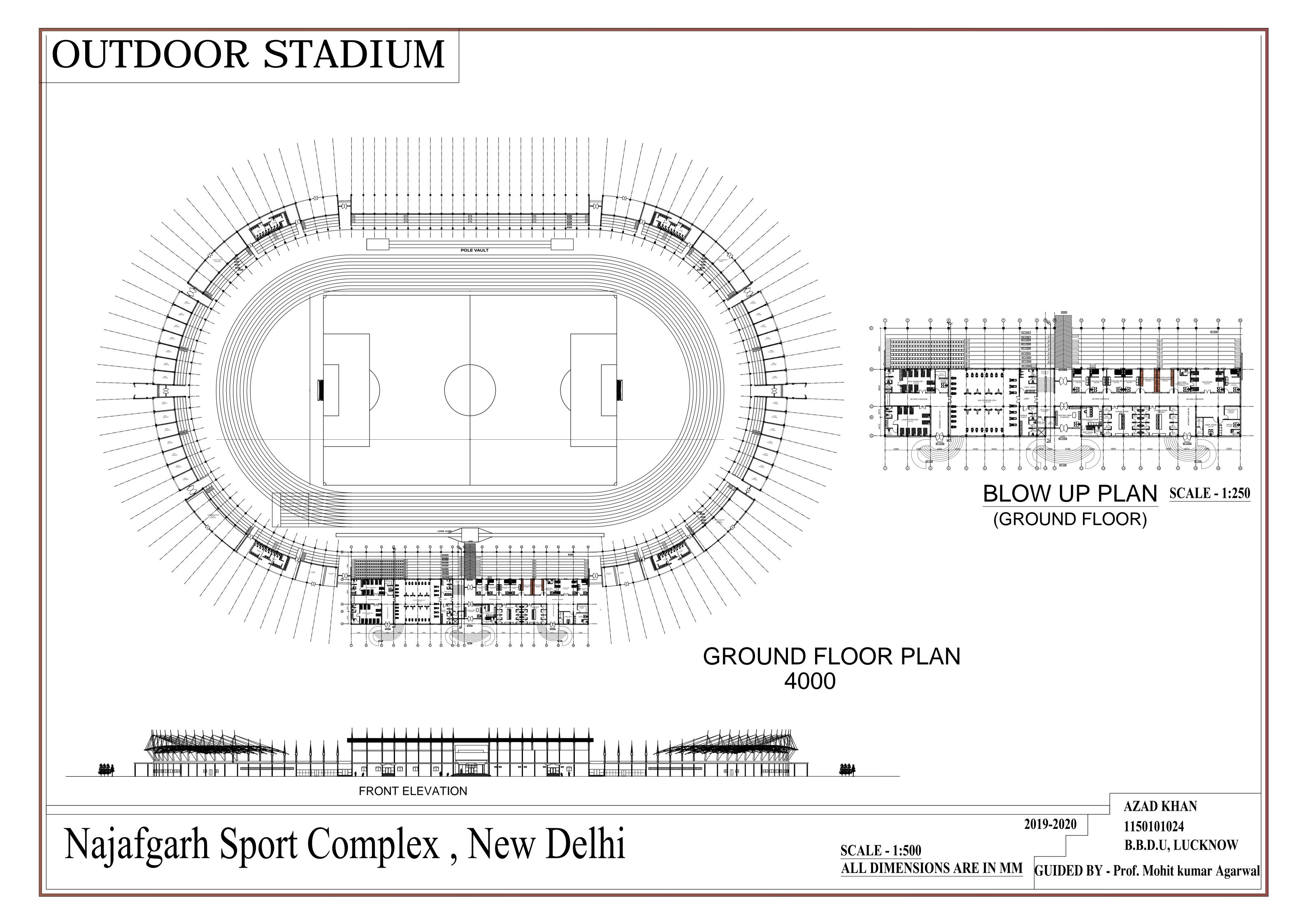


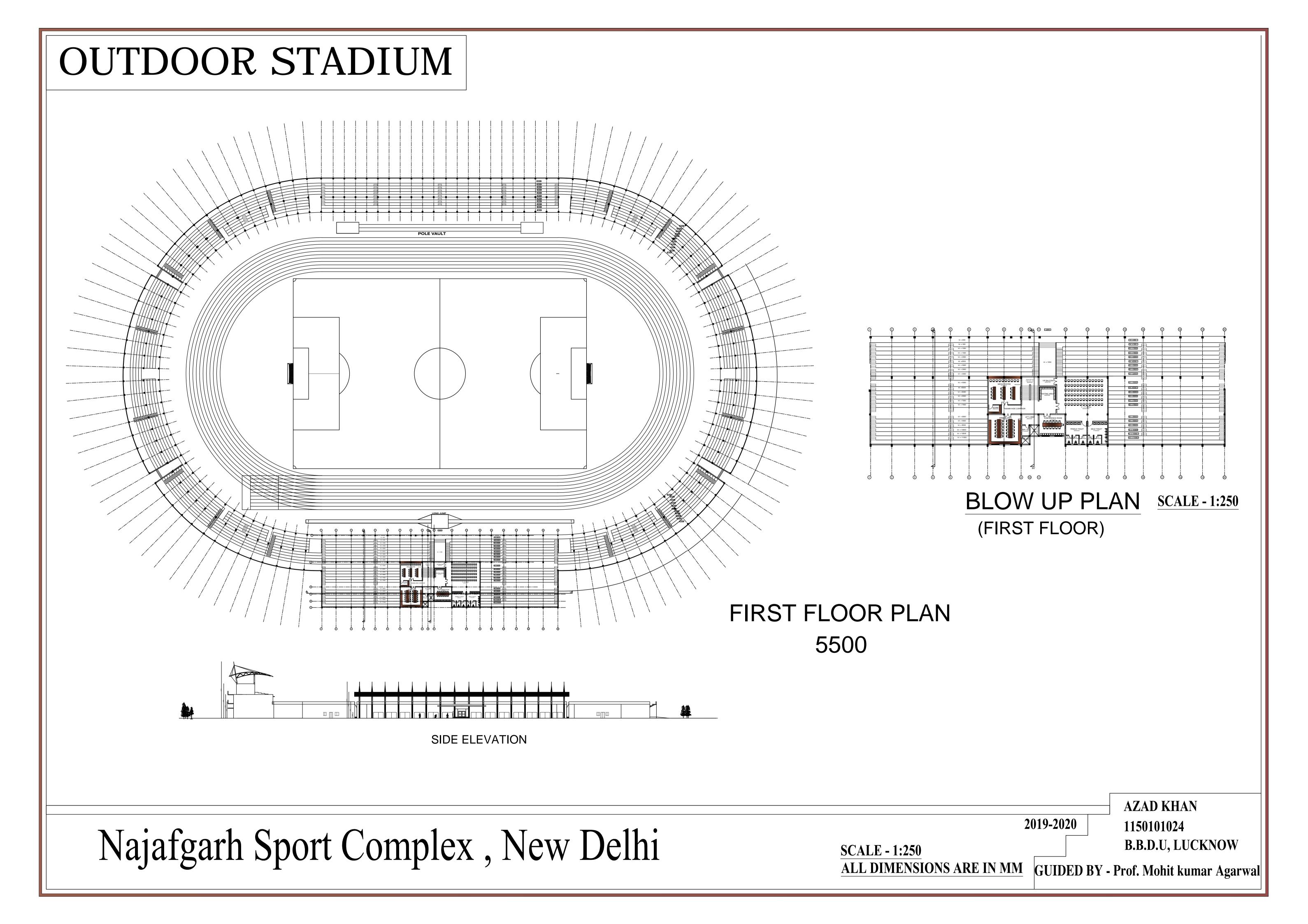
FRONT ELEVATION

AZAD KHAN

2019-2020 1150101024

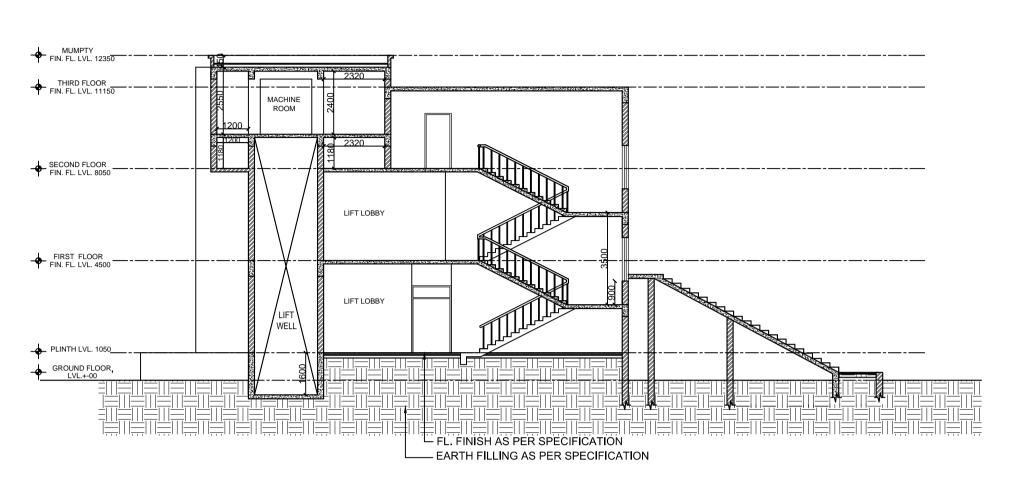
SCALE - 1:100
ALL DIMENSIONS ARE IN MM GUIDED BY - Prof. Mohit kumar Agarwal





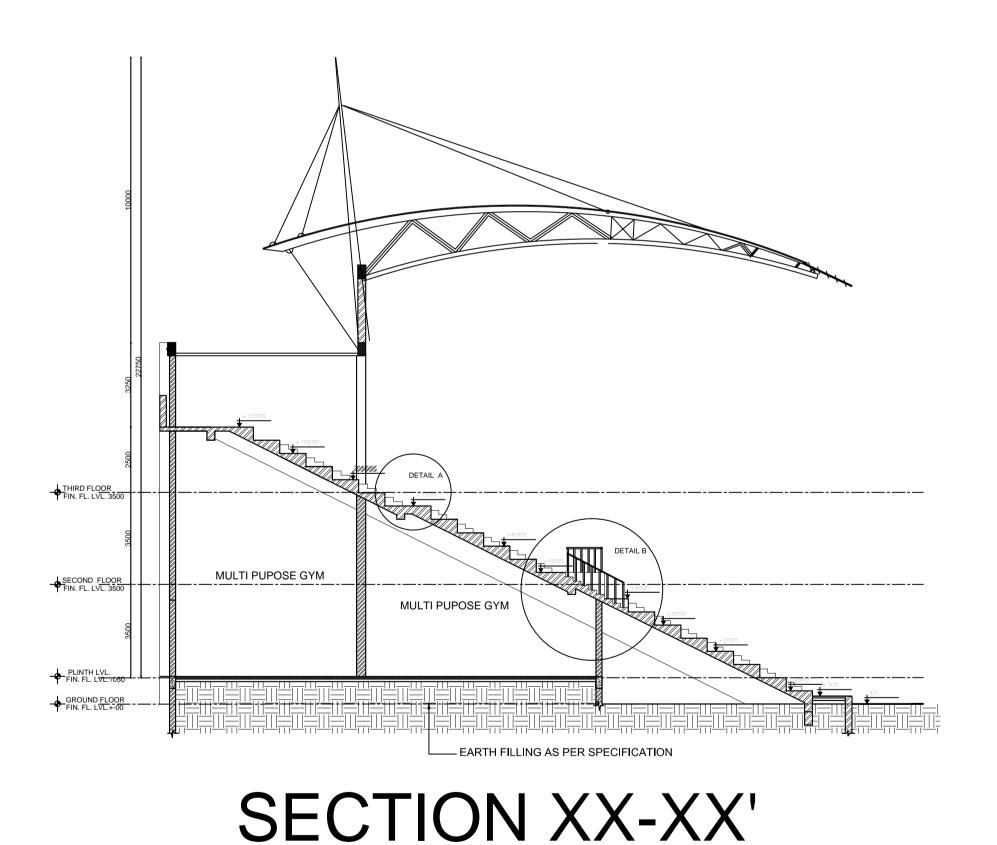
### OUTDOOR STADIUM

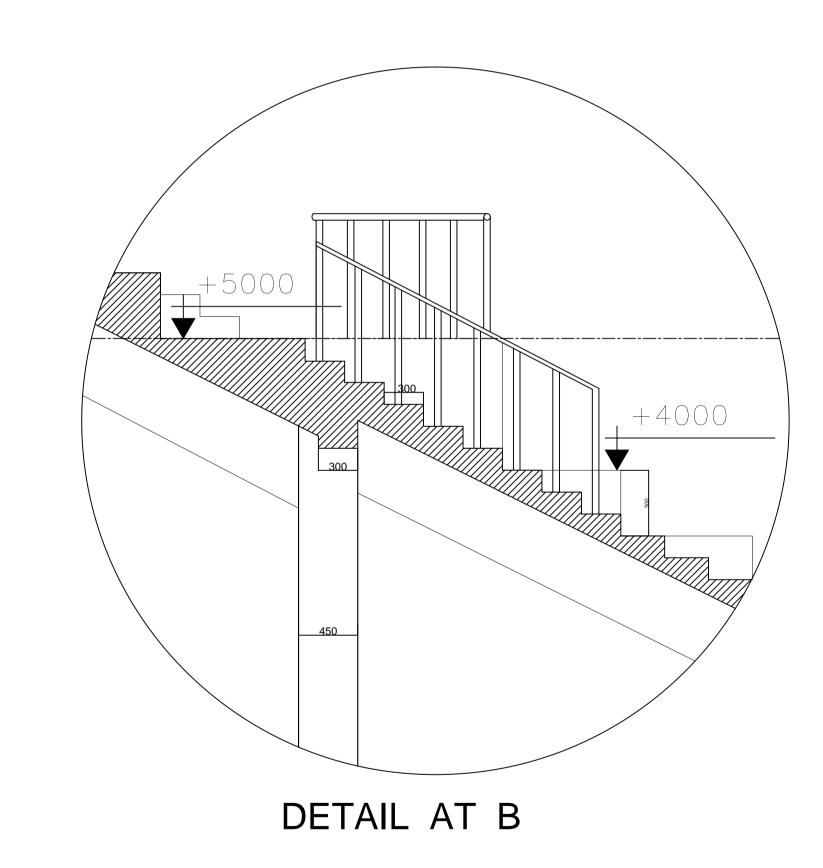
### SECTIONS



DETAIL AT A

SECTION X-X'





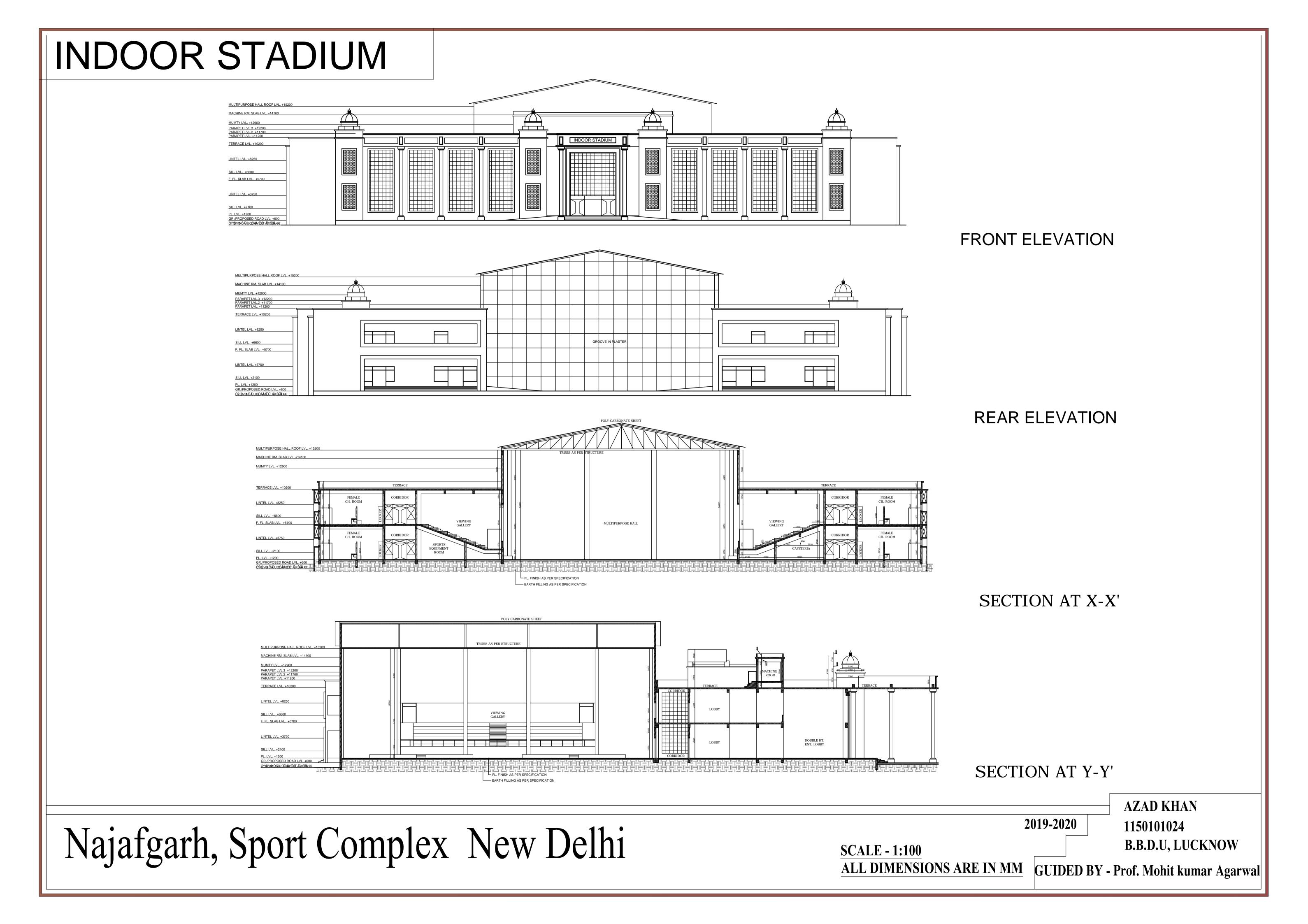
Najafgarh Sport Complex, New Delhi

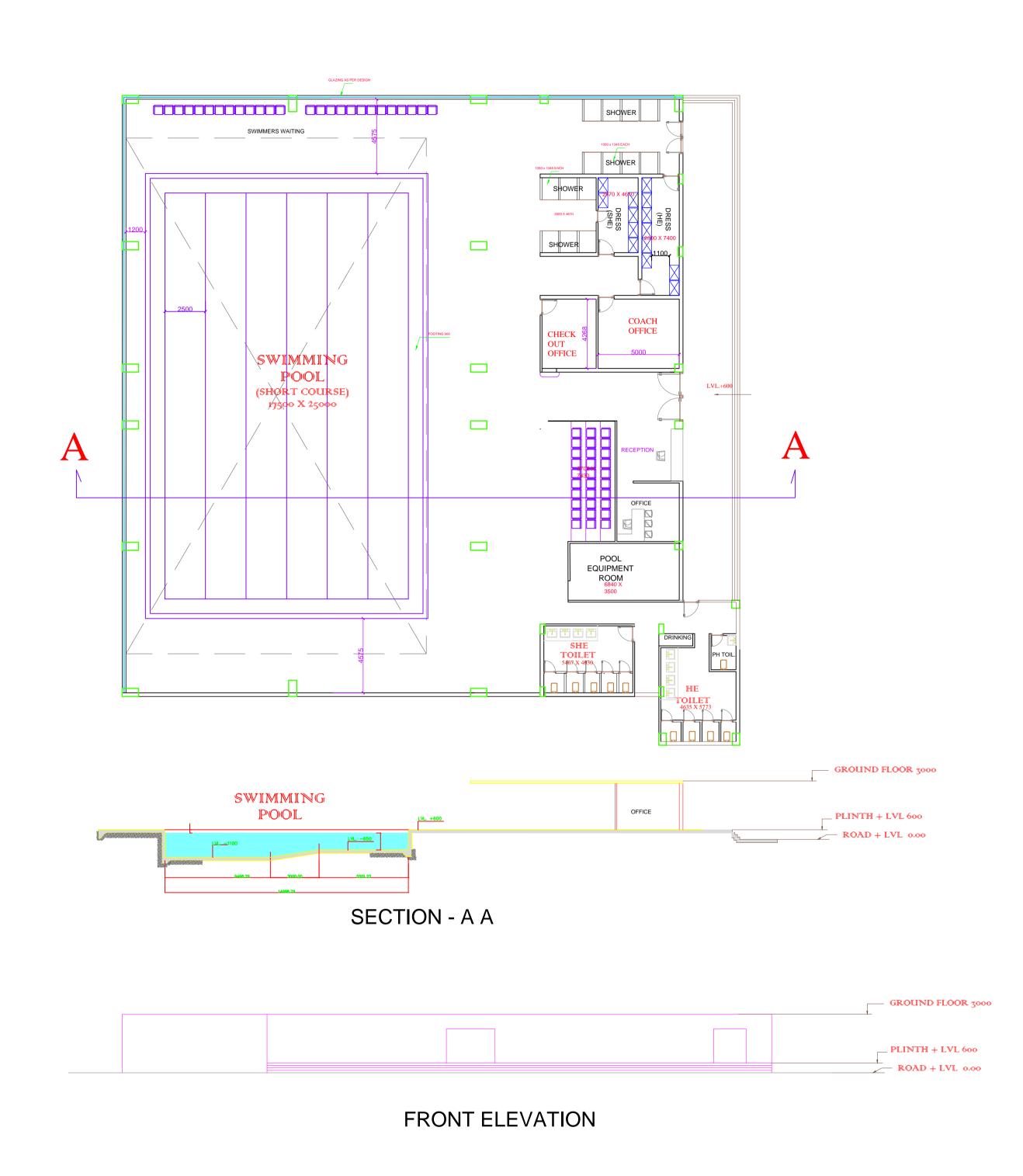
2019-2020 **SCALE - 1:250** ALL DIMENSIONS ARE IN MM GUIDED BY - Prof. Mohit kumar Agarwal

**AZAD KHAN** 1150101024 **B.B.D.U, LUCKNOW** 

#### INDOOR STADIUM 1800 WD VER. RAMP UP 1800 WD VER. ROOM 6000 X 4000 SPORTS TEAM LOBBY SPORTS TEAM 10800 X 7170 10800 X 7170 6000 X 4744 SPORTS TEAM 3930 WD FEMALE TOILET CORRIDOR 8000 X 4880 MULTI PURPOSE HALL FEMALE CH. ROOM 8000 X 11890 CAFETERIA GALLERY CORRIDOR 4500 X 25200 GALLERY 4500 X 25200 SPORTS EQUIPMENT > CORRIDOR 8000 X 11890 4100 WD CORRIDOR V.I.P WAITING FIRST-AID 7770 X 7770 LIFT LIFT 2750 X 3000 3000 L FT LIFT 2750 X 3000 3000 DOUBLE HT. ENTRANCE POWER LIFTING DOUBLE HT GROUND FLOOR PLAN **AZAD KHAN** 2019-2020 1150101024 Najafgarh, Sport Complex New Delhi **B.B.D.U, LUCKNOW SCALE - 1:100** ALL DIMENSIONS ARE IN MM GUIDED BY - Prof. Mohit kumar Agarwal

#### INDOOR STADIUM 1800 WD 1800 WD BALCONY BALCONY 6000 X 4000 SPORTS TEAM STORE STORE ROOM ROOM 10800 X 7170 10800 X 7170 6000 X 4744 6000 X 4744 SPORTS TEAM SPORTS TEAM ROOM ROOM 6000 X 3256 FEMALE TOILET ∏CORRIDOR < MALE TOILET 8000 X 4880 T MULTI PURP OSE HALL 30000 x 40000 FEMALE CH. ROOM GALLERY GALLERY 8000 X 11890 10800 X 25200 CORRIDOR MALE CH. ROOM 8000 X 11890 3930 WD 💳 > CORRIDOR ∏CORRIDOR ∠ 8000 X 11890 SHOWER SHOWER MALE CH. ROOM 8000 X 11890 SQUASH COURT 10800 X 7170 4100 WD CORRIDOR LIFT LIFT 2750 X 3000 3000 WHEEL CHAIR FENCING 12000 X 20000 **GYMNASIUM** FIRST FLOOR PLAN **AZAD KHAN** 2019-2020 1150101024 Najafgarh, Sport Complex New Delhi **B.B.D.U, LUCKNOW SCALE - 1:100** ALL DIMENSIONS ARE IN MM GUIDED BY - Prof. Mohit kumar Agarwal



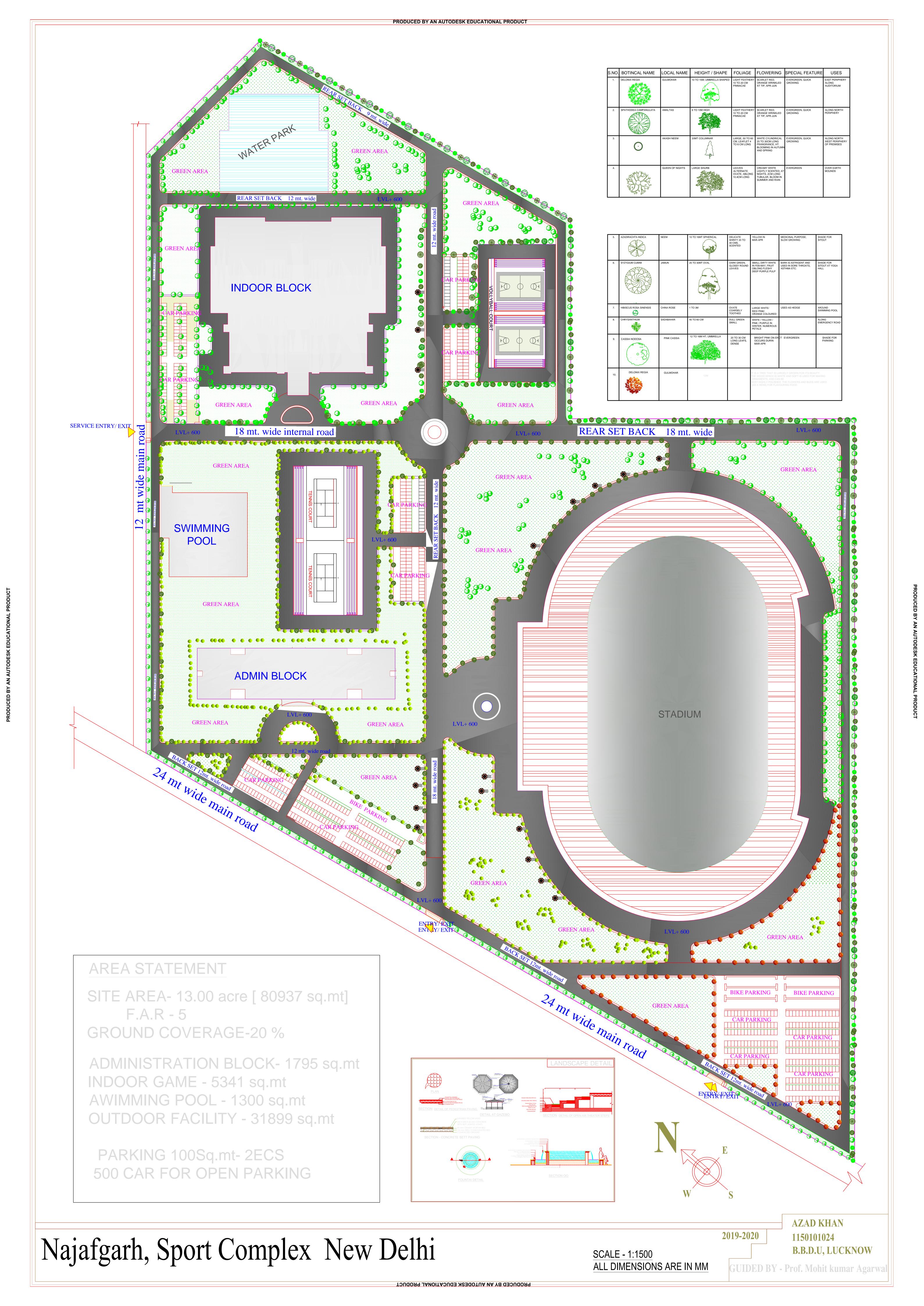


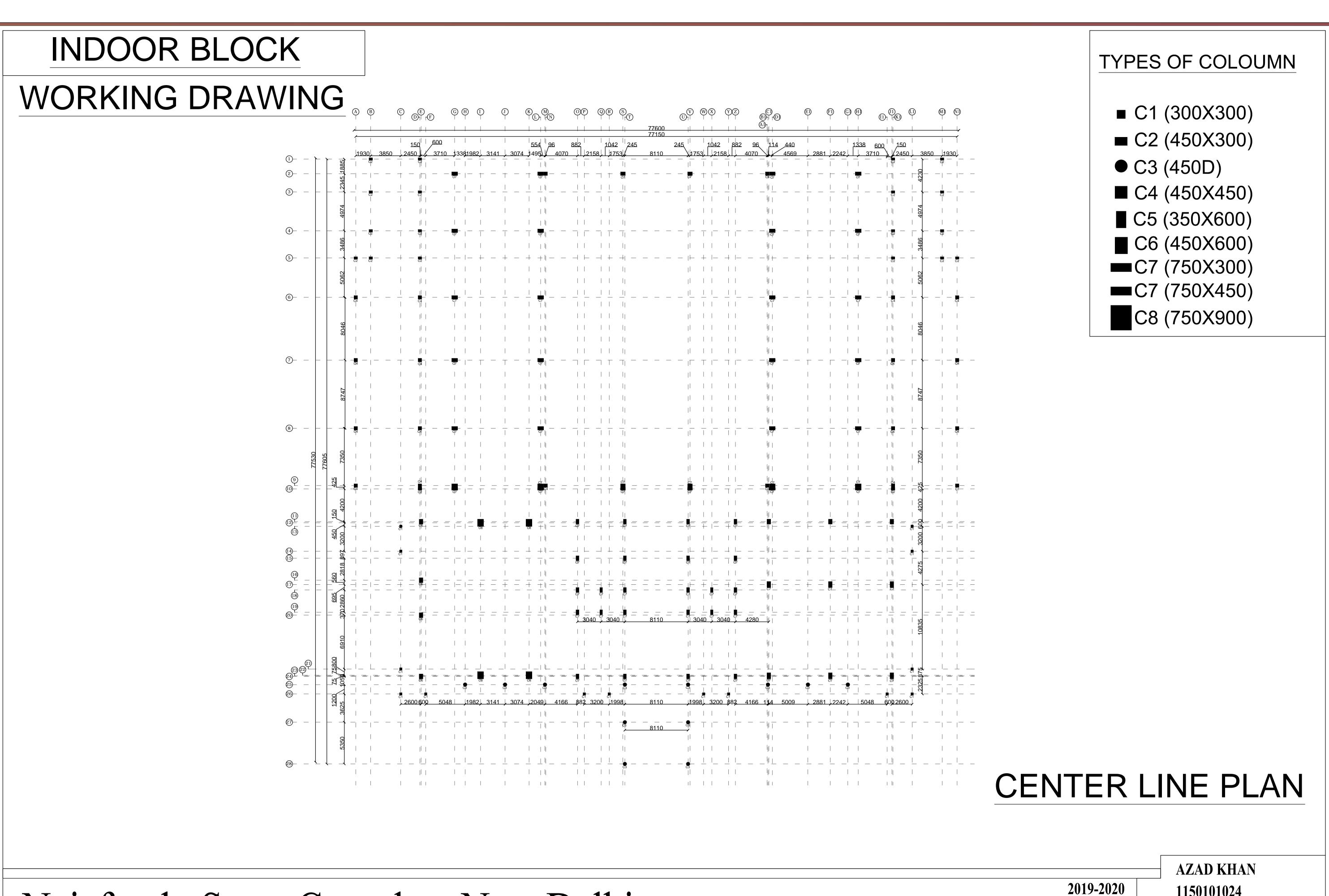
2019-2020 **SCALE - 1:100** ALL DIMENSIONS ARE IN MM GUIDED BY - Prof. Mohit kumar Agarwal

**AZAD KHAN** 1150101024 **B.B.D.U, LUCKNOW** 

# ELECTIVE

- \* LANDSCAPE SITE PLAN
- \* WORKING DRAWING





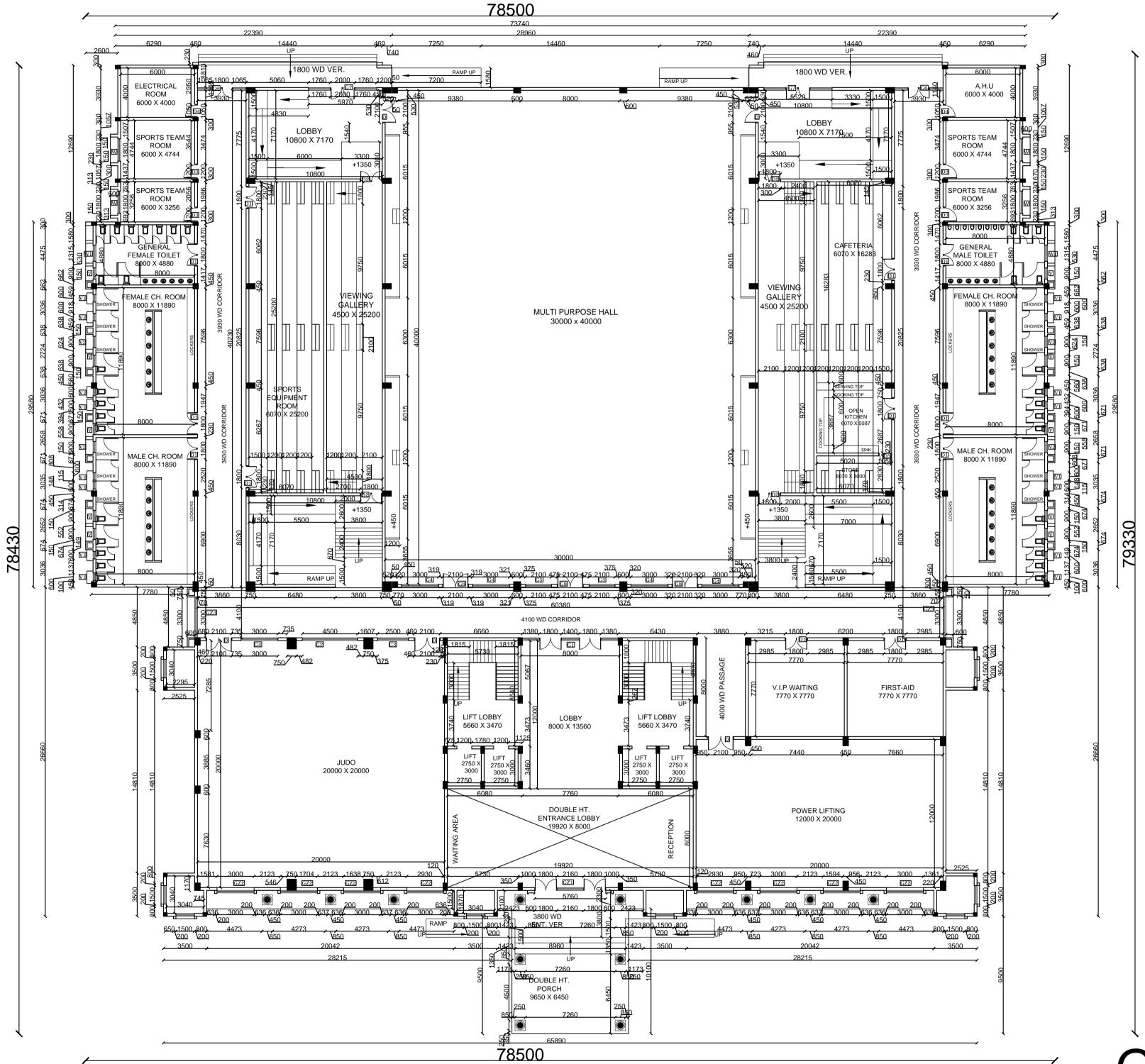
Najafgarh, Sport Complex New Delhi

SCALE - 1:100
ALL DIMENSIONS ARE IN MM

1150101024 B.B.D.U, LUCKNOW

#### INDOOR BLOCK

#### WORKING DRAWING



GROUND FLOOR PLAN

Najafgarh, Sport Complex New Delhi

2019-2020

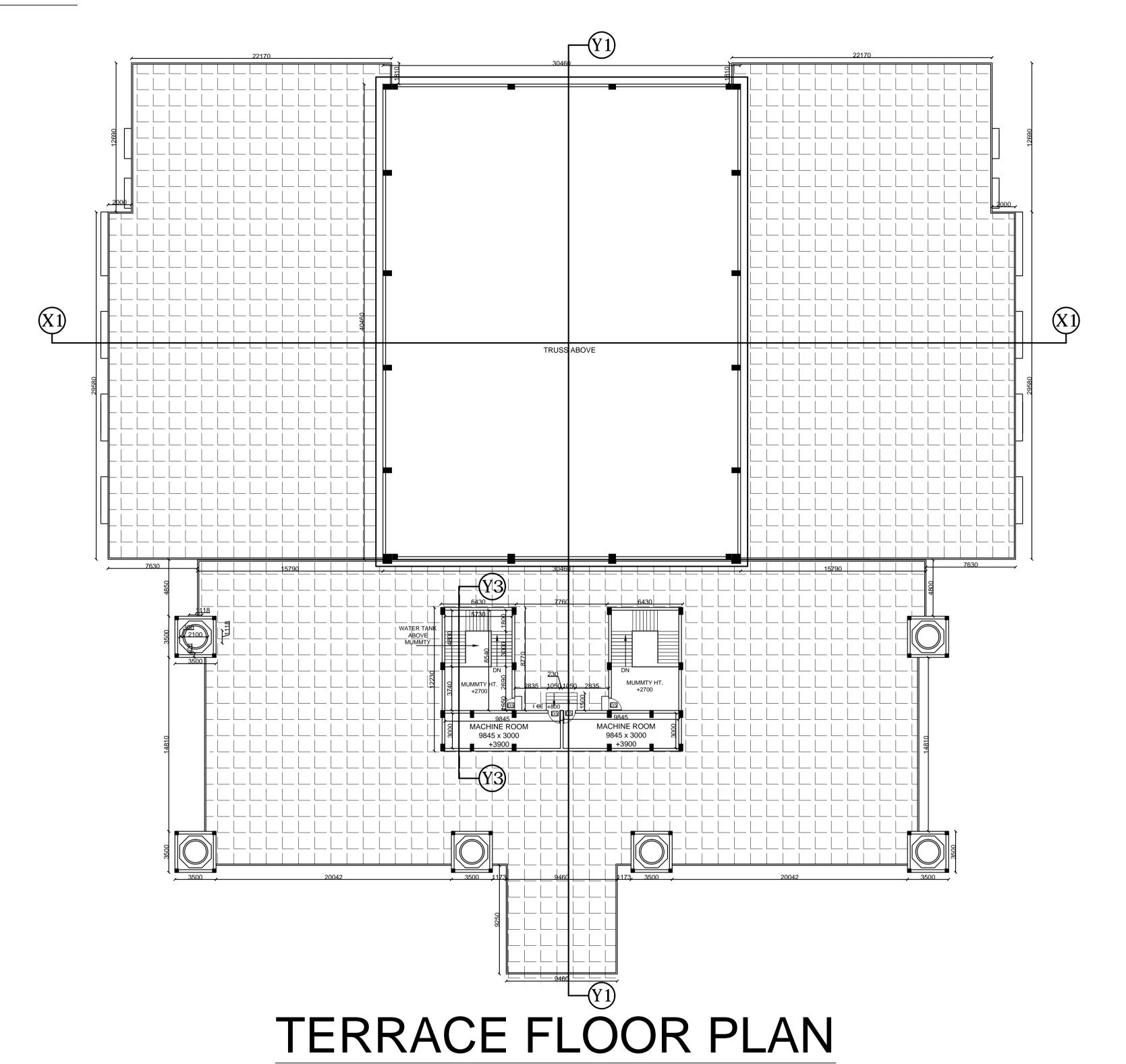
SCALE - 1:100

ALL DIMENSIONS ARE IN MM GUIDEI

AZAD KHAN
1150101024
B.B.D.U, LUCKNOW

ALL DIMENSIONS ARE IN MM GUIDED BY - Prof. Mohit kumar Agarwal

#### INDOOR BLOCK WORKING DRAWING



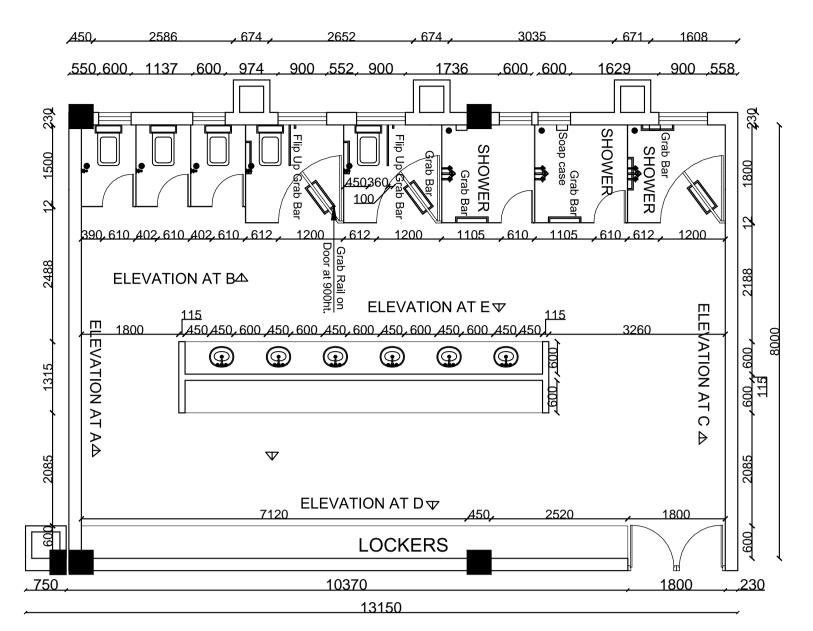
Najafgarh, Sport Complex New Delhi

2019-2020 **SCALE - 1:100** ALL DIMENSIONS ARE IN MM | GUIDED BY - Prof. Mohit kumar Agarwal

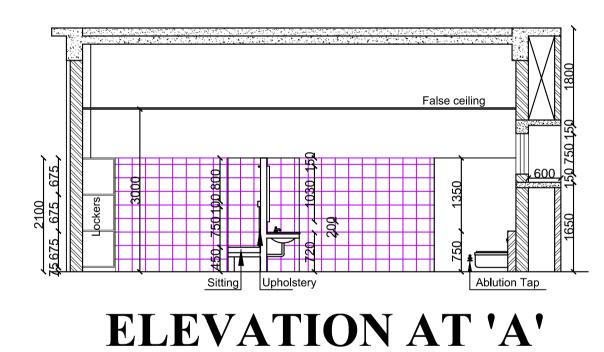
**AZAD KHAN** 1150101024 **B.B.D.U, LUCKNOW** 

#### WORKING DRAWING

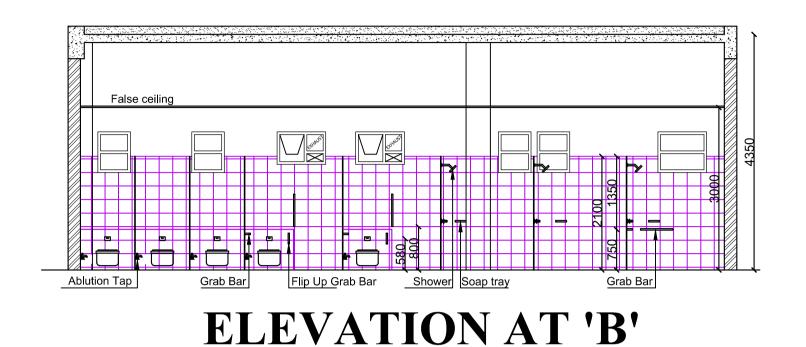
#### TOILET DETAIL

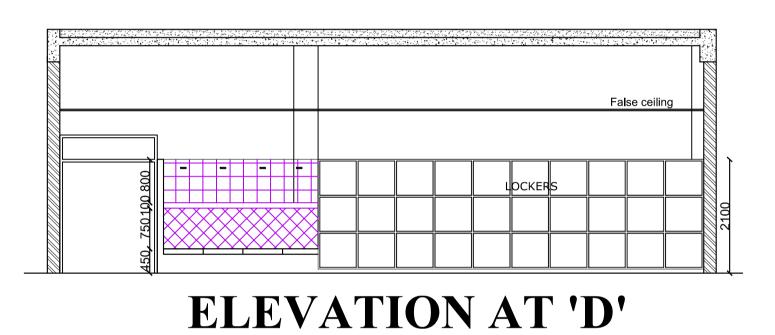


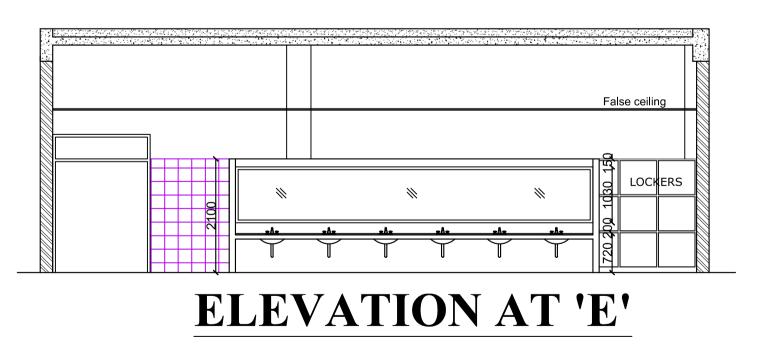
MALE CH. ROOM 8000 X 11890



ELEVATION AT 'C'

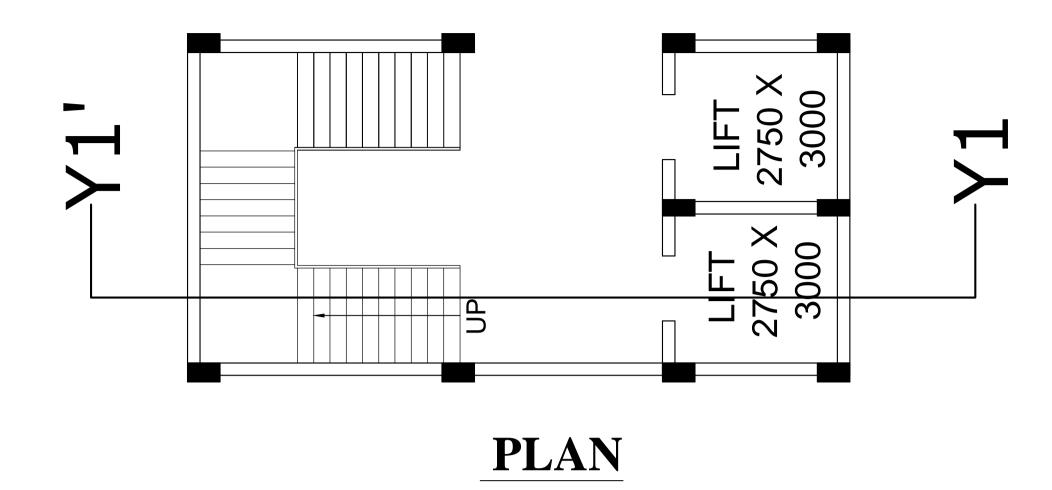


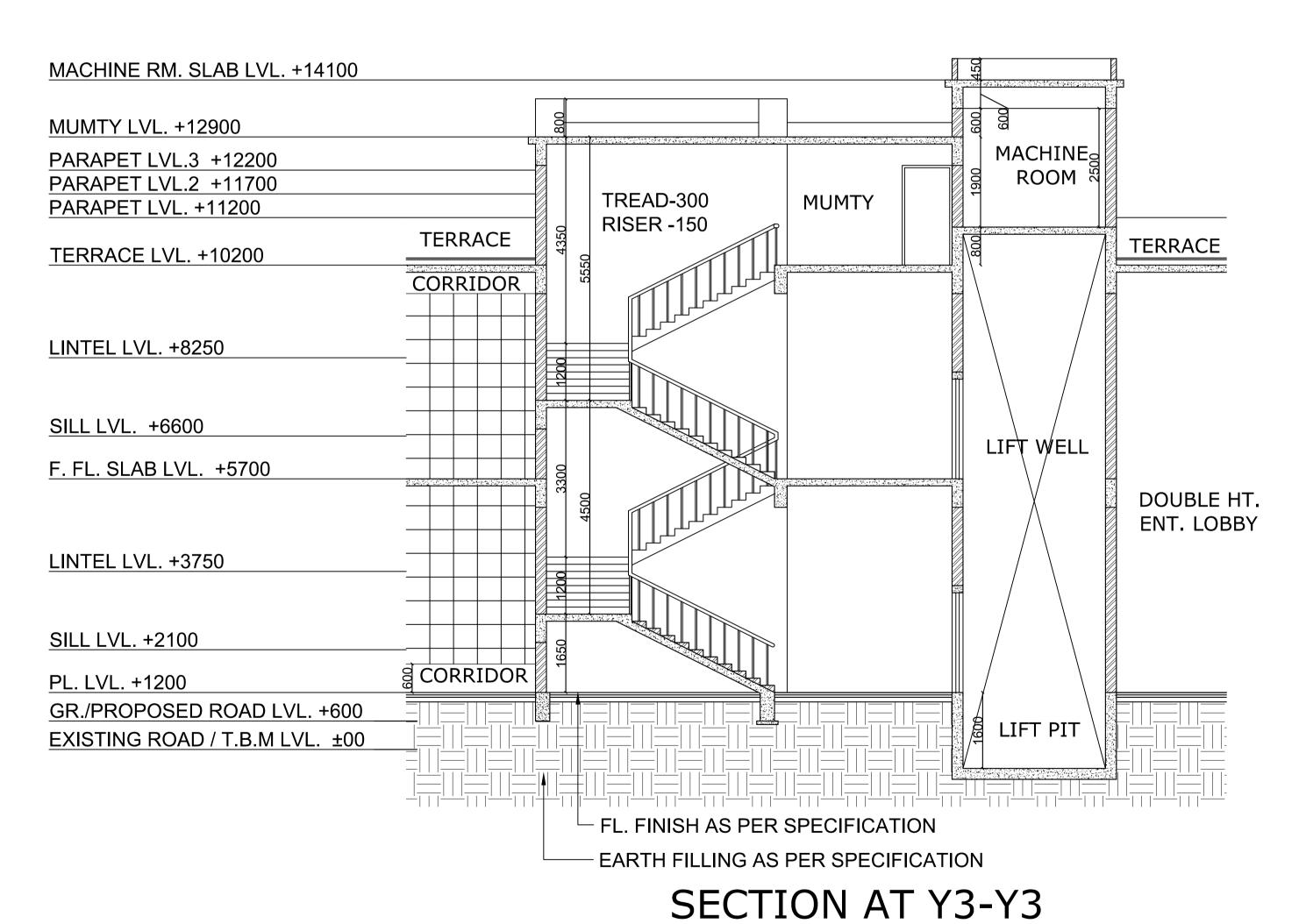




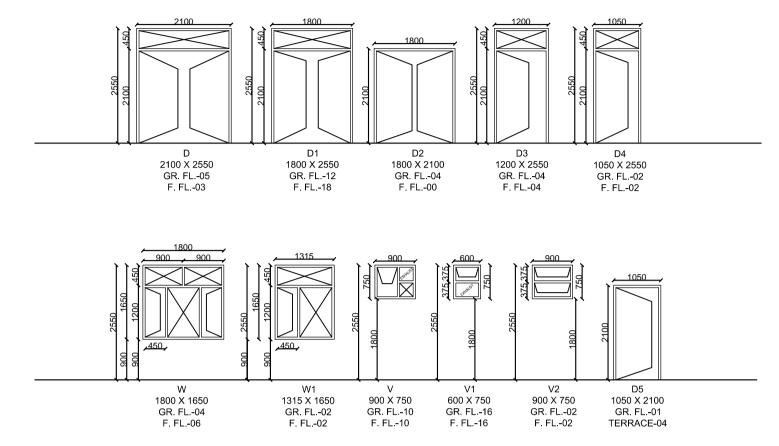
#### WORKING DRAWING

#### STAIR CASE DETAIL

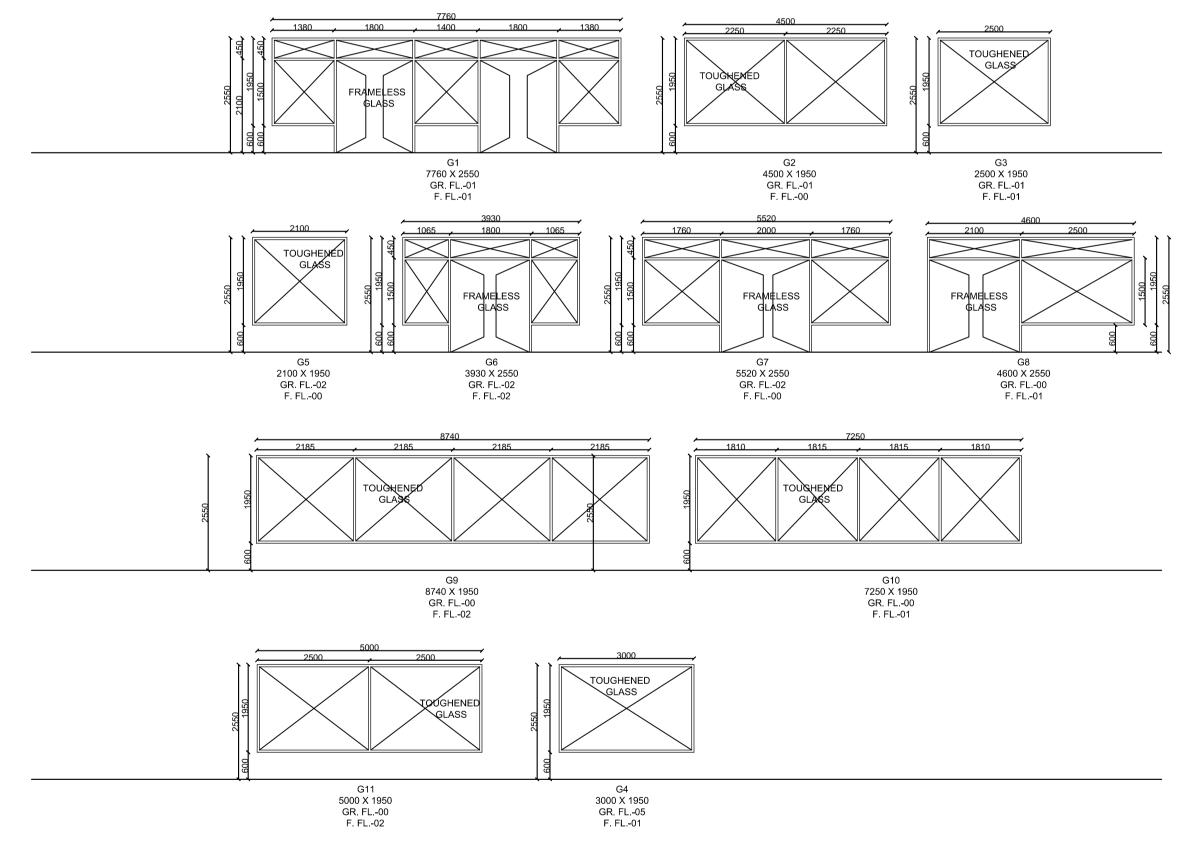




### DOOR-WINDOW SCHEDULE



DOOR SCHEDULE



WINDOW SCHEDULE

Najafgarh, Sport Complex New Delhi

SCALE - 1:100
ALL DIMENSIONS ARE IN MM GUIDEI

AZAD KHAN 1150101024 B.B.D.U, LUCKNOW

# THANK YOU

AZAD KHAN
1150101024
B.B.D.U, LUCKNOW