

**BANGLADESH NATIONAL CADET CORPS ACADEMY COMPLEX AND
TRAINING INSTITUTE
SAVAR, BANGLADESH**

BY

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ARC 512

SEMINAR II

Submitted in partial fulfillment of the requirement for the degree of bachelors in
Architecture

Department of Architecture

BRAC University

March, 2018

Table of Content

Contents	Page No.
Abstract	4
Acknowledgement.....	5
Chapter 1: Introduction	
1.1 General introduction.....	6
1.2 Project brief	6
1.3 Background of the project	6
1.4 Project introduction	7
1.5 Aims of the project	8
1.6 Programs	9
Chapter 2 : Literature review	
2.1. Historical background	11
2.2. Preliminary observations of Site.....	13
Chapter 3 : Site and Context	
3.1. Background of site	14

3.1.1 : History of savar	16
3.2. Location of Site.....	16
3.2.1 : Site and Surrounding photos	17
3.2.2 : SWOT Analysis	19
 Chapter 4 : Program Analysis	 24
 Chapter 5: Case Study	
5.1. Bangladesh Military Academy, Bangladesh, Chittagong	33
5.2. Euralille Youth Club, France	34
 Chapter 6 : Design Development	
6.1. Concept	41
6.2. Design Development	43
6.3. Floor Plans	48
6.4. Photos of Model	54
Conclusion	55

Abstract :

The young people of today are the future leaders of tomorrow, therefore to hone their skills and prepare them for the struggles of tomorrow, physically and intellectually, is of utmost importance. Currently our youth constitutes 19.36% of the total population in Bangladesh. For these young minds to release their full potential, ample amount of mental and physical training is beneficial. Space constraint is a crucial issue in our society today, and without the proper access to open spaces, children have a higher chances of being physically unfit, eventually leading to an unhealthy lifestyle. Therefore this paper will look into the details for establishing an academy where the young people can perform their best, train themselves to be worthy citizens and able leaders. The purpose of this paper is also to emphasize the need for extracurricular activities, the need for physical fitness and to lay emphasis on the importance of unity and discipline through which they can attain fundamental knowledge and refine their abilities.

Keywords: youth, training, extracurricular activities, fitness

Acknowledgement

To begin, I would like to mention that this would not have been possible without the blessings of Almighty Allah. In addition to that, my supervisors Dr. Huraera Jabeen and Dr. Mohammed Habib Reza, have been helpful over and beyond their capacities to help with the completion of this project. Their utmost support and sincere dedication has helped me with certain difficulties that I faced during the design developmental phases of this project, therefore I would like to thank them also. This journey has taught me to gain different perspectives on things and also taught me a lot of design skills.

I would like to thank my resource person for this project, Brigadier General S M Ferdous, who have always assisted me with the required materials needed for the understanding of the cadet corps academy. I would also like to thank other assisting officials in BNCC, Major Nawshad and Major Shafiq, who helped me in acquiring information that were of utmost importance for the project.

I would like to offer my sincere gratitude towards my parents, who have supported me throughout the whole journey. In addition, I would also like to thank my seniors from the department, who have guided me whenever I needed and also my juniors whose support when needed, were met with kindness and incomparable sacrifice of their time.

Chapter 1

1.1. General introduction:

Every individual in their youth develops their personality, it is essentially the most formative years in one's life. Developing the right patriotic mindset and instilling moral values is in greater need than ever in the increasingly developing and globalized world today. Every individual needs to be able to adjust to the evolving nature of society, its demands and simultaneously be morally strong.

1.2. Project brief :

- Name : BNCC Academy and Training Institute
- Location : Baipail, Savar
- Site area : 8 acre
- Client : Bangladesh National Cadet Core

1.3. Background of the project:

Cadet Corps is a youth development movement where relatively young individuals are enlisted for paramilitary training .The history of 'cadet corps' or 'corps of cadets' started from the 1800, mainly considered a military school where only exclusive sons from noble families or high social class were accepted to be trained and enlisted as gentlemen volunteers in time of war. The very first institution was established in France by King Louis XIII, eventually then picked up by Germany and America respectively. Evolving slowly over time, many other countries established their body of voluntary cadets to be trained

in similar manner, eventually also introduced the inclusion of female cadets. A cadet is usually considered a trainee, between the ages of 13 to 25, training to either be a military officer or receive training as an extra curriculum activity, so they are able to take part as an auxiliary member when the country or its state requires assistance, or for the service of their community. Although age limits for cadets vary worldwide, the core idea of the institutions are principally the same, i.e. to instill the epitome of moral values and physically train individuals in order to make them capable of handling dire circumstances in case the necessity of their respective nation arises. Cadet corps consist of a headquarter in a central district, and are composed of branches all over the country where volunteers enlist themselves and continue their membership through active participation.

1.4. Project introduction:

The Bangladesh National Cadet Core has been active under Dhaka University since its establishment in 1921. The first batch to receive training were a group of 100 students and 16 teachers in 1927. Initially the organization was active under the name University Officers Training Corps (UOTC), members of which took part in the liberation war in 1971. Ultimately the organization changed its name to Bangladesh National Cadet Core (BNCC) and is still active under the name. The motto of BNCC is – “to create good citizens who can serve their motherland at peace and at war”. Any public or private educational institute can choose to enlist under BNCC, allowing any of their students to choose cadetship if they want to. Cadets are chosen once yearly under two categories, senior and junior, senior cadets are those who have recently passed SSC and the junior cadetship offered to students from class 9 and 10. Whichever institute signs up for volunteering under

BNCC has to pay a sum total of 40 tk per cadet per year. Cadetship remains valid for a maximum of 3 years. Recently 600 educational institutions are already registered under BNCC. BNCC consists of 25 battalions, with recently having received approval of 15 more battalions and 10 more battalions are in procession for permission to be added by the Prime Minister. Each battalion contains 525 cadets. Cadets who are shortlisted from BNCC for direct entry into armed forces receive special priority over their non-cadet competitors while recruitment into Inter Service Selection Board (ISSB). In addition, every year youth exchange programs take place to India, Nepal, Maldives and Srilanka. The current total cadet stands at 25000, with looking forward to addition of more in the near future. Cadets who join the force do so under no obligation, rather merely by their own choice.

1.5. Aims of the project :

A National Cadet Core in every nation exists to educate young adults and push their limits so they can achieve the best of their capabilities. The aim of a cadet core is to let young minds explore the best of their abilities without the mandatory demands of serving the defense forces. The aim of this institution is to create a multi-functional training complex where cadets can have a comfortable stay as well as take their training. In addition to that, the complex aims to provide sufficient sports facilities so that the students can utilize their time and resources in a positive manner. The urban fabric of our cities are slowly becoming more and more congested with little or no room for recreational space, therefore the academy looks forward to welcoming individuals who would be willing to take advantage of the extracurricular activities which will be provided i.e. tennis, football, volleyball, swimming etc.

1.6. Programs:

1. Office block :

- Commandant's office
- Deputy Commandant's office
- Office of three wings
- Adjutant's office
- Officer instructor's office
- Training support battalion office (2 officer + 4 staff)
- Clerical staff office (4 rooms)
- Conference room (60 person)
- Dining space and cook house
- Toilet + Bathroom

2. Accommodation (Cadets and Staff):

- Accommodation for 1000 cadets (700 male+ 300 female)
- Accommodation for office staff (400 person)
- Dining hall + Kitchen (350 male, 150 female)
- Common room

3. Accommodation (officers):

- 20 arms forces officers
- 4 VIP guest rooms

- TV room
- Common toilet

4. Academic Block :

- Class room (100 cadet)
- Lecture hall (60 person)
- Training shed

5. Parade ground

6. Sports facilities:

Swimming pool

Football

Basketball/ Tennis ground

Cafeteria

7. Utilities:

Magazine store

Guard room

Workshop

Medical emergency room

Prayer room

Utility service room, laundry

Chapter 2: Literature review

2.1. Historical background

Since the beginning of mankind, wars have always been a surviving tool against other tribes, or to conquer and rule over as well as to expand colonies. Stronger forces have always outnumbered weaker ones and thus the evolution of mankind from their ancestors to present day. With rising globalization and improved diplomatic dexterity over the years, one thing has always remained constant and that is the complexity and strengthening of a nation's military forces. Politically important nations now have the most technologically advanced weaponry in addition to highly trained personnel who are selected through extensive recruitment criteria.

The origin of the term 'Cadet Corps' started in the 1800s amongst the French who initially only enlisted sons from royal families to volunteer for the military in times of war. The first cadet corps was the 'Cadets de Gascogne', established by King Louis XIII of France, for the enlistment of young sons of the Gascon gentry, whereby the word "capdets" in French meant "little chiefs". The members of cadet corps were considered to have the highest echelon of masculinity and grandeur, as valiant fighters would prove their worth and patriotism to their motherland as well as their bravery. Since its inception, Cadet Corps have always taught its cadets the epitome of etiquettes, taught them to be stronger physically and psychologically, imparted knowledge on the importance of discipline and unity, trained them to use weaponry as well as provide them extra-curricular activities so they can bring out the best of themselves.

Cadet corps soon flourished through Europe and spread around the world. Aside from the establishment of permanent military academies, cadet corps started to train young healthy adults who wanted to volunteer for not only military warfare but also rising social needs for volunteers in times of climatic or socio-economic disasters. With the evolution of time, every individual needs to acquire acute socio-developmental skills to be able to compete with the modern world.

In Britain for example, an up rise in the need for reserve officers in the military was evident, practically because of the shortage of officers during the earliest years of twentieth century during the war in South Africa from the year 1899 to 1902 (Worthington, 1979). Reserve officers have always been an addition to the safety of its respective nation. Therefore with the rise in need for more voluntarily skilled young adults, cadet corps or in other words, reserve officers training became more and more popular. With the evolution of time, military warfare might have reduced but the need for future security have increased, thus more skilled youth is in need to be ready so as to assist their nation should there be a demand for such circumstances.

The reserve officers training institute in America alone has existed for nearly ninety years, having been formed under the 1916 National Defense Act (Long, 2003).

In the article 'THE OFFICERING AND ARMING OF VOLUNTEERS' written by Captain James Parker mentions of that any time their nation requires immediate help, it will not be possible to train soldiers within situations that are unexpected. To be prepared beforehand would be the smarter alternative. Parker also states that these volunteers should be enlisted as per their own willingness and that their training should be fully provided for by the government in return for exclusion from permanent service to the

nation. To further encourage their morale, ranks should be awarded depending on the dexterity of their performance. The purpose of these volunteering institution is to therefore boost the self-esteem simultaneously harnessing their physical abilities.

2.2: Preliminary observations of Site

The site chosen for the establishment of its academy by Bangladesh National Cadet Corps is located northwest of Dhaka, in savar upazila. The political importance of Savar has been present since the ruling of Harish Chandra, during which time savar was known as Sharbeshvar or Shombhar, situated on the banks of the river known today as the Banshee . Located near Baipail, the site surroundings have since evolved from its initial condition. Activities that generally take place in the site consist of a variety of camping activities at present time without the formal establishment of an academy which the organization plans on having soon. With the advancement in Garments sector and the establishment of Export Processing Zone (EPZ) northwards of the site, and the adjacent Dhaka- Chandra Highway, accessibility to and from the site is increasingly advantageous, however the rise in industrially potent structures and their serving forces have resulted in areas surrounding the site to be more active as of now.

Chapter 3 : Site and Context

3.1. Background of site

Dhaka, capital city of Bangladesh is located at the center of Bangladesh. According to the Bangladesh bureau of statistics, the current population of Dhaka stands at 18.23 million. Home to rising population everyday, Dhaka is emerging into one of the most populous megacities in the world, with a density of 23,234 people per square kilometer within a total area of 300 square kilometers.

Savar upazila is located roughly 24 km northwest of Dhaka, a total area of 280.12 sq km, located in between 23°44' and 24°02' north latitudes and in between 90°11' and 90°22' east longitudes. It is bounded by kaliakair and gazipur sadar upazilas on the north, keraniganj upazila on the south, mohammadpur, adabar, darus salam, shah ali, pallabi and turag thanas on the east, dhamrai and singair upazilas on the west. The total population of Savar is 587041, male 318176, female 268865; Muslim 536420, Hindu 45680, Buddhist 4378, Christian 421 and others 142.

(Source :Banglapedia,2015)



Dhaka city

(Image source: Wikipedia)



Savar Upazila Detailed Map

(Image source: Banglapedia)



Location of site in Dhaka

(Source : author)

Municipality

Area (sq km)	Ward	Mahalla	Population	Density (per sq km)	Literacy rate (%)
37.56	9	55	127540	3396	67.03

(Source : Banglapedia, 2015)

Upazila

Municipality	Union	Mouza	Village	Population		Density (per sq km)	Literacy rate (%)	
				Urban	Rural		Urban	rural
1	12	207	373	127540	459501	2096	67.3	59.95

(Source : Banglapedia)

3.1.1 : History of savar

Historically, the origin of savar can be traced back to the hindu ruler Raja Harish Chandra who was believed to have ruled over savar, previously known as Sharbeshvar or Shombhar. It was once the capital of the Sanbagh kingdom. Traders travelled to savar during that period for business purposes, as estimated from the excavations of artefacts found from the 7th-8th century savar. As early as 869 AD, savar was an important city for political ruling, but with the evolution of time, it once revived as a commercially important city if not for political purposes. During the liberation war, savar was one of the first places to be attacked by the Pakistani army, and also one of the last obstacle before declaration of our independence. Having been located closer to the dhaleshwari and bangshi river, transportations have always been comfortable to and from savar, thus its rich history. (Banglapedia, 2015)

3.2. Location of Site

Adjacent to the Dhaka-Chandra Highway, the site is surrounded by mostly residential areas. Major institutions in close proximity include the Export Processing Zone (EPZ), The National Martyrs Monument, Atomic Energy Research Establishment.



(Source : Google Earth)

The site has a total area of 8. 3 acre

3.2.1 : Site and Surrounding photos





3.2.2 : SWOT Analysis

Strenght :

- Only 24 km Northwest of Dhaka
- Major connecting roads connecting site
- Nabinagar-Chandra highway is adjacent to site, allowing for maximum advantage in terms of commute
- Site is approachable by both Dhaka-Aricha and Dhaka-Ashulia highway
- Future extension towards the north of the site is foreseeable
- The location of the site is in the central heart of Bangladesh, making it hugely accessible to cadets who come to join BNCC from all over Bangladesh.
- The establishment could mean development of surrounding areas, working as an catalyst for development
- Bus stops are at closer intervals around the site, therefore commendable accessibility

Weakness :

- Lacks security due to low population on the north eastern side
- The road to the site is not complete yet
- Future increase in residential units could hamper the expansion plans
- The site requires multi-functional activities therefore great importance is to be given in order to accommodate the variety of activities.
- Huge sound pollution due to close proximity to highway

- Dust and traffic are inevitable to and from the site

Oppurtunities:

- Enough space for both recreational and educational facilities
- Future expansion towards north
- Could encourage more students to join the corps since ample amount of educational institute surround the site
- A proper institution means more room for acute learning
- The greater the chances of improvement to the site, the greater the return from the site
- The complex could be a hallmark in the area next to EPZ
- Close to all sorts of

Threats :

- Lack of security could mean serious threat to arms storage
- Increasing risk of safety for a huge number of cadets at once
- Site has been recently filled due to its topographically lower ground height, therefore requires extra caution for any form of immediate construction

LAND USE MAP AROUND SITE

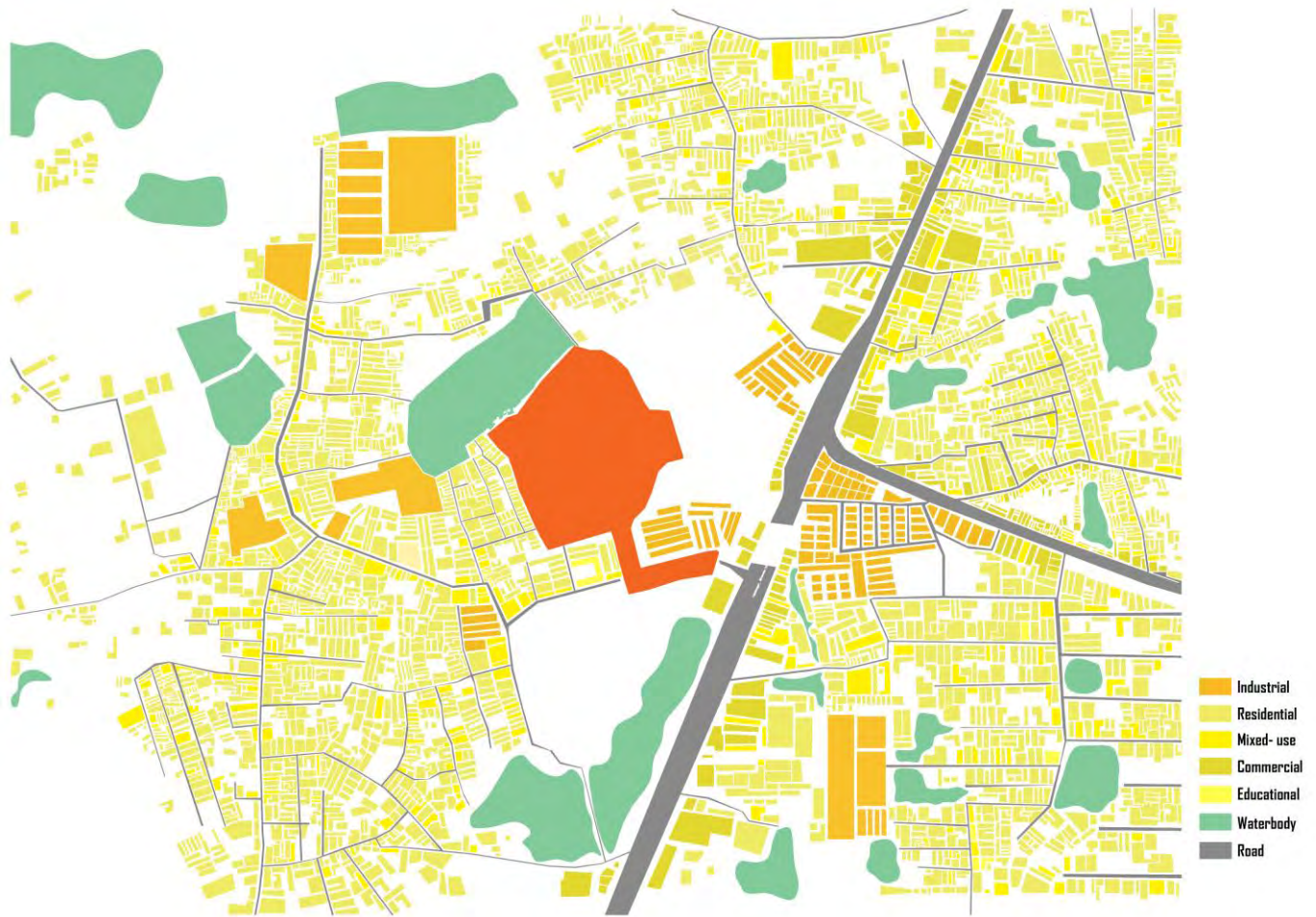


Image showing land use of areas around the site

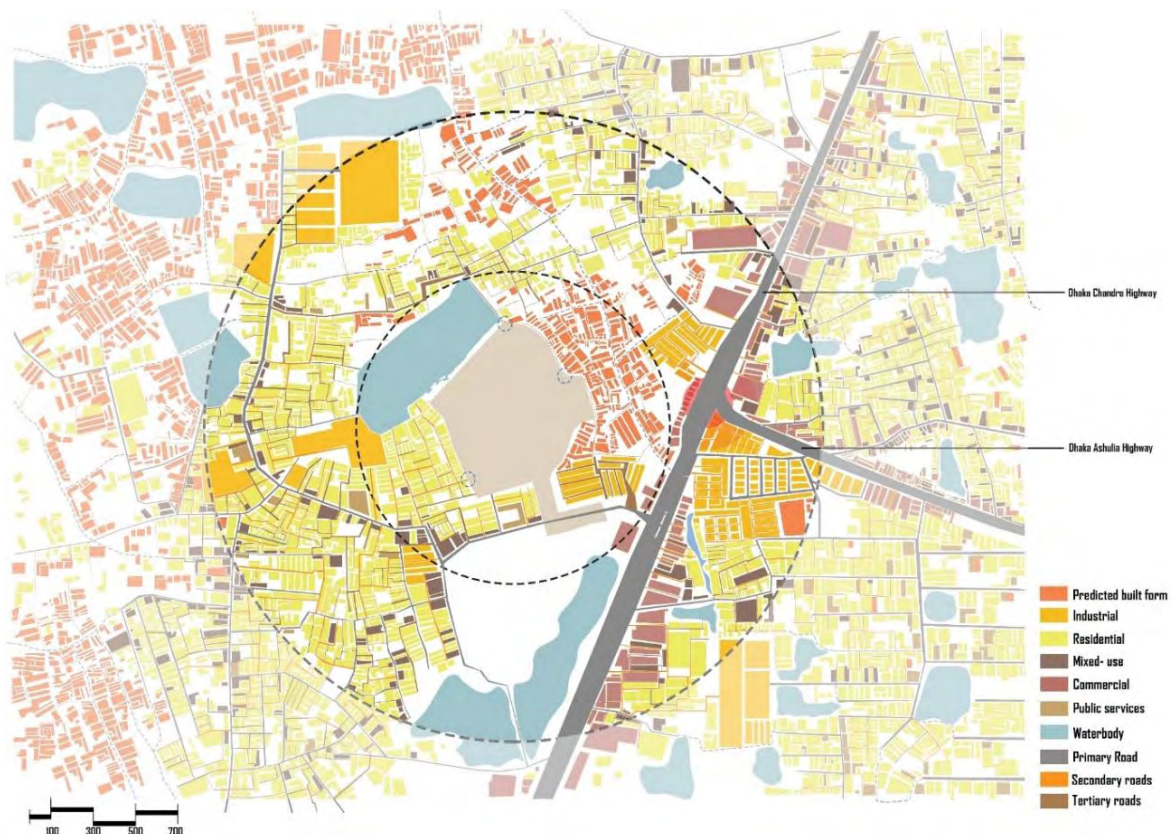
(Source : Author)

The survey done on the surrounding areas around the site shows an abundance of residential zones. The site for the academy is within close proximity of EPZ (Export Processing Zone), therefore most of the employees live within walking distance of their workplace. The residential zones have evolved around the industrial structures so as to facilitate transport to and from work.

It is evident from the mapping that most of the commercial zones exist around the major road networks in order to receive maximum advantage in terms of business transaction. Most of these businesses include mechanical workshops, hospitals, commercial buildings that exist in order to run factories or industries of respective companies. Residential zones are comprised of mostly tin-shed structures often leased out to an individual who in turn rents the residential units. Most of these inhabitants are low-income groups who rely on sole income from garments factories or have a business along close proximity.

One of the major hallmark of this area are its bazaars, mainly divided into two parts on either side of the road, the bazaars serve almost the greater portion of savar and is a means of income for residents who reside nearby.

EXISTING SITE FORCES MAP



BUILDING HEIGHT MAP AROUND SITE

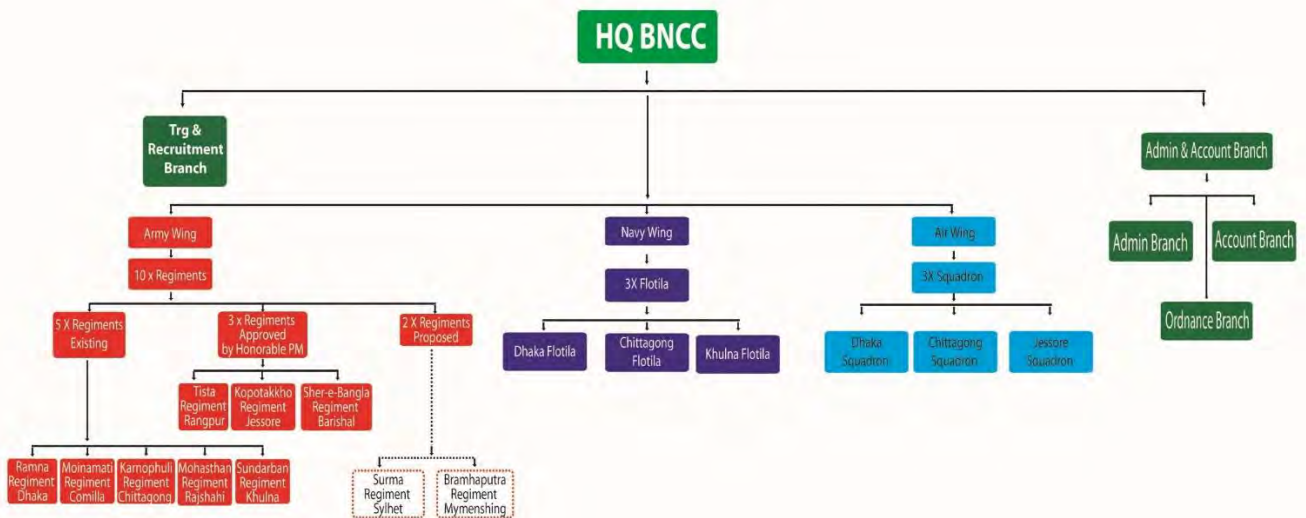


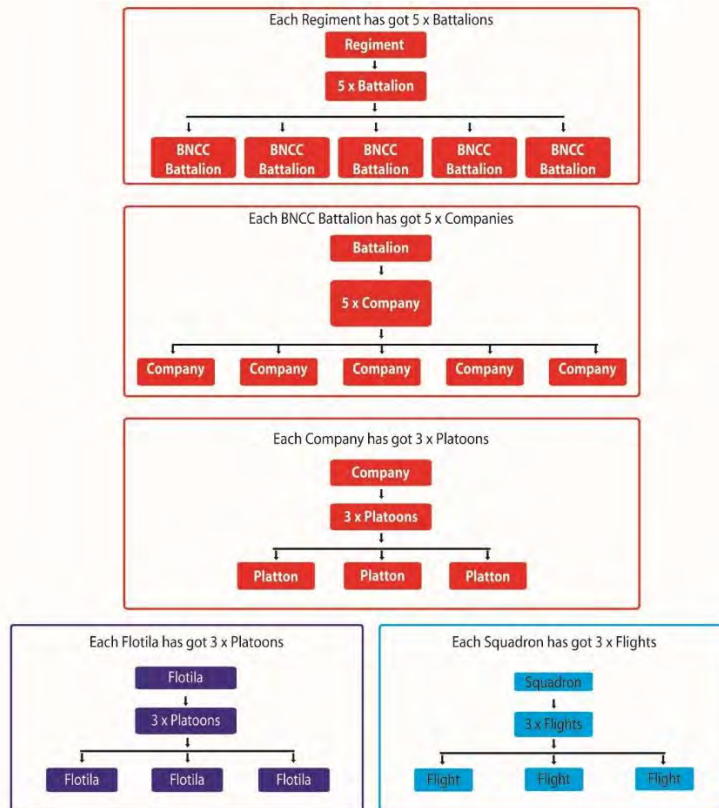
The building height map gives an idea as to how developed savar is. Although mostly prevalent are one storey structures, which are mostly residential, the multiple storied structures resemble private ownership of land, who are comparatively well off. Mostly factories and industries as well as some commercial buildings are mostly multi-storied however residential ownerships also include multiple storied buildings, mostly businessmen who have significant share of business in and around the vicinity.

Chapter 4 : Program Analysis

The National Cadet Corps is a diverse organization, where officers from the Army, Navy and Airforce work along with teachers and enlisted professors combines together to train young individuals. According to the Director General currently in charge of BNCC, The academy has been functioning in the existing site for the last 20 years. That is to say that all accommodation, training and socio-cultural events which are inclusive in the training schedule happens here, except there is no well accommodated structure to facilitate the functions required for the training.

ORGANIZATIONAL STRUCTURE OF BNCC





(Image Source : BNCC)

As seen from the organogram of the BNCC, the main functions branch outwards to two main divisions, i.e Training & Recruitment and Admin & Accounts. The Headquarter of BNCC currently exists in Uttara, a four storey structure that accommodates most of the admin and account section. However the core function of grooming cadets take place through yearlong phases at the site they own in Savar, Baipail. The headquarter functions mainly through the leadership of the Director General, who runs office from the Uttara , with assisting officers who see through and prepare the course of training and other

essential activities to run the academy. However, with the rise in need for a formal presence of an academy at the site, the client (BNCC) requires the training academy to be solely built in Savar with all required functional elements provided, which will be analyzed below.

The programs required to run the academy can be divided into six main programmatic zones, which are given as follows :

1. Office block :

- Commandant's office
- Deputy Commandant's office
- Office of three wings
- Adjutant's office
- Officer instructor's office
- Training support battalion office (2 officer + 4 staff)
- Clerical staff office (4 rooms)
- Conference room (60 person)
- Dining space and cook house
- Toilet + Bathroom

The training academy first and foremost requires the office block which will avail teachers and training leaders their work space needed to prepare for the training of their cadets. The Director General, although runs office from the Headquarter, often visits the academy and stays back for the duration of some of the core training programmes. Therefore, to

be able to function at his best, he must have all facilities at hand required for his office present at all times. The current office of the Director General is a minimum of 300 sft. The typical standard requirement for an office for managerial position requires a minimum of 225-375 sft (source : time savers standard for building , 3rd edition). In addition, the academy will need to allow spaces for the Deputy commandant, and seven officers as well as four clerical staffs. According the standard for offices, seven officers require a minimum of 700sft, 100sft being the standard requirement for each officer. The standard requirement for one clerical staff is 54 sft, therefore, the total space needed for 4 staff is 216 sft. The conference room for 60 person would require at least 1166 sft. The office will also require washroom facilities for all individual in presence, therefore would mean at least 2 washrooms for the Director General and Deputy Commandant in addition to their office space and 2 more for common use amongst officers and guests, and one for staff usage. Therefore, the subtotal area allotted for washroom facilities should be an estimate of 300 sft. Dining space to cater an estimated total of 75 person (in case of full attendance at the conference hall), in addition will include the caterers, the cook and the cleaner for the office block, requiring a sub total of atleast 16-18 sft per person as per time saver standard means the total are should amount to 1350 sft. The cooking area generally breaks down to one third of the dining area (time savers standard for restaurant, kitchens and foodservice facilities) , therefore will be around 450 sft. Therefore the subtotal area needed for the office block is 4482 sft.

2. Accomodation (Cadets and Staff):

- Accommodation for 1000 cadets (700 male+ 300 female)

- Accommodation for office staff (80 person)
- Dining hall + Kitchen (100 male, 100 female)
- Common room

The accommodation standard for an individual is roughly around 80 sft (time savers standard), therefore to accommodate 200 cadet will require 16,000 sft. Staff who will oversee the dormitory will require 120 sft per person, therefore the total area would be 9,600 sft. The minimum space requirement standard for dining for 200 people is around 16-18 sft per person, therefore 3,600sft. Therefore cooking area should be roughly 1200 sft.

3. Accommodation (officers):

- 20 arms forces officers, VIP rooms included
- Common room
- Common toilet

Accommodation for officers in practice in dormitories as seen through research of typical mess layout in cantonments have been found to be 120 sft per officer, washrooms generally are between 36-40 sft, thus the total area for per individual room would be 160 sft maximum. Therefore 20 officers would require 6,400 sft. VIP rooms are generally made to accommodate high official guests who visit important programs and events and might bring along family members who require refreshing or a place for accommodation during the term of the program since generally the nature of events might require overstay of guests or often a day long stay. The minimum area needed for a well facilitated room,

typically for a five star accommodation requires 300+ sft , in order to accommodate a VIP guest, the minimum area per room should be approximately 600 sft. Therefore 4 VIP rooms would require 2400 sft. A TV room or common room in practice is generally where the officers relax and socialize during their free time and usually when tea breaks and traditional chit-chat takes place, therefore to accommodate 20 officers and if additional guests are present, would mean a total accommodation for 30 person at most, approximately might require 400 sft. The common toilets must be spacious and accessible for all officers at any time and available in case of increased guests, therefore at least 2 washroom is necessary, requiring atleast (36sft x 2) 72 sft, therefore the total area for officers accommodation would require 9272 sft.

4. Academic Block :

- Class room (100 cadet)
- Lecture hall (60 person)

Classes are attended by students from high school, the average standard for a high school classroom area is roughly 750 to 900 sft, with the standard number of students per class being an average of 25 students is sought to be better for classes 9 through 12 (Chingos & Whiteshurst,2011). Therefore it would require four classrooms, each with an area of roughly 800 sft, therefore total area needed is 3200 sft. A lecture hall for 60 person would mean, each person needing an average of 10 sft per person in addition to other substantial spaces needing around 700-900 sft. The existing training shed at the site for

the academic teachings will need to be a minimum of 5000 sft for 500 cadets at any given time.

5. Parade ground :

The existing parade ground at Bangladesh Military Academy is 300' x 700' which can accommodate a march past of 350 cadets while an additional 200 cadets can be added still. It takes an average of 16 sft for each cadet to march a parade (Source : BNCC). The parade also requires the additional space for circulation and of The minimum requirement for BNCC is to establish a parade ground with the dimension of 250' x 350' (87,500 sft) for 100-150 cadets to march past at one time.

6. Sports facilities:

Swimming pool

Football

Basketball/ Tennis ground

Cafeteria

Swimming pool with two fold occupancy would mean at least a minimum area of 1500 sft.

Football field for recreational purposes can be made at a minimum length of 295 ft by 147 ft according to the local government of sports and cultural industries of Western Australia.

The same source also states that basketball courts are approximately 49 ft by 91 ft.

Cafeteria as per the clients requirement should accommodate 150 person at once.

According to standard, each person requires a minimum of 17 sft, therefore for 150 person would need 2604 sft.

7. Utilities:

Kote (store for small arms)

Magazine store

Guard room

Workshop

Medical emergency room

Prayer room

Barber shop

Utility service room, laundry

The utilities store for arms store will require a minimum of 300 sft (as per standard of ammunition store in the military). Guard rooms with sufficient accommodation and table work facilities will require approximately 200 sft. Workshops will mostly include maintenance works that are done for technical equipment belonging to the institution, requiring a space under a working shed approximately around 400 -450 sft. Medical emergency rooms will have to be available at all times in case of emergency during training or exercise, therefore must include all necessary equipment needed for first aid treatment, an estimated area of 300 sft. Prayer rooms if used three fold can be roughly designed to accommodate a minimum of 200 person at one time as per clients requirement, therefore can be used to make way for maximum 600 person for every waqt.

Each person requires at least 15 sft, therefore for 200 person will require 3000 sft. Barber shop can be made to serve a minimum of 10 people at once therefore will require roughly 100-200 sft. Utility rooms will house the more technical functions, i.e generator store, water treatment plant, water storage, laundry for the whole complex therefore will require approximately 8000 sft.

Chapter 5 : Case Study

5.1. Bangladesh Military Academy, Bangladesh, Chittagong

Bangladesh Military Academy was established in the year 1974, initially located in comilla cantonment and then relocated to Bhatiary, Chittagong later. The academy provides thorough training to young men and women so they can successively fight battlefields in case the situation arises. Military training has been long known for its intensive routine, excessive physical training as well as teaching acute intelligence. The site for the academy is located 13 kilometer south west of Chittagong city in the hilly sitakunda ranges.



(Image source : authors note on Google satellite image)

The academy has its main connecting route along the axis following the site. The layout is also very generous and spacious in nature, with the academic block receiving more attention both in form and functional importance. The dormitories are all zoned together to keep all cadets compactly at one place while sports and relaxing zones spread out towards the western edge of the site, providing ample view for residents in the dormitories. The parade ground is placed in a manner such as to give it equal significance as that of the academic block, with sufficient space for parade routines to take place around it. The layout of the dormitories lay in east west orientation, providing most of its surface towards the north south orientation, meaning lesser heat gain and greater surface for stacking against each other. The design principle that can be followed from this academy is the pattern of layout between academic

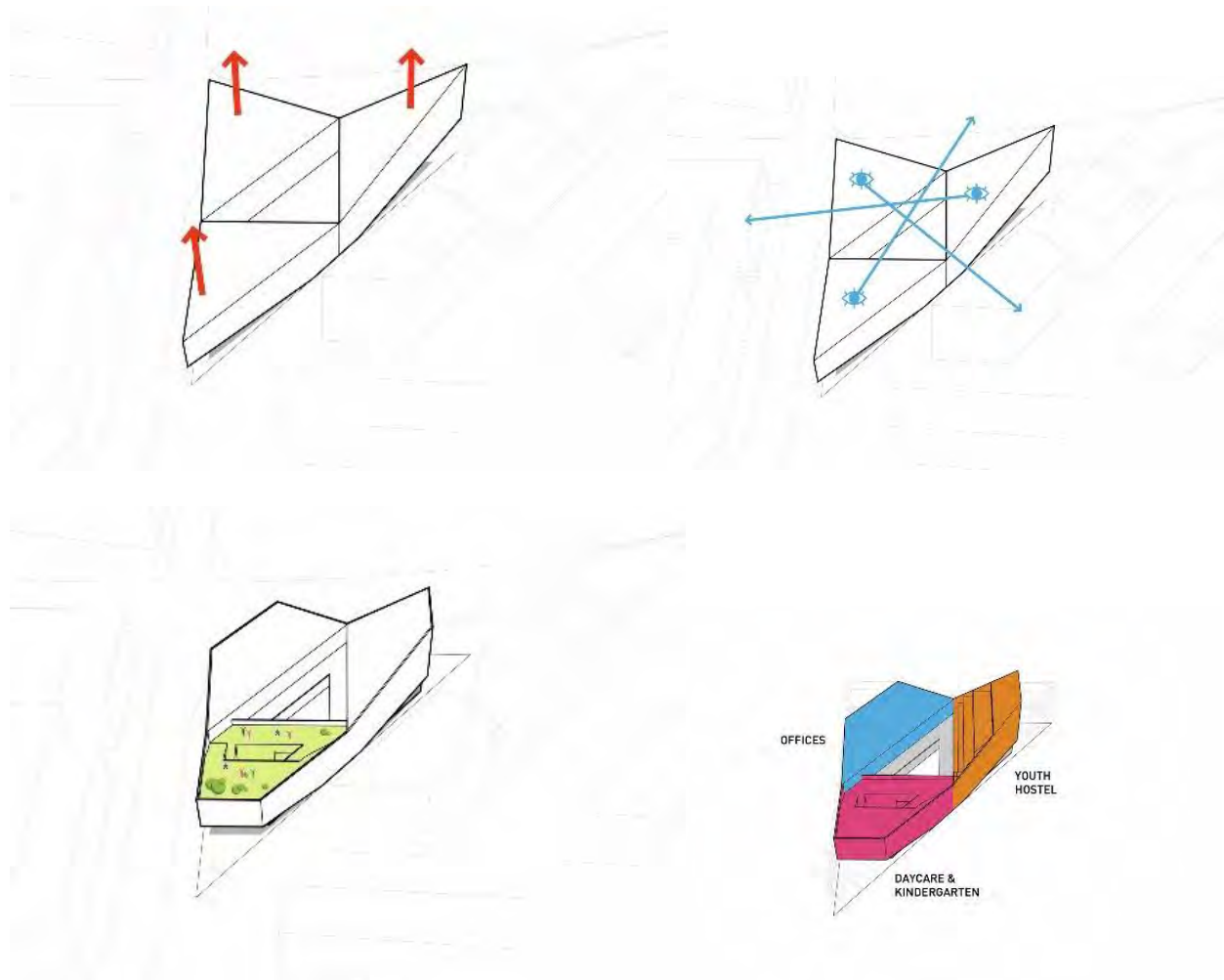
and the training field, which are composed closer together so as to ascertain the functional flow between each other.

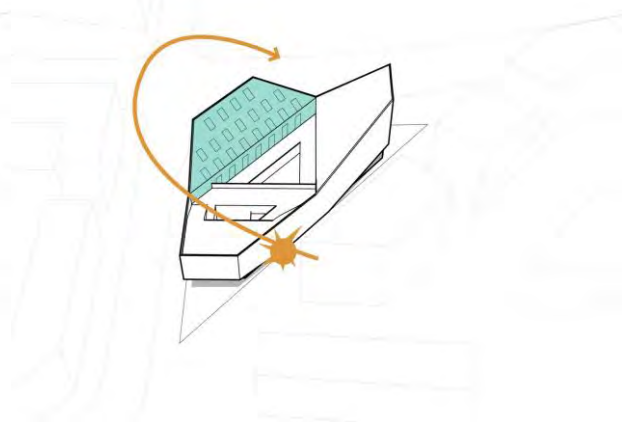
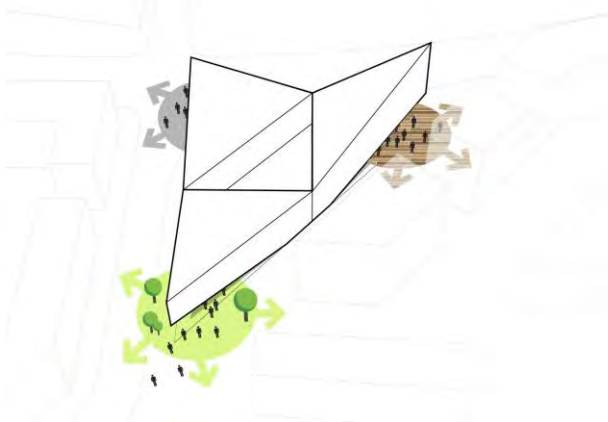
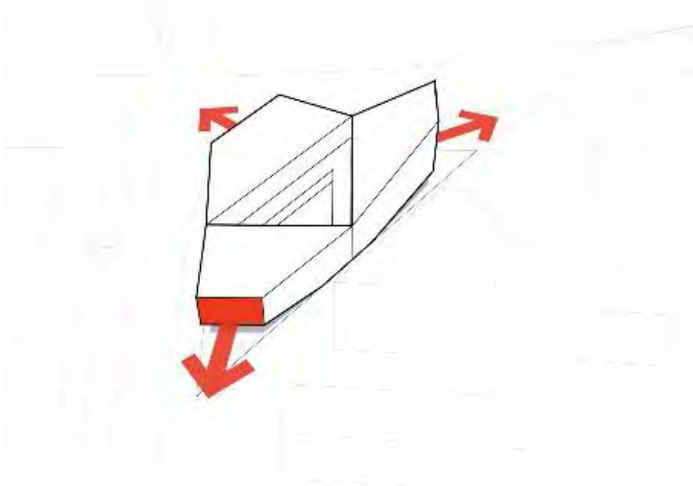
5.2. Euralille Youth Club, France

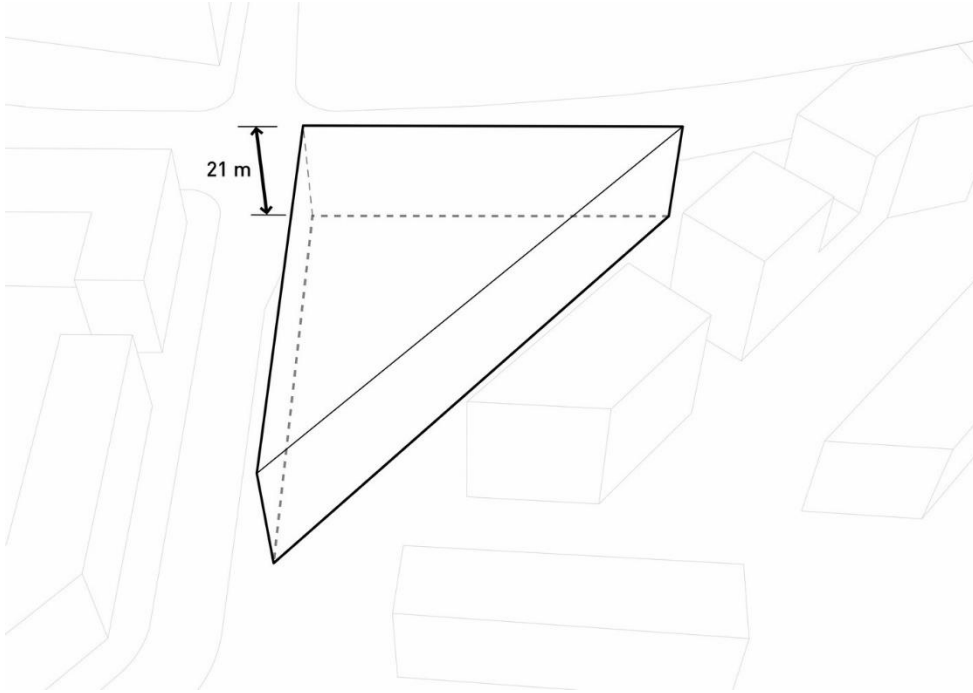
The youth club at Lille in France is a 6,000 sqm project that reverberates the strong cultural heritage of the city. Keeping in mind the fluidity of the site, the design of the project keeps in mind the significance of pedestrian flow which has been merged with the plaza in all three directions where the public flow is kept unhampered yet functional for the users of the building. The structure also ensures that light and ventilation is sufficient for its users, where visibility is given prime importance. The three wings of the building has also been segmented into the three main functional zones, i.e. offices, youth hostel and day care and kindergarten facilities.

The civic space at the center is visible from all corners of the building therefore welcomes its users the prime location for relaxing outdoors and the rooftop of the kindergarten has been molded into a green breathing space for children who attend classrooms in the floors below.

The three public spaces are then divided into three different categories, one for green space, the other for public plaza and the other for integrating the adjacent public space withing the city. The building offers privacy to its users at the centre, which is again perforated to create connection to outdoor facilities. The inhabitants are given ample amount of privacy in addition to equally public activities.



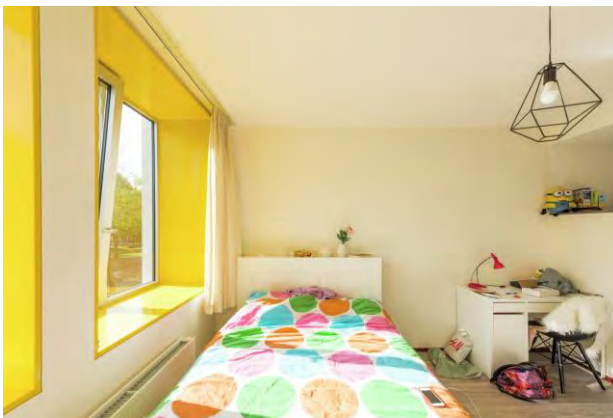




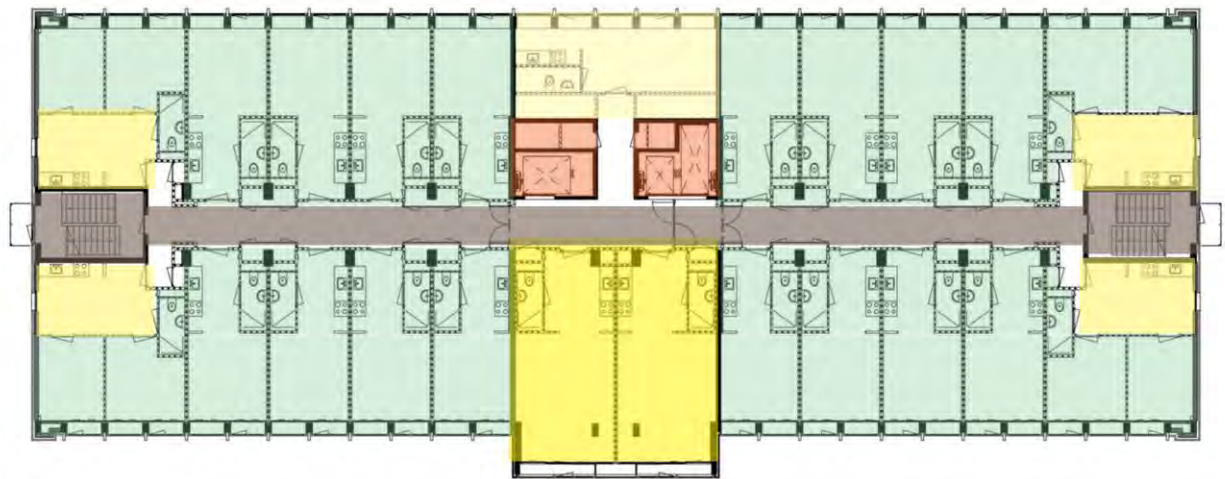
(Image source : Arch daily)

5.3. Student Housing in Elsevier Office Building , Knevel Architecten

- Architects Knevel Architecten
- Location Krelis Louwenstraat 5, 1055 Amsterdam, The Netherlands
- Leading Architect Benjamin Robichon
- Project Team XiaoBin Chi, Kirsten Dijkgraaf, Wieshant Manna
- Area 11750.0 sqm
- Project Year 2015



(Image source : Arch daily)



typical plan
(level 2-10)
1:200 on A4

0 5 10m

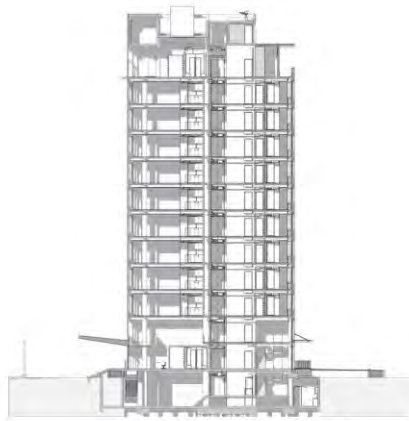
- Administrative accomodation
- Student accomodation
- Kitchen and service spaces
- Lift core
- Circulation

KNEVEL ARCHITECTEN

Schakelstraat 16 1014AW Amsterdam T: 020 - 68 12 478 F: 020 - 68 24 919 info@knevelarchitecten.nl www.knevelarchitecten.nl

project Transformation office building to student housing
Amsterdam

client Rochdale



KNEVEL ARCHITECTEN

Transformation office building to student housing
Amsterdam
Rochdale



KNEVEL ARCHITECTEN

Transformation office building to student housing
Amsterdam
Rochdale

(Image source : Arch Daily)

The Student Housing in Elsevier Office Building involves the reuse of an existing building which was previously used for commercial purposes. The ground floor of the building is raised above so as to create a public space to the entrance of the building. The dormitory also has laundry and bicycle parking in its basement.

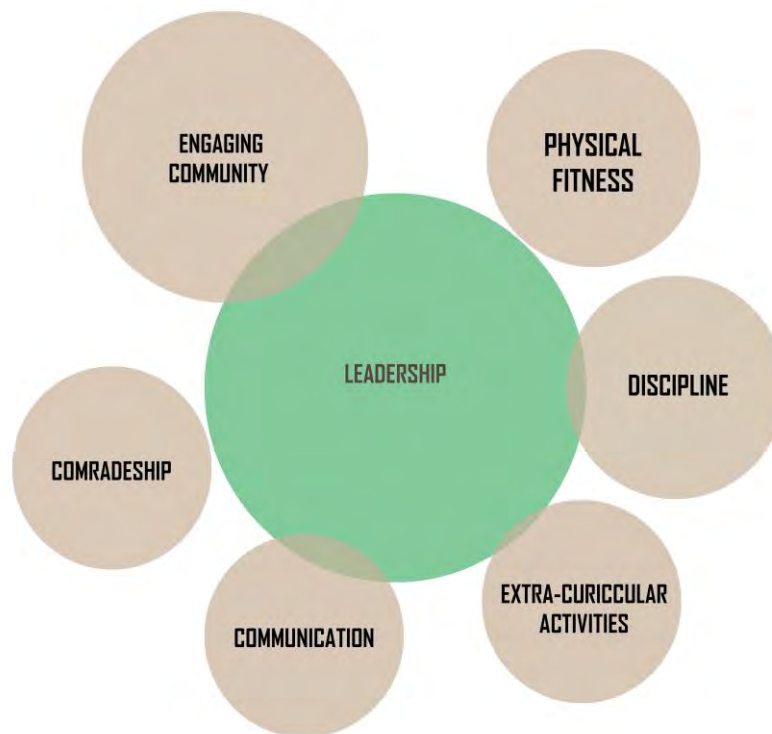
The compactness of the design allows for smooth circulation spaces that are zoned in accordance to all the other functions and no loose ends or waste spaces are generated. The lift core is placed in the centre of the structure which avails all the users to a central space for use. In addition, each room has sufficient space to accommodate one individual comfortably. Currently 285 students live in the dormitory, 80 students in the two bedroom apartment, 187 in private studios. A penthouse is also designed on the top floor of the dormitory.

The entry to the building is now used a new public space, with canopies and benches to welcome wider range of public.

Chapter 6 : Design Development

6.1. Concept :

The concept of the project arose from the mission statement of the organization. The key aim of BNCC is to “Train cadets to make good citizens who can render their services to the nation as organized and disciplined volunteers during peace and war”. Upon further discussion into the organization and its administration it was understood that their core aim was to “groom future leaders”. Therefore the concept generated from the understanding that to be a leader requires certain skillset, which I then went into further details and eventually started the project.



Leadership is directly linked to the above mentioned factors, i.e. to be a leader requires the person to be a part of a community, because without the people, a leader is inevitable. To lead, one must have great communication skills, one must also have comradeship, since leaders are not made by themselves, but by the strength and power of unity by the people of the community. Discipline is another very important factor which is an inherent quality amongst great leaders, in order to lead, young individuals must have discipline instilled into them, so they can not only improve their own self, but also help others with self-improvement, have an organized mindset, learn to be responsible citizen and be accountable for their actions. Discipline is of great value because it not only builds a personality but also helps secure ones goals in life. For cadets to realize their full potential, physical fitness is a vital requirement, because in order to be of help to others, one must be physically fit so as to be able to perform their best and reduce the chances of diseases.

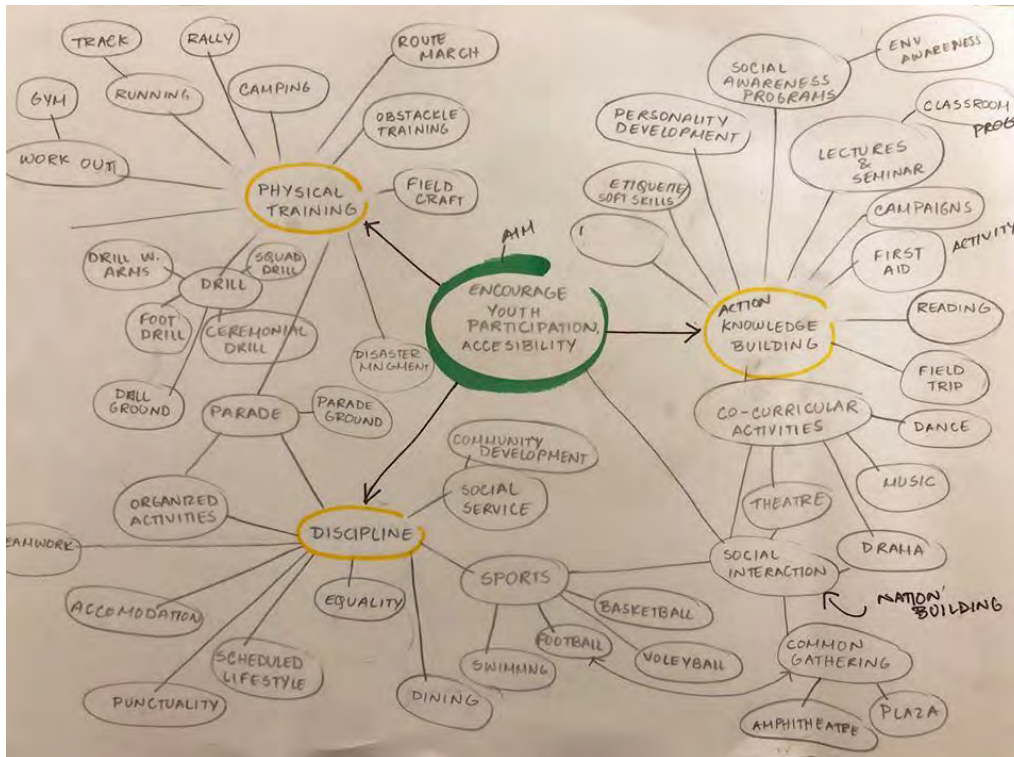
Therefore my design considerations were mainly as follows :

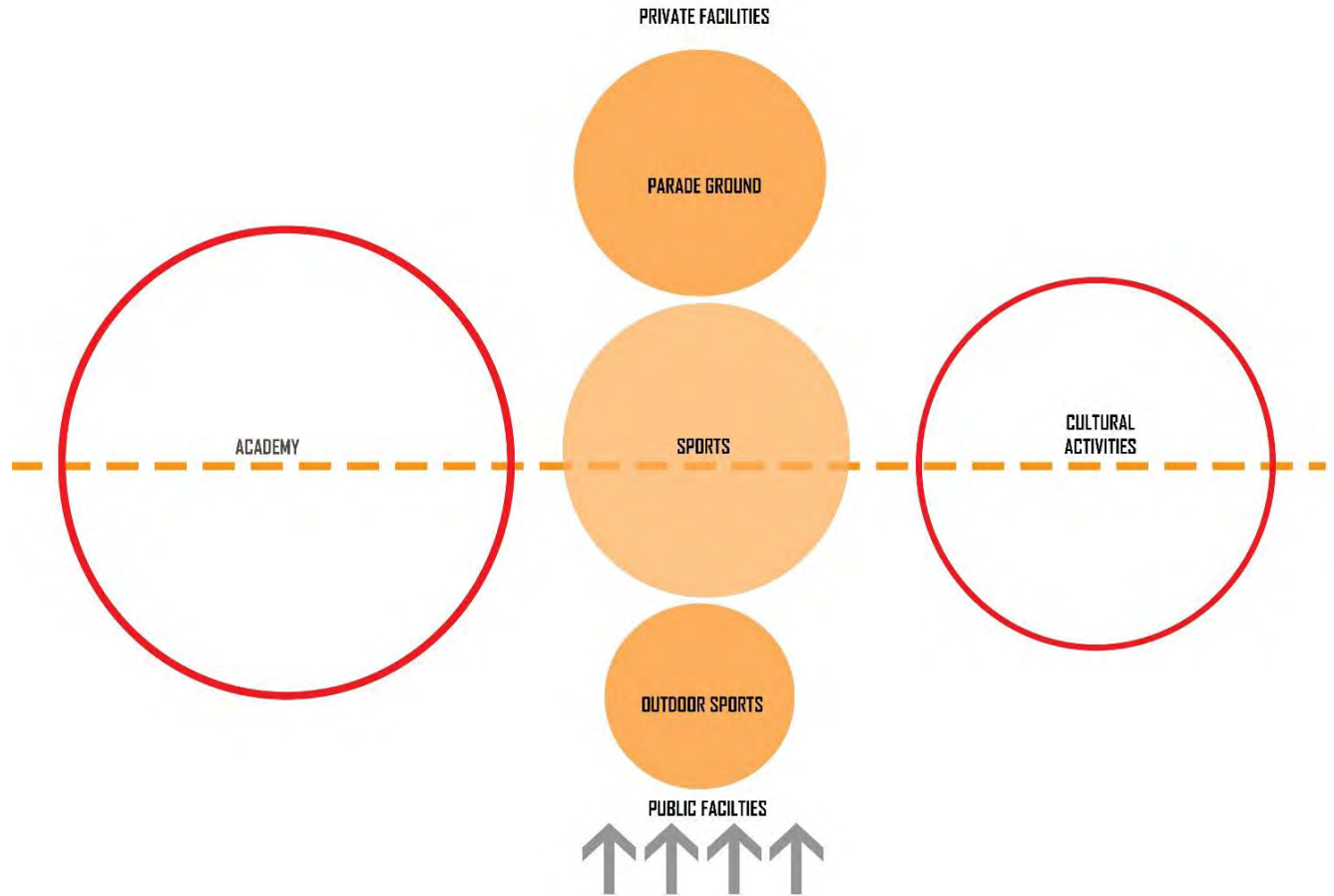
- Encourage youth participation through disciplined training
- Make the site an accessible place for surrounding communities

Youth participation requires encouragement through active sports and through community activities which is one of the most core functions of BNCC cadets. Since BNCC aims to serve people in need of developmental assistance, the design of the academy complex must include its surrounding community in every way possible. However, when planning programs for the academy, it was seen that some programs

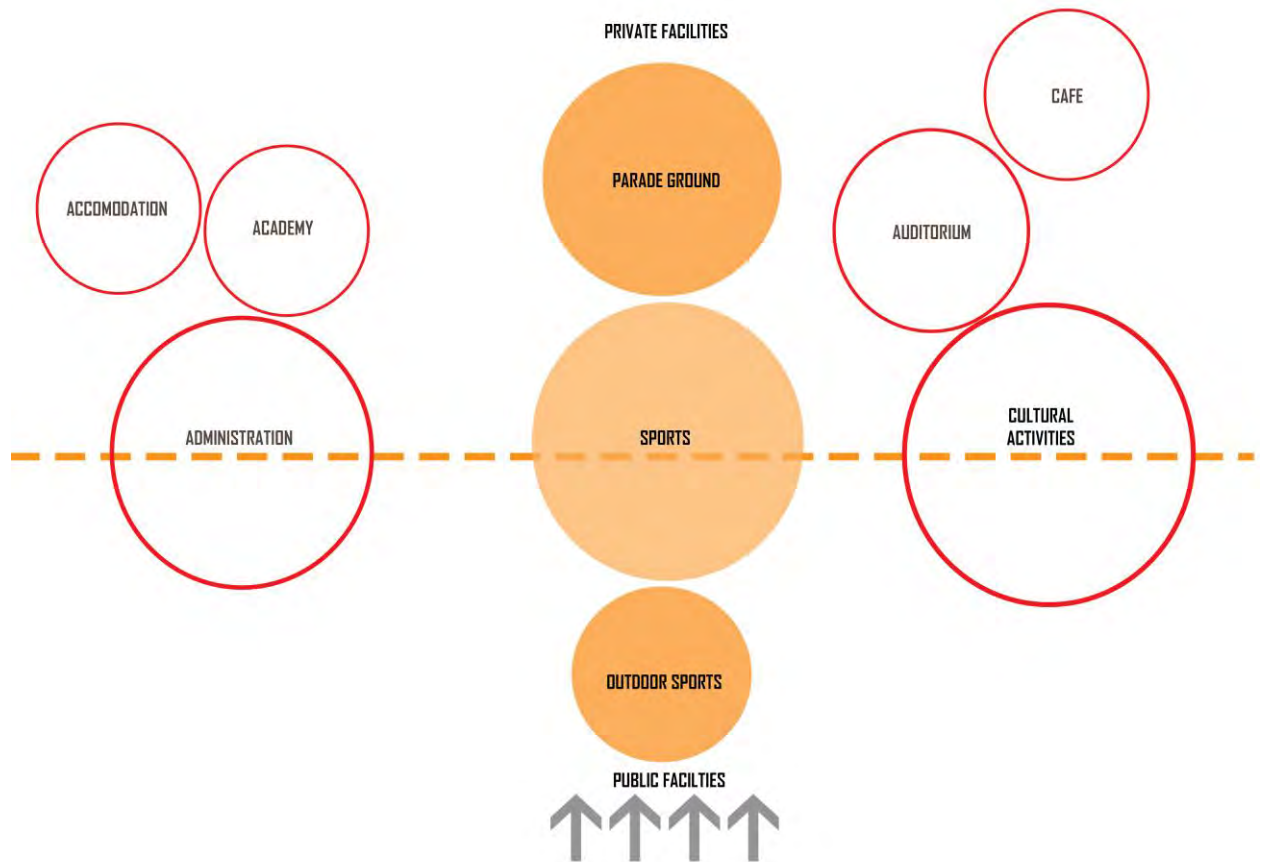
required seclusion while others could be merged with the neighboring people, therefore the concept generated from it.

6.2. Design Development





The zones were then placed as per the design consideration as well as the climatic and existing site study considerations. A median space was then generated which would flow through the public and private spaces, where member of the community were allowed access through, and the rest of the zones were segregated into private and public zones. The public facilities were made to accommodate mostly outdoor sports for children and adults in neighboring zones who could find an intermediary space to connect with the cadets who are to receive their training at the academy at any given time.



Looking further into detail, the zones were then broken into further detail, and placed according to their spatial requirements, with regards to requirement of privacy and security.

Further research and study into the existing site revealed more design considerations to be made. To understand more site forces that could be merged within the design, detail study of immediate site surrounding were made, to see what access points could be accommodated within the site. The neighboring community had a lot of cul de sac towards the site, which were then later made into pedestrian entry ways into the site, as a means of integrating the neighborhood.

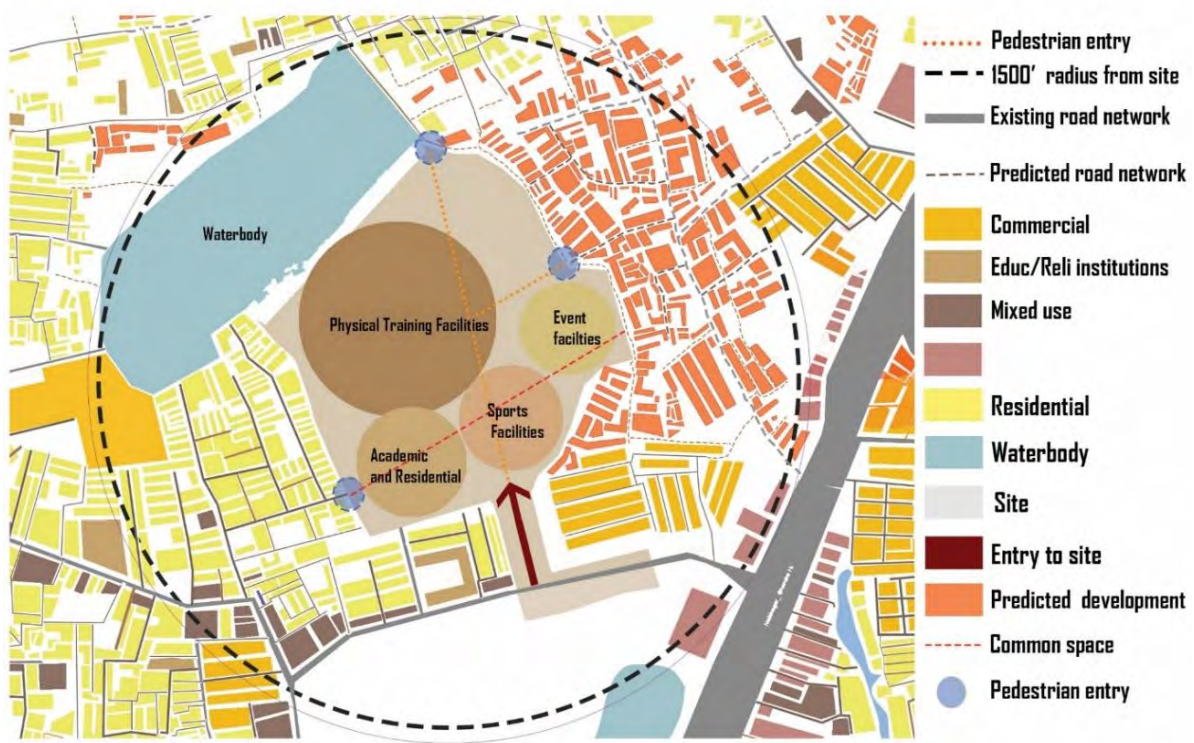
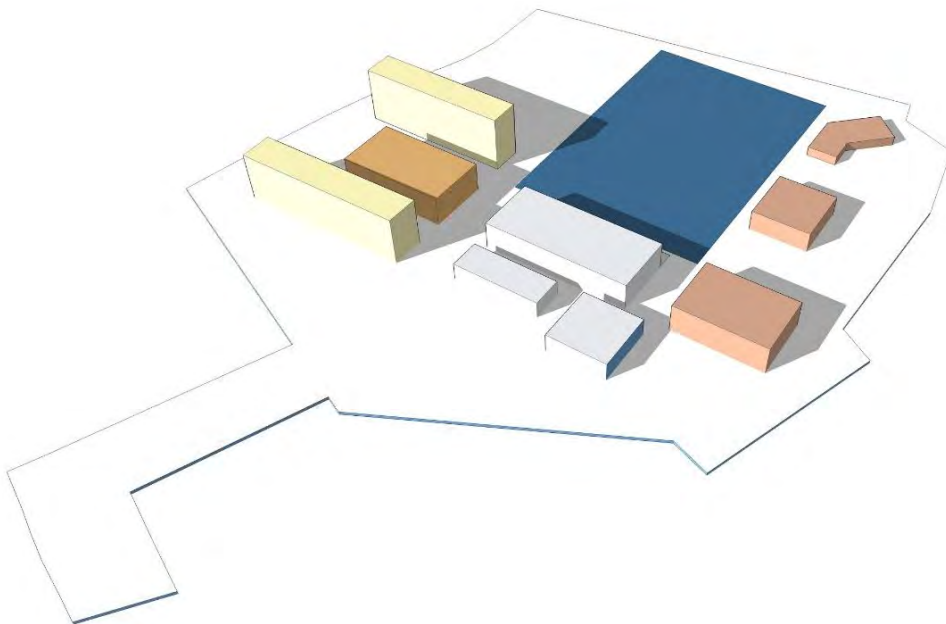
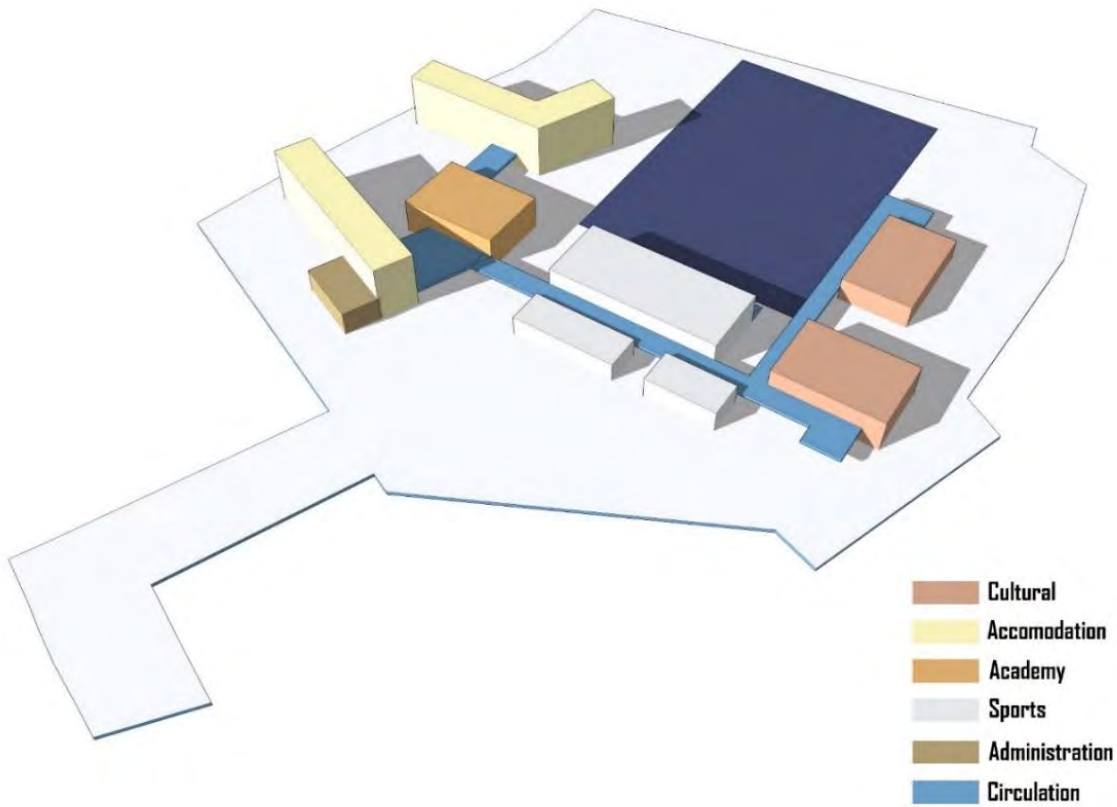


Figure: zoning inside site according to design decisions





Form derivation of the project started by placing the parade ground and arranging the programs in a connected corridor space around the site. The 3d study shows how the forms came into being and eventually evolved.

Below are the floor plans of the academy.

6.3. Floor Plan



Figure : Masterplan

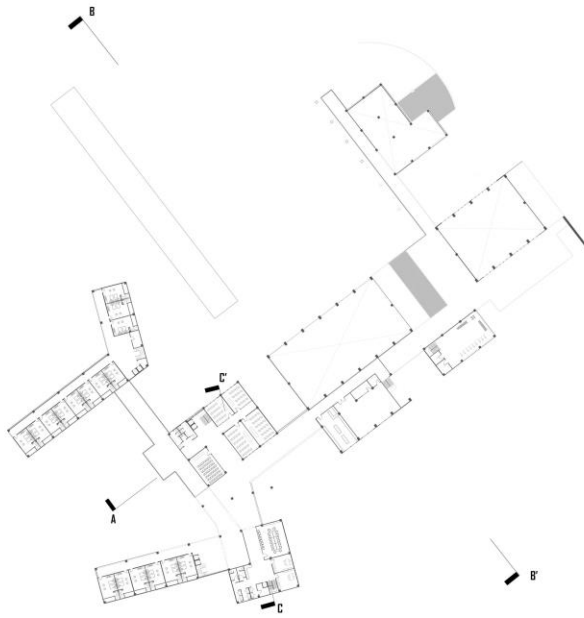


Figure: First Floor Plan

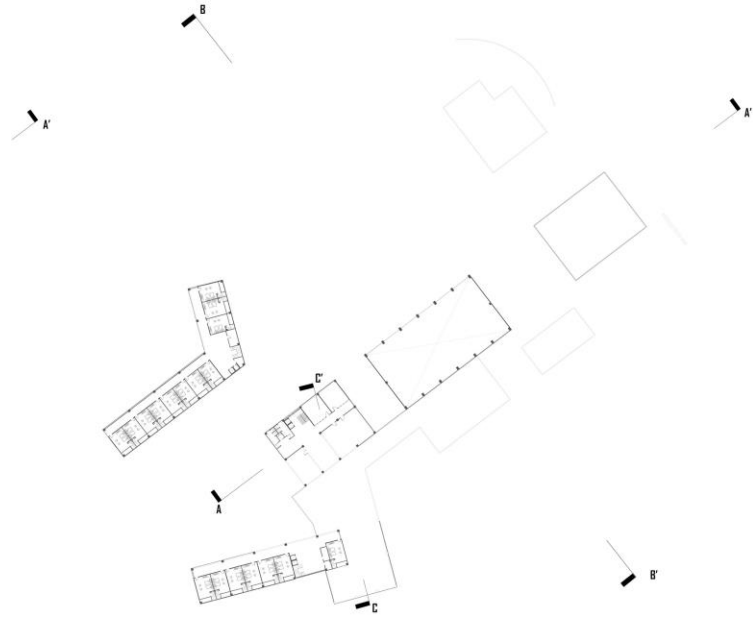


Figure: Second Floor Plan

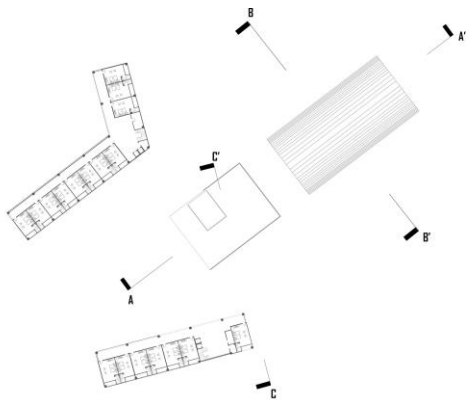


Figure : Third Floor Plan

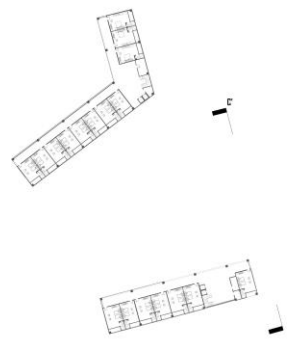
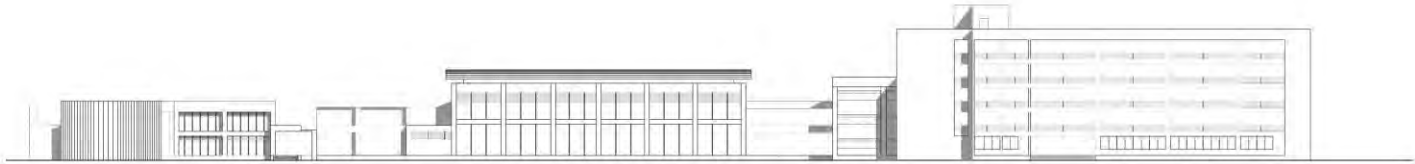


Figure: Fourth Floor Plan

SECTIONS AND ELEVATIONS OF THE ACADEMY COMPLEX



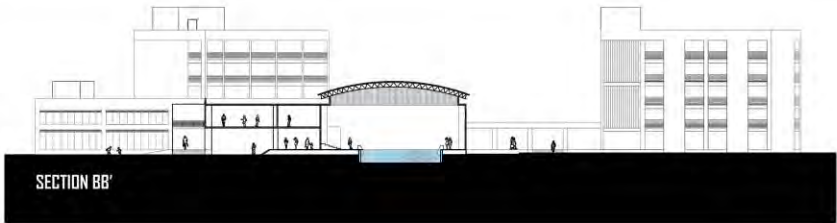
NORTH WEST ELEVATION



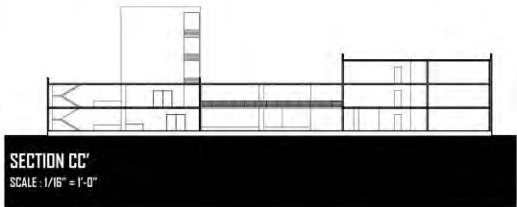
NORTH WEST ELEVATION
SCALE: 1/16" = 1'-0"



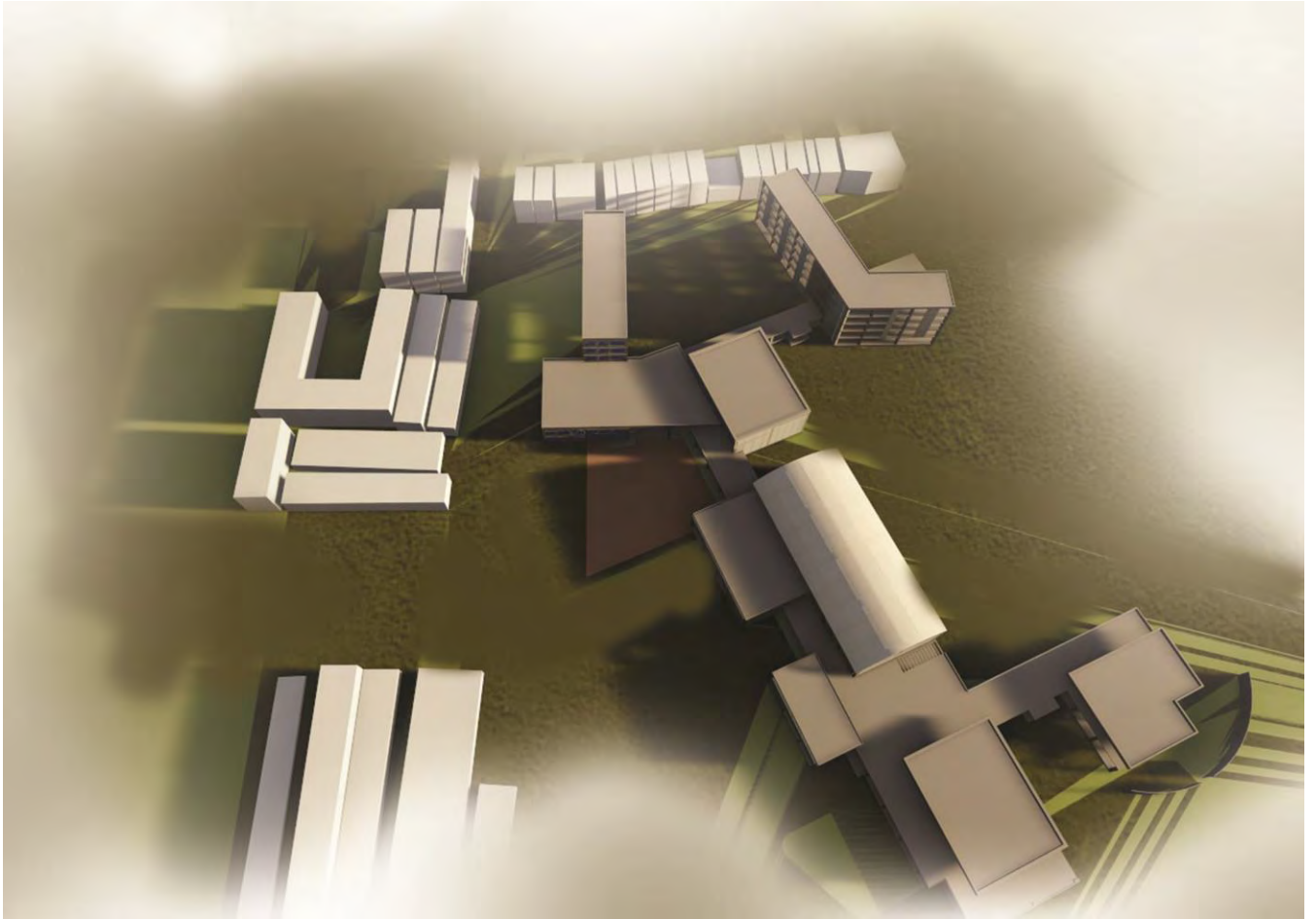
SECTION AA'
SCALE: 1/16" = 1'-0"



SECTION BB'



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



Roof Plan from 3D model



Spot Perspective from 3D



Spot Perspectives



Stages of Design Development.

6.4. Photos of Model



Conclusion:

Although BNCC is a paramilitary academy, and most institutions of this type are encouraged to be secluded from its neighboring community, the nature of the training often involves extreme physical practice, so the cadets are required to stay as focused as possible on their training and have the least amount of distraction.

Therefore my approach towards the design was to merge the intense physical fitness regimes into one zone and make way for the community to participate into the relaxed activities as much as possible. So cadets who reside here for any period of time, not only gain their required training, but also learn how best to connect with the people at the same time.

Leadership starts with people, therefore all training must be inculcated within these young minds, as well as understanding the best intent of the people they aim to serve.

Since the approach towards the design was different than the conventional one, I hope a more friendly approach like this would be possible in the near future.

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