

Chapter II

Architectural description

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2-1 Introduction

Public Art is an example of media that has been planned and executed with the intention of being staged in the public realm. The public realm refers to publicly-owned streets, parks and rights-of-way, which is where buildings are situated. Architecture clearly meets this definition. All of us, as the public, interact with architecture. We are affected on a practical and emotional level by both the way a building appears in its context and by its interior environment.

The design for any structure or building should be processed in many stages; first stage is architectural design which starts with determining the shape of the building taking into consideration achieving the various functions and requirements for which this building will be constructed. So, the initial distribution of its facilities will be done, in order to achieve the required spaces, dimensions and the location of columns and axes. Moreover, in this stage a study of lighting, ventilation, movement and other functional requirements will be done.

After the completion of the architectural design stage and its final output, the structural design process begins, which aims to determine the dimensions of the structural elements and their characteristics, depending on the different loads that are transported through these elements to the foundations and then to the soil.

2-2 Overview of the project

There are good numbers of hospitals in Hebron city in general, but because of the continuous increase of population, diseases and pollution in the city, it is necessary to build a new hospital as a specialized hospital.

There is no doubt that the role of hospitals in our time is no longer limited to the provision of therapeutic service only, also it is no longer known as a place to accommodate patients and injured as in the past. However, the modern definition of hospital is an integrated medical organization aims to provide health services in its comprehensive concept of prevention, therapy and medical education in addition to conducting health researches in various branches.

2-3 Project location

For the design of any project, its location should be considered to create the building carefully whether relating to geographical location or the impacts of climatic prevailing in the region, so the existing elements and their relations with the proposed design should be studied to achieve the optimal design. Therefore, project location should give a general idea about the elements around the site, to know the relationship between project and surrounding streets, the height of surrounding buildings, the direction of the prevailing winds and the path of the sun

2-3-1 Proposed site

The project is suggested to be located in Ber Haram Alrama north of Hebron city. It is supposed to be built on a land with an area of 6acres with 3 different levels. The land is located at a height of 990m above sea level next to a main street.

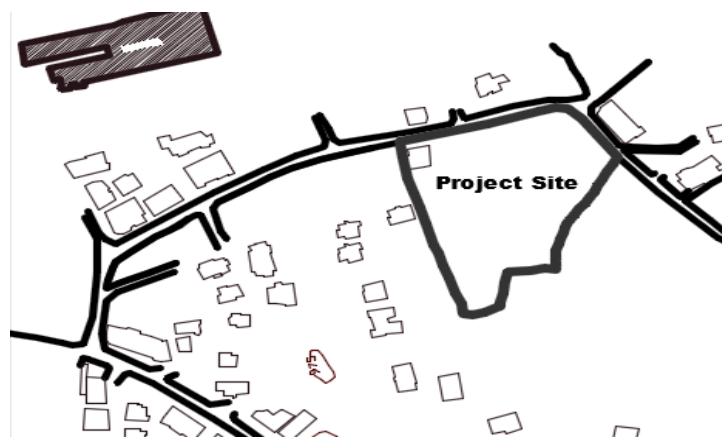


Figure 2-1: Project site.

2-3-2 Project land analysis:

2-3-2-1 Roads and Transport

Project site is one of the active sites in Hebron city, and the services there are easily accessible by public transport. Because the site can be accessed through main street.

2-3-2-2 Movement of the sun

The amount of solar radiation varies throughout the year and reaches its maximum rate in the city in June. The annual average number of hours that the sun radiate is 3300 hours / year.

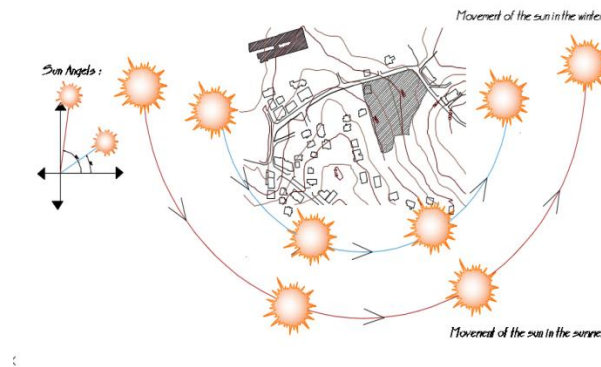


Figure 2-2: Movement of the sun.

2-3-2-3 Wind movement at the site

Wind affects the buildings either on the walls or the structure in addition to erosion processes, therefore, taking into account the wind direction when directing the building is essential in design process. Usually Wind direction and its speed are different from one region to another, but the usual known wind blowing on the city of Hebron and affect the proposed site is south-east wind blows in winter, North West wind blows in summer and winter, so it's important to pay attention when directing the building to avoid the winds that have a negative impact on the building.

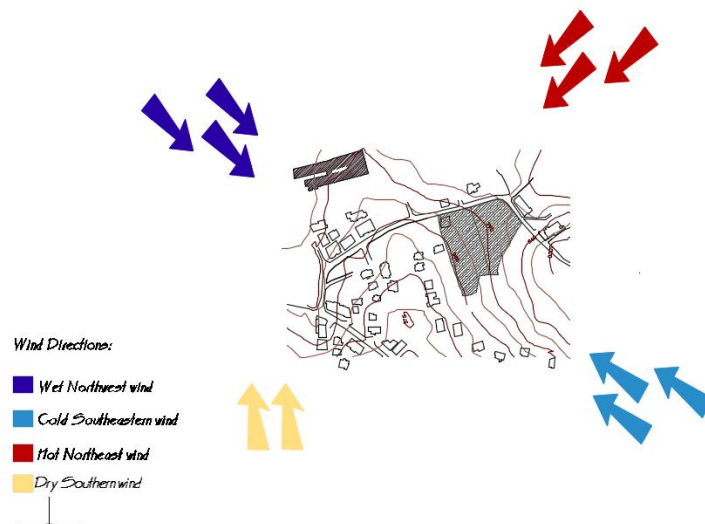


Figure 2-3: Wind movement at the site.

2-3-2-4 Contour lines

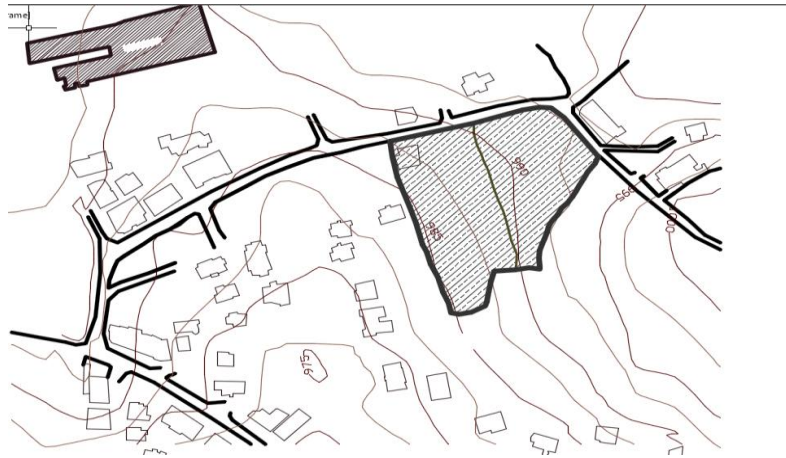


Figure 2-4: Contour lines of the land.

2-3-2-5 Project land



Figure 2-5: Project land.

2-4 Description of the project elements

The project total area is about 17000m², it consists of 7 floors , two of them are below ground level as basement floors and the others are above ground level described as follows:

2-4-1 Basement (-2) floor

The area of this floor is 1654.2m², on a depth of 7.0m below ground level (0.0), it consists of a large entrance that allows ambulances to enter. It's also has cars park allows all vehicles to pass easily. In addition to gas heater room, generator room, equipment maintenance room, staircase and electric elevators.

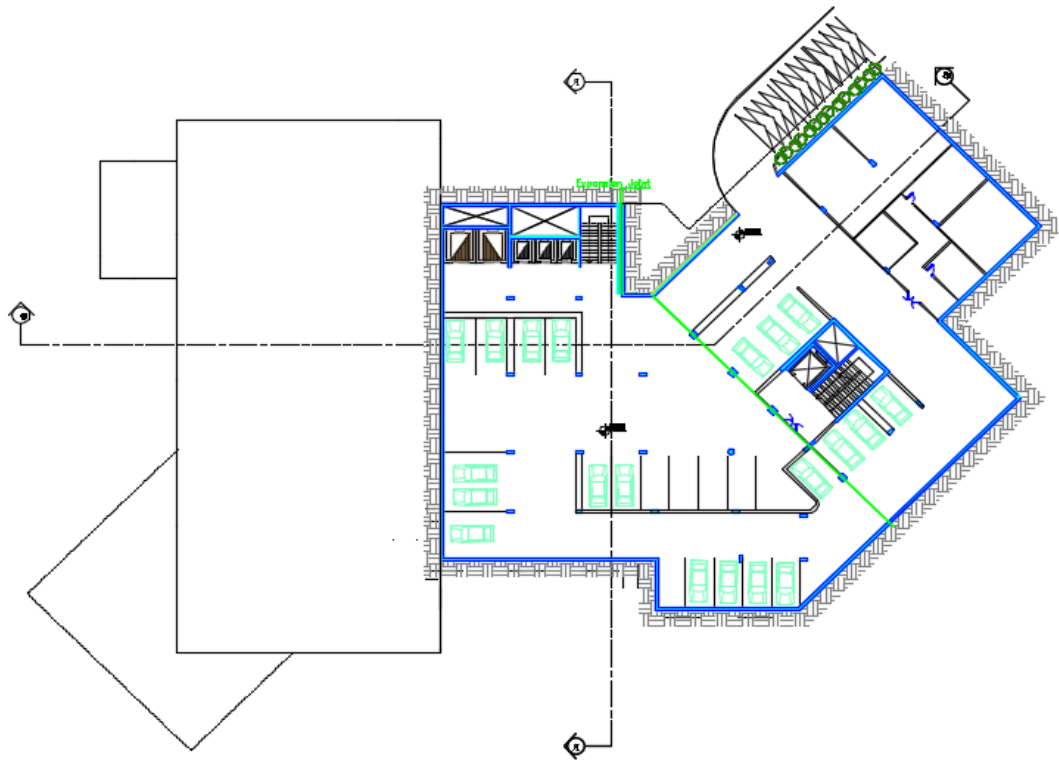


Figure 2-6: Basement (-2) floor.

2-4-2 Basement (-1) floor

The area of this floor is 1654.2m², on a depth of 3.20m below ground level (0.0), it consists of:

1. Dead Rooms: this floor contains a room for dead washing and a refrigerator room for the dead.
2. Guest rooms: on this floor there are rest rooms for staffs and guest lounge.
3. Drug stores.
4. Department of kitchens and food storage: the floor includes a large kitchen that includes all the necessary equipment to prepare food for all patients and employees, large storages and large refrigerators for food.

5. Laundry rooms: there is a full section on this floor with laundry and has three laundry and drying rooms, folding and ironing room, and registration and delivery area.

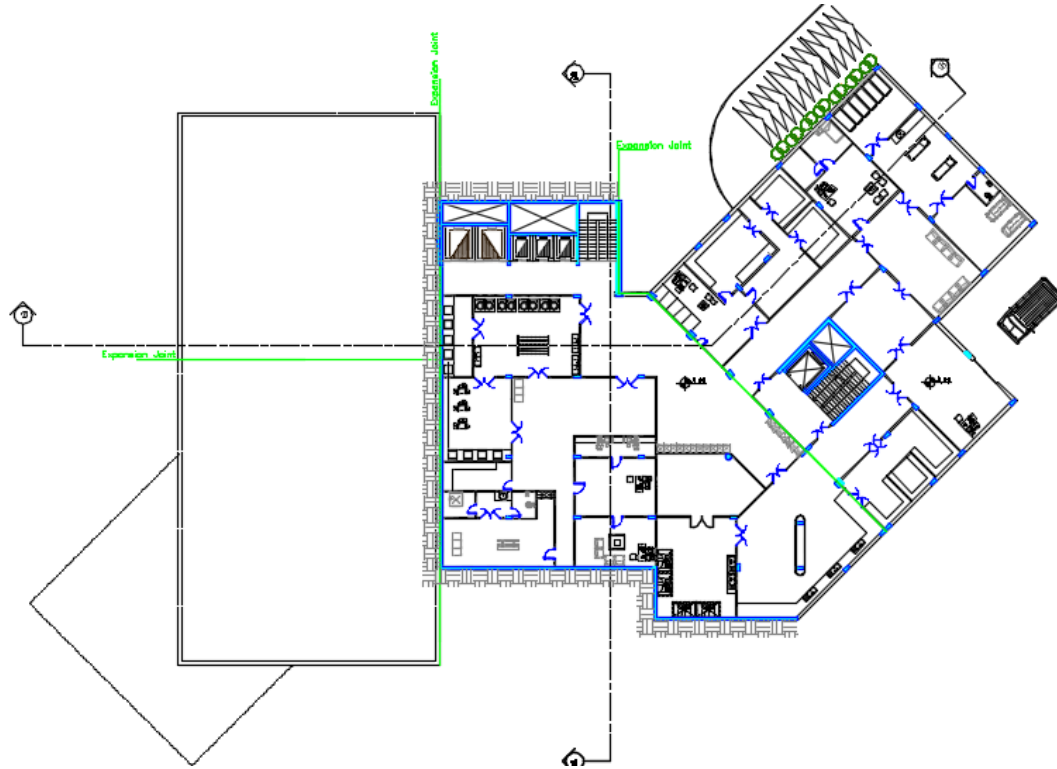


Figure 2-7: Basement (-1) floor.

2-4-3 Ground floor

The area of this floor is 1891m², on a height of 0.6m above ground level (0.0), it consists of:

1. Entrance, consists of: entrance hall, reception, and elements of the movement (elevators, stairs).
2. External clinics.
3. Master cafeteria, kitchen, storage room and gifts shop.

This floor has two entrances, main entrance and sub entrance.

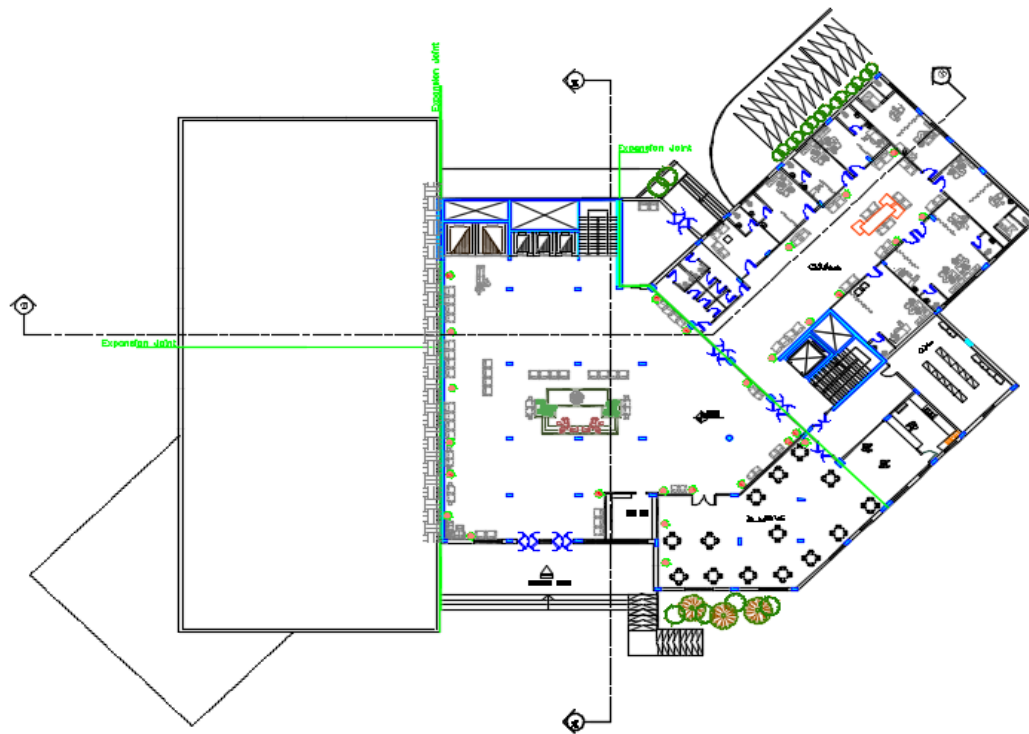


Figure 2-8: Ground floor.

2-4-4 First floor.

The area of this floor is 2687m², on a height of 4.39m above ground level (0.0), it consists of:

1. Department of Administration consists of: meeting hall, the office of the hospital director, the secretariat, archivist, public relations office and the accounting office.
2. It has a pharmacy, a drug store and a staff lounge.
3. There is a special ward consisting of two sections: the laboratory section and the radiology department, it also has a staff lounge.
4. Emergency department: It has a large entrance, next to the security department; there are also security, guest and staff lounges.
5. Reception :It has a guest lounge, reception and registration desks and staff lounge.
6. Department of examination: divided into two sections one for women and the other one for men. In addition to, rapid operations room.

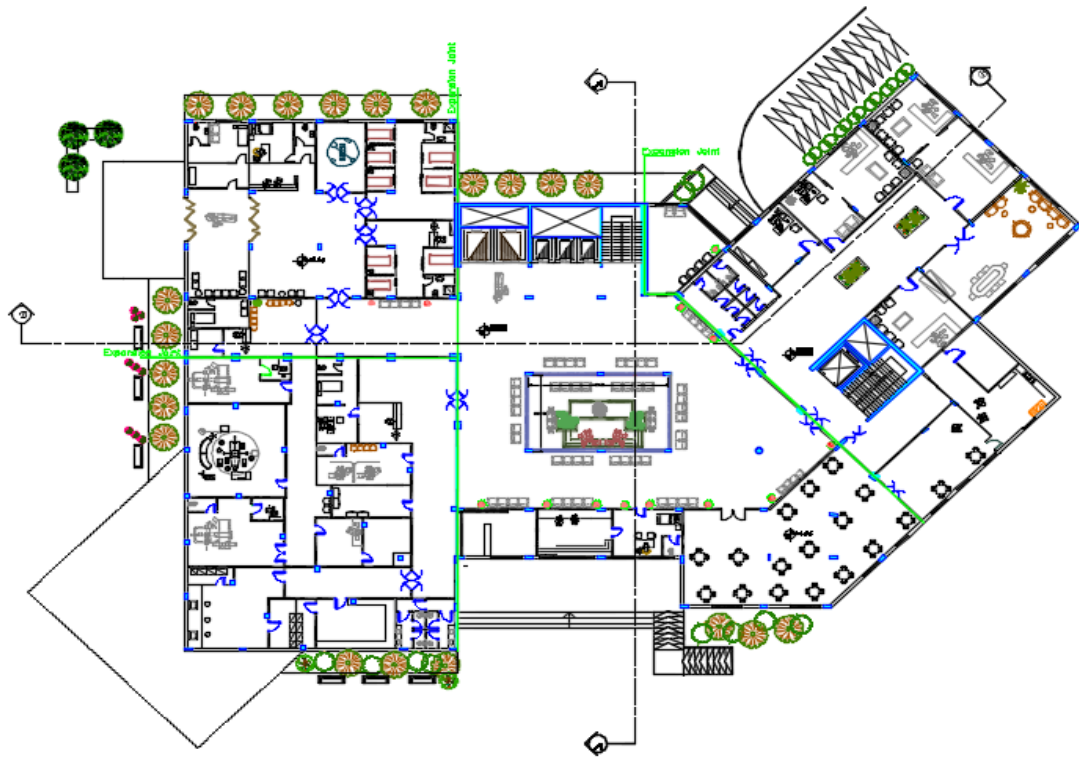


Figure 2-9: First floor.

2-4-5 Second floor

The area of this floor is 2815m², on a height of 8.2m above ground level (0.0), it consists of:

1. Special section for operations: It consists of a clean corridor along the section that reaches the sterilization chambers, also it consists of two operating rooms each one is containing an anesthesia room that has a special part for washing.
2. Department of intensive care: consists of ICO and CCU rooms ,in addition to two rooms for rapid operations with the necessary preparations of sterilization and anesthesia.

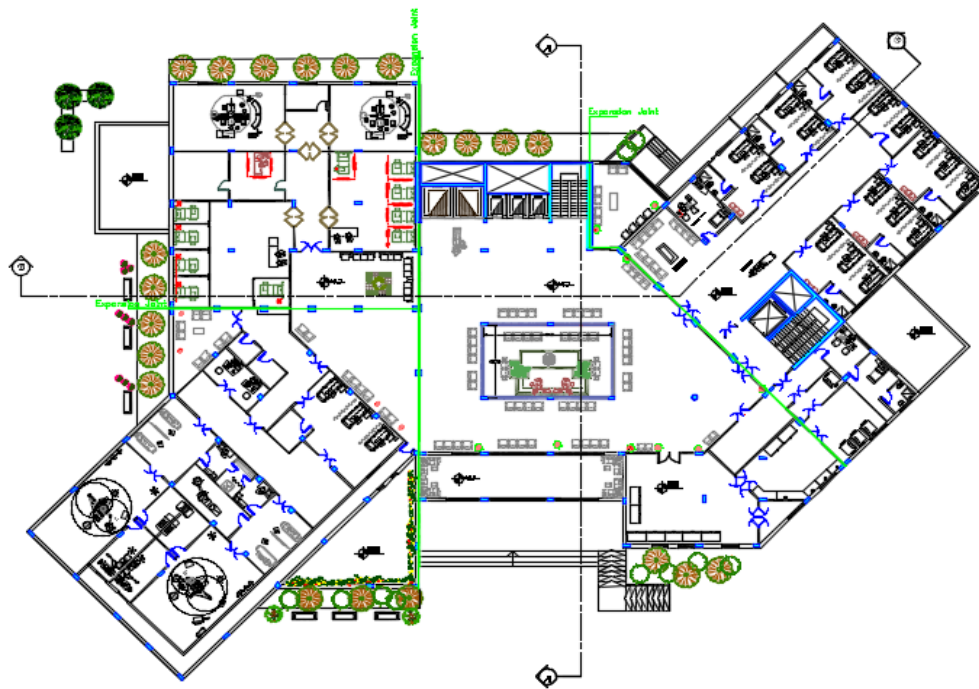


Figure 2-10: Second floor.

2-4-6 Third floor

The area of this floor is 2464m², on a height of 12.0m above ground level (0.0), it consists of:

1. The Department of Obstetrics: Patient's rooms section has the largest part of it. The second part consists of the natural and caesarean delivery rooms, the examination and preparation rooms, the preterm section, and doctors' rest rooms.
2. Children's section: consists of: patient's rooms, playroom for children, queries and rest rooms for visitors and nurses.

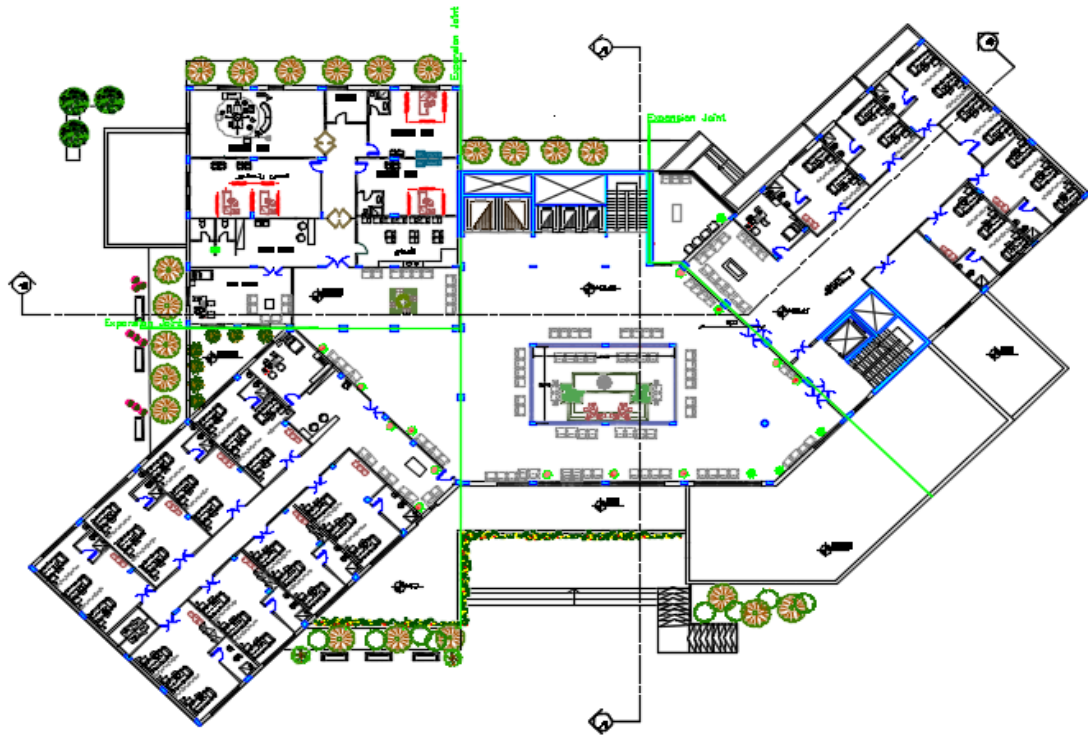


Figure 2-11: Third floor

2-4-7 Fourth floor

The area of this floor is 2000m², on a height of 15.8m above ground level (0.0), it consists of:

1. Department of Internal Medicine: it consists of patients rooms, rest section for staffs and visitors, and nurses' inquiries.
2. Ear, nose and throat Department.
3. Department of Surgery: it consists of several rooms for its patients. In addition to its sterilization section.

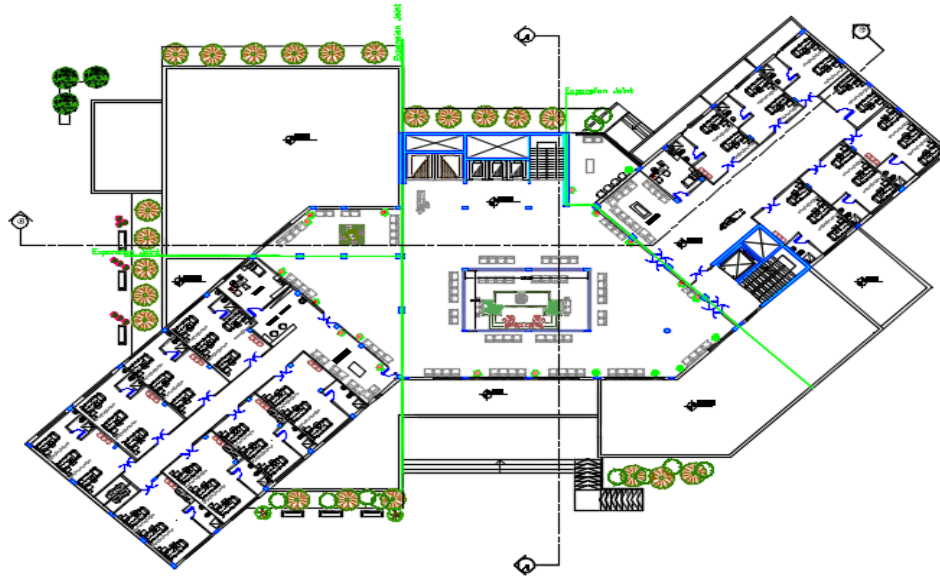


Figure 2-12: Fourth floor.

2-5 Description of elevations

Building elevations give the first impression of the idea of the building and its interconnection with the surrounding. Project elevations here are simple and having a traditional nature. Moreover, the difference in the levels of the building blocks helps in giving the idea and the aesthetic of the project elevations. In addition to the salience and retreating are clear in the elevations as follows:

2-5-1 North elevation (main elevation)

It is the main elevation with a clear difference in the levels, showing all the blocks of the building. It contains the main entrance of the hospital and several forms of windows. This elevation consists of various types of materials such as stone and glass.

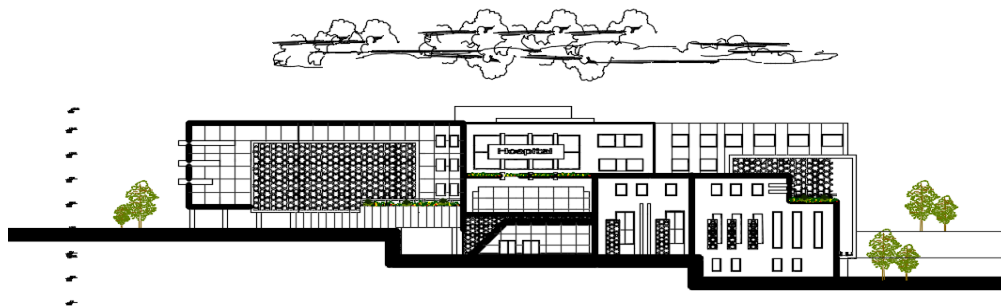


Figure 2-13: North elevation (main elevation).

2-5-2 South elevation

It shows the different levels of the land, in addition to the outer columns.

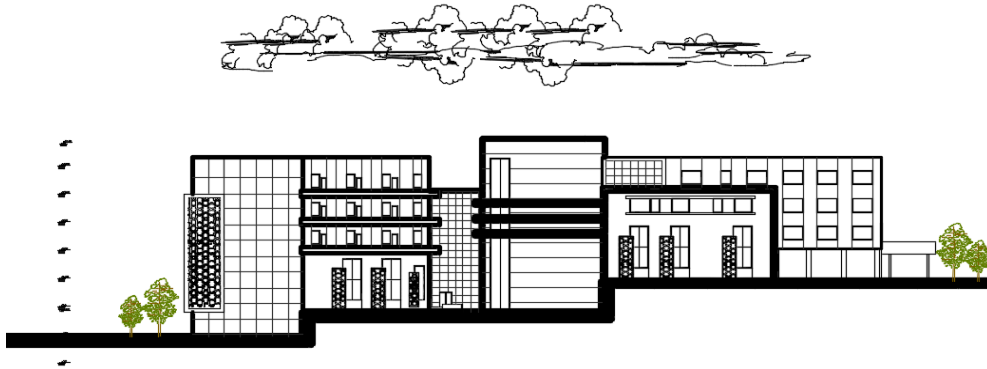


Figure 2-14: South elevation.

2-5-3 East elevation

It contains an emergency entrance surrounded by glass.

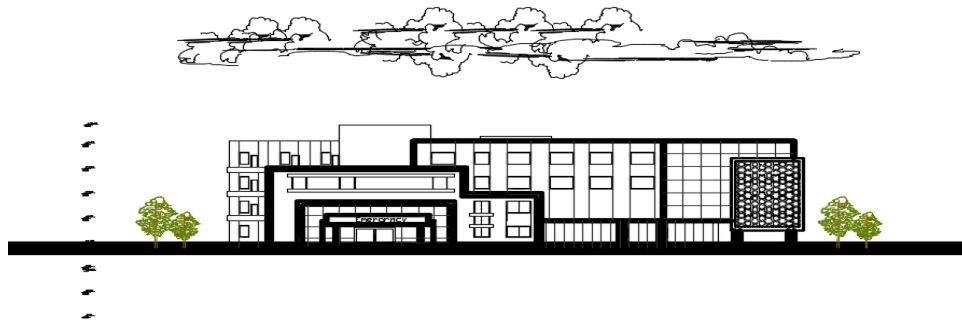


Figure 2-15: East elevation.

2-5-4 West elevation

Car parking entrance is appearing in this elevation. Moreover, levels difference and building blocks retreating are clear here.



Figure 2-16: West elevation.

2-6 Description of movement of the building:

2-6-1 Internal Movement

The vertical movement between the floors is based on its elevators and stairs. In each floor, there are elevators for patients and elevators for visitors, as well as a staircase and elevators for hospital services. Moreover, the horizontal movement is applied to transport freely in the hospital sections.

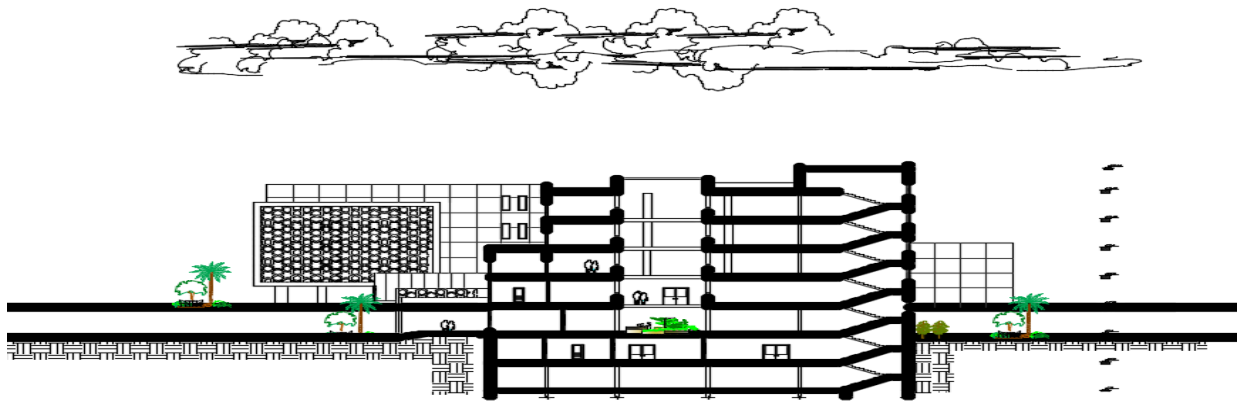


Figure 2-17: Section(A-A).

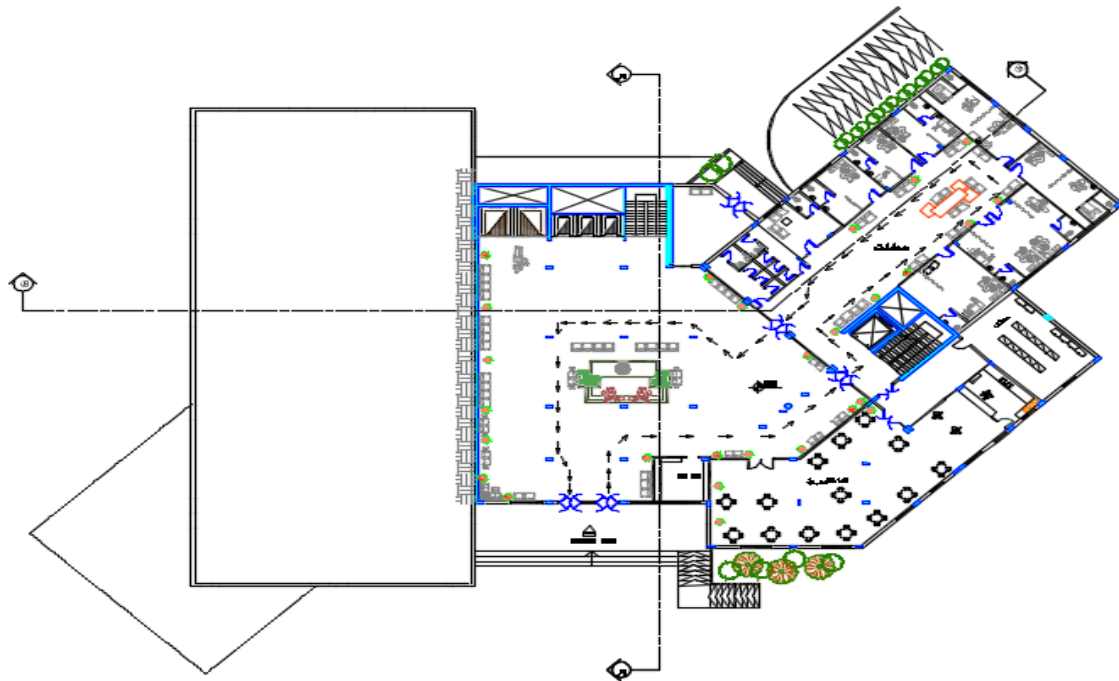


Figure 2-18: Horizontal movement.

2-6-2 External Movement

Project land is divided into 3 levels; the difference between each level is 4m, so the construction of the hospital will be built on 3 levels.

The lowest level contains the garage with a comfortable ramp and some external car parking. The middle level contains a free cars path to reach the entrance of the hospital with some external parkings. Finally, the highest level contains an emergency entrance with an excellent path for the ambulance to reach it, in addition to external parking for the visitors and the ambulance.

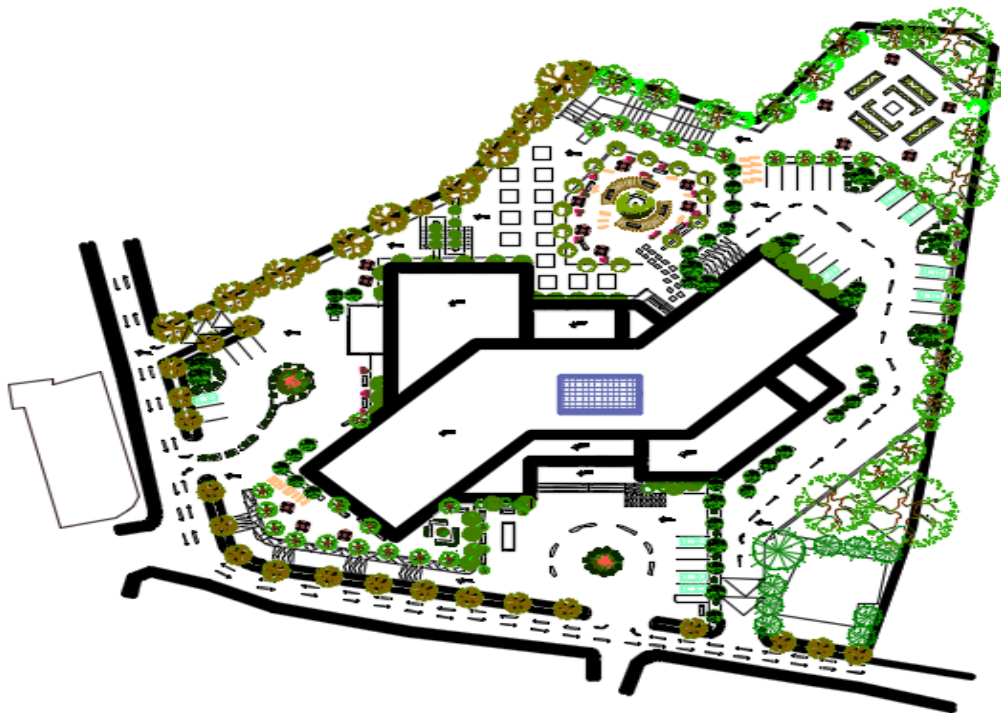


Figure 2-19: Site plan.