



## 2<sup>nd</sup> Tallest Residential Building in Iraq

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SKY  
TOWERS

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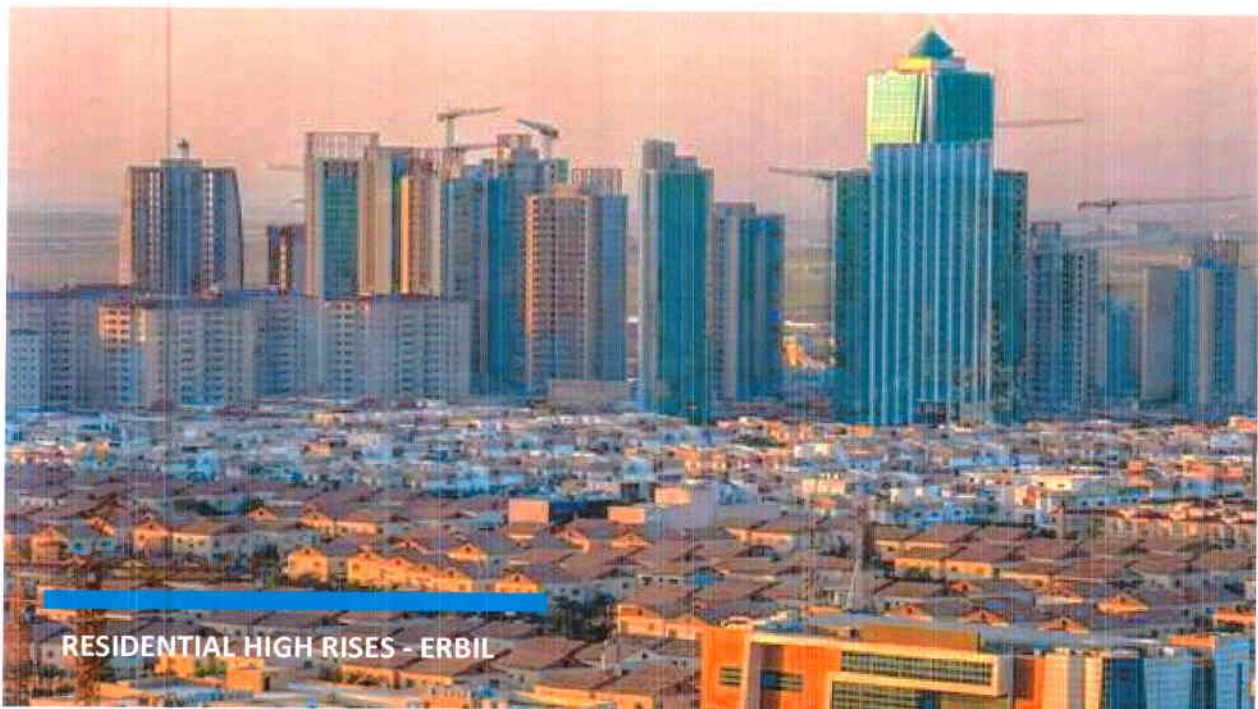
*"Sky Towers, the most luxurious design in Kurdistan"*

## High Rise Buildings:

High-rise buildings became possible with the invention of the elevator (lift) and less expensive, more abundant building materials. The materials used for the structural system of high-rise buildings are reinforced concrete and steel. Most North American style skyscrapers have a steel frame, while residential blocks are usually constructed of concrete. There is no clear difference between a tower block and a skyscraper, although a building with forty or more stories and taller than 150 m (490 ft) is generally considered a skyscraper.<sup>[2]</sup>

High-rise structures pose particular design challenges for structural and geotechnical engineers, particularly if situated in a seismically active region or if the underlying soils have geotechnical risk factors such as high compressibility or bay mud. They also pose serious challenges to firefighters during emergencies in high-rise structures. New and old building design, building systems like the building standpipe system, HVAC systems (heating, ventilation and air conditioning), fire sprinkler system and other things like stairwell and elevator evacuations pose significant problems. Studies are often required to ensure that pedestrian wind comfort and wind danger concerns are addressed. In order to allow less wind exposure, to transmit more daylight to the ground and to appear more slender, many high-rises have a design with setbacks.

Apartment buildings have technical and economic advantages in areas of high population density, and have become a distinctive feature of housing accommodation in virtually all densely populated urban areas around the world. In contrast with low-rise and single-family houses, apartment blocks accommodate more inhabitants per unit of area of land and decrease the cost of municipal infrastructure.

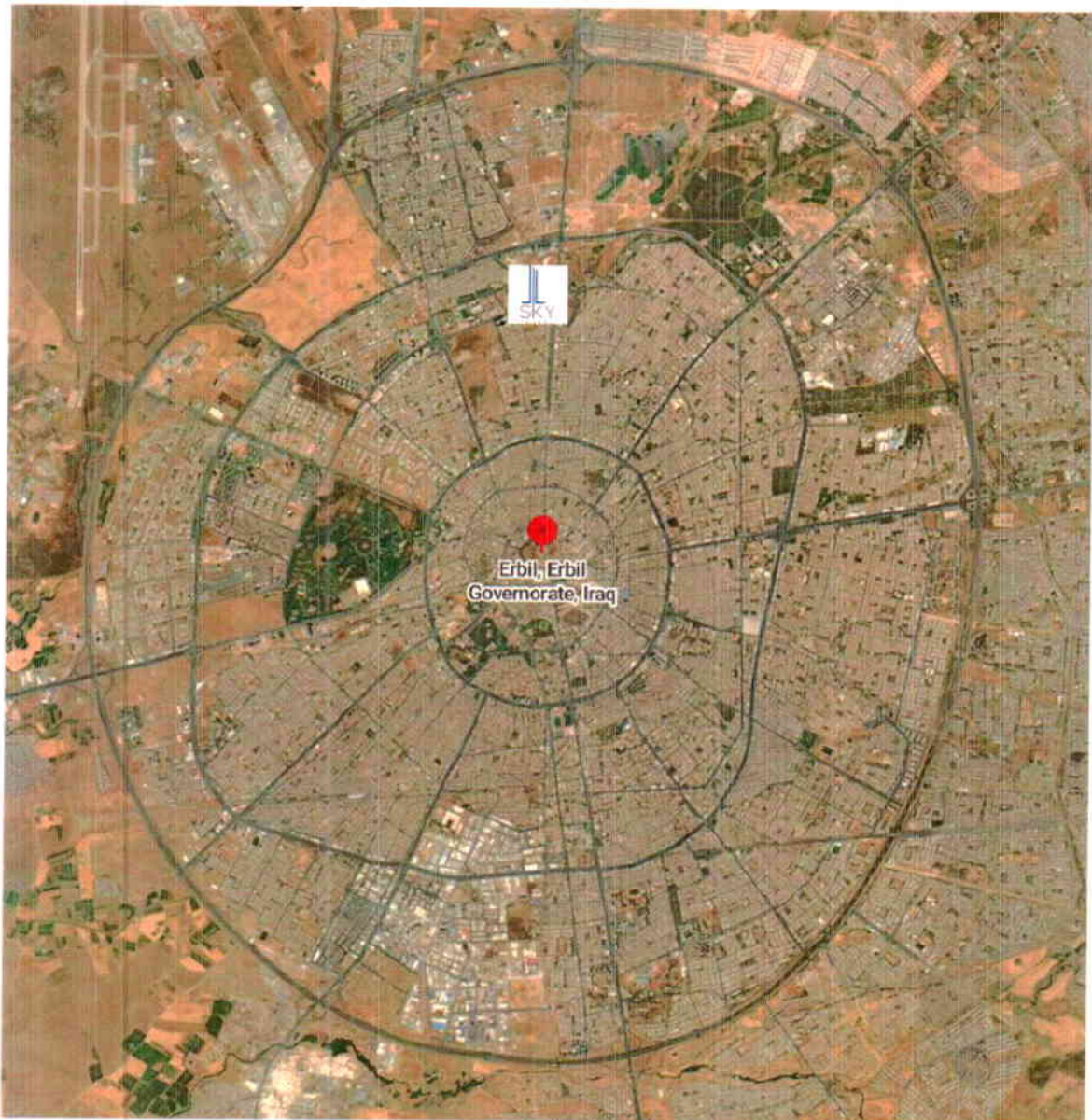




### Sky Towers:

Location: Erbil – 100<sup>th</sup> M street – Beside Arjaan by Rotana  
Area: 115,000 sq.m  
Project Type: High Cost Residential Apartments

Sky Towers are Far away From City Center about 7KM and from Airport by 3 KM.



Project Content:

### 3 Buildings / 38 Floors Each

- Ground & First Floor/ Commercials
- 1,2,3,4 Basements Floor / Car Parking
- 31th & 32th Floors / 4 Duplex apartment
- 9,000sq.m outdoor facilities ( Green Area, Play Ground, Outdoor Gym, Fountain)



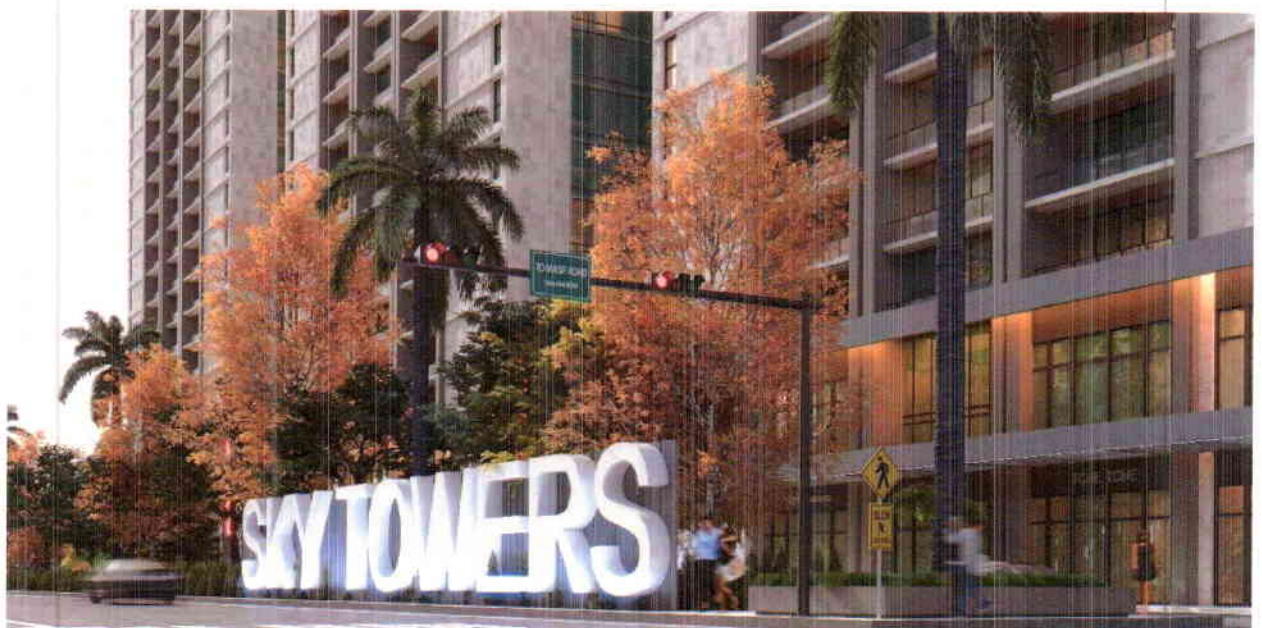


### Sky Pad:

Sky Tower is first residential project to have a special properties which differentiate this project from the others by having Helipad with all standard specifications at the top of each building to serve the residences at emergency cases.

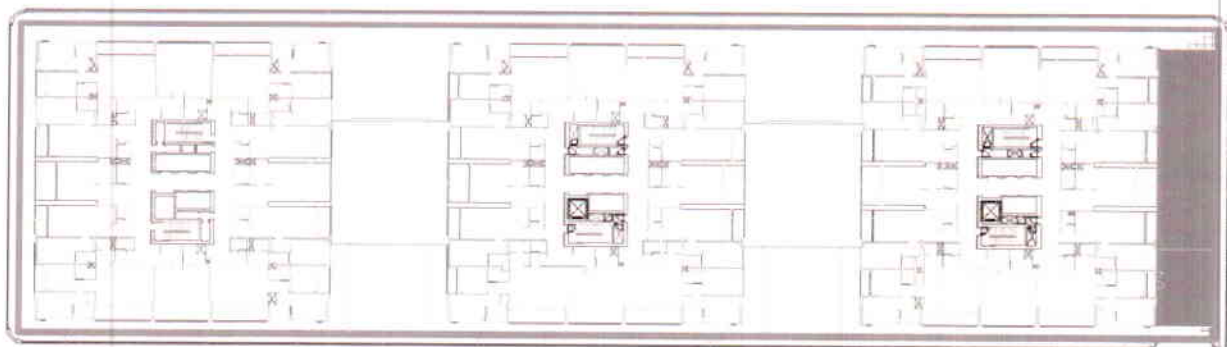
### Shopping Center:

Sky Tower have 12,000 sq.m of Commercial activities at ground floor Level and first floor level.



Sky tower is built on 6,154 sq.m land, with 4 underground basement floors each have 6,000 sq.m built area, and two commercial floors each have 5,600sq.m and 3 residential towers 33 floors with 1,340 sq.m for each floor. .

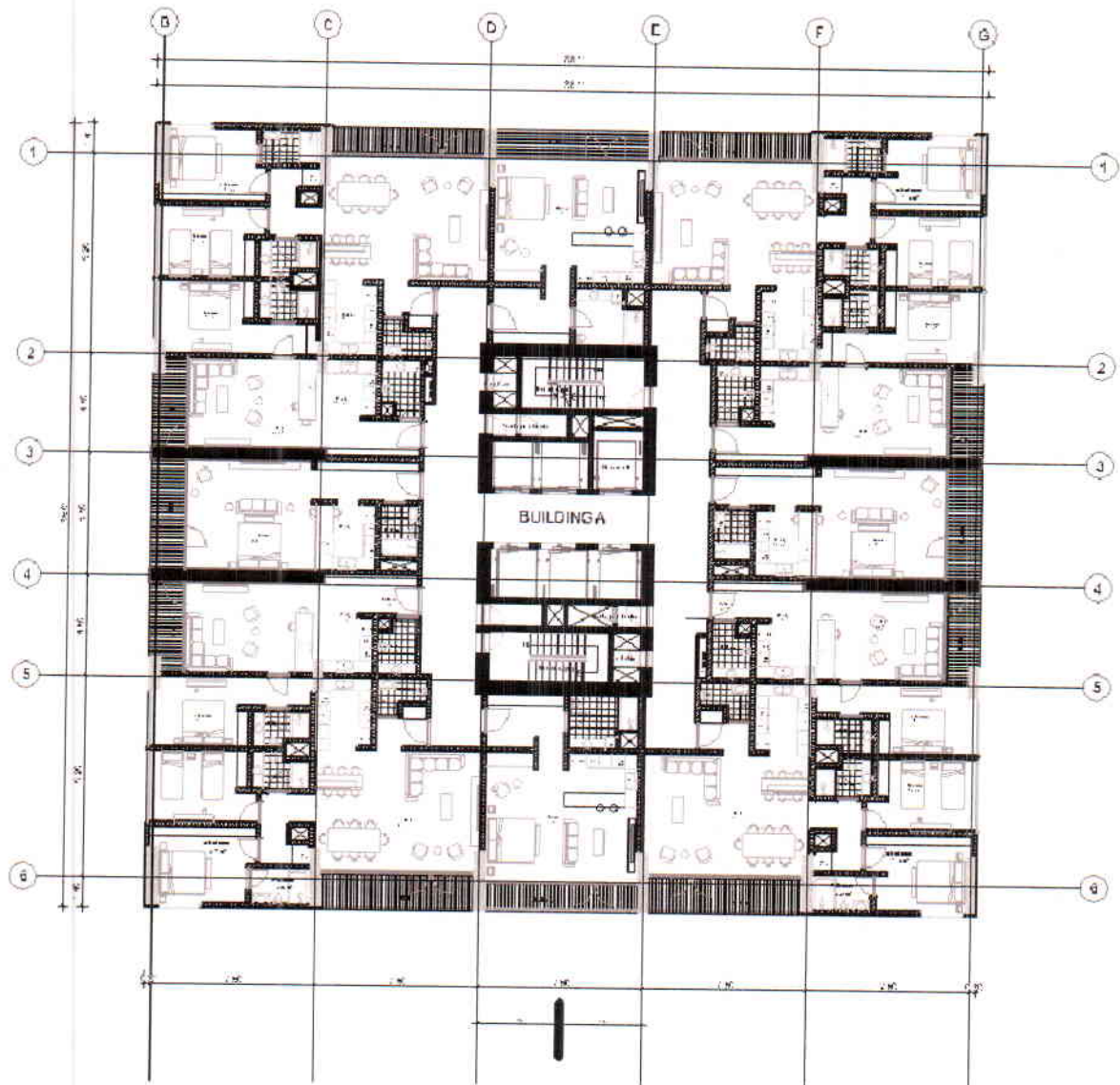
Total built up area of Tower is 168,800 sq.m.



#### Typical Floors:

- Each Floor contain 12 Flats with 4 different Types.
- Each floor contain 5 passenger lifts and 1 service Lift.
- 2 staircases exist in each floor one for passenger and the other for fire escape purpose.
- 2 Electrical Shafts are exist 1 for power the other for low current.
- 1 garbage shooter exist in each floor.

## Typical Floor Plan



Each Flats, Composed of all requirement for a family to live inside sky towers project such as:

- Living Room or Family Sitting
- Bedrooms
- Bathrooms
- Powder + Laundry
- Kitchen
- Entrance



## Type – A

180 sq.m

3+1

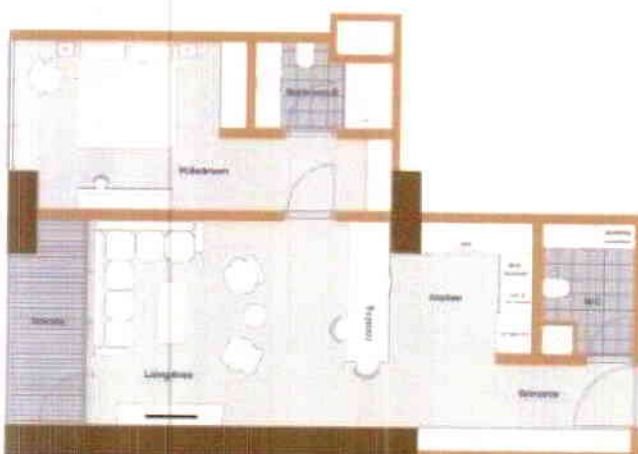


Entrance  
Living Room  
Kitchen + Dining  
General bathroom  
Powder  
Laundry  
2 Bedroom  
1 Master Bedroom + Bathroom  
Balcony

## Type – B

105 sq.m

1+1

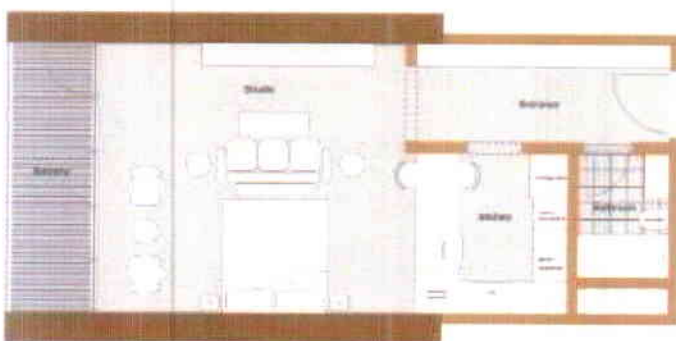
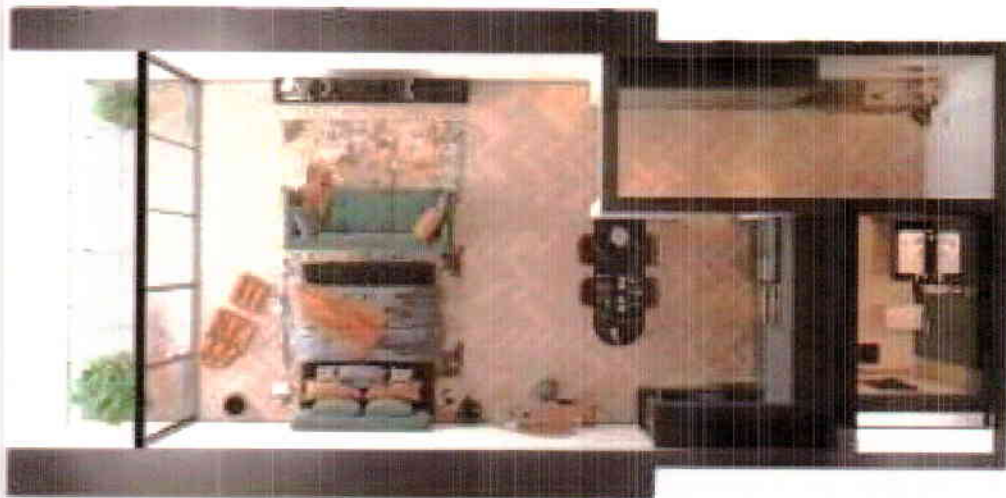


Entrance  
Living Room  
Kitchen + Dining  
Powder  
Laundry  
1 Master Bedroom +  
Bathroom  
Balcony

## Type – C

105 sq.m

Studio



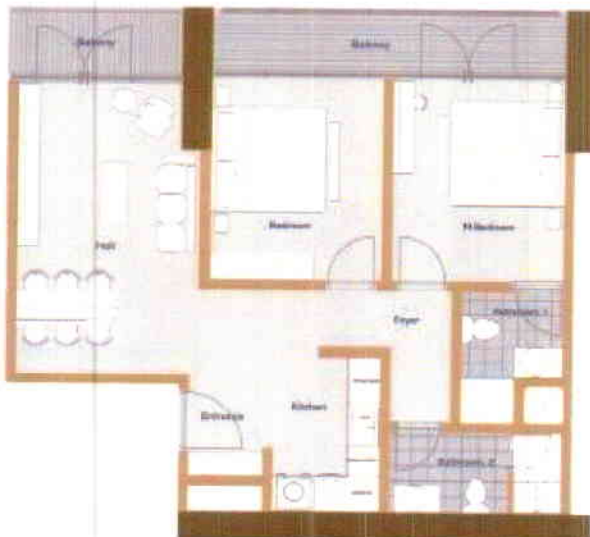
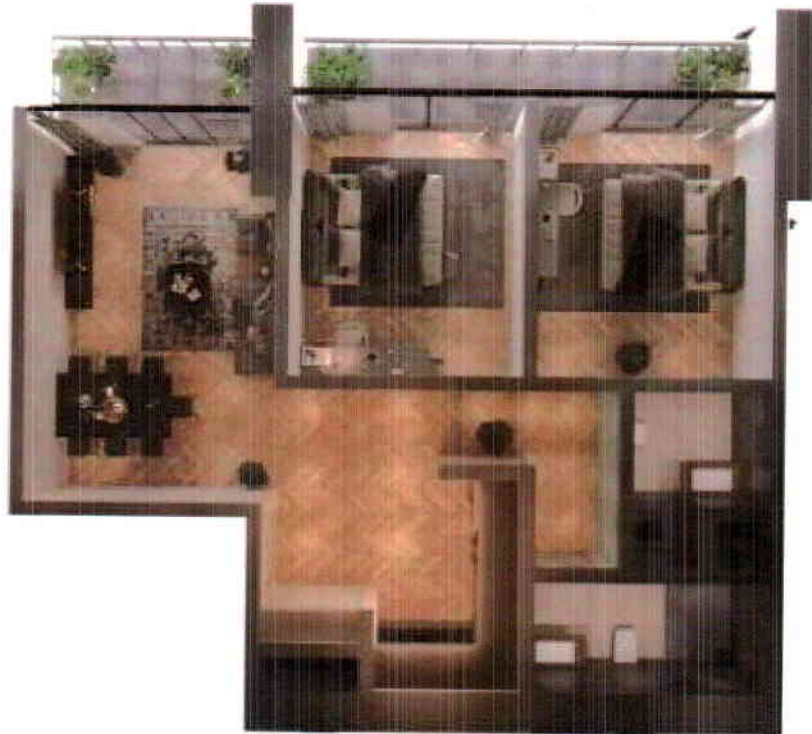
Entrance  
Living Room  
Kitchen + Dining  
Bedroom  
Powder  
Laundry  
Bathroom  
Balcony



## Type – D

135 sq.m

2+1



Entrance  
Living Room  
Kitchen + Dining  
Powder  
Laundry  
1 Master Bedroom +  
Bathroom  
1 Bedroom  
General Bathroom  
Balcony

Some different options which are used for the first time in Kurdistan Region for residential projects such as:

#### 1- Turkish Bath



## 2- Heating System:

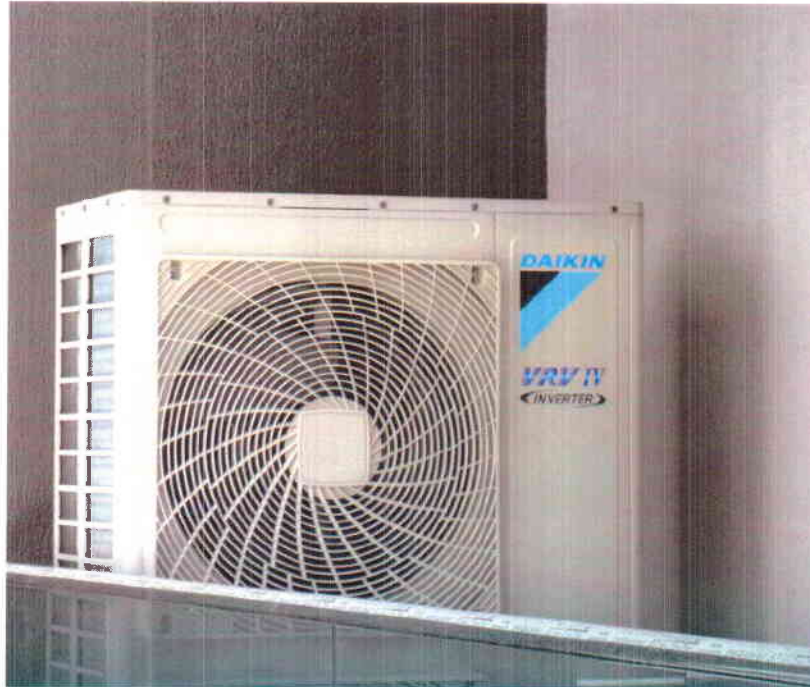


## 3- Finger Print Entrance Door:





4- VRV air conditioning system:



5- Triple Glass Windows:



Structural information about the project:

- Frame Concrete system with Flat Slab used in the project as main structure of the buildings to prevent from the effects of earthquake. This system help the owner to finish the frame in a short time .



- Under each building there are approximately 60 piles.
- Foundation Thickness of each building is 2.5m.



Sky Tower has approximately 9,000 sq.m of greenery and outdoor leisure activities such as:

Outdoor Fitness, Basketball Yard, Playground, Jogging Path .....etc.



In Sky Tower park you can find the largest and tallest Playing Fountain in Kurdistan Region.





Sky Tower Reception designed by the highest quality and used the latest design of marble stone for covering the walls.



Inside Apartments you can see a very harmonical mood between all colors and materials.



- Commercial Activities added at the two lower floors of the buildings.



- Sky Tower Façade covered by very high quality porcelain tile with using mechanical fixing system.





