

# RAMSAR APARTMENT BLOCK RETHINKING THE APARTMENT BUILDING

#### SHEED SUN RAD CONSULTING ENGINEERS

CLIENT: Mr. Teimour Honarbakhsh

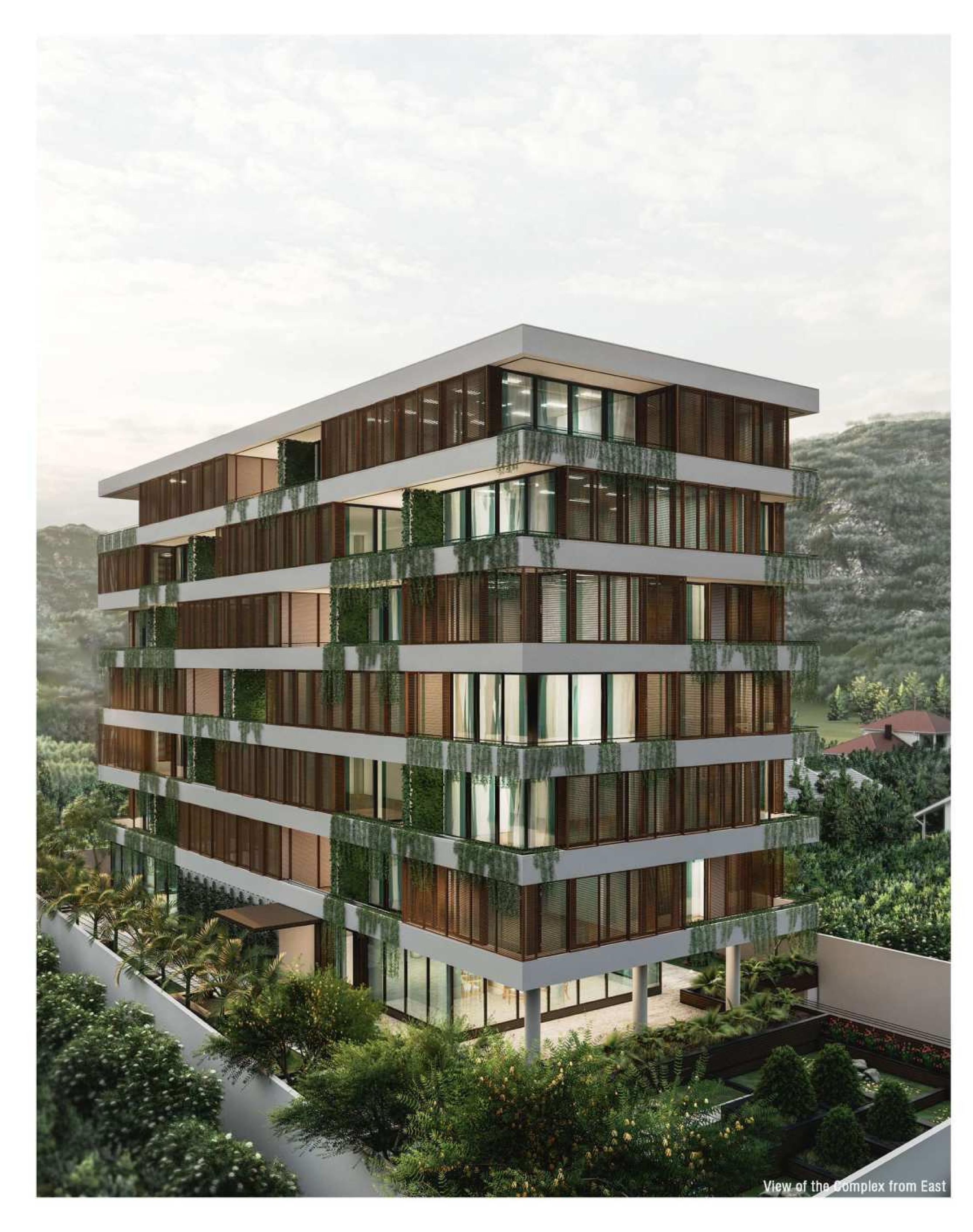
PROJECT TYPE: Residential Villa Apartment

STATUS: Design Development

LOCATION: Ramsar, Iran

BUILDING FLOOR AREA: 5,850 sqm

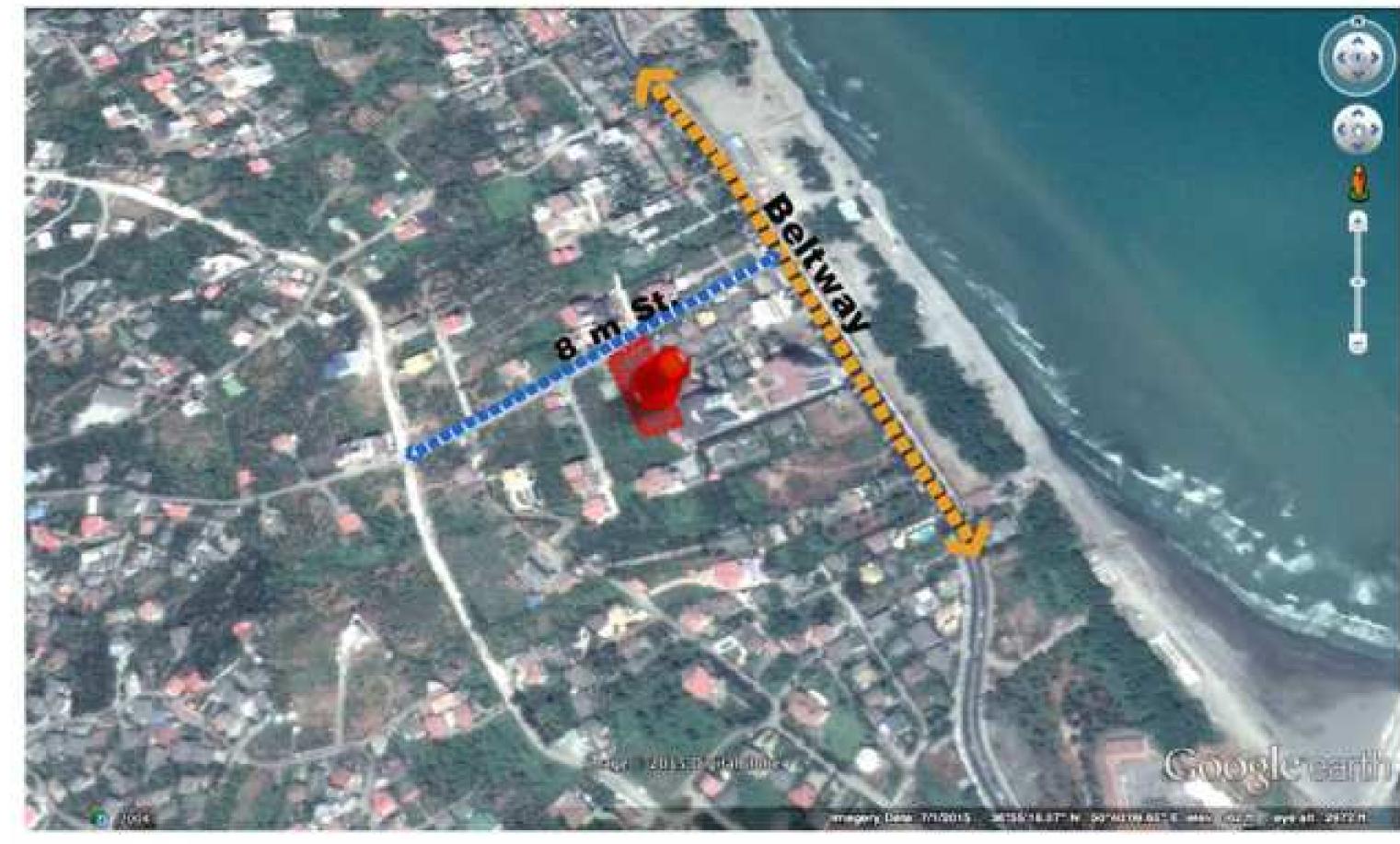




This apartment complex is located in the city of Ramsar where the low distance between the Caspian Sea to the north, and the Alborz forest mountains to the south has created a pleasant natural environment and beauty. The principal goals of the project were to respect this context and limit environmental harm as much as possible, and, make good use of the environmental assets of the site. Set on the path of mountain and sea breezes, the main climatic feature of the area is high humidity and mild temperatures. Therefore, the project aimed at enhancement of human comfort by providing favorable natural light and view, environmental comport, and an integral hierarchy of privacy.



The project site area is 1,825 square meters. The access to the site is through an 8-meter street. The site direction is from north-west to south-east and due to its proximity to the see there is a very good view to both the forest mountains and the sea.



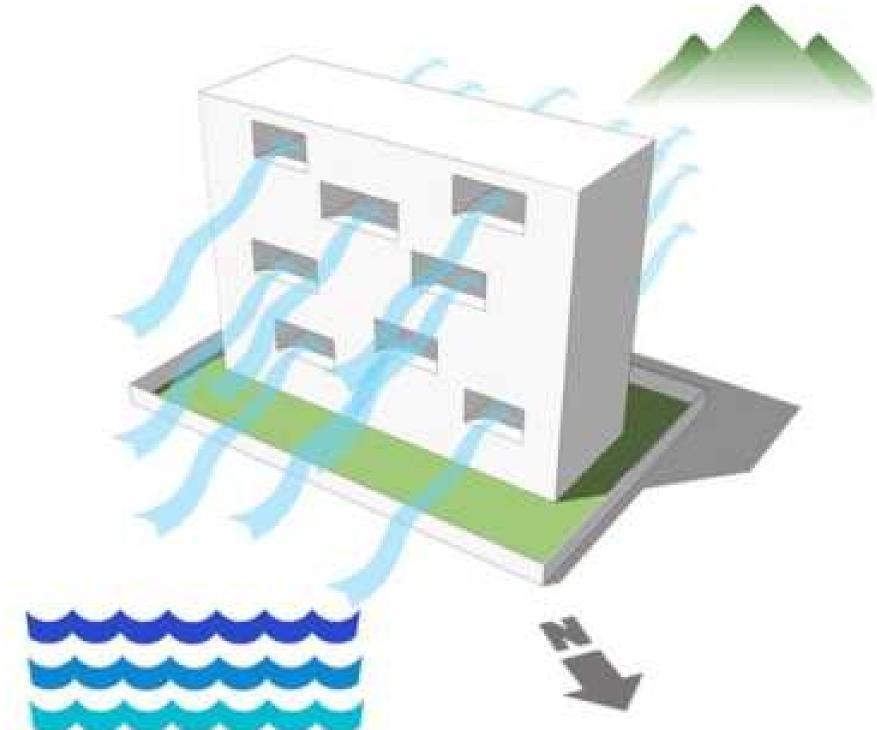
### As shown in the diagram the process of the formation of the volume is as follows:

- 1- The existing context around consists of detached and scattered houses
- 2- Unification: Less environmental damage (harm) through a centralized and integrated design
- 3- Height and Direction: Direction of the project is from north-west to south-east which is in the same direction as mountains and the sea

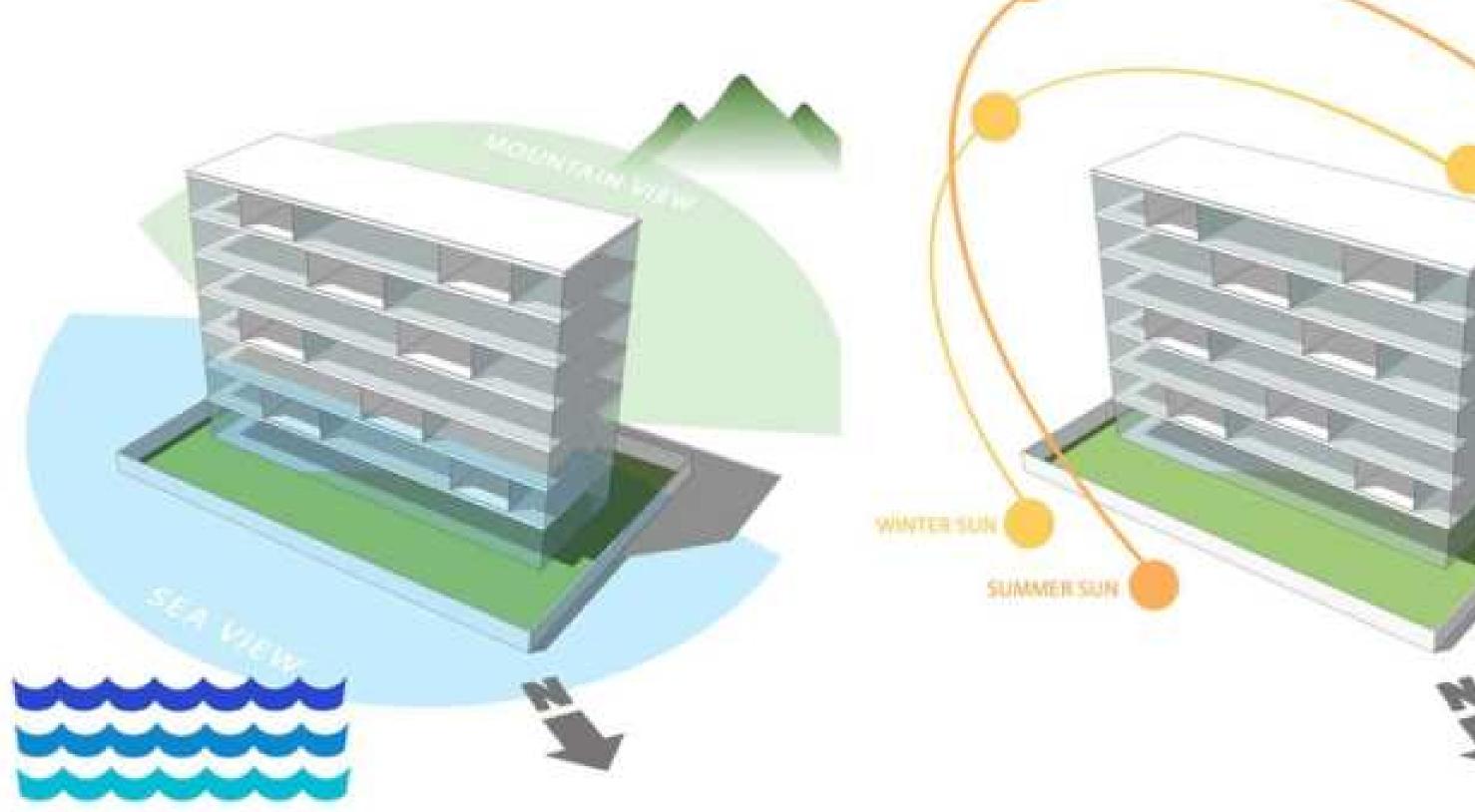
Constructing a multi-storey building instead of detached villas leaves more room for open and green spaces on the project site.

- 4- Appropriate Ventilation: Creating voids on the façade of the building in order to take the most advantage of the sea breeze and natural ventilation
- 5- Volume transparency and both-sided view: Transparency not only extends the view to the sea and mountains, but also destroys the borders between the inside and the outside
- 6- Sun Radiation: The sun's radiation angle has been taken into account in order to create shade in the summer and let the sunlight penetrate the building in the winter. The Building transparency also brings more light into the house.
- 7- Louvers: They are designed to control the glare in summers and let in the favorable light in winters. In transparent walls there is a 3m retreat to compensate the lack of louvers.
- 8-Green bands (layers) around the building: To bring green space in height and make the building more compatible with the surrounding nature, green bands (layers) are designed around the building.
- 9-Green walls: Vertical green walls have been designed to beautify and divide the balconies.

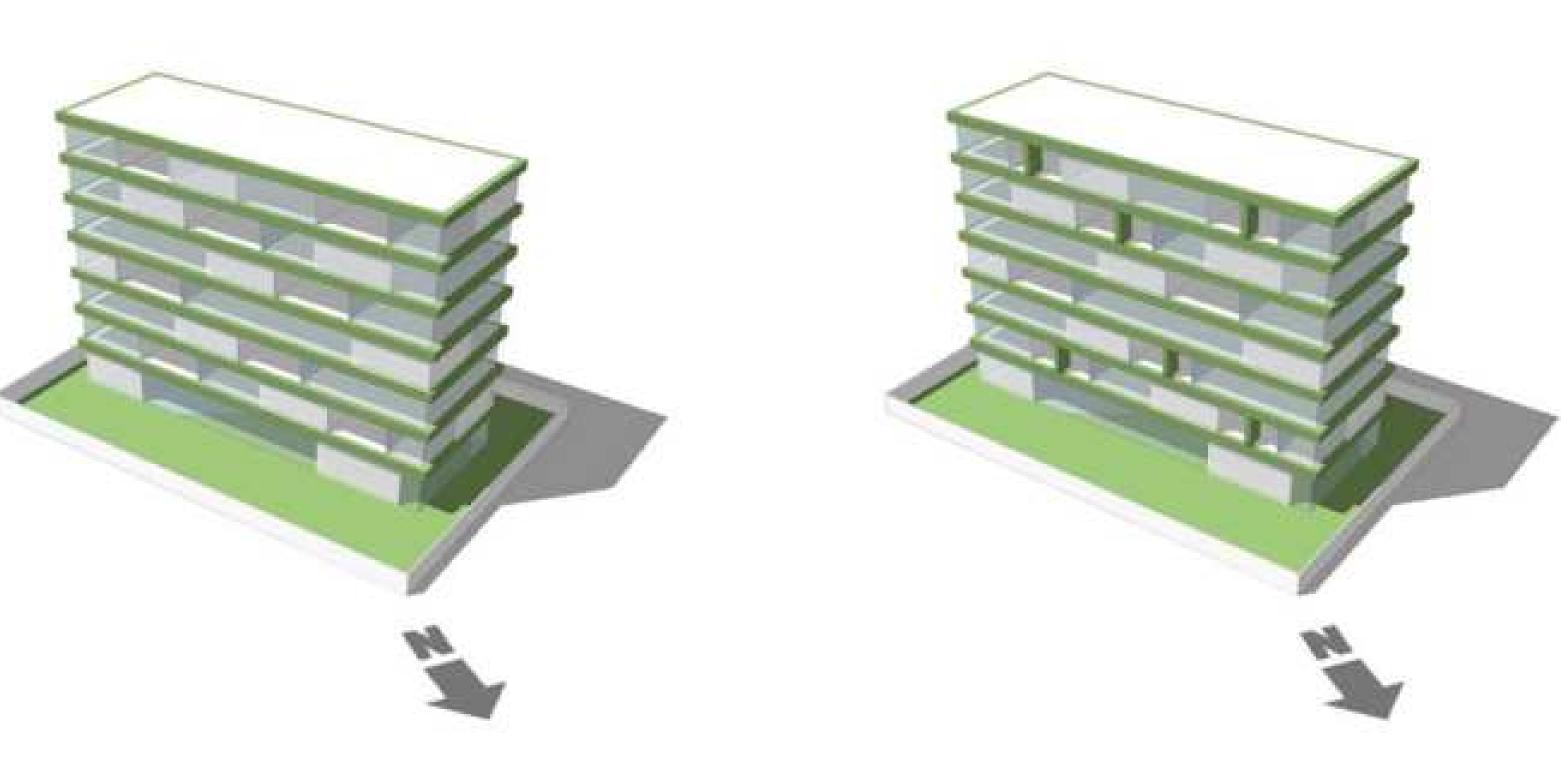




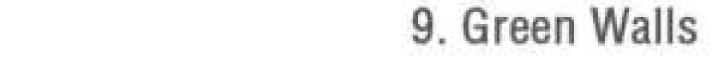




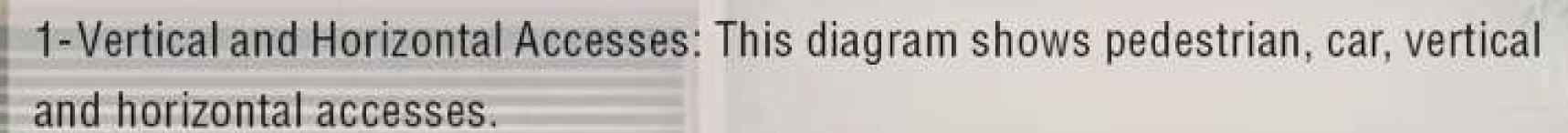




7. Louvers 8. Green Layers

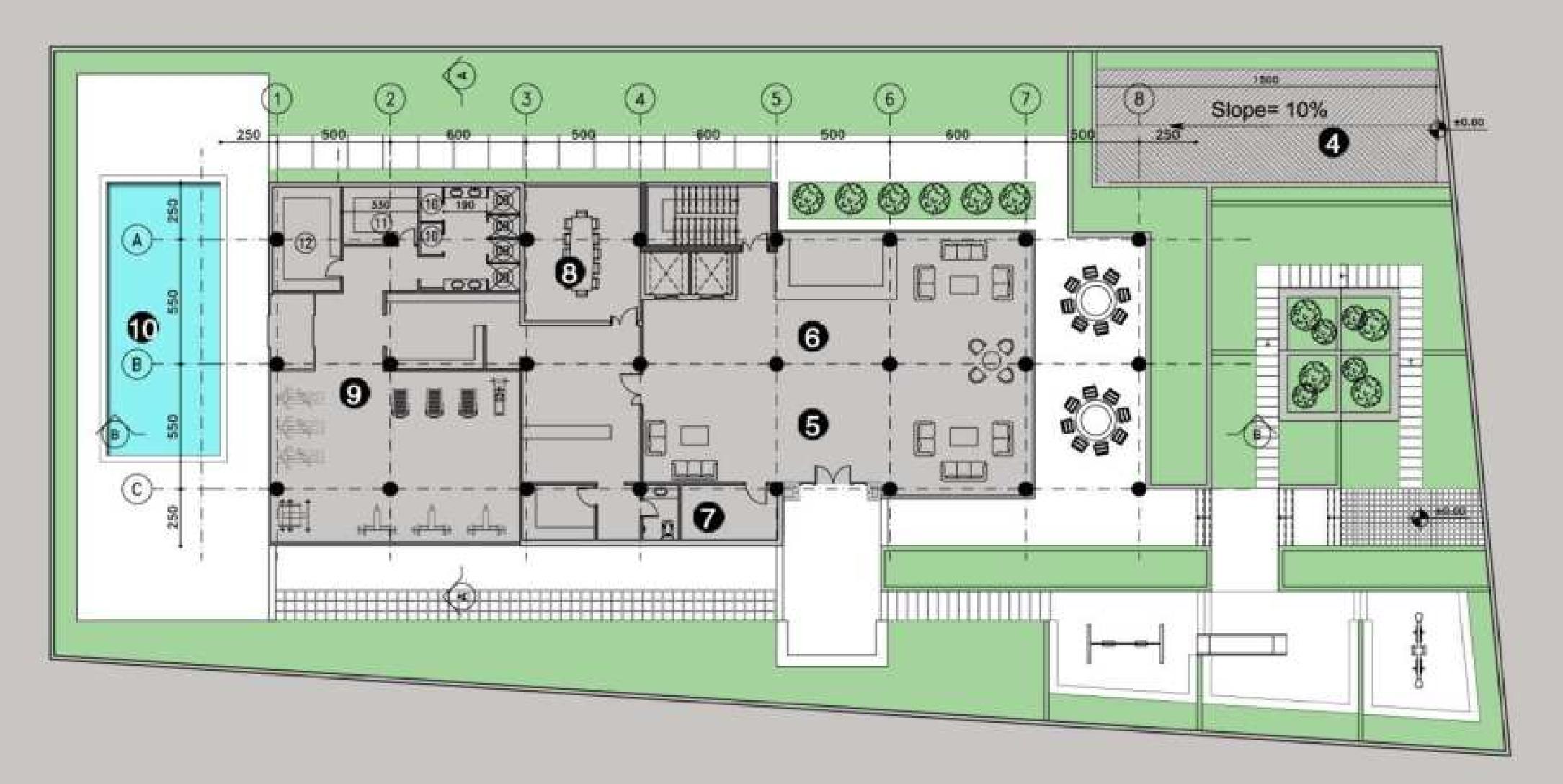


6. Sun Light

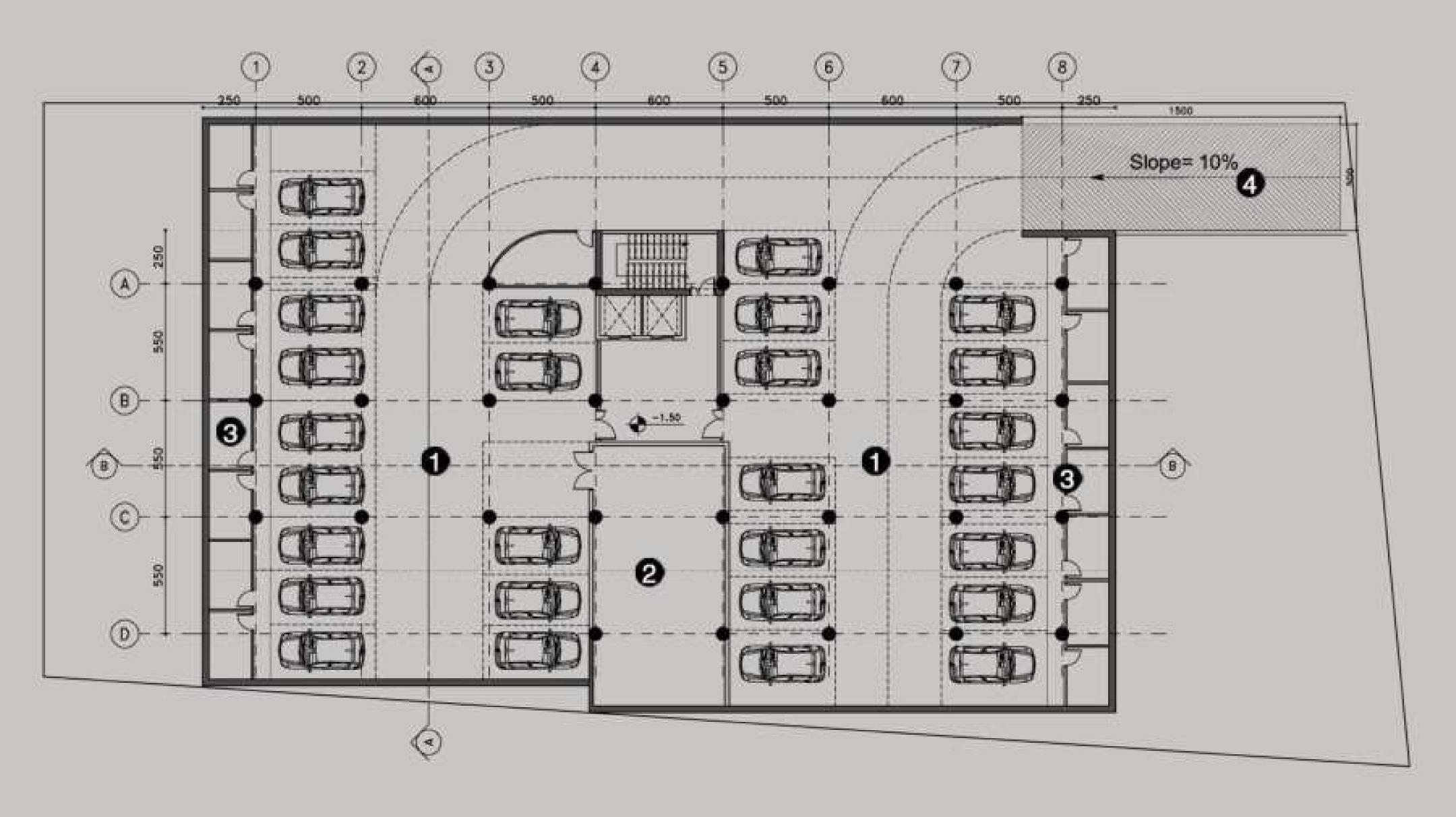


- 2-Privacy Hierarchy: In this project the hierarchy of privacy from Public to Semi-public, Semi-private and private has been considered.
- 3-Positive and Negative spaces: This diagram shows positive and negative spaces. Diversity in plans and elevations converts the volume from a monolithic and heavy volume to a dynamic and light volume.

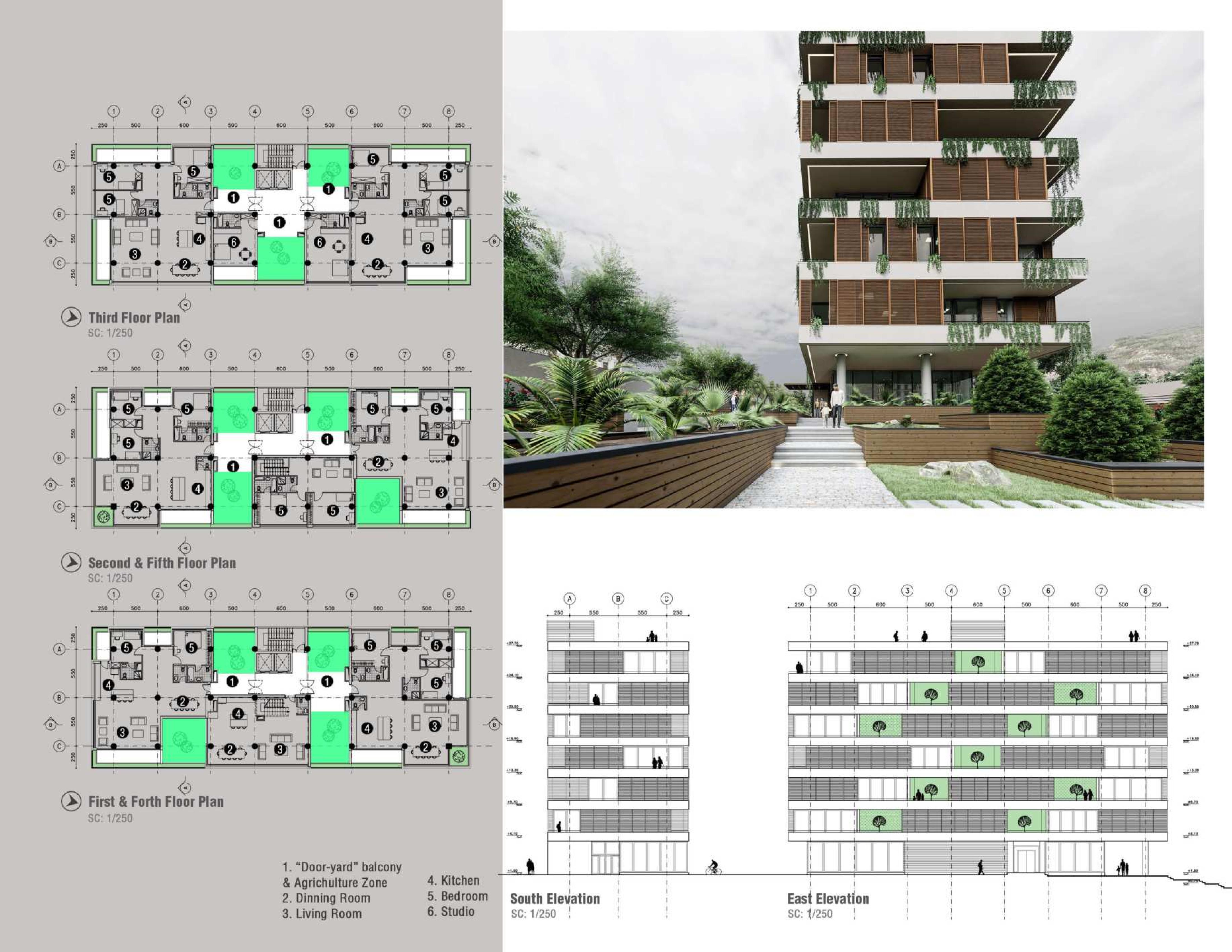




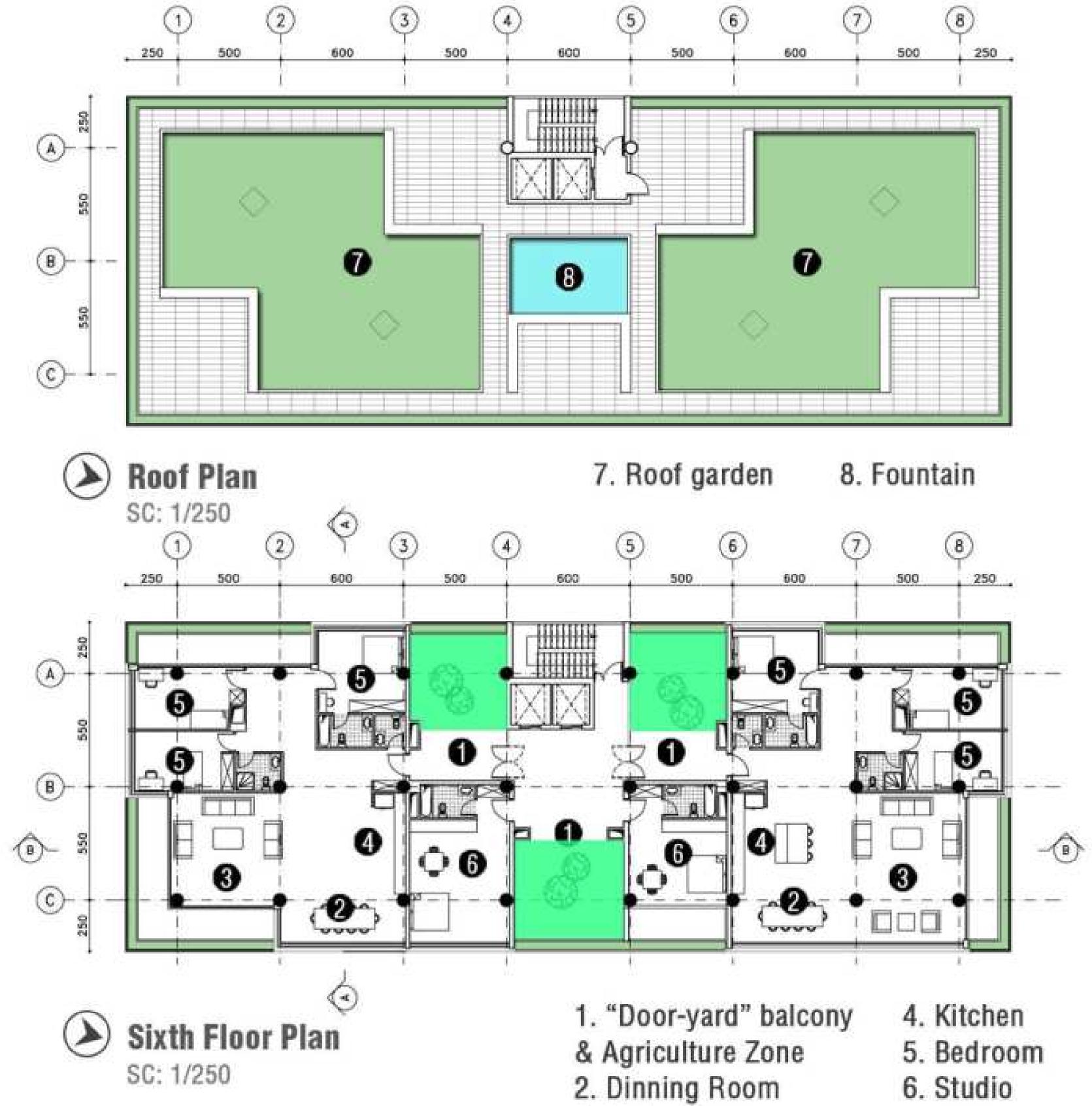
Ground Floor Plan
SC: 1/250



Parkade -1 SC: 1/250



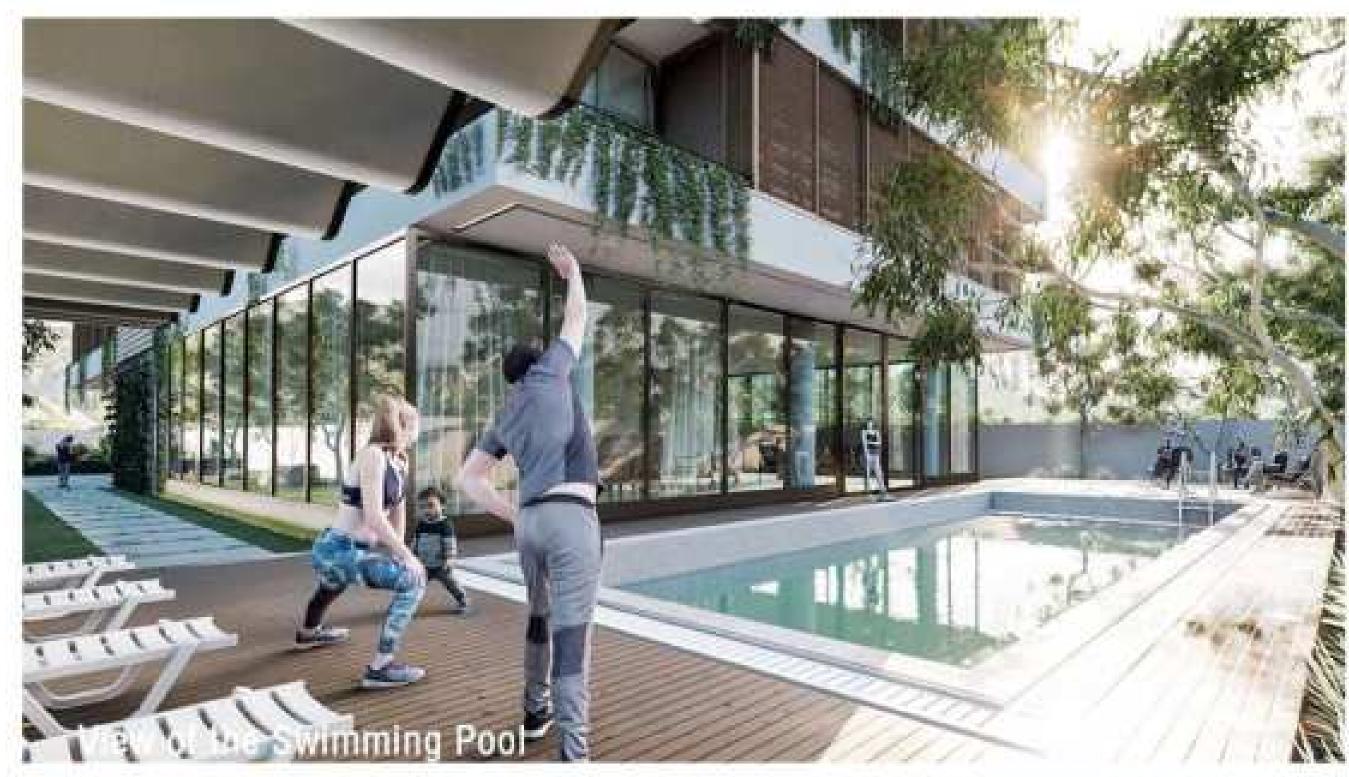




3. Living Room



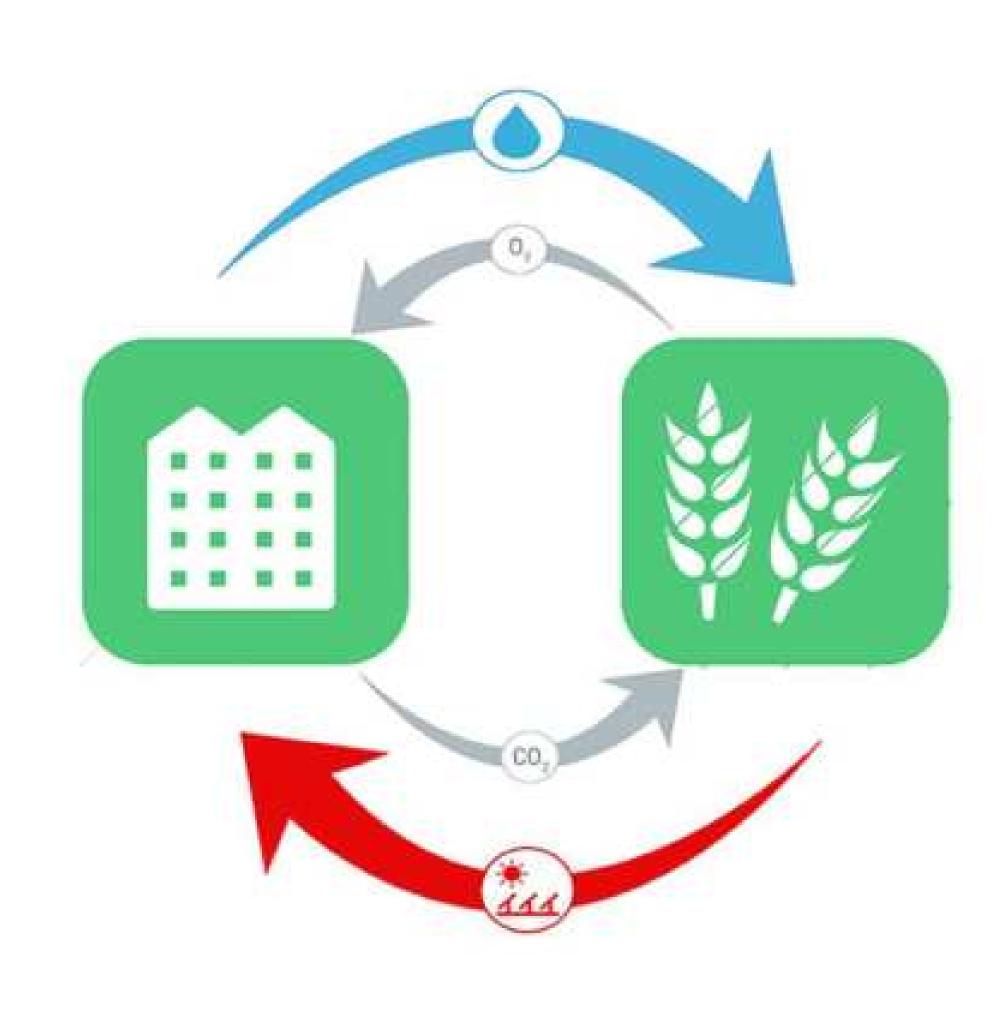
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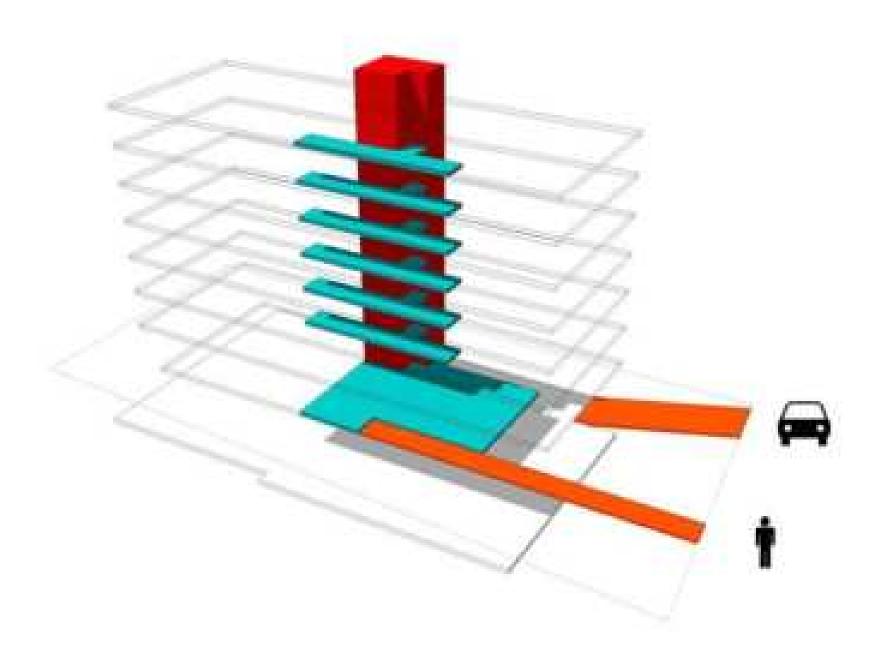




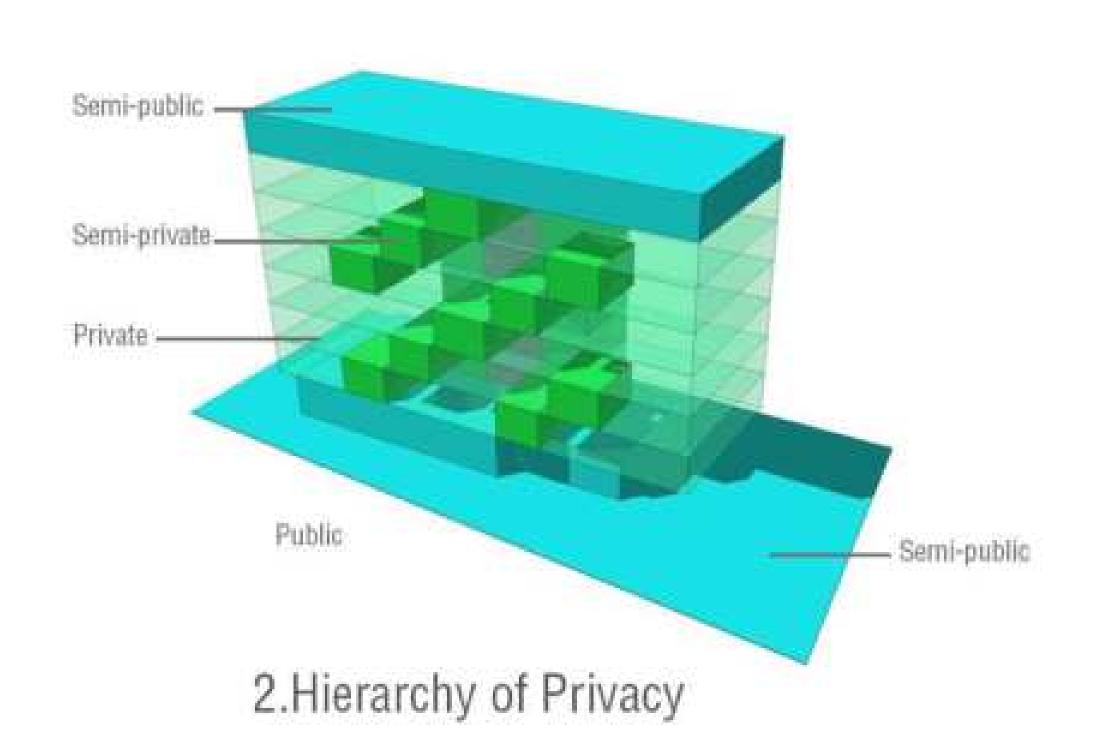


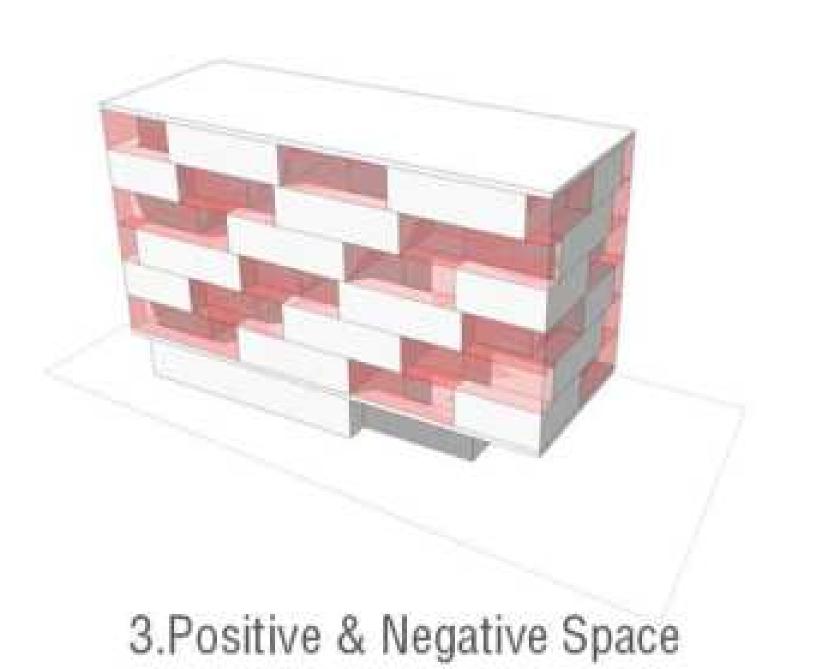


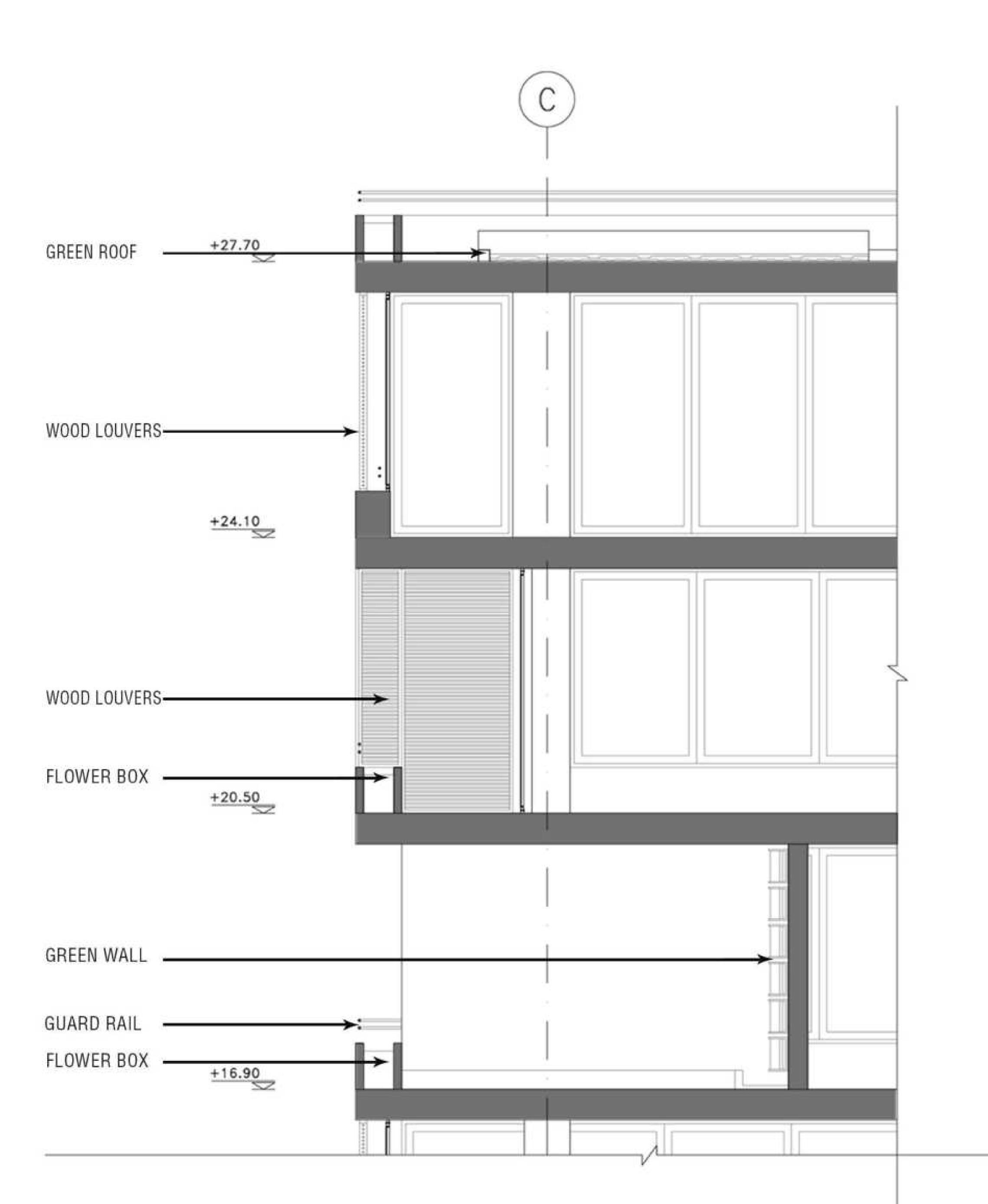
Door-yard and private balconies are designed for each unit in order to play the role of a house yard, an essential element of Iranian houses and one of the superiorities of a house over an apartment. The concept is to Maximize the possible use of "Productive Capacities of Nature" and limit damage to environment. Each unit has its own resources and agriculture zone which is depicted as a natural cycle.



1.Vertical & Horizontal Access







## 2 AZADI COMMERCIAL BUILDING ALL ABOUT ICONS

#### SHEED SUN RAD CONSULTING ENGINEERS

CLIENT: Ahram Company

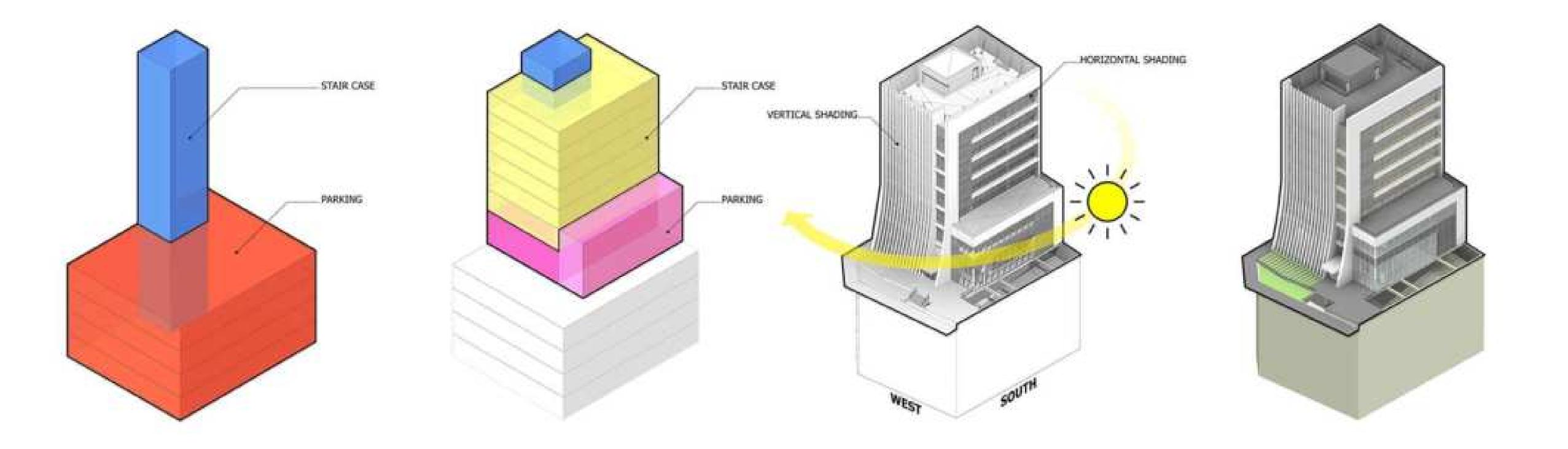
PROJECT TYPE: Office and Commercial Building

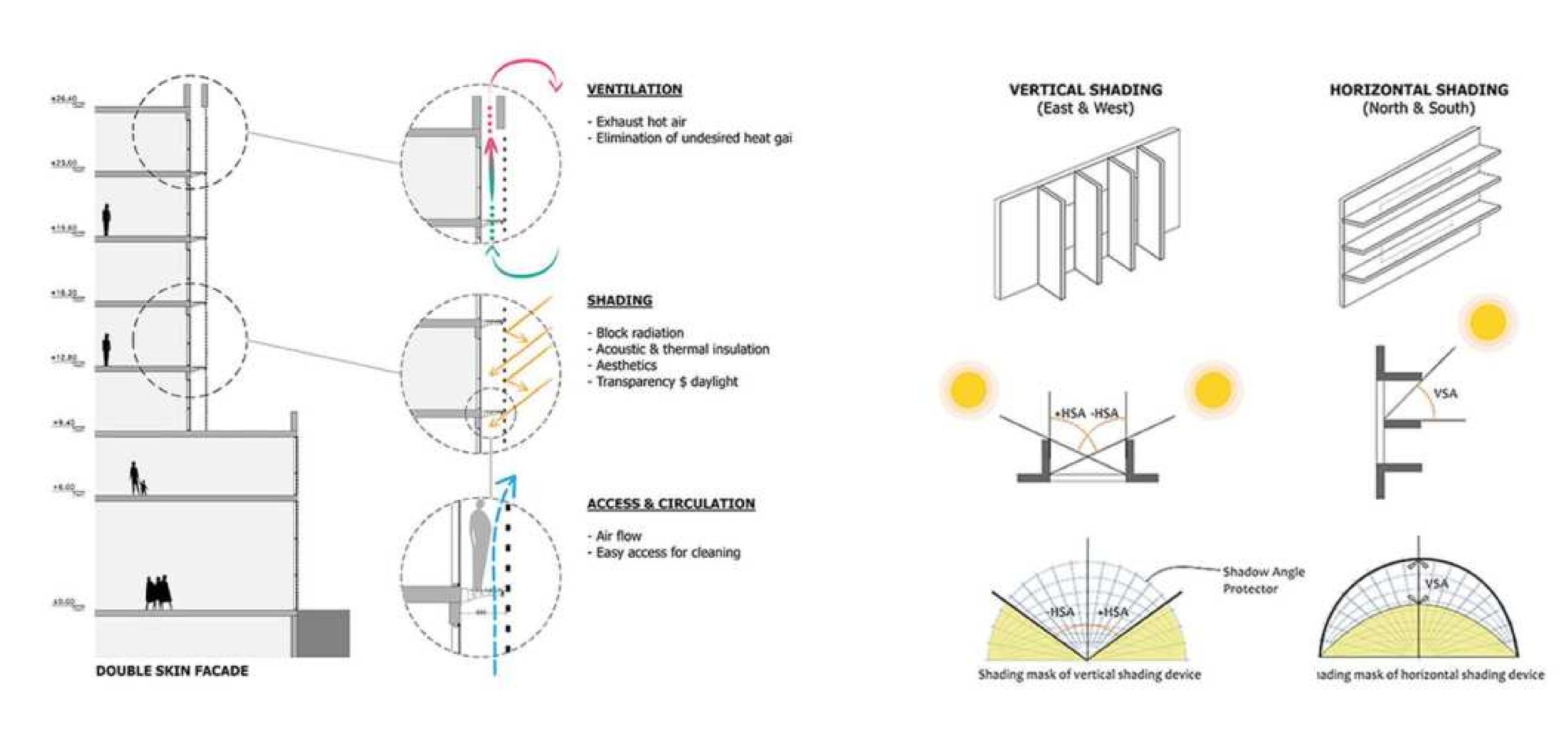
STATUS: Under Construction LOCATION: Tehran, Iran

BUILDING FLOOR AREA: 5,050 sqm

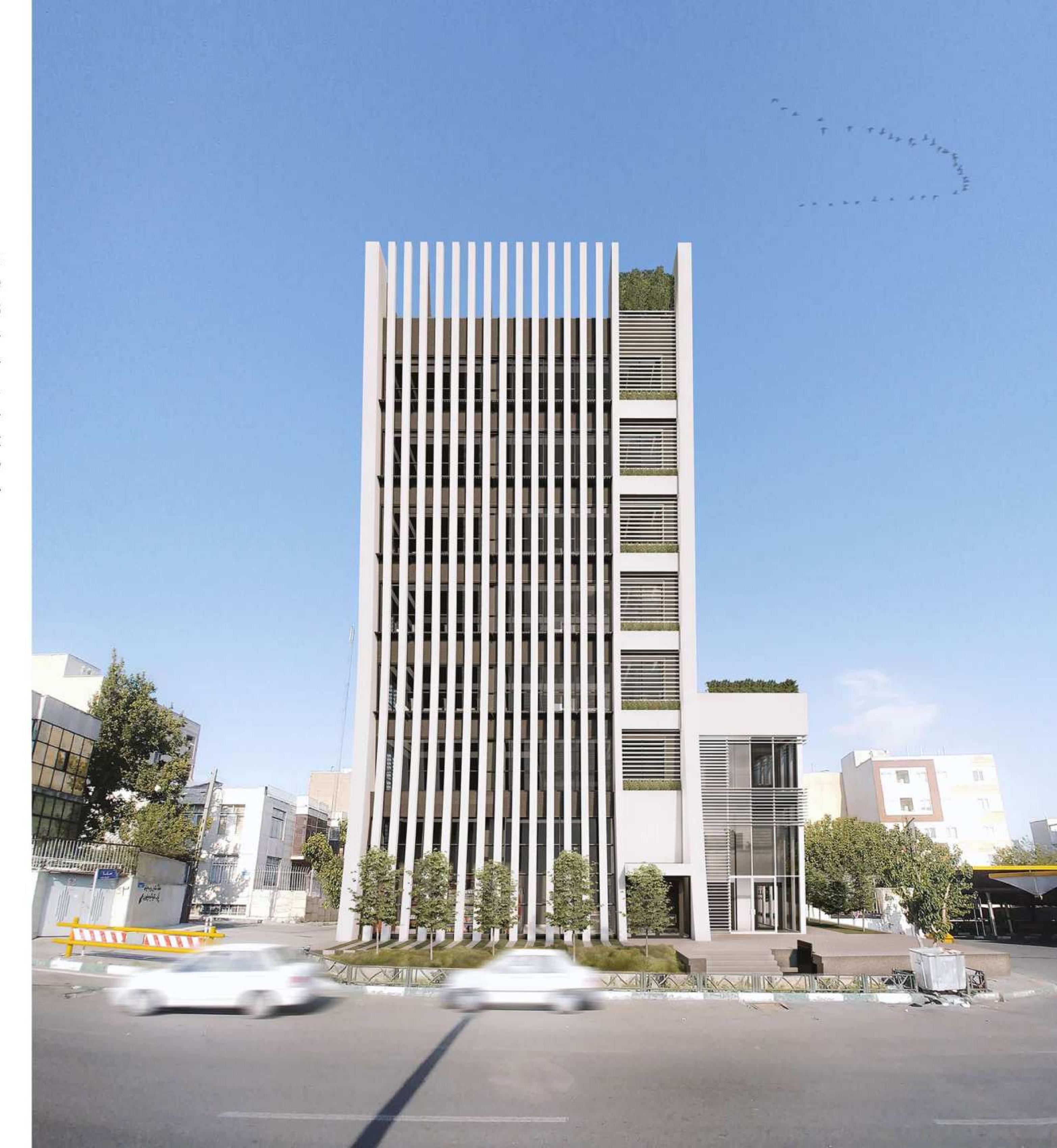








This project is close to Azadi square in Tehran which hosts as its centerpiece the Azadi Tower, one the most important Iconic structures in Iran. It is an 8 storey commercial building with 5 storey underground parkade. The design challenge was to optimize the view and energy saving at the same time. Therefore, a double skin façade with horizontal louvers on South elevation and vertical louvers on West elevation were created to lower thermal energy waste and increase the efficiency of using solar energy and view.



### 03 RAMSAR VILLA

#### SHEED SUN RAD CONSULTING ENGINEERS

CLIENT: Mr. Teimour Honarbakhsh

PROJECT TYPE: Residential Villa Apartment

STATUS: Design Development

LOCATION: Ramsar, Iran

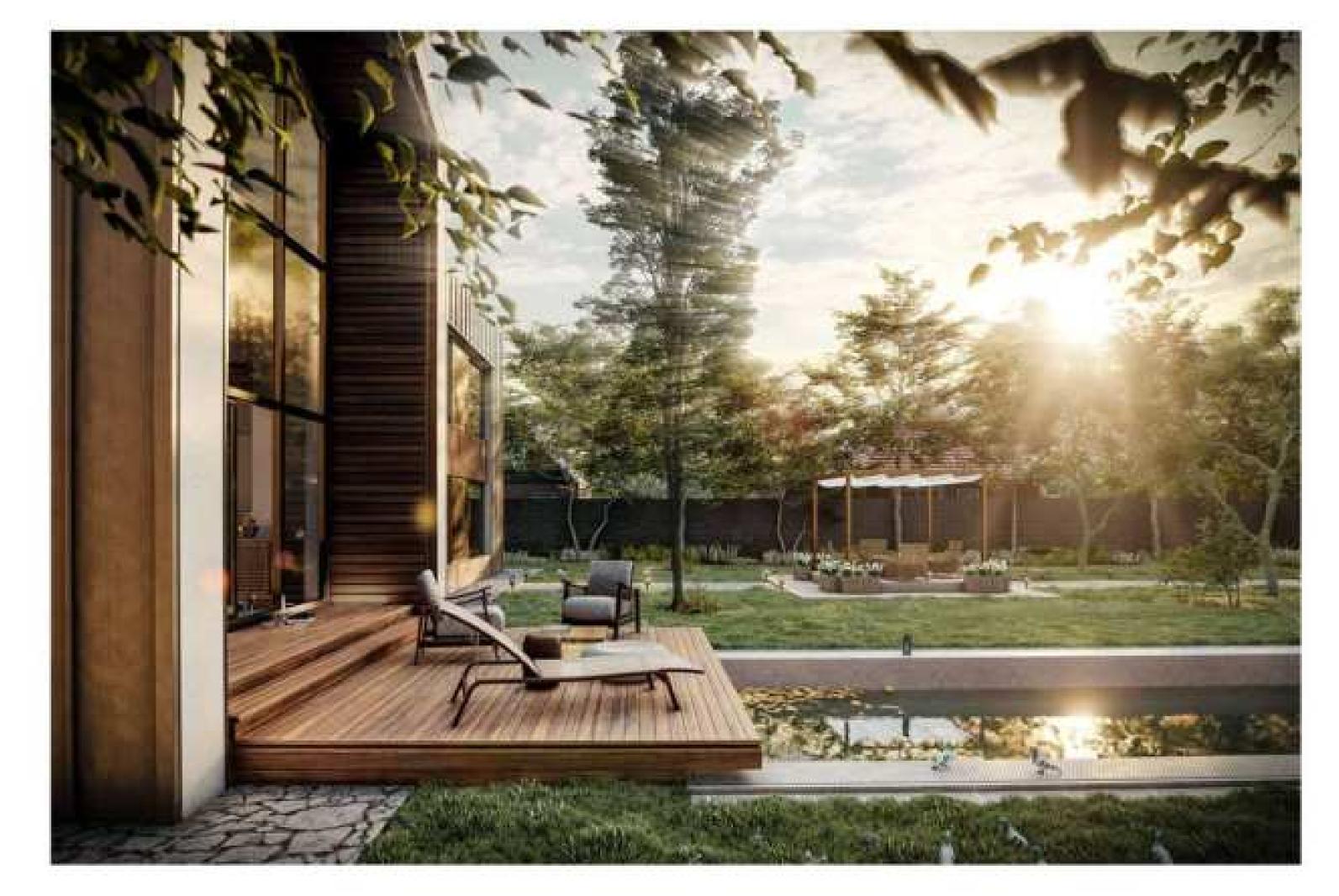
BUILDING FLOOR AREA: 220 sqm



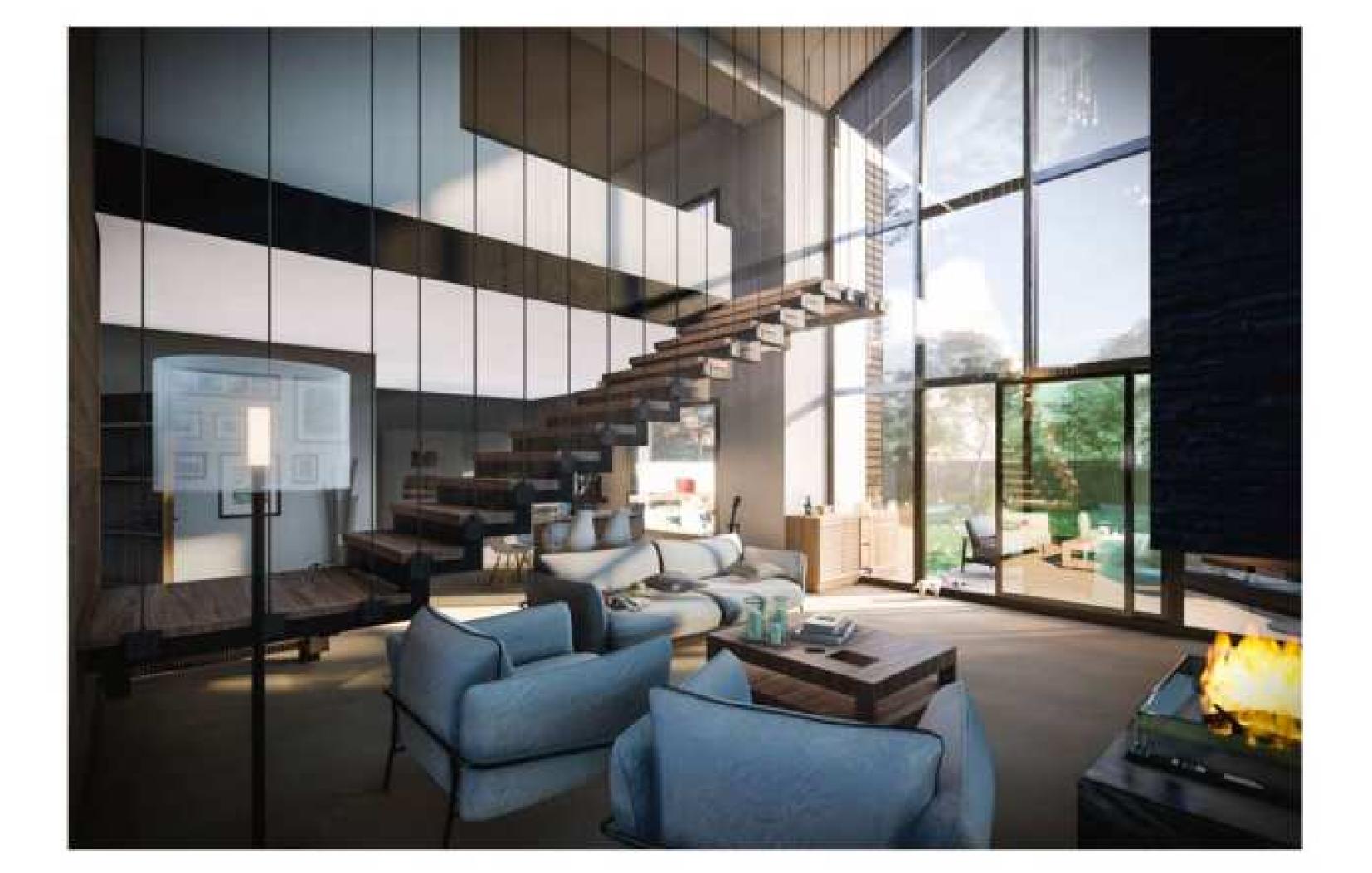






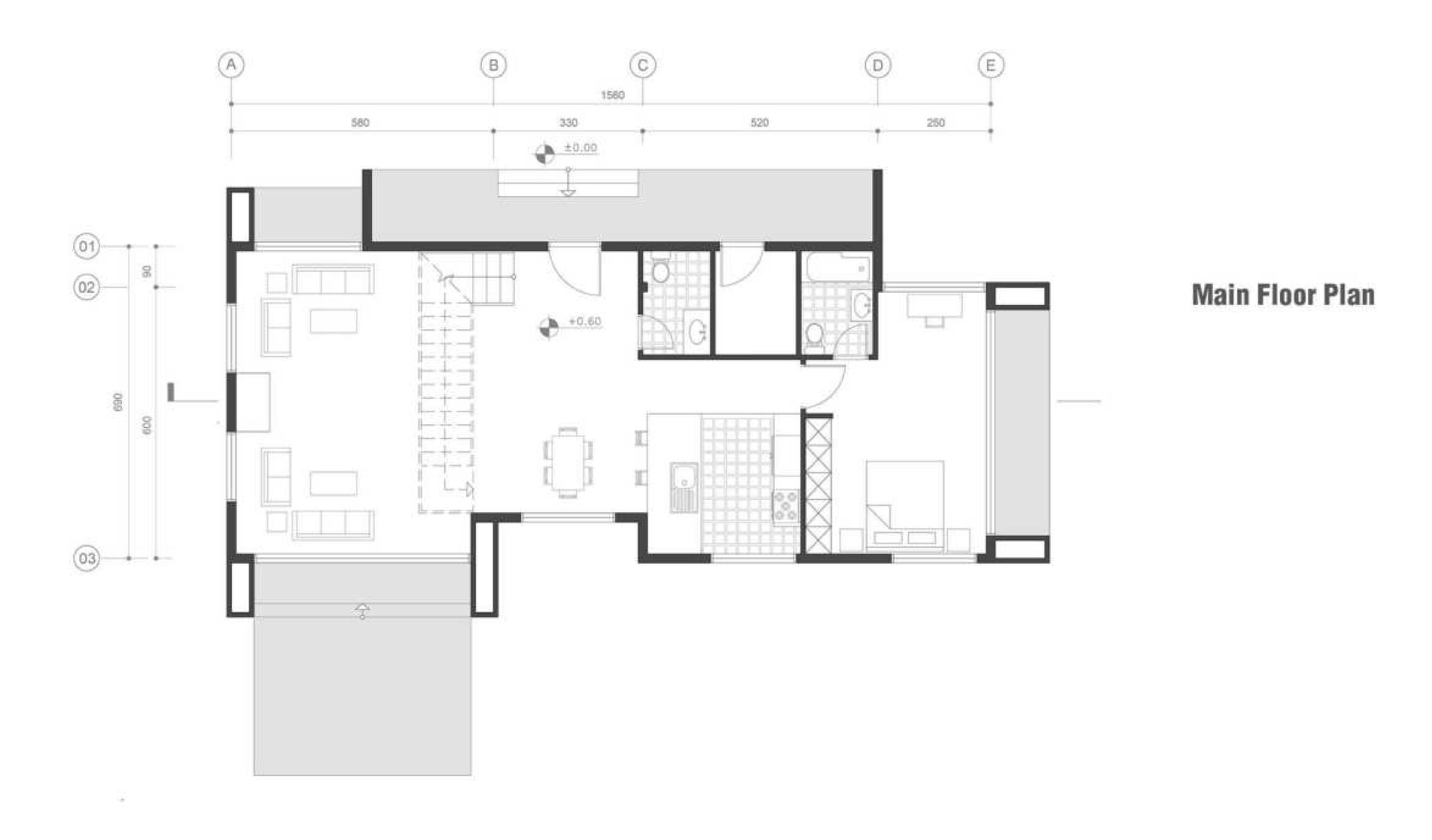


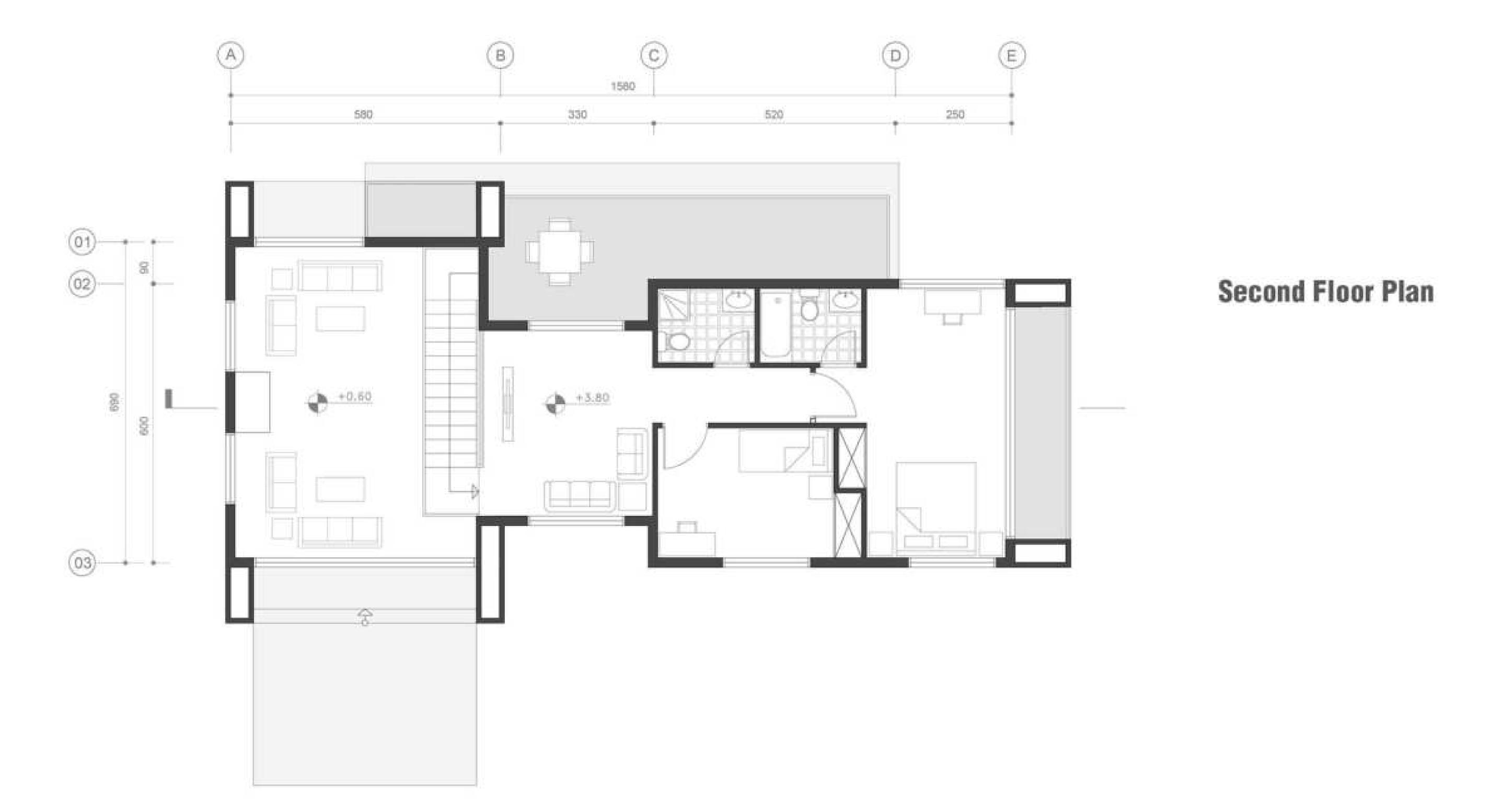
Interior View



This villa is located on a site at the area of Ramsar region, a special location between the Alborz Mountain forest and the Caspian Sea. Therefore, the first item that was taken into consideration was taking advantage of expansive views of Caspian Sea and Mountains. Large windows designed for this matter with high ceiling heights, to provide openness and create visual connectivity and a strong dialogue between the building and its immediate context.









### SHAHID BEHESHTI UNIVERSITY

#### SHEED SUN CONSULTING ENGINEERS

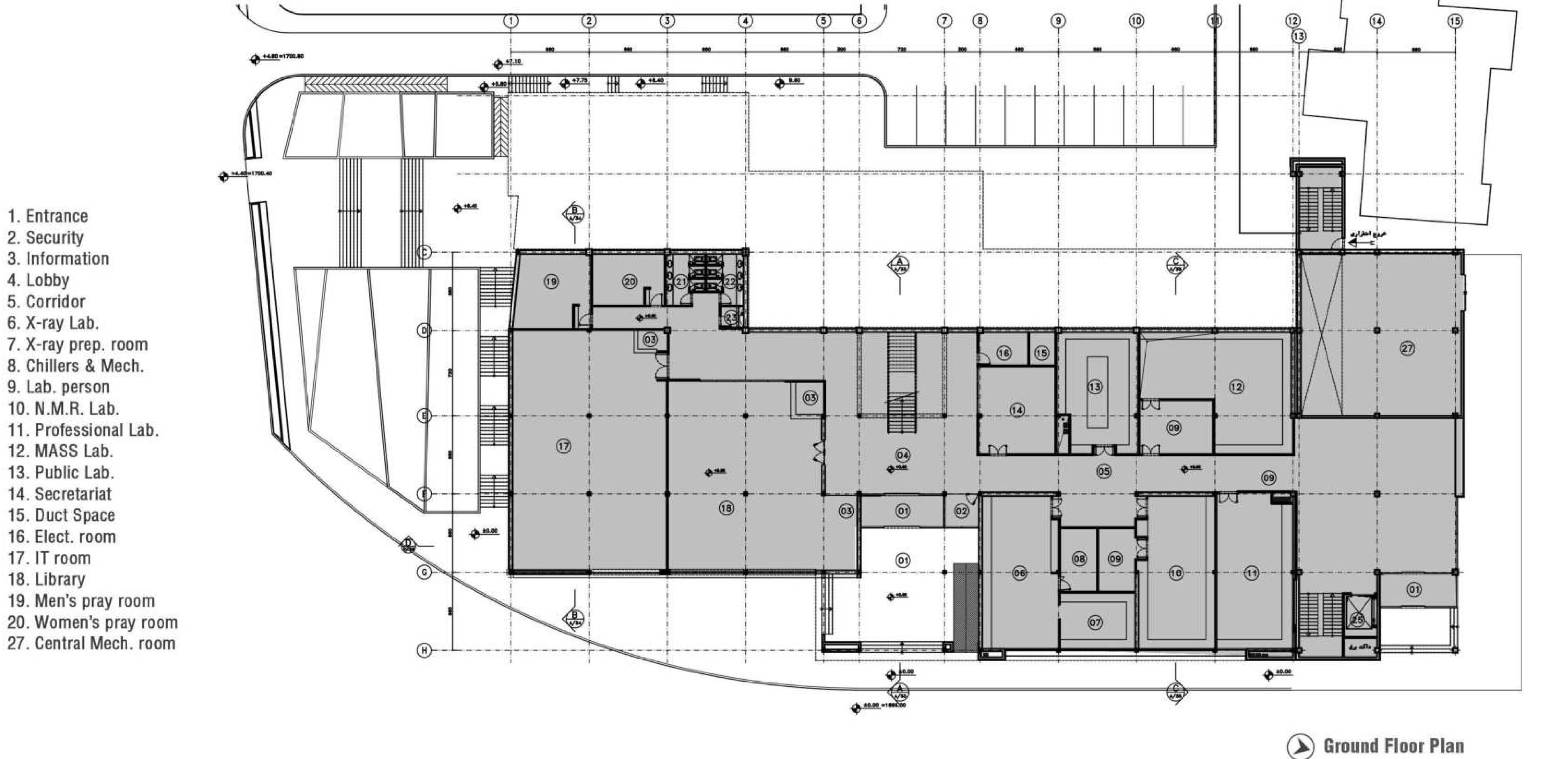
CLIENT: Shahid Beheshti University

PROJECT TYPE: University
STATUS: Under Construction

LOCATION: Tehran, Iran

BUILDING FLOOR AREA: 8,000 sqm







1. Entrance

2. Security

4. Lobby

5. Corridor

6. X-ray Lab.

9. Lab. person

12. MASS Lab.

13. Public Lab.

14. Secretariat

15. Duct Space

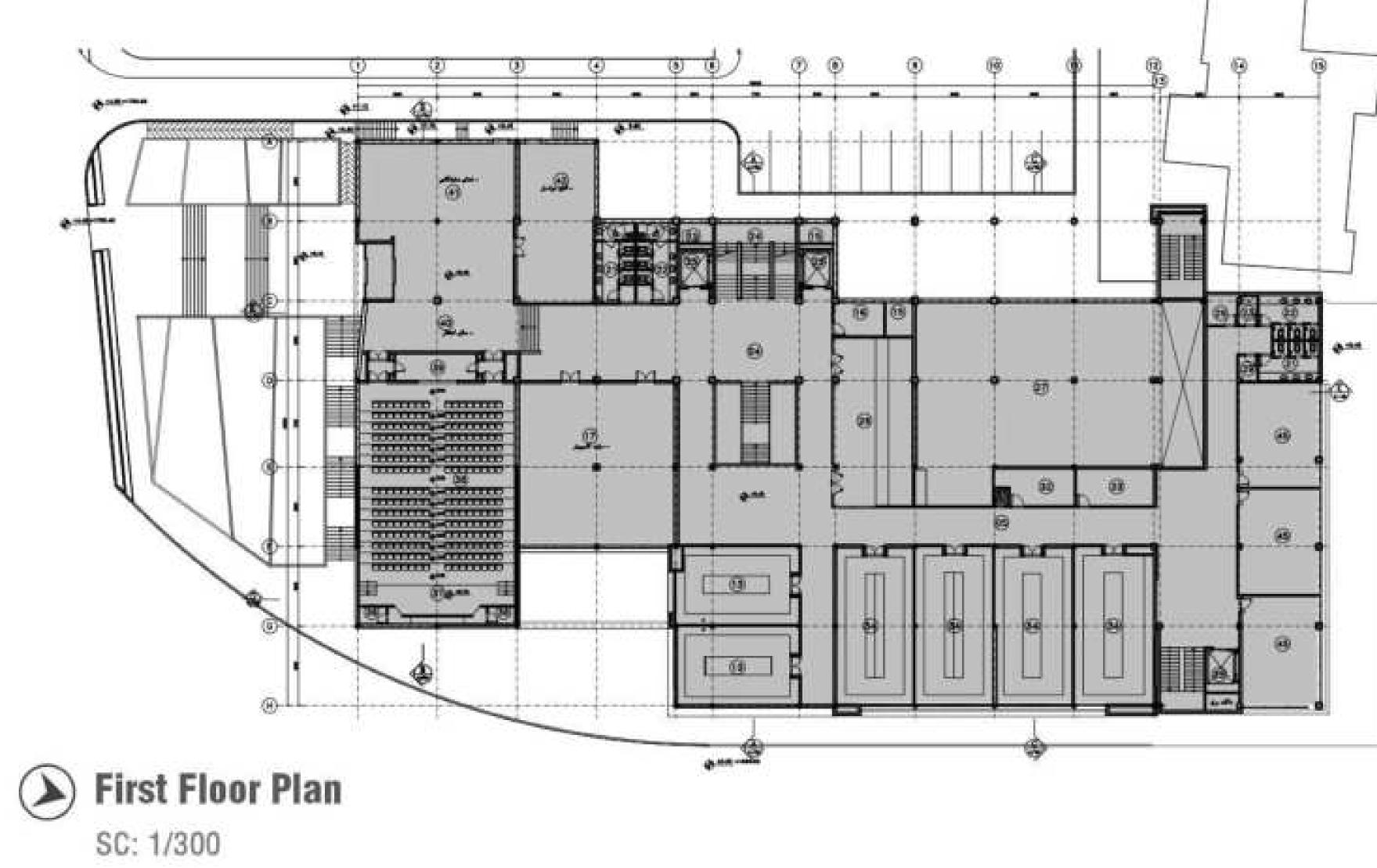
17. IT room

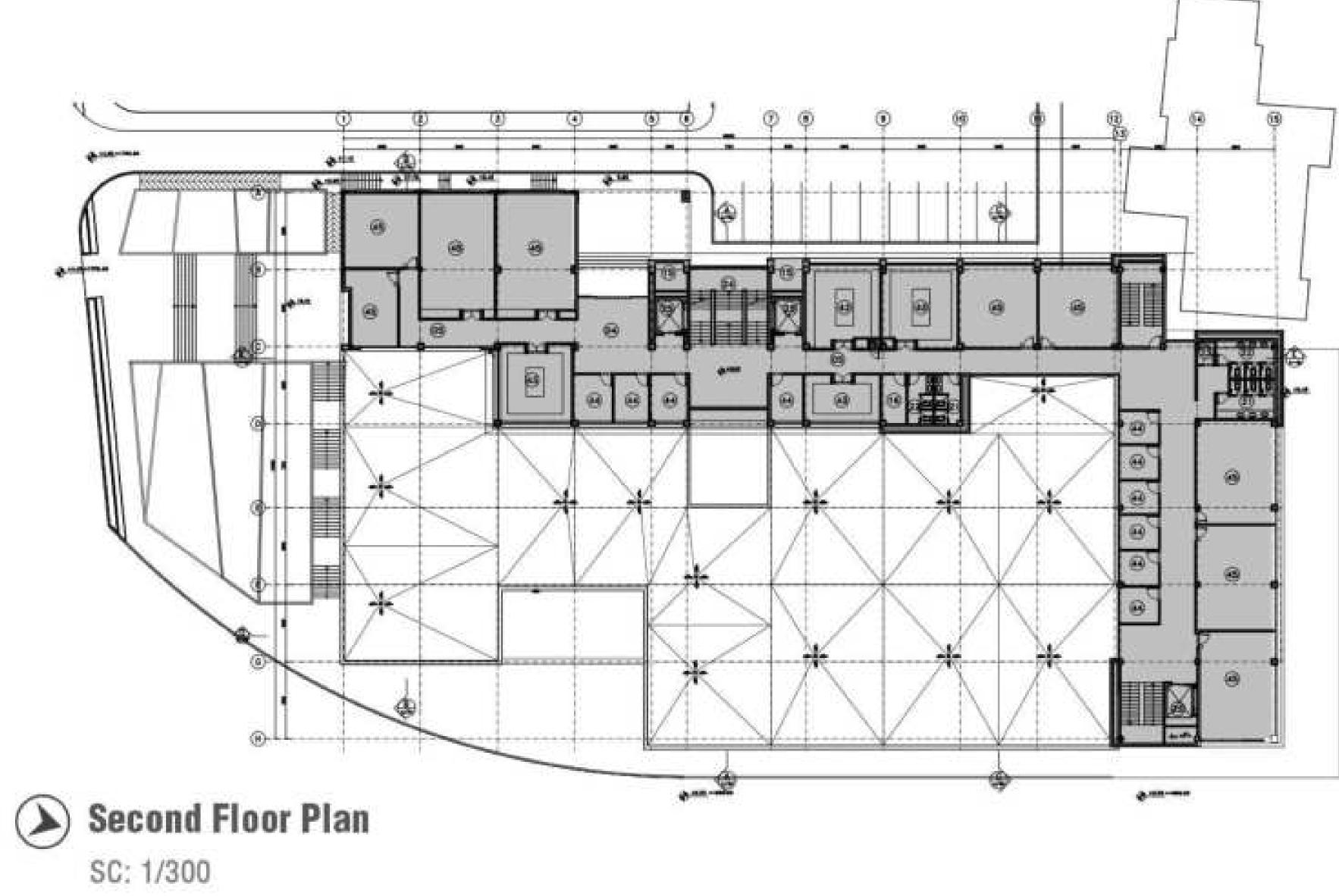
18. Library

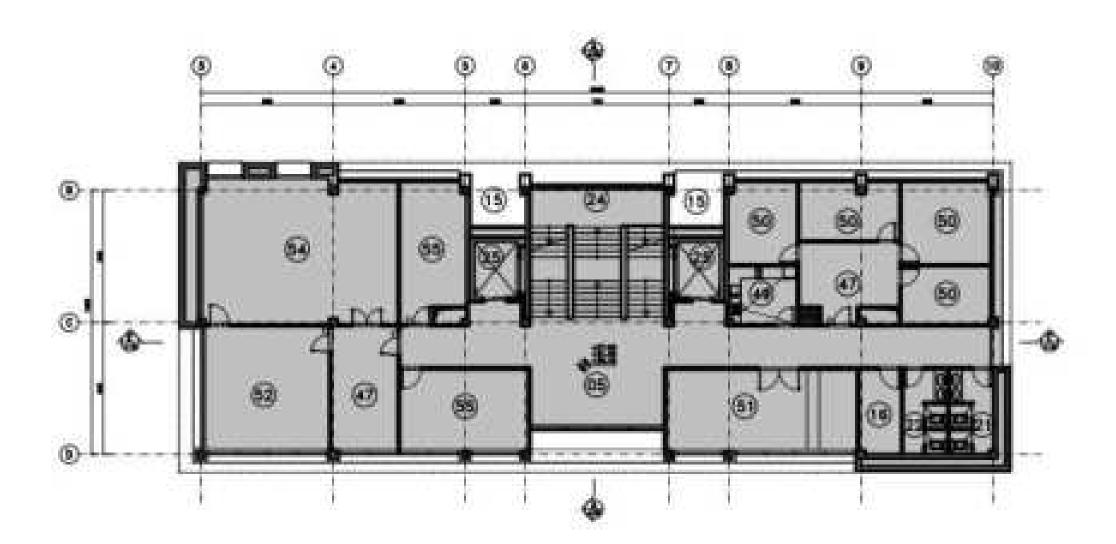
3. Information

The project consists of the construction of two departments: Mathematical and Chemical department which are approximately 8,000 square meters. The building design responds to the planning principles set out by the Shahid Beheshti architecture committee. The building design meets its briefed area and budgey target, comprising of 9 levels (ground floor plus 8 levels) and incorporates one lecture theatre, workshops, library, a series of academic and professional work spaces and labratories.

SC: 1/250







Upper Floor Plans SC: 1/300





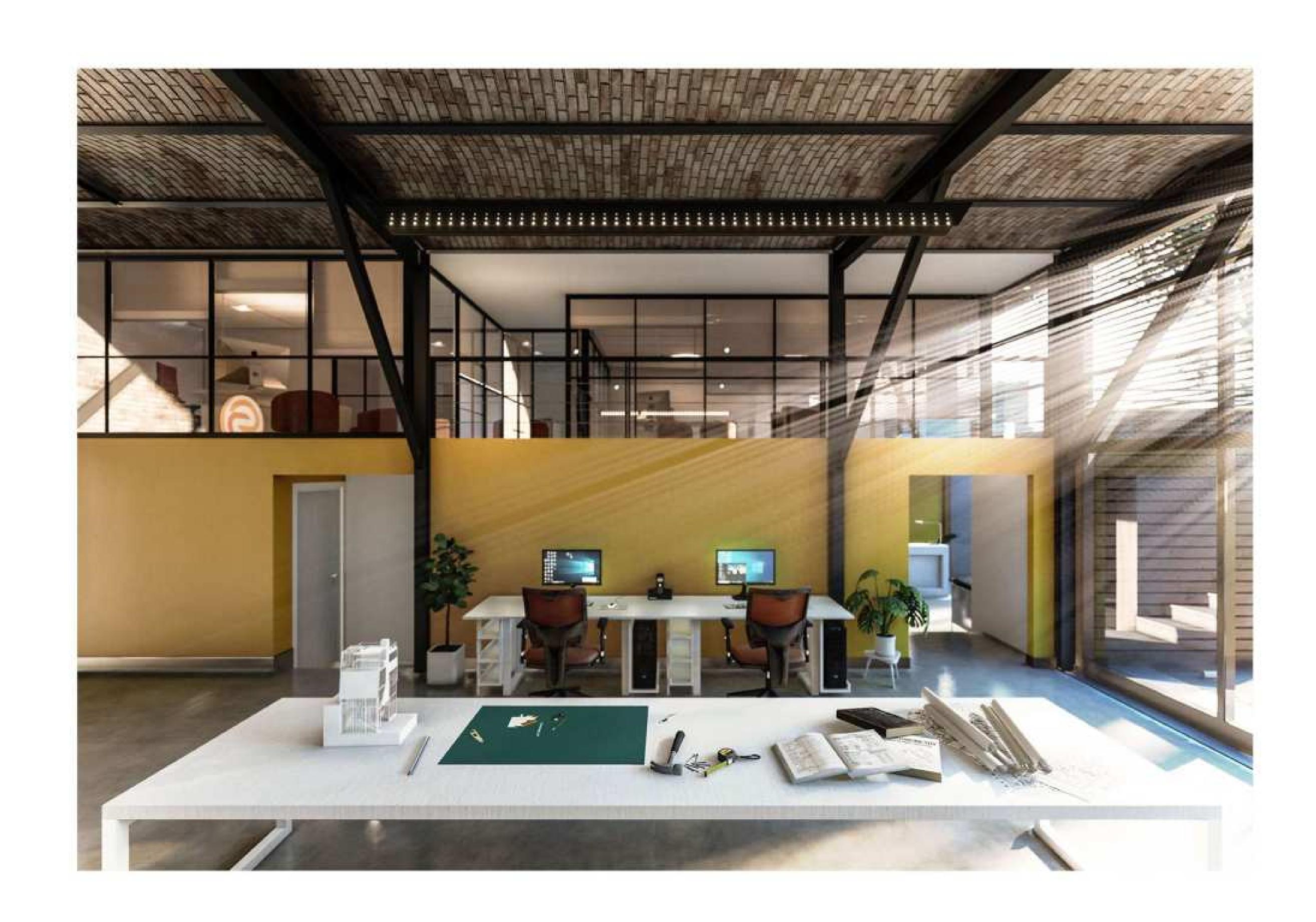
### 5 SHEEDSUN OFFICE BUILDING

#### SHEEDSUN CONSULTING ENGINEERS

CLIENT: Sheedsun Office
PROJECT TYPE: Renovation
STATUS: Design Development

LOCATION: Tehran, Iran

BUILDING FLOOR AREA: 215 sqm





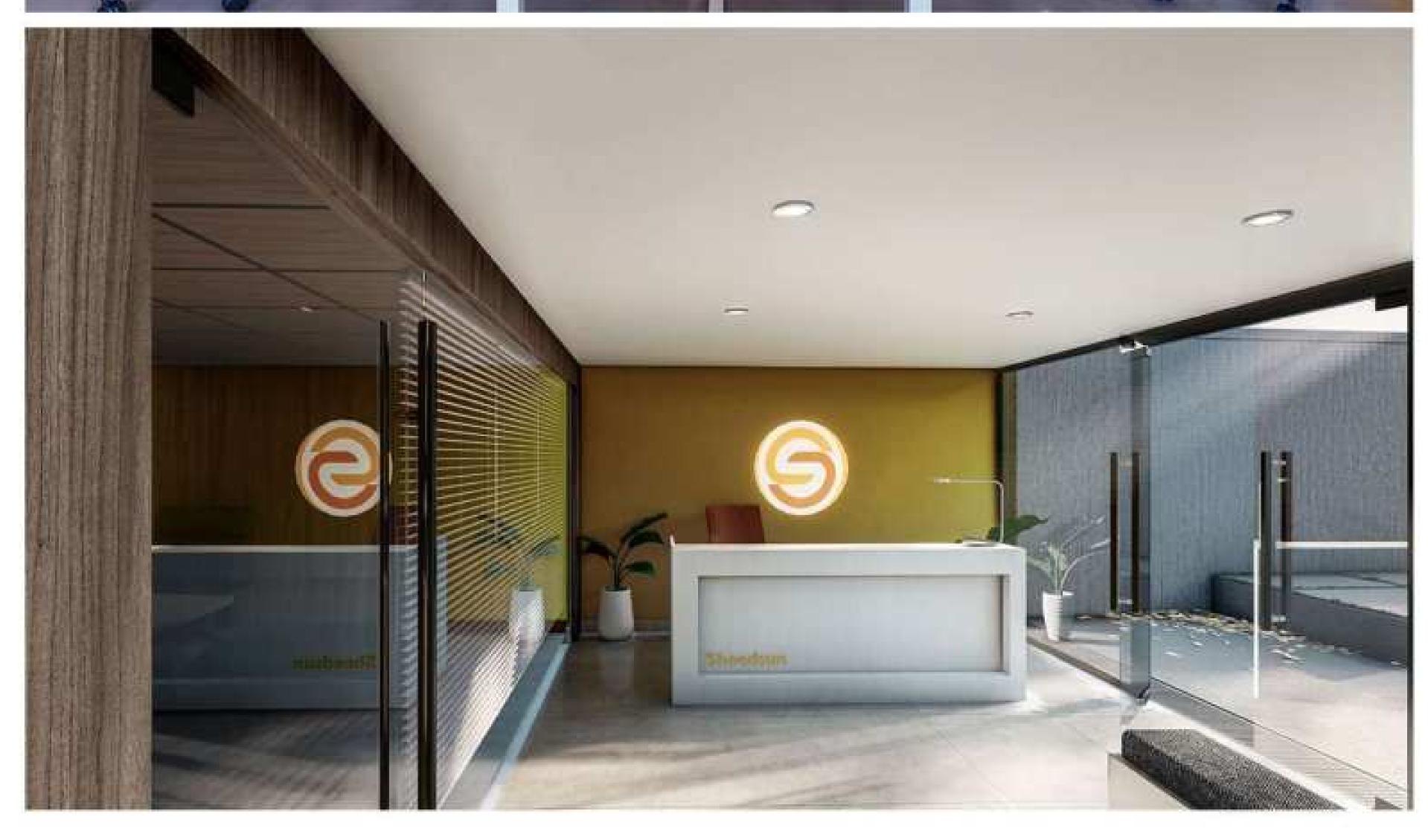




EXISTING SOUTH ELEVATION EXISTING INTERIOR ELEVATION







One of the problems of Metropolitan cities, especially cities like Tehran, is existence of old and undervalued buildings in compact texture of the city which are built without design and professional monitoring. Usually the answer to this problem leads to the demolition and renovation of the buildings. This approach for old buildings not only causes the loss of resources but also brings irreparable damages to the environment.

In the design of this project it has been tried to change this approach by providing a new paradigm in regards to use and rehabilitation of time-worn urban textures. The design of this project converts a non-recognizable architecture building which was formed merely due to its functional needs to a modern building that is more responsive to today's needs.

This building is located in the North side of Sheikh Bahaee square which was used for vehicle's repair shop. This is why the inside clearance height in the main area is almost 3.90 meters and there are resting rooms and offices designed in mezzanine floor. The existing building area is 215 square meters located in a 342 sq.m site.

One of the problems we faced in the design phase was the low height clearance of the mezzanine. The solution was solved by reducing the height of entrance up to 350 mm. So that the clearance height of each floor is 2 meters.

The other problem was insufficient light in interior space that with the benefit of ground floor ceiling height and transparent interior wall we were able to take advantage of maximum light penetration.

Bricks obtained from the demolition of the walls will be used in the reconstruction of the north wall to create a 3D texture on the wall. As photos shown, roof is made of barrel vaults between the beams which have been preserved to emphasize the identity of the building.

It has been tried to use renewable energy sources to supply some part of the energy demand and inject the surplus energy back to the grid system to create an income for the owners.



### 6 KAVIAN MORVARID HOTEL

#### SHEED SUN CONSULTING ENGINEERS

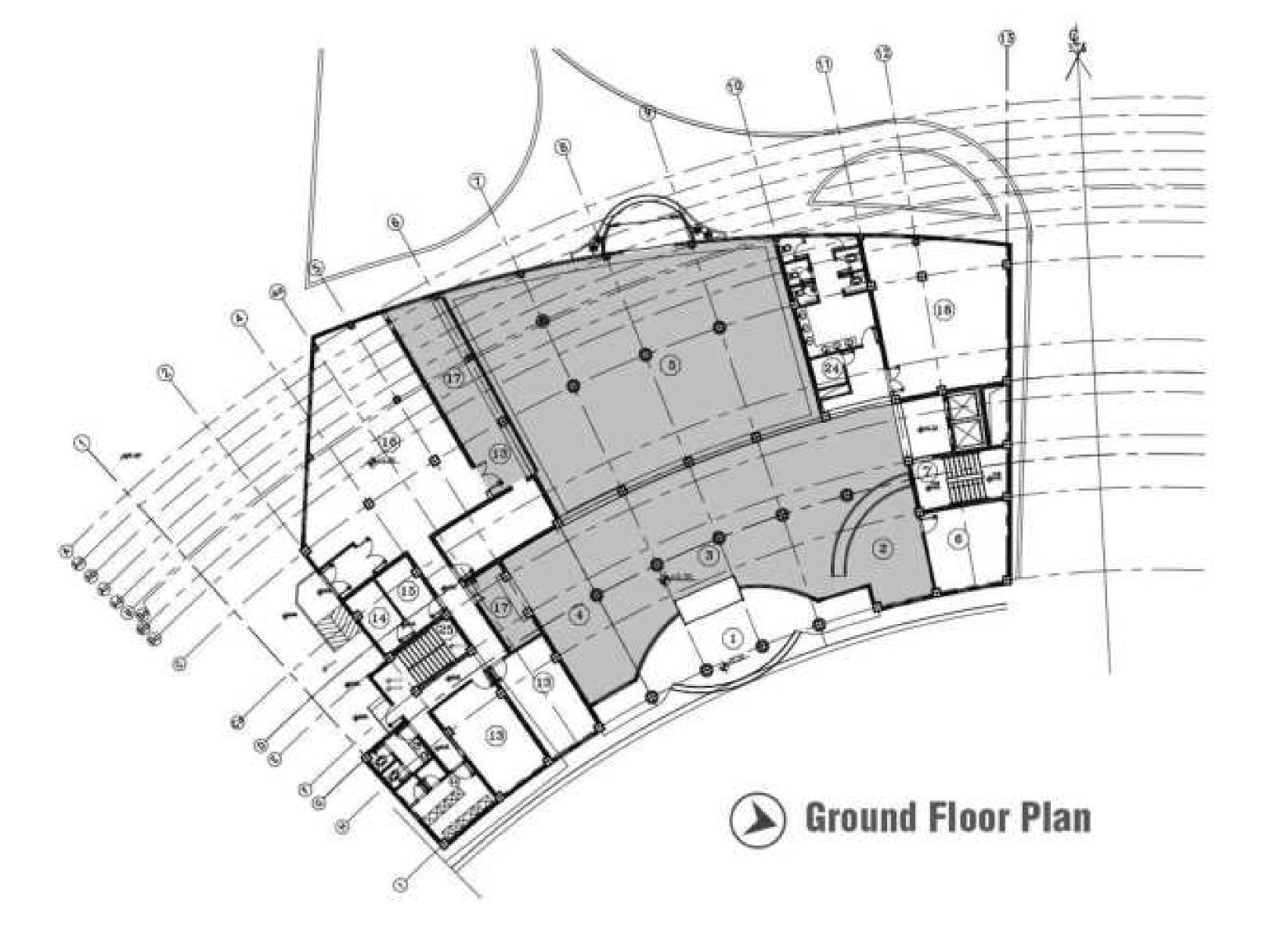
CLIENT: Kavian Petrochemical Co.

PROJECT TYPE: Interior Design

STATUS: Under Construction

LOCATION: Asaluyeh, Bushehr, Iran





This complex is located on the shore of the Persian Gulf in the city of Asaluyeh comprising of a 9 storey hotel building and 6 two-storey villas accomodating the petrochemical company staff.

The main intention in the design of interior spaces was to create a warm and friendly environment for the staff after a long hard working day. Therefore, using colours was the first step to approach this goal.

Restaurant - Ground Floor



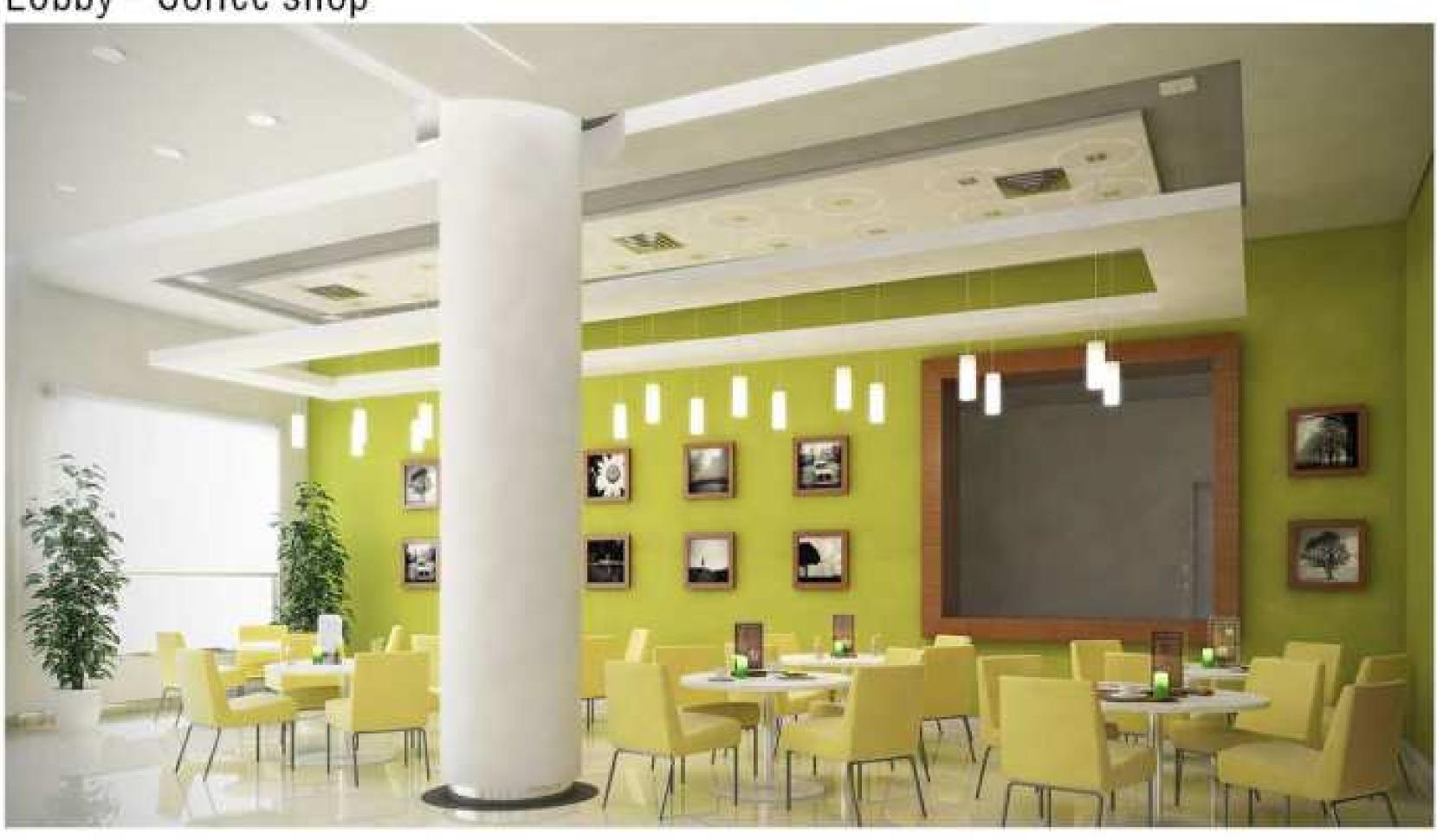
Lobby - sitting area

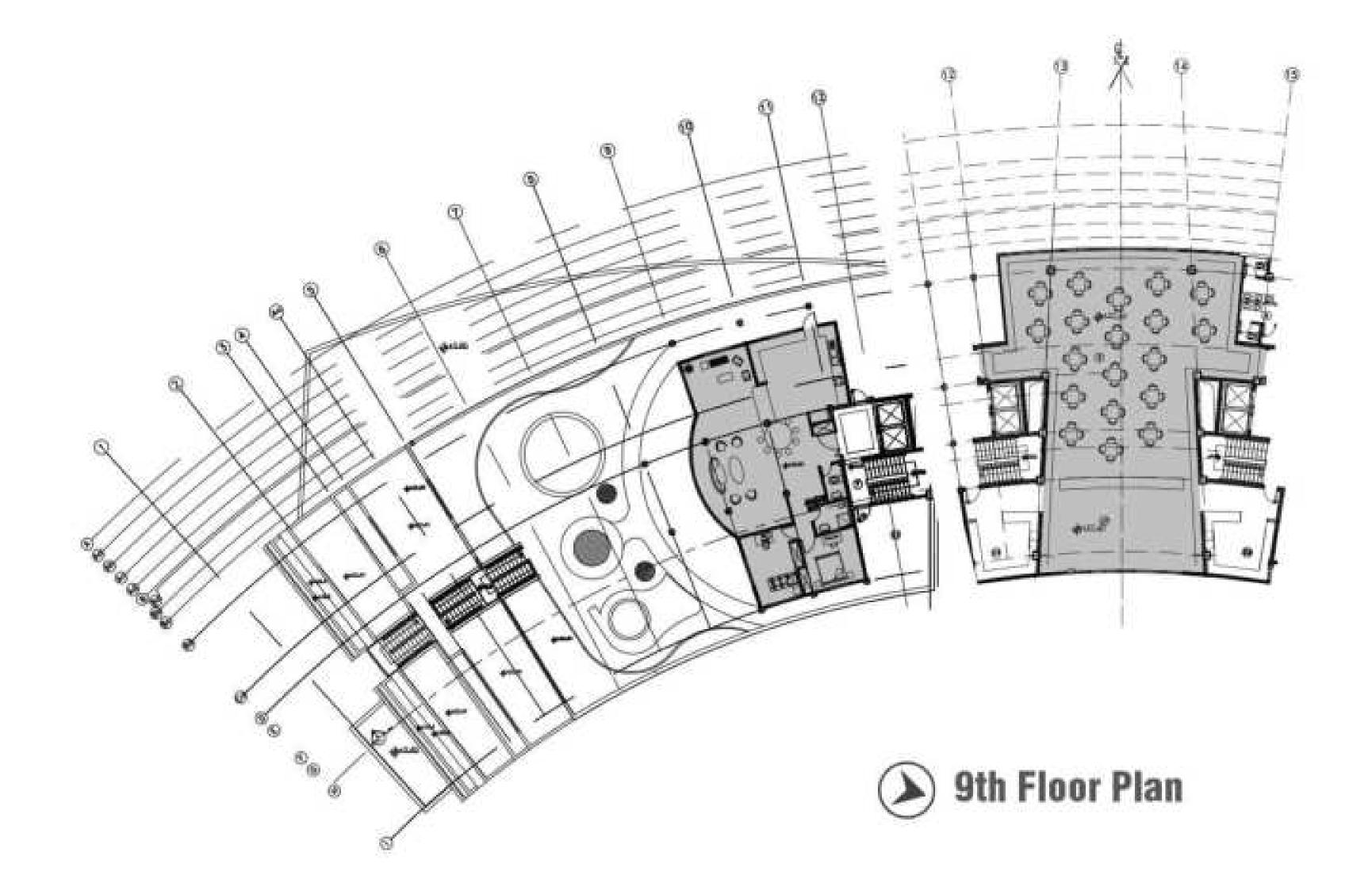


Receiption Desk



Lobby - Coffee shop





Restaurant - 9th Floor



Restaurant Lounge - 9th Floor



Suite - 9th Floor



Suite - 9th Floor



### 7 LALEH OFFICE BUILDING

#### SHEED SUN CONSULTING ENGINEERS

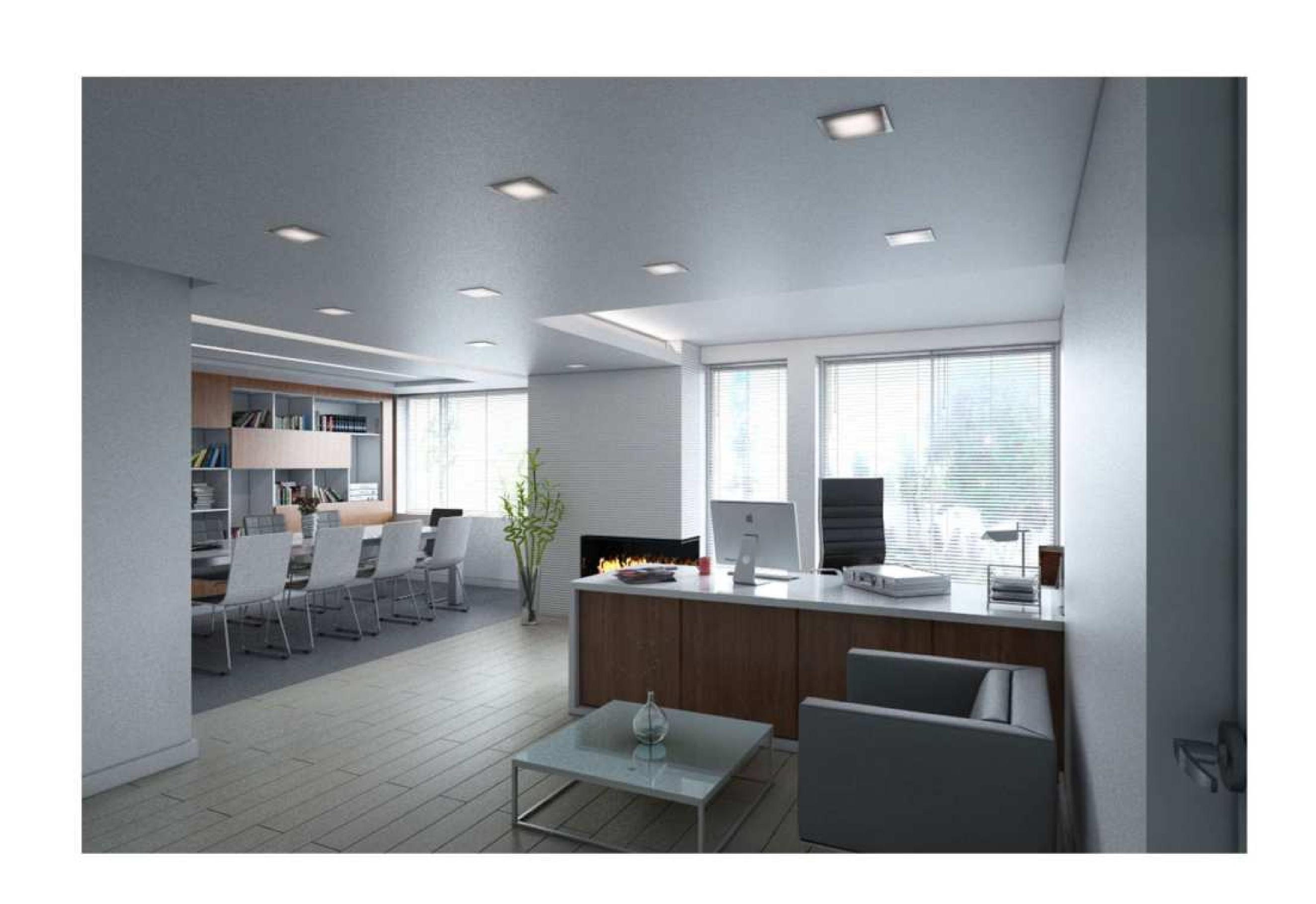
CLIENT: Laleh Petrochemical Co.

PROJECT TYPE: Renovation STATUS: Under Construction

LOCATION: Tehran, Iran

BUILDING FLOOR AREA: 550 sqm

Project Year: 2015





Existing Space



Existing Space









Laleh Petrochemical headquarters have decided to move to an old house situated in west of Tehran. Based on a 550 sq.m. gross surface, the plan was to fit out 7 individual office spaces, four restrooms, one kitchen, one IT room and a conference room. The company was in need of shelving system for storing their documents. The glass walls in these rooms give a sense of seamlessness and bring in more natural light. This completely changed the look of the space and brought in the energy it lacked.

The conference space serves as the main boardroom with seating for 12-14 persons.



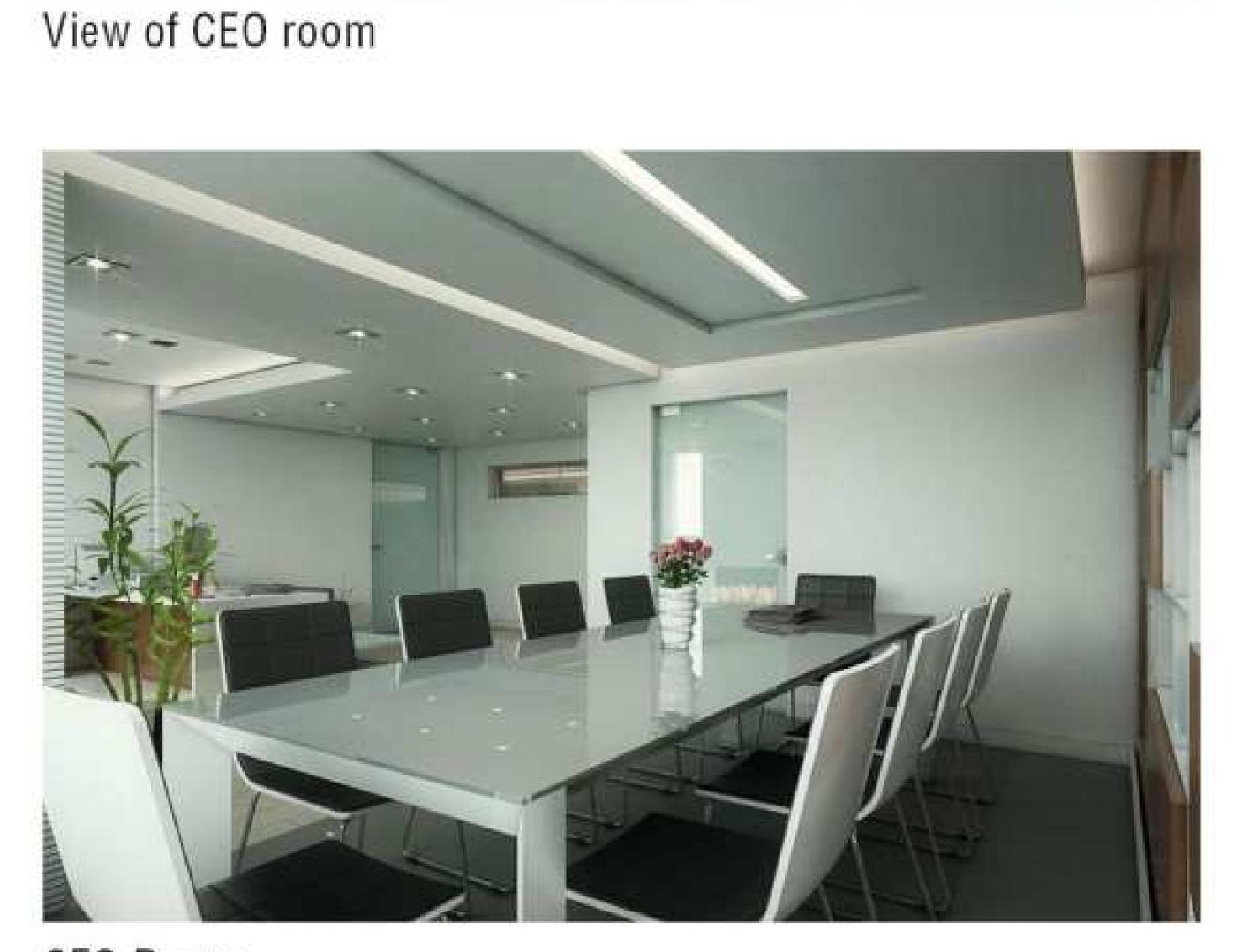
Staff Room



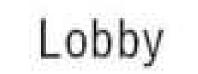




Lobby



CEO Room



# 9 JIROFT SCHOOL

FIROUZ FIROUZ ARCHITECT

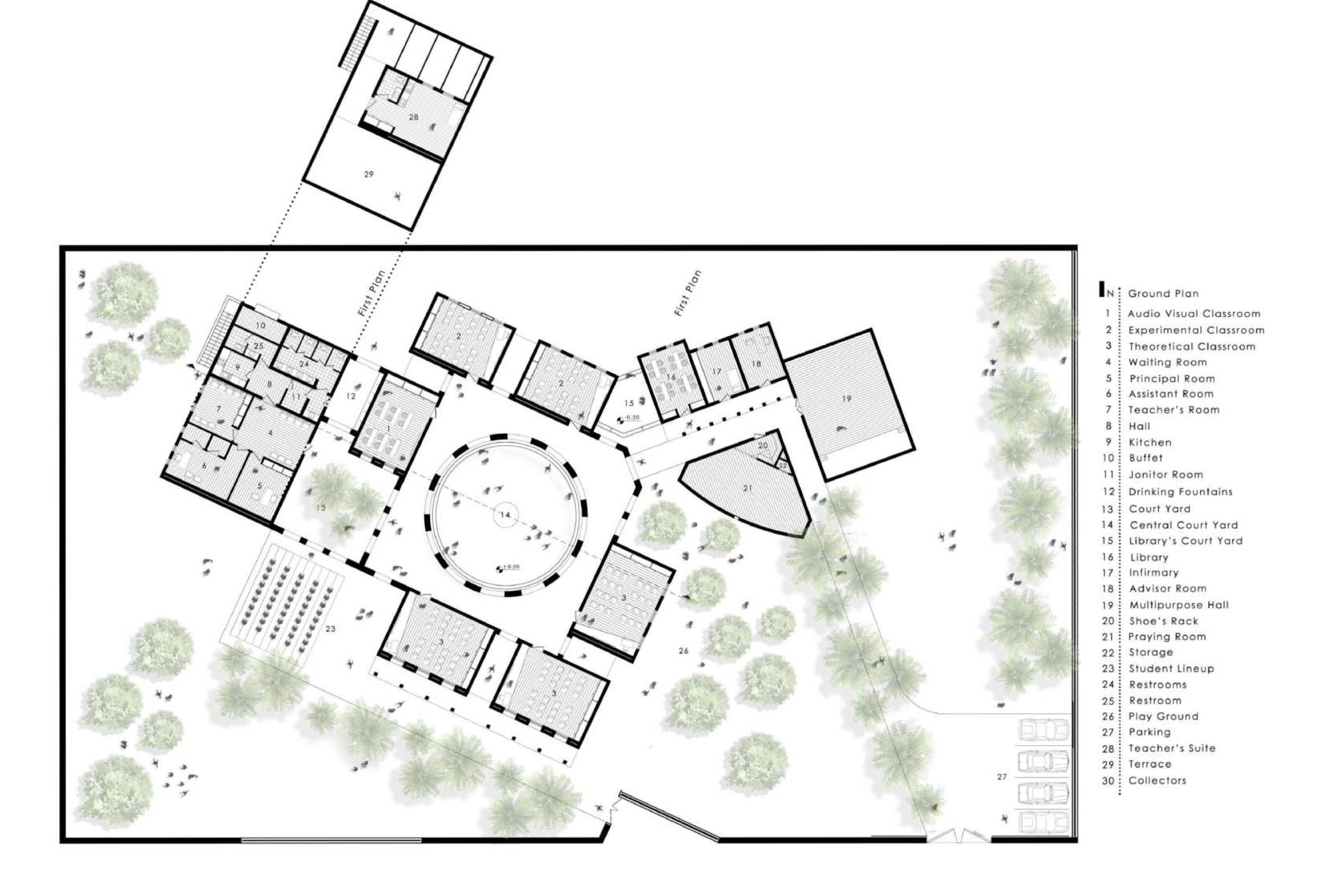
PROJECT TYPE: School STATUS: Competition

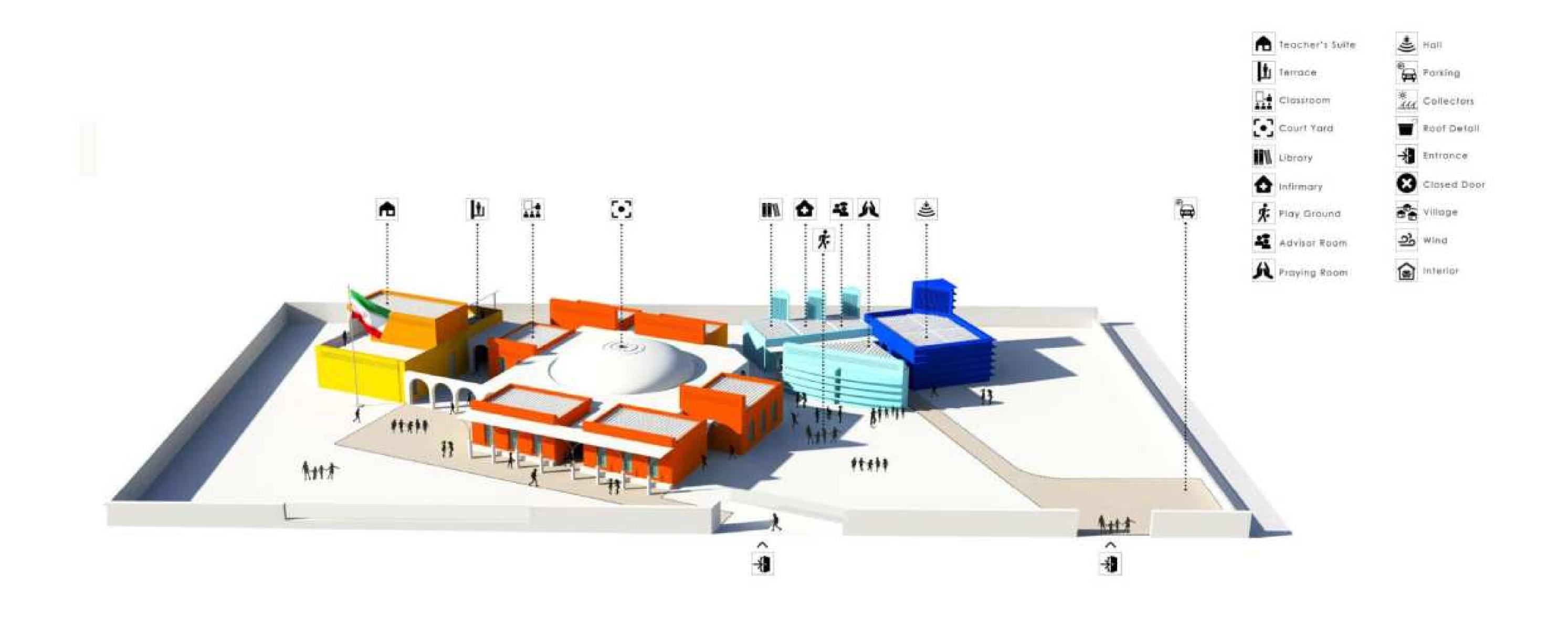
LOCATION: Jiroft, Kerman, Iran BUILDING FLOOR AREA: 600 sqm

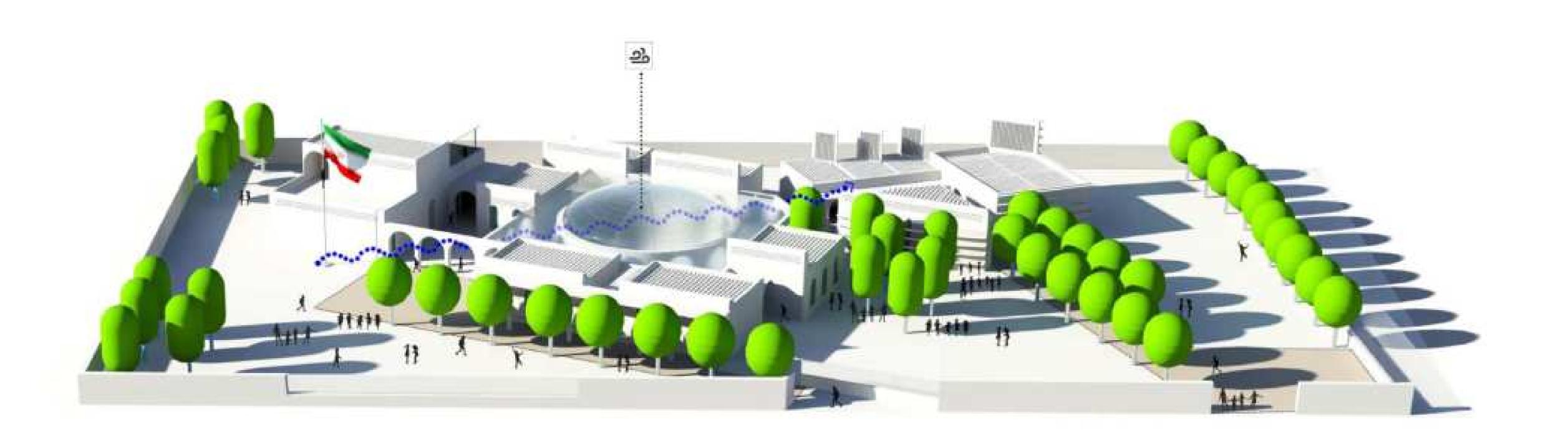








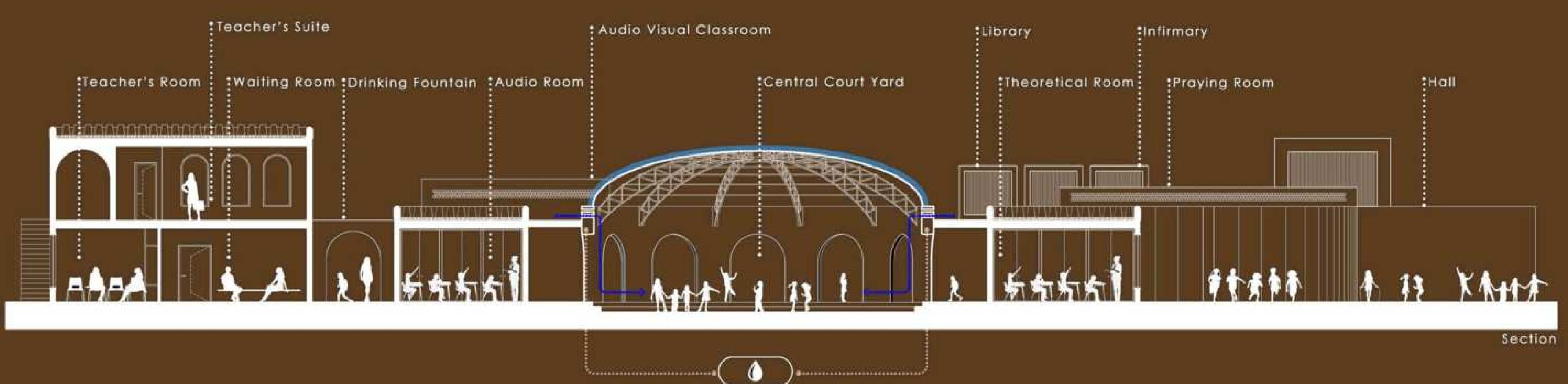


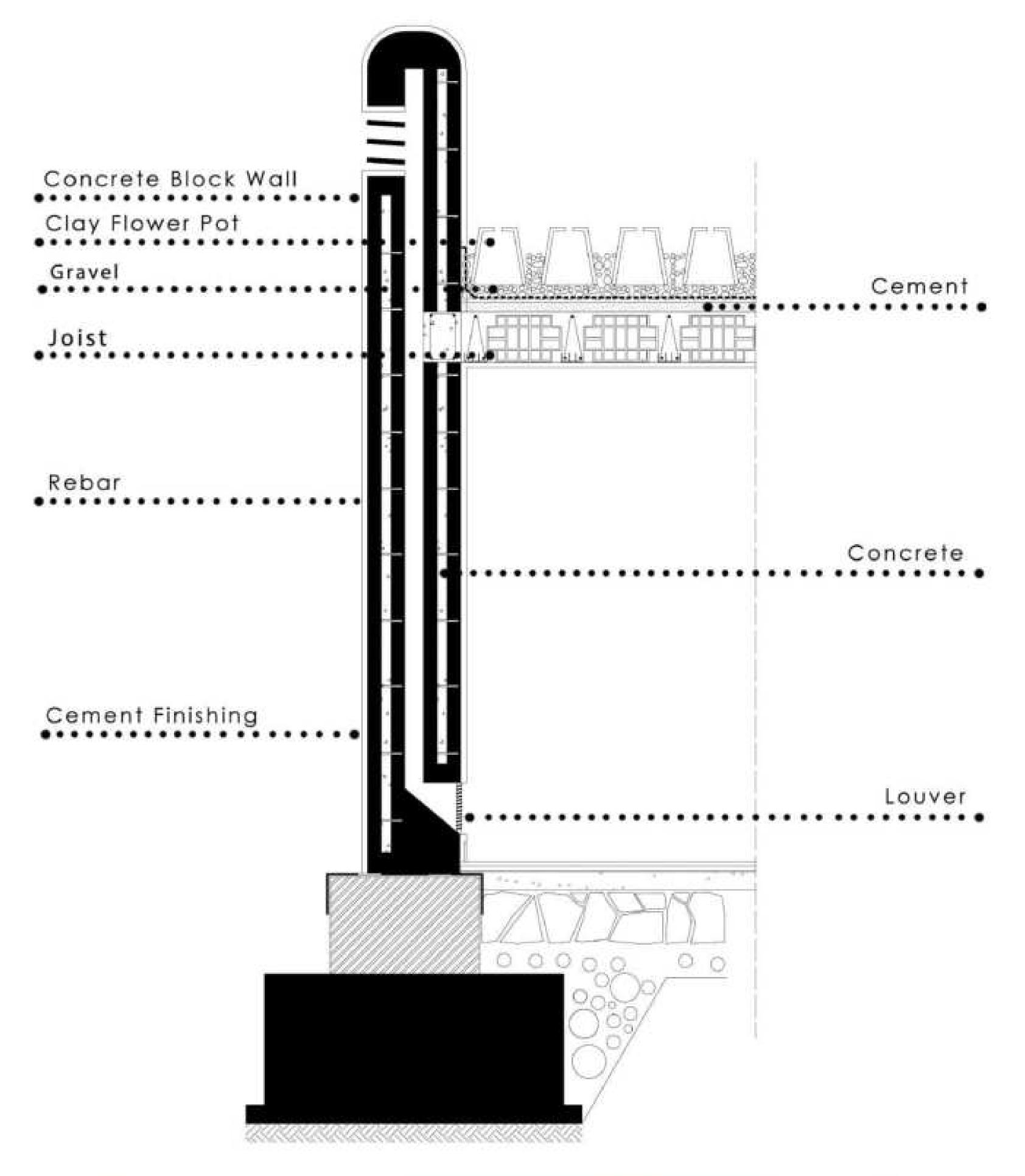






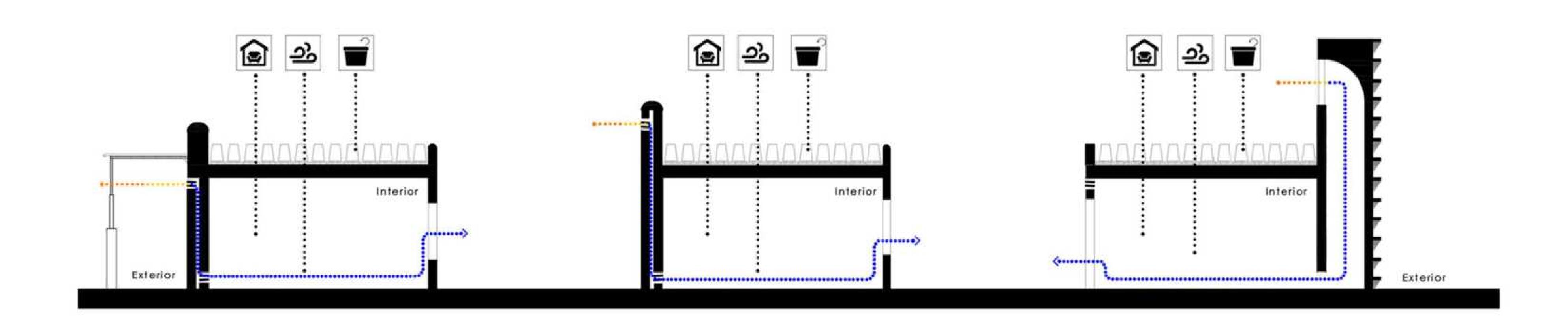












# GONTAINER FOR LIVING

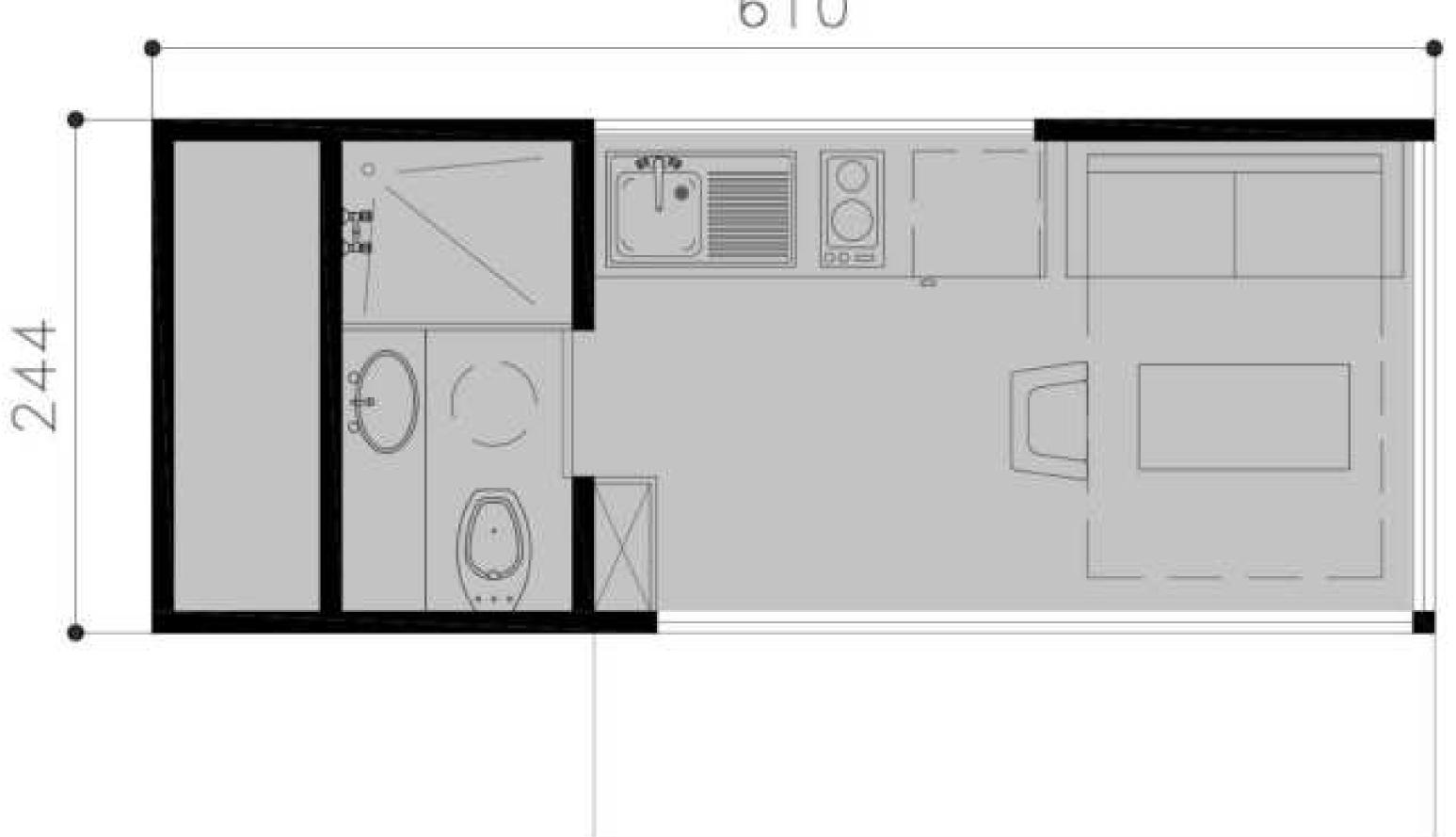
#### SHEEDSUN CONSULTING ENGINEERS

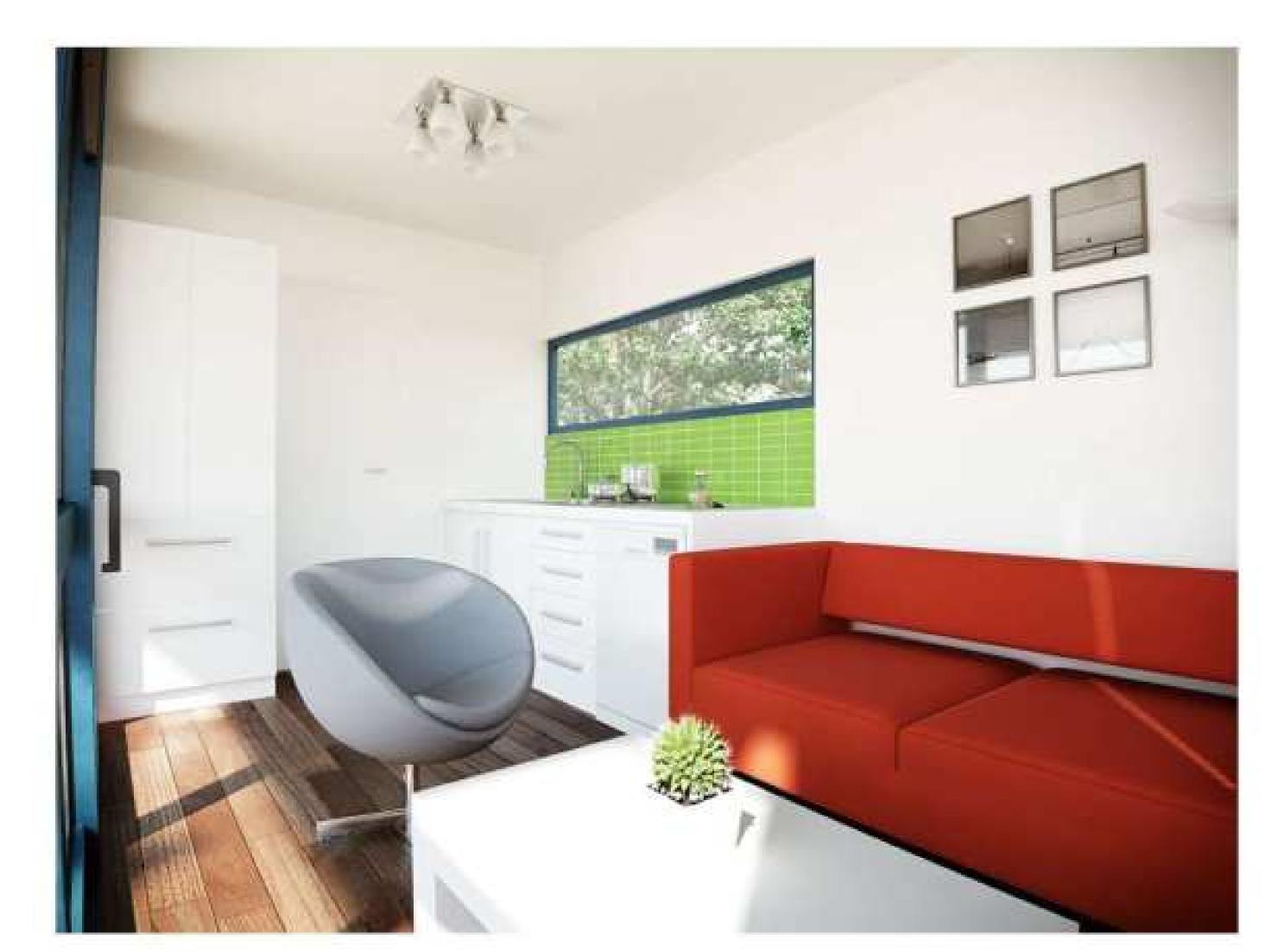
CLIENT: Sheedsun Co.
PROJECT TYPE: Residential
STATUS: Design Development

LOCATION: Tehran, Iran

BUILDING FLOOR AREA: 14.80 sqm









containers that are shipped to their final destinations are usually too expensive to ship back. Containers, are tough. They are build to handle heavy loads, harsh climate conditions, and being handled by cranes.

These containers could fulfills many design desires such as living simply, lessening clutter, being environmentally conscious, building a home on a budget.

This project is a prototype to convert a 20 feet container into a modern living space with a minimum budget required.





# ETTELAAT BUILDING

#### SARZAMIN CONSULTING ENGINEERS

**CLIENT:** City of Tehran

PROJECT TYPE: Office - Renovation

STATUS: Under Construction

LOCATION: Tehran, Iran

BUILDING FLOOR AREA: 21,600 sqm









#### Alternative 1:

- Curtain wall
- Green balcony
- Green roof
- Terra Cotta material
- Louvers

#### Alternative 2:

- Light Shelf
- Linear windlow design
- Brick material
- Green roof
- Glass height

#### Alternative 3:

- Double skin facade
- Glass louver
- Glass height
- Green roof
- Terra Cotta material

The City of Tehran have decided to move four of its departments in to an old existing building near Toopkhaneh square in Tehran. Project program is set out by the client to accommodate around 1000 staffs in a 9 storey building with open space offices.

The existing voids on the ground floor are designed to create an interconnecting and dynamic space which brings more energy and natural light into the space. With the use of two dimensional cable system lobby brings greenery inside. Lobby is not only used as a sitting or waiting area but also it is used as a permanent expo space.









### MAHSHAHR APARTMENT

#### SHEED SUN CONSULTING ENGINEERS

CLIENT: Laleh Petrochemical Co.

PROJECT TYPE: Residential

STATUS: Built

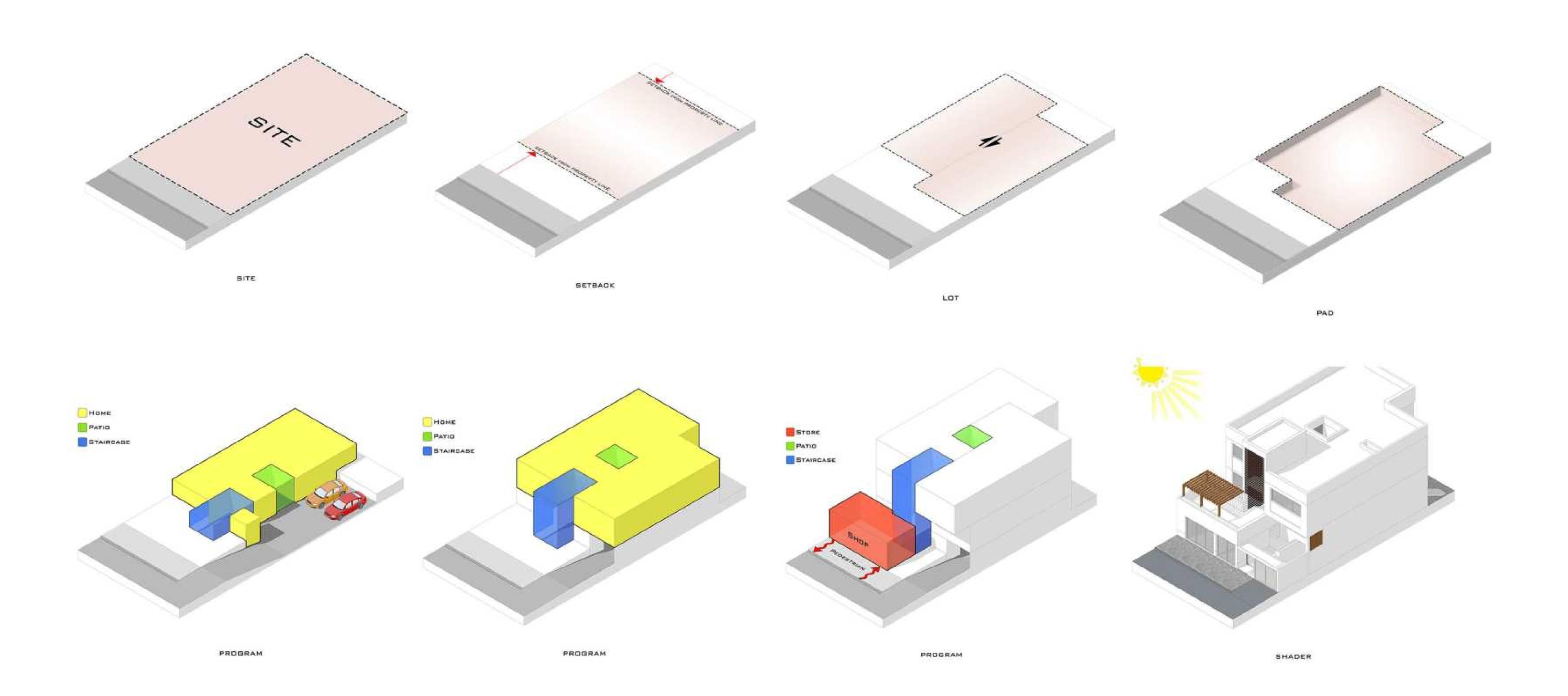
LOCATION: Mahshahr, Iran

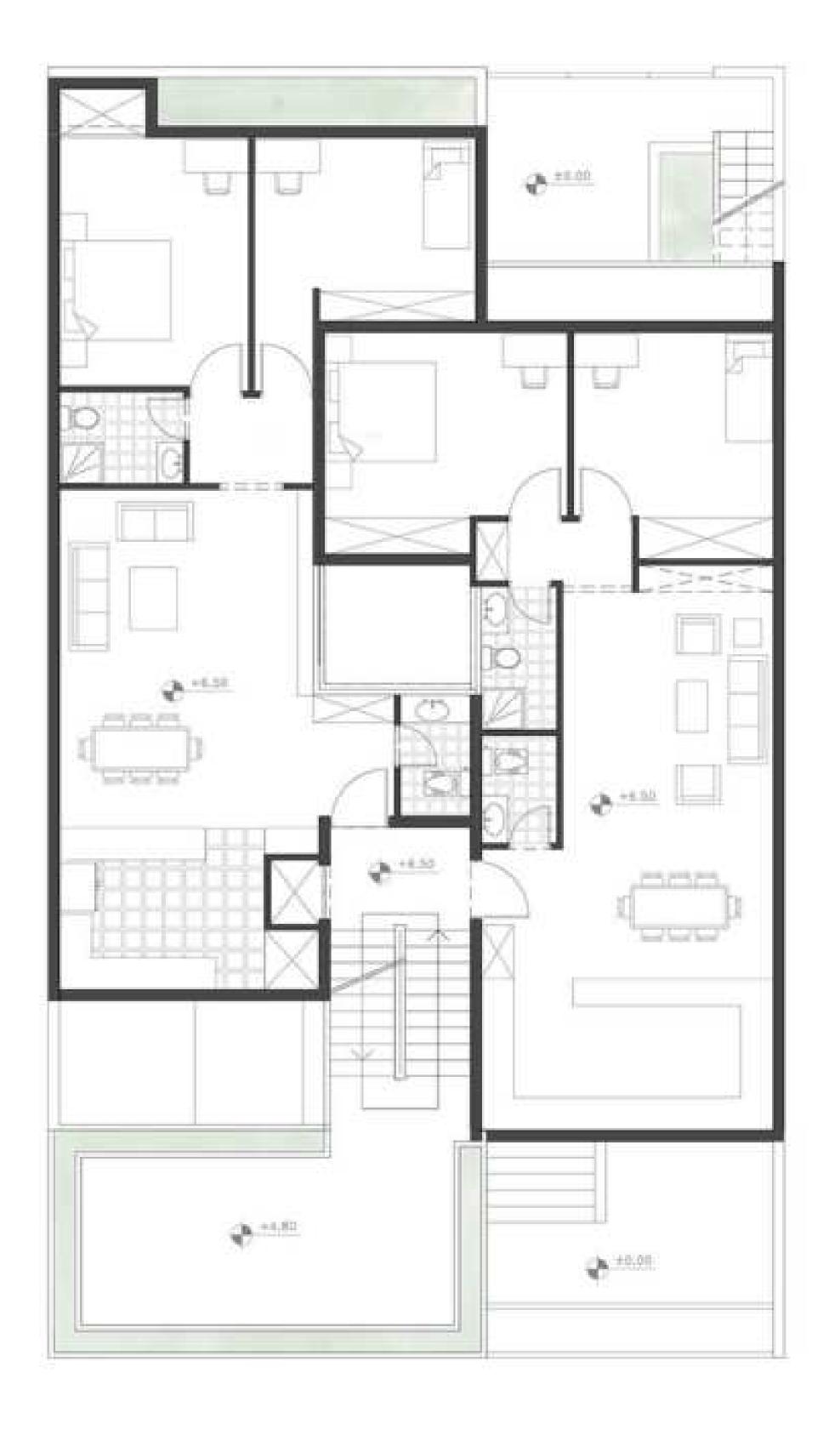
BUILDING FLOOR AREA: 735 sqm

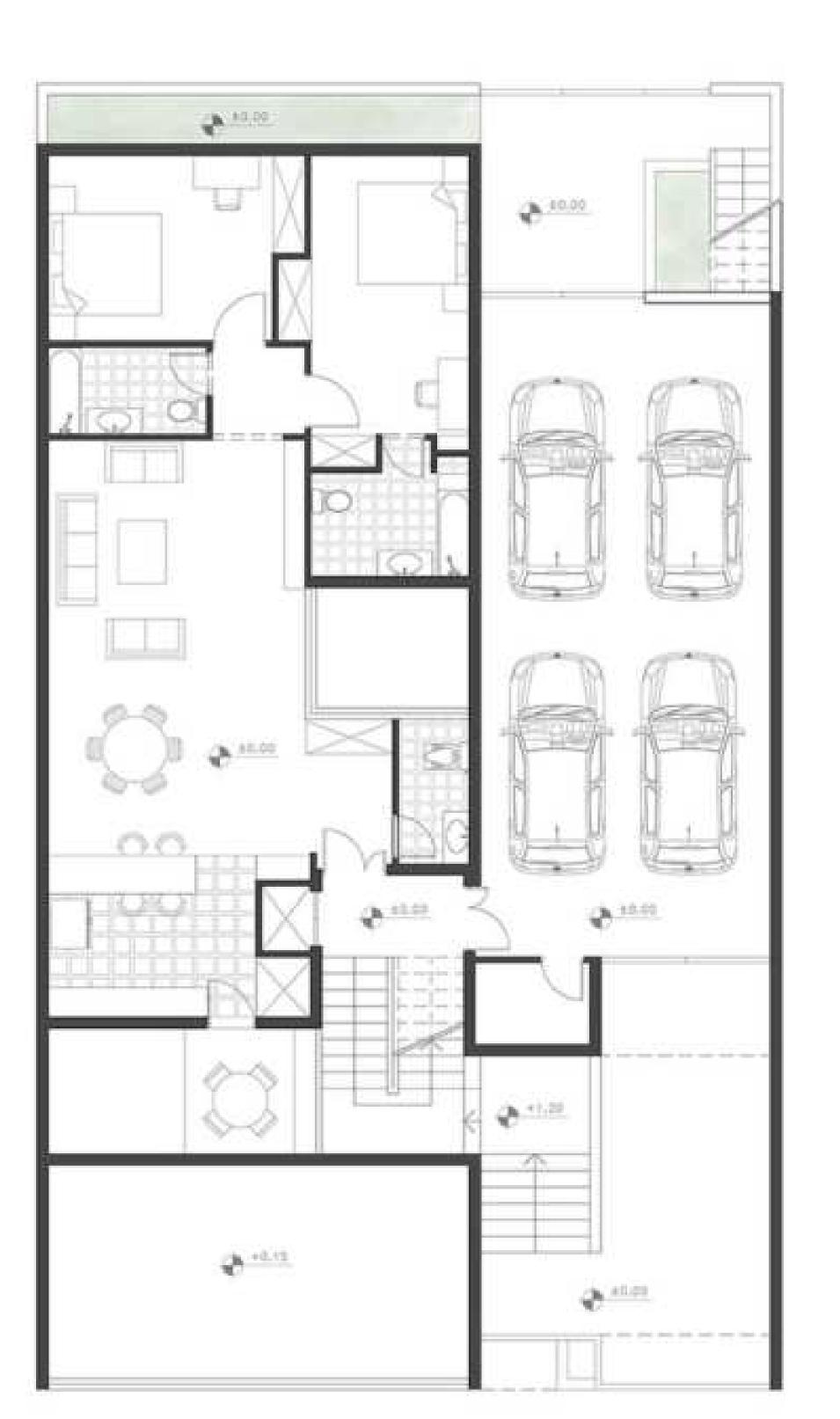
Project Year: 2014



This project is located in south region of Iran with high volume of sun shine. A double skin façade with horizontal louvers was designed to create a shading and cooling effect especially for hot summers in Mahshahr.











### AZTOL HOTEL

#### SHEEDSUN CONSULTING ENGINEERS

**CLIENT:** Aztol Hotel

PROJECT TYPE: Renovation
STATUS: Under Construction
LOCATION: Baku, Azerbaijan

BUILDING FLOOR AREA: 1,100 sqm

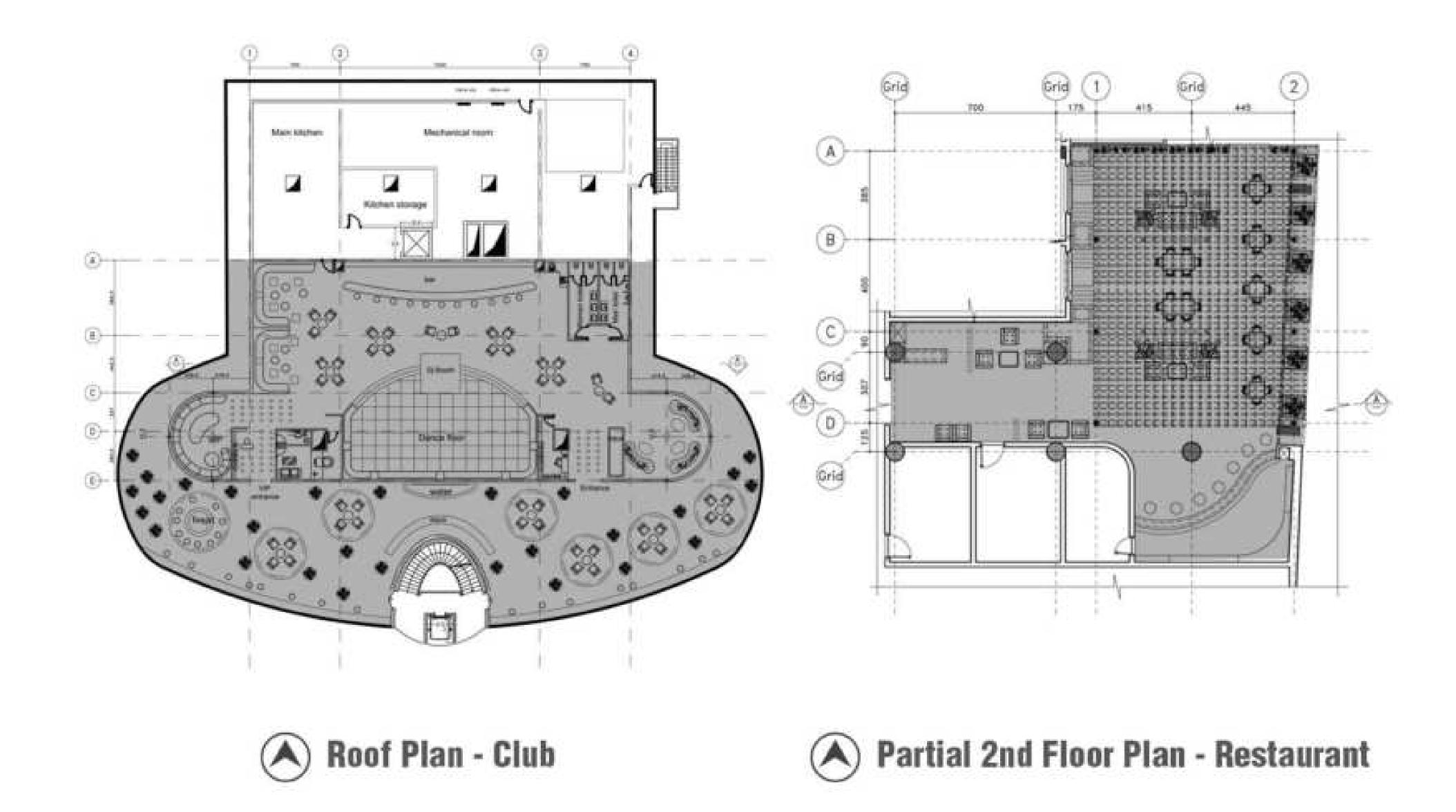




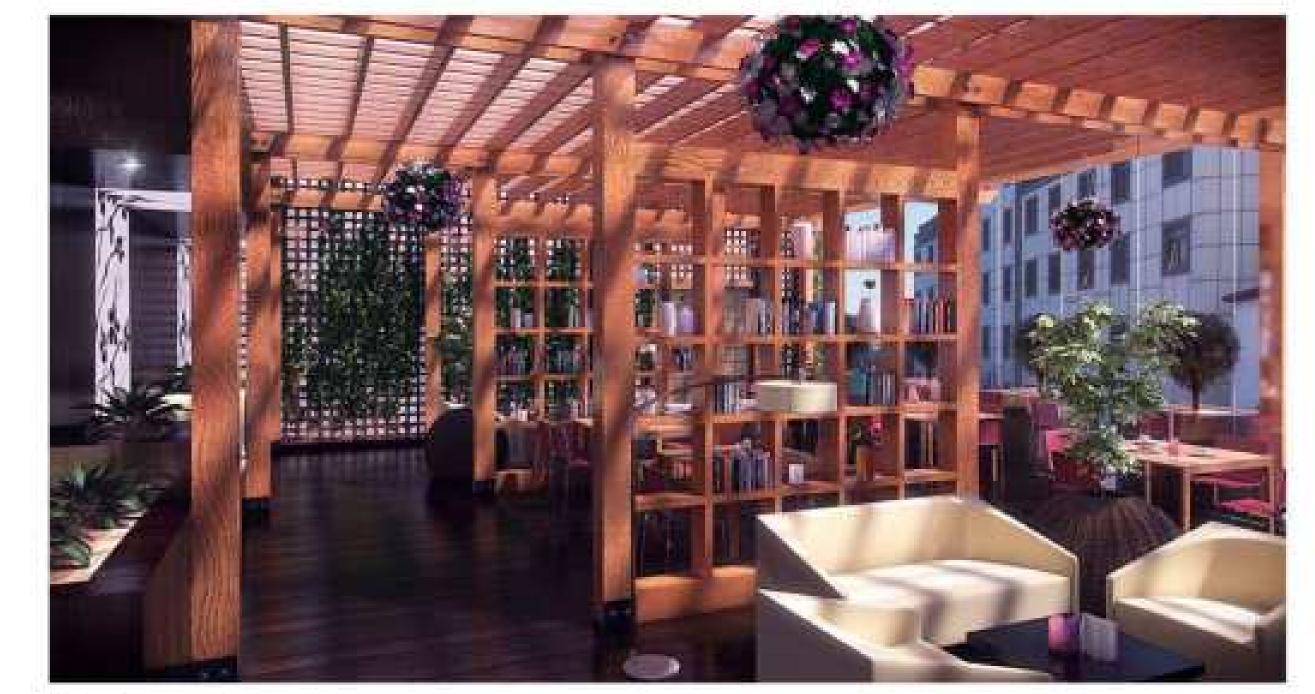
Existing Space - Second Floor



Existing Space - Roof Plan



This 5 storey hotel is located in Baku, Azerbaijan and characterized by a glass curtain wall. The programme was to design a 280 sq.m. restaurant and bar on the second floor terrace and a 1,150 sq.m. club on the roof level. As part of Azari architectural element, wooden trellise was used to cover the terrace. This creates a semi-transparency space which brings in more natural light without blocking the view. The club incorporates a dance floor wth sitting areas, two cozy lounge spaces in the corners and an exterior space with sitting areas and a fire pit.







Retaurant

Retaurant

Club







Retaurant Club - Exterior

Club

# 13 BIRJAND PARK

#### SHEEDSUN CONSULTING ENGINEERS

CLIENT: City of Birjand

PROJECT TYPE: Landscape, Restaurant - New Construction

STATUS: Copmetition

LOCATION: Birjand, Khorasan Jonoubi, Iran

BUILDING FLOOR AREA: 20 hectare

AWARD: 1ST PRIZE
PROJECT YEAR: 2011





#### SUNKEN GARDEN VIEWS









#### Central Core:

Being in the gound is one this design characteristic. This space acts as a sunken garden and is designed in harmony with the climate.

Also, this space is designed with different attractions such as water, shades, green space, commercial spaces and sitting areas in order to create a public and interactive space.

#### RESTAURANT VIEWS









#### Central Restaurant:

To enjoy the good view of the city and greeneries, the highest central location is considered to build the restaurant. The restaurant has been built along the hill and has been designed as a partial form of the hill. Green space is being continued on the arched ceiling covering the restaurant. This roof provides the possibility of sitting and walking areas by having the best views.

#### ENTRANCE VIEWS







#### Entrance:



The entrance is the first impression of this park, therefore, the design is of great importance. There are several factors that enhance the quality of this space such as water, plants and shadows. There is a bridge that connects the two imprtant paths, one to the central core and the other to the funfair. The combination of this bridge with porch, plants and water creates a diverse space. This bridge also acts as an entrance gate. Cedar tree has been used as an Iranian element.

### KAVIAN RESIDENTIAL BUILDING

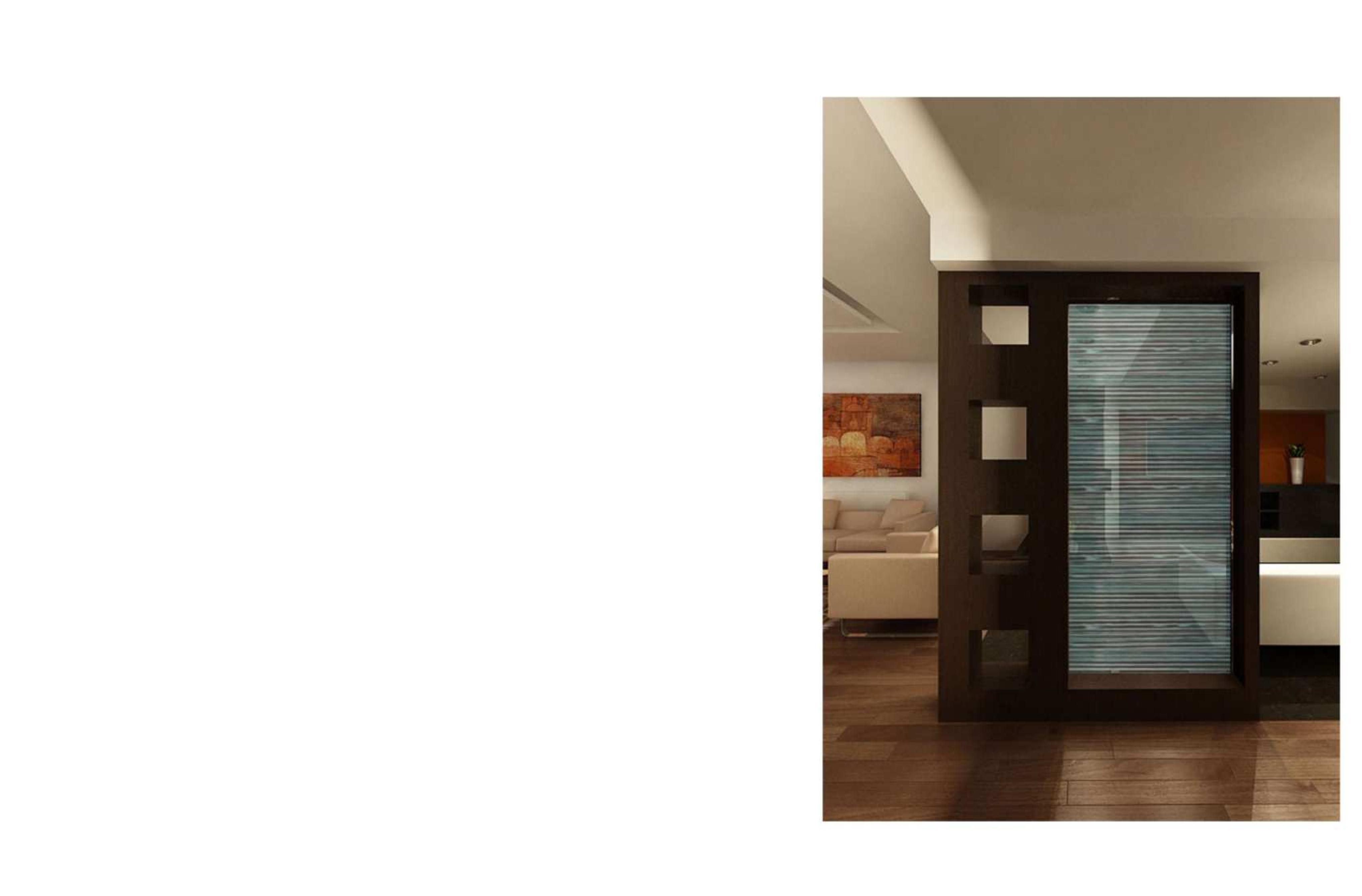
#### ISTAGOUYA CONSULTING ENGINEERS

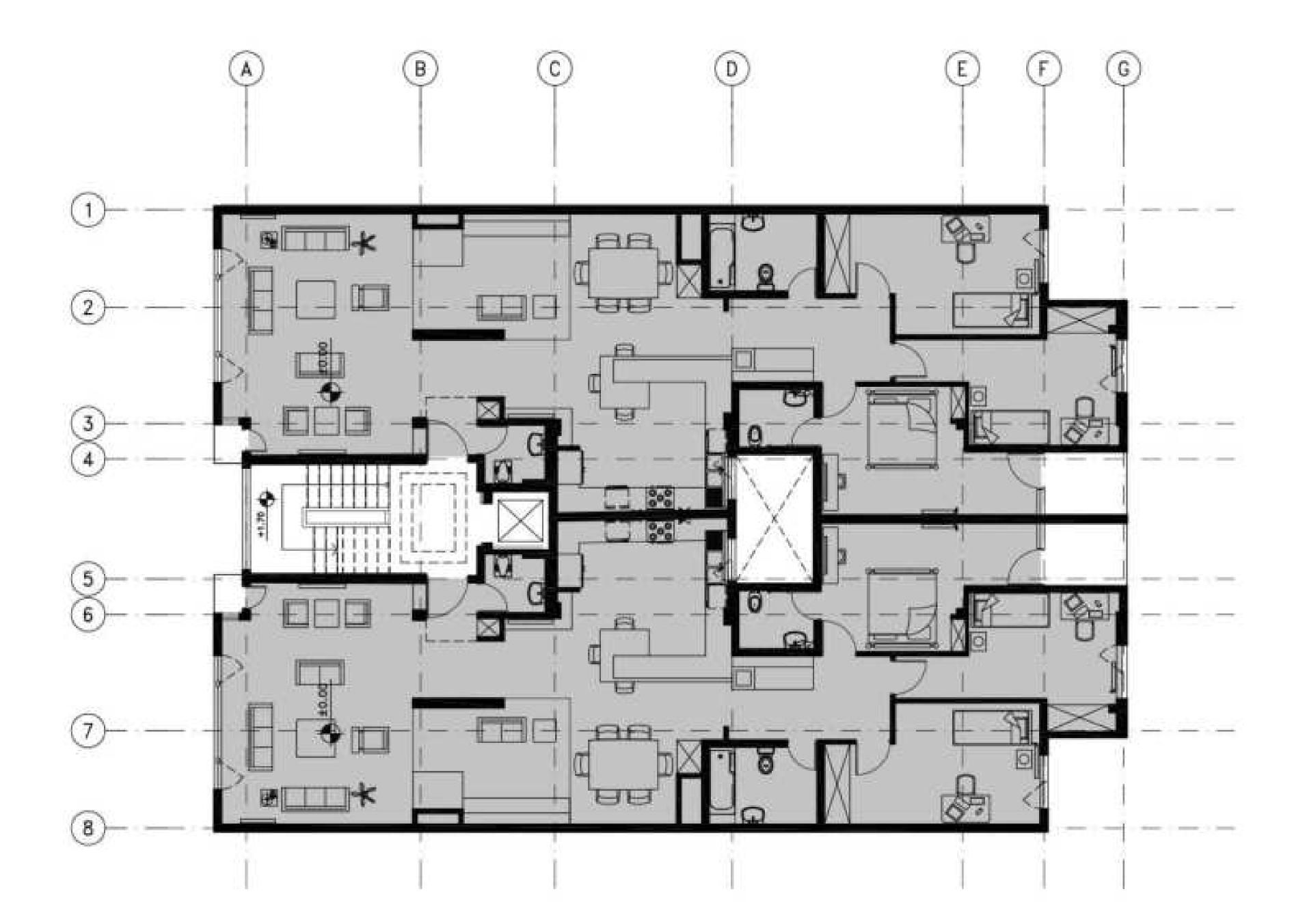
CLIENT: Kavian Petrochemical Co.

PROJECT TYPE: Residential - Renovation

STATUS: Construction LOCATION: Tehran, Iran

BUILDING FLOOR AREA: 180 sqm





This four storey building has 8 similar residential units. The first sight of the old design seems very ordinary. But the renovated unit design is modern and boldly colored.















### 5 ANDIMESHK GUEST HOUSE

#### ISTA GOUYA CONSULTING ENGINEERS CO.

CLIENT: Andimeshk Petrochemical Co.

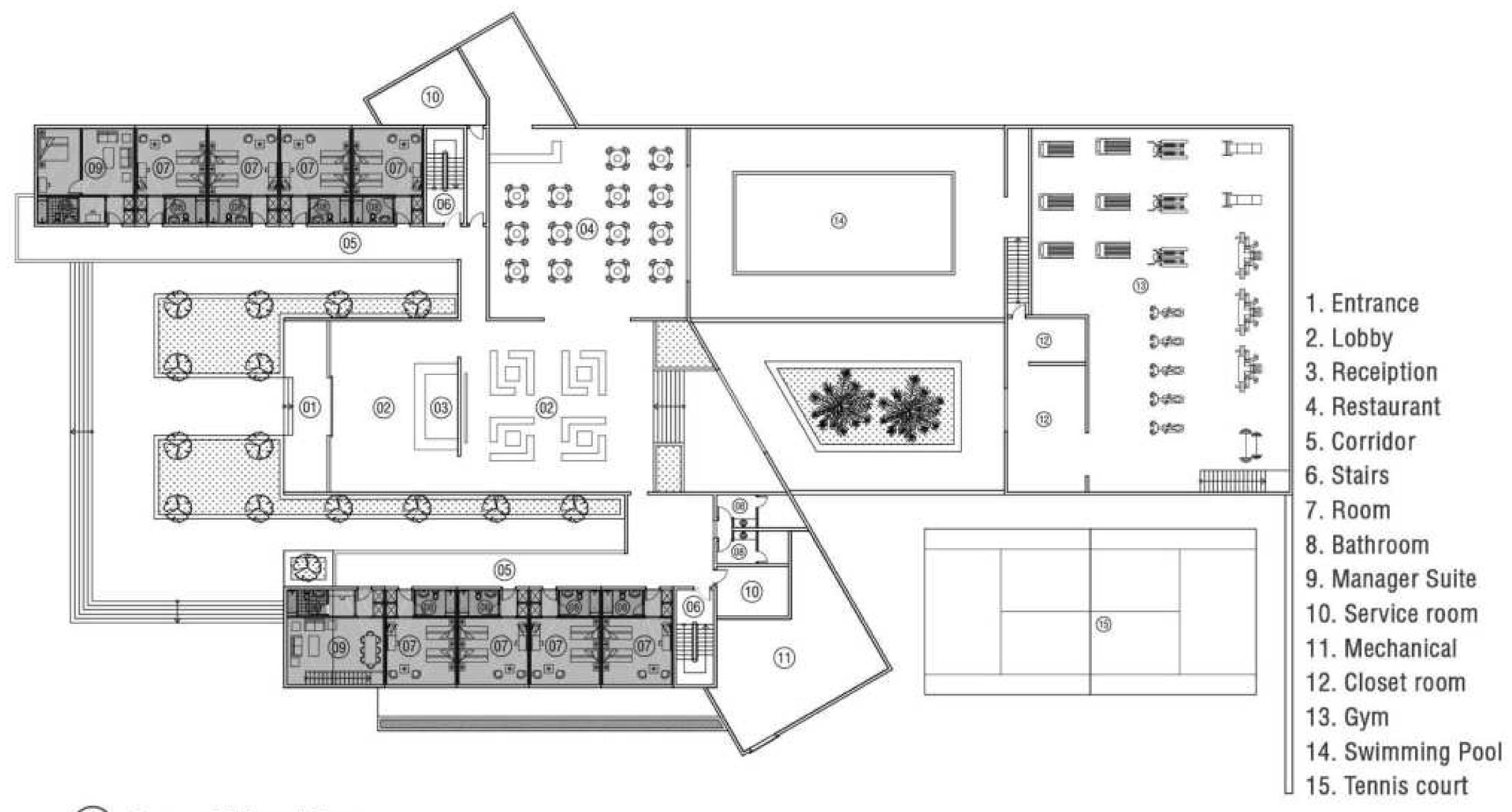
PROJECT TYPE: New Construction

STATUS: Design Development

LOCATION: Andimeshk, Khouzestan, Iran

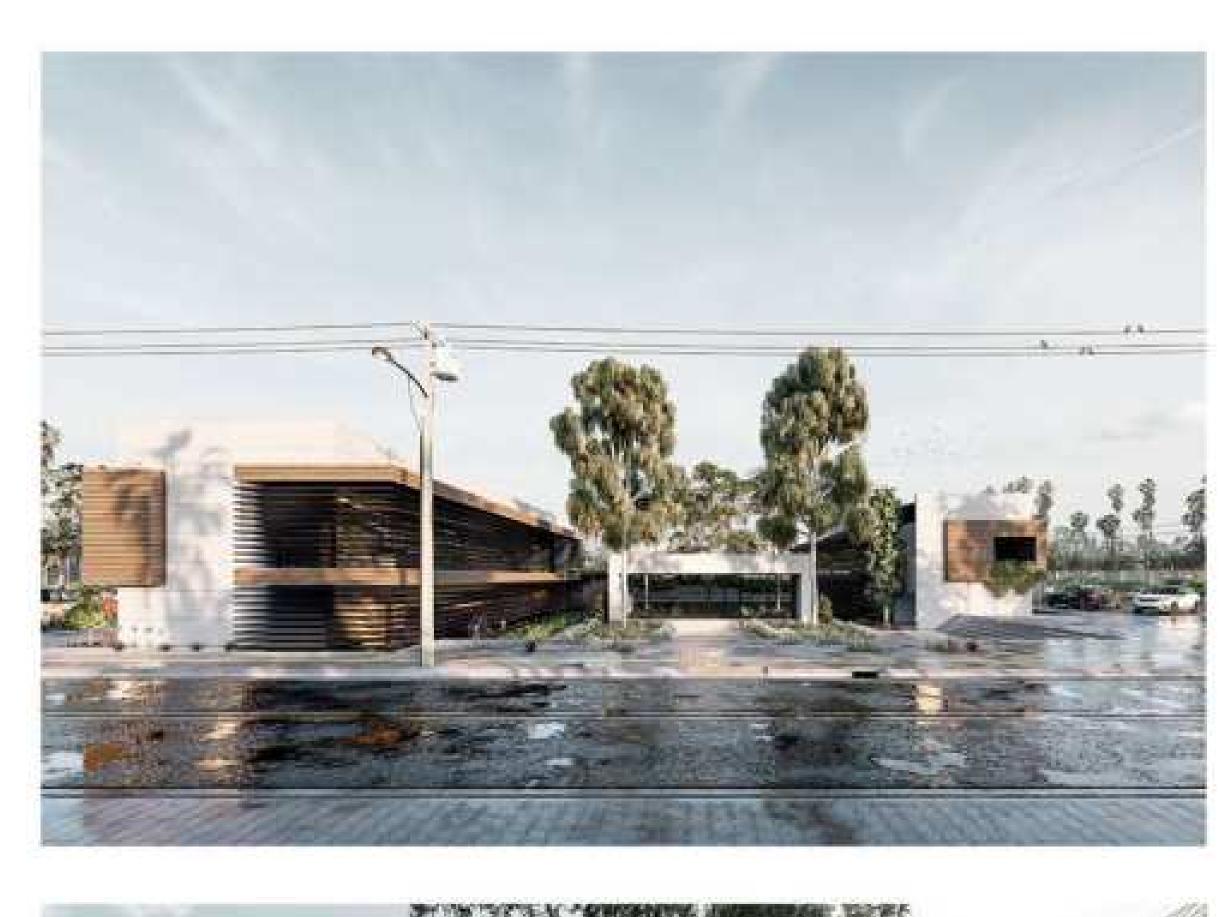
BUILDING FLOOR AREA: 900 sqm





### Ground Floor Plan





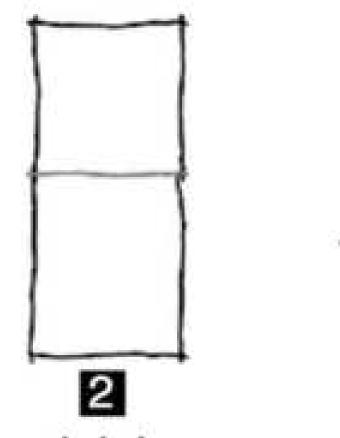


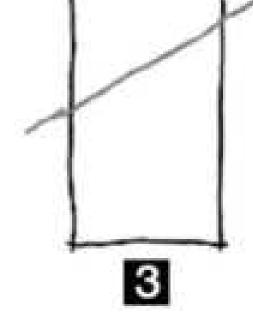


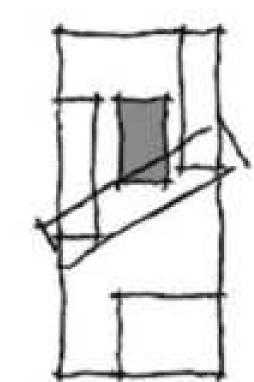


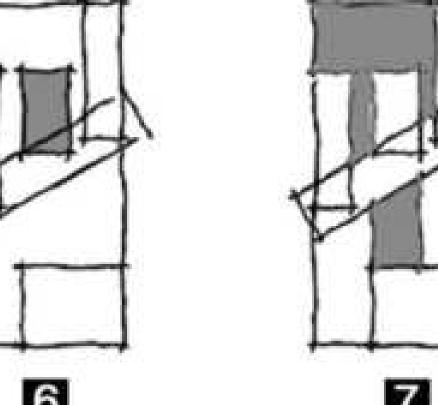




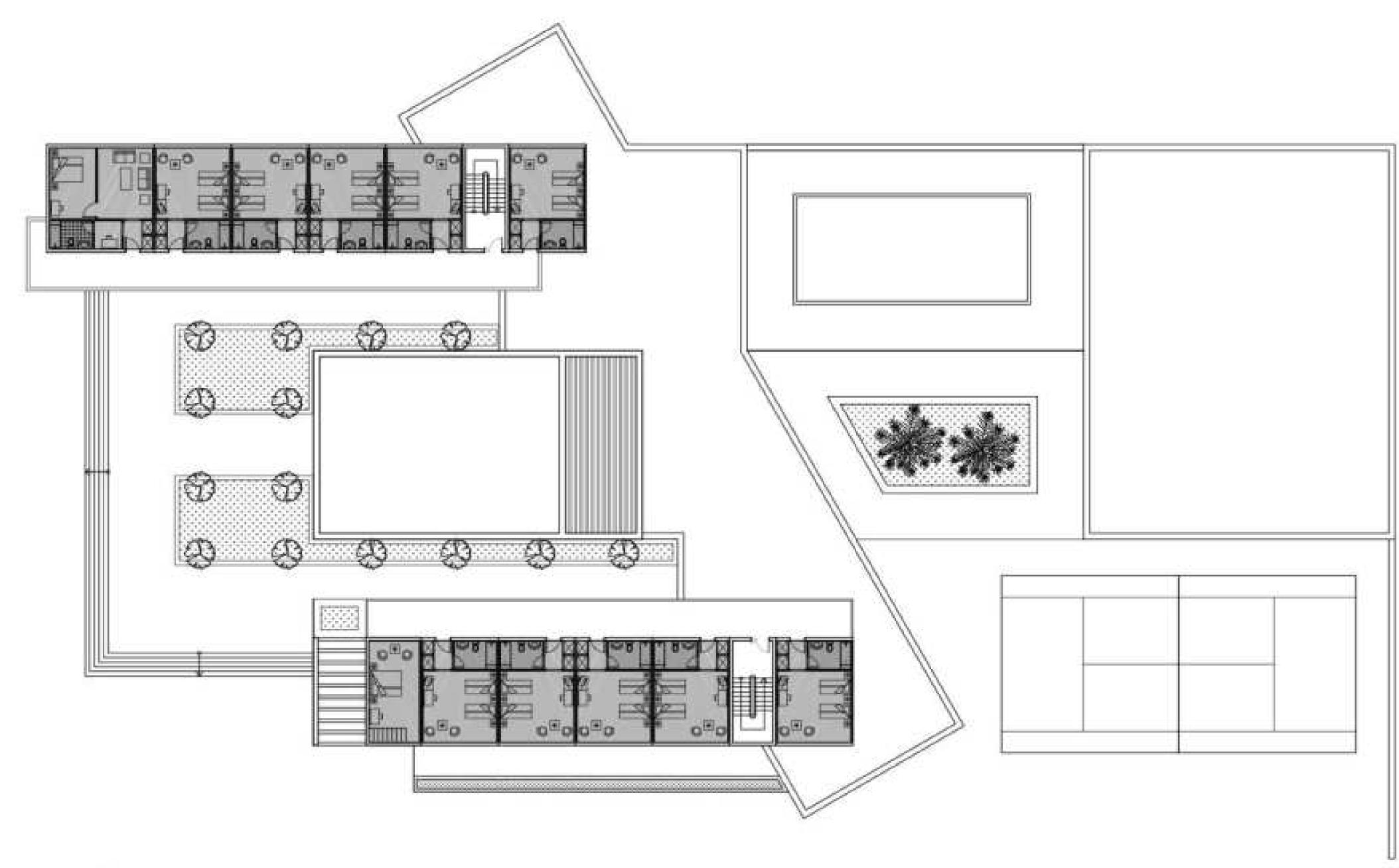








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(A) Second Floor Plan

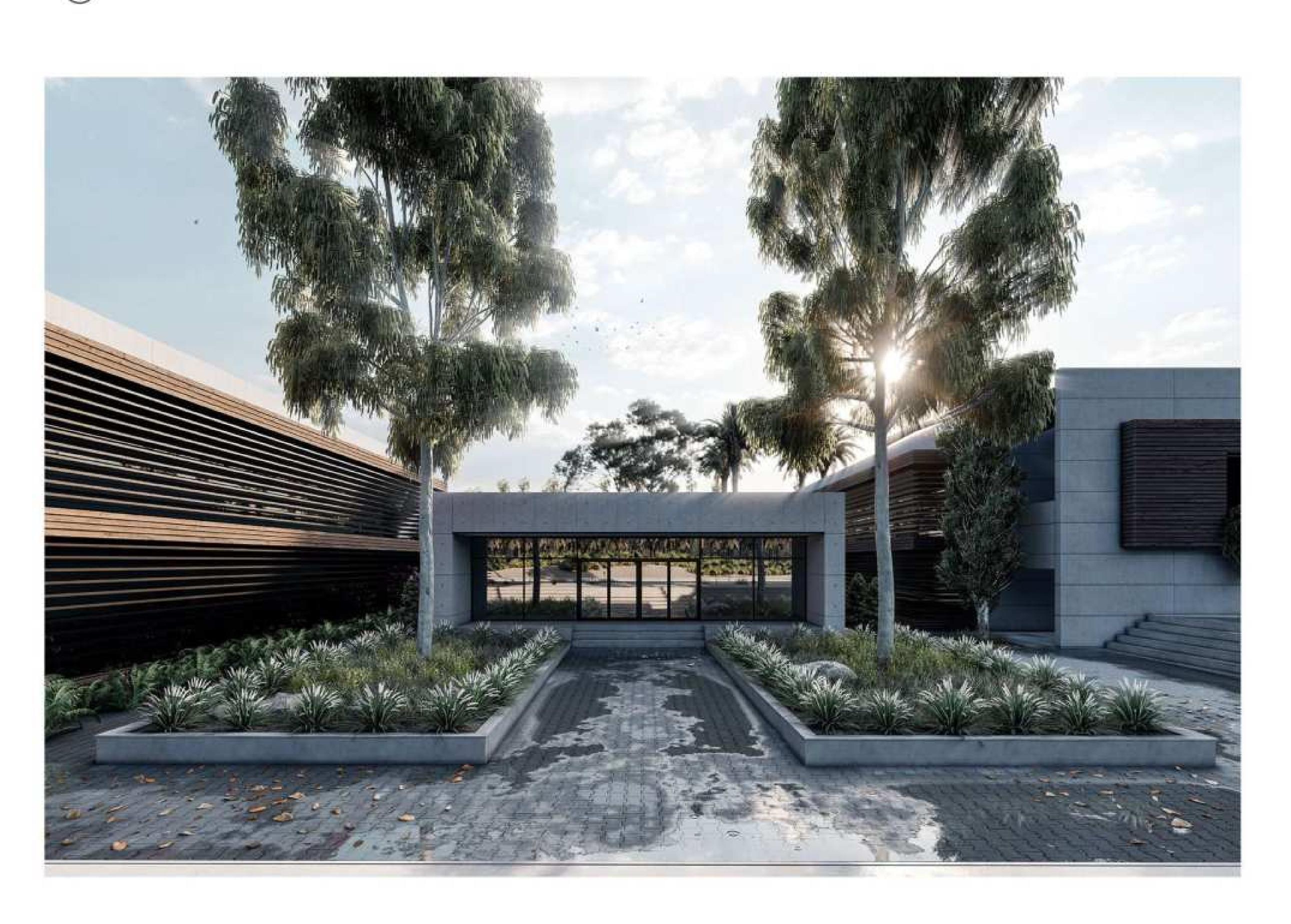
This project was designed to create a modern and contemporary space with a traditional approach. The primary rectangular volume was formed according to the functions, required areas, layout spaces and design standards.

Building orientation is parallel to plot lines and is in a direction that maximizes utilization of north and south sunlight for office spaces, as well as avoids East and West light.

Due to the Andimeshk climate and its latitude, the best position of the building is in a way that the building perpendicular axis makes a 0 to 20 degrees angle with the north-south direction. Therefore, this volume is rotated to be along the East-West axis to receive the lowest amount of solar energy in hot seasons.

In Iranian architecture, posotive and negative spaces are of the same importance and light and nature are guided into the spaces with breaking in heavy volums. In the northern part of the volume, office spaces and management sectors are located with the aim of better use of light, perspective and more privacy. Office building with a central courtyard is connected with the restaurant in the southern part of the complex.

Thus, there have been a number of positive and negative spaces which are assigned to specific functions.



# LIVABLE PARKINGS VANCOUVER AFFORDABLE HOUSING

PROJECT TYPE: Residential

STATUS: Competition

LOCATION: Vancouver, Canada

BUILDING FLOOR AREA: 7,700 sqm



Affordable Housing is housing which is deemed affordable to those with a household income at or below the median income. It is a response to a highly complex set of social, economic, and psychological impulses that could lead to severe cultural problems if ignored.

First steps to affordable housing are selecting the proper sites, construction methods and materials.

This project explores the possibilities of providing affordable housing for different income groups with varying needs through a design that aims to integrate the complex with available developed lands throughout the city.

We concluded that parking lots could be an excellent choice to be considered as affordable housing sites based on their percentage of coverage and dispersion in the city. Not only adding the new use on these lots would not disturb the current function but also it provides an extra income for the owner. These are other reasons why we chose parking lots:

- Parking lots are significant contributors to a phenomenon known as the urban heat island effect by retaining energy from direct solar radiation which can raise temperatures by 10 degrees Celsius. These effects could be reduced by building shading.
- Parking lots are part of developed lands that are within existing public transportation and infrastructures

