



Urban Planning
Department

Affordable housing in area C

BUILD

Discussion of graduation project
An-Najah National University
Engineering college
Instructors: Dr.Ali Abdalhameed, Dr.Zahraa Zawawi
Spring semester
2015/2016



Introduction

- The graduation project is about the affordable housing in area C.

Site selection

Area C

The location of project was selected in area c due to the Cheap price in this area, and the scarcity of construction in the same area.

The main aim of the project is to suggest a housing project with an affordable price.

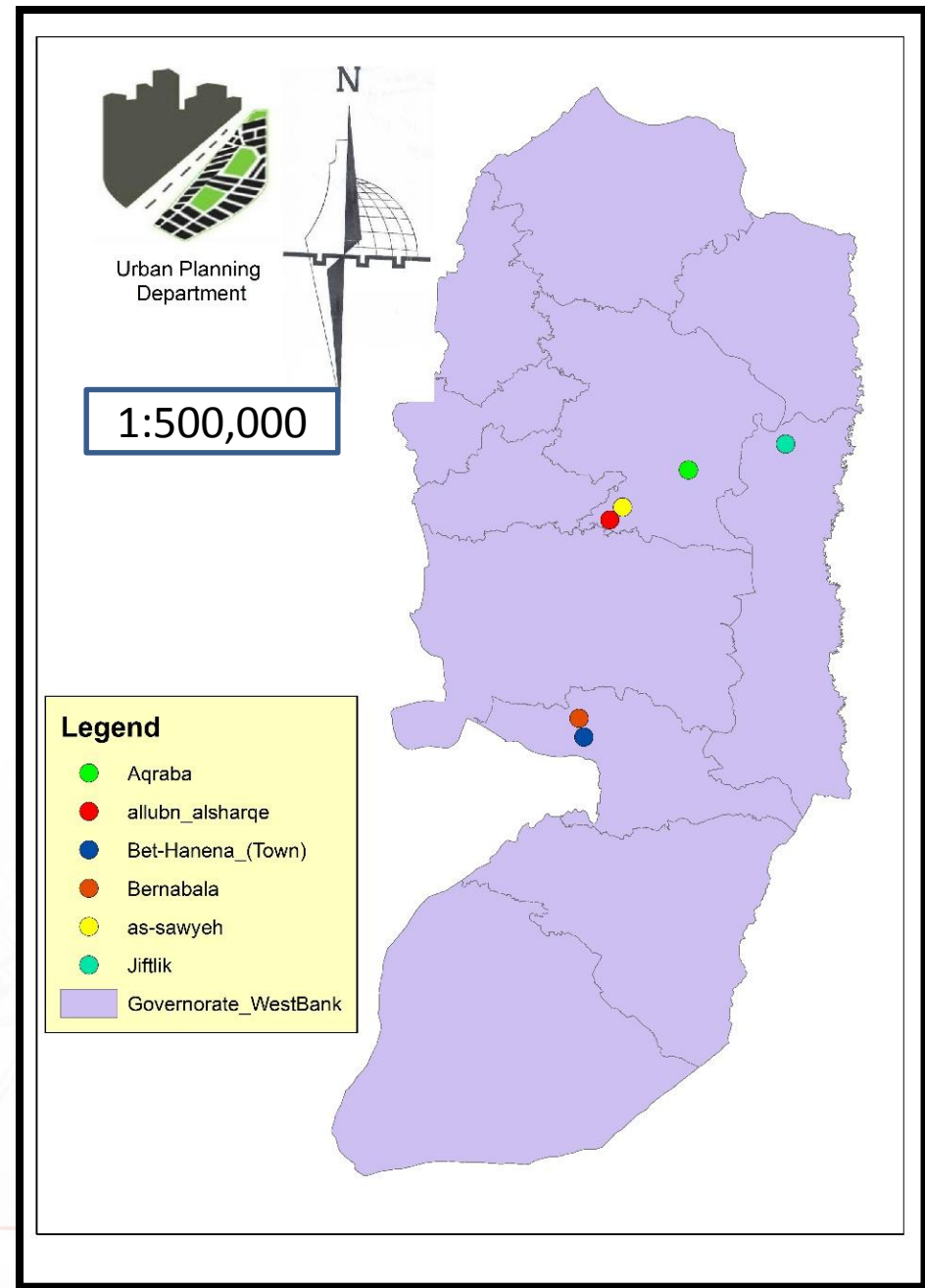
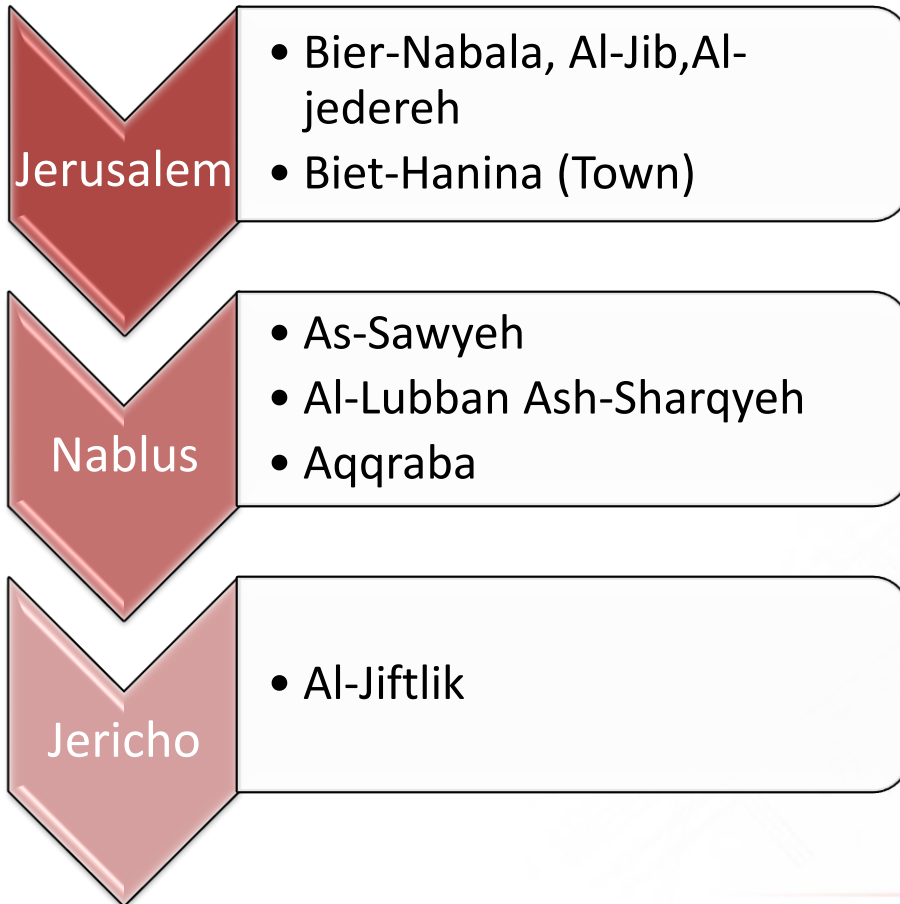
Many organizations (Ministry Of Local Government, Private Sector, NGOs) and also the Supervisors suggested Several communities that may be built and where the project proposal.



Site Selection

Jerusalem, Nablus, and Jericho.

The middle of the West Bank



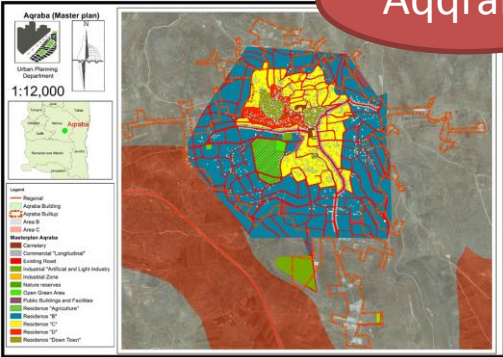
Criteria of selection



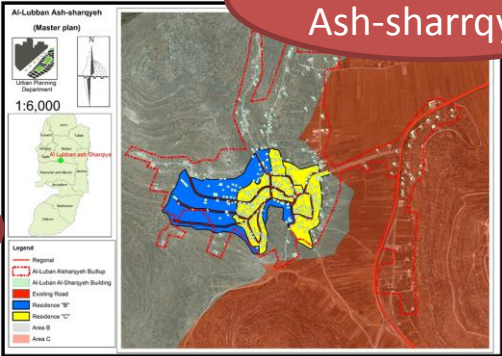
Criteria		Weight	Site Rank				
			1	2	3	4	5
1)Location in an area C .		10	Outside from area C.	-	Partially area C	-	Inside area C.
2)locate near main or regional roads.		7	250 m away	200 m away	150 m away	100 m away	On The main Road
3)Accessibility to rural communities.		10	Away from communities	-	Near Communities	-	Inside communities
4)Accessibility to infrastructure network.	Water Network ()	9	Accessibility to one infrastructure service or no services	Accessibility to (2) infrastructure services	Accessibility to (3) infrastructure services	Accessibility to (4) infrastructure services	Accessibility to more than (4) infrastructure services
	Sewage Network ()						
	Telephone Network ()						
	Electricity ()						
	other()						
5)Accessibility to public transportation.		7	No taxi services	Few taxi services	-	Taxi services are irregular	Taxi services are regular
6)Land Price.		8	Very high price.	High price	Moderate price	Acceptable price	Low price
7)The location of project in the central region in West Bank.		10	Away from central region	-	Near central region	Close to central region	In the central region
8)Proximity to urban center		9	Away from urban center	-	Close to urban	Within urban	Inside the urban.
9)Accessibility to nearest city without any checkpoints (CP).		9	existence a lot of cp.	2 cp.	One cp.	Temporary cp.	There are no cp.
10) Availability of master plan (MP) in Area C.		10	No MP.	-	-	-	Existence of MP.
11) Away from Israeli settlements.		7	With in settlement(<150 m)	close to settlement (150<D<400)	Near settlement (400<D<600)	-	Away from settlement (D>600)

Communities that have been studied

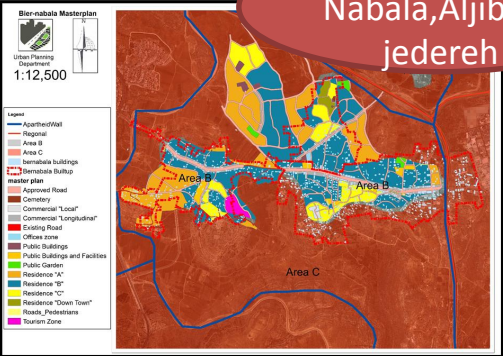
Aqqraba



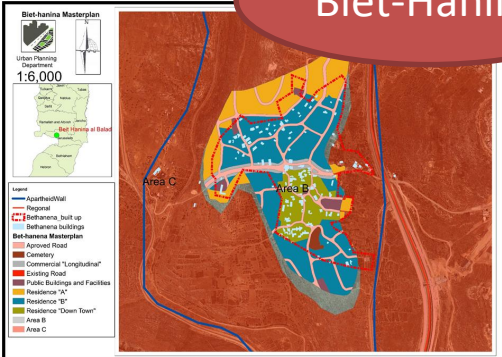
Al-Lubban
Ash-sharqyeh



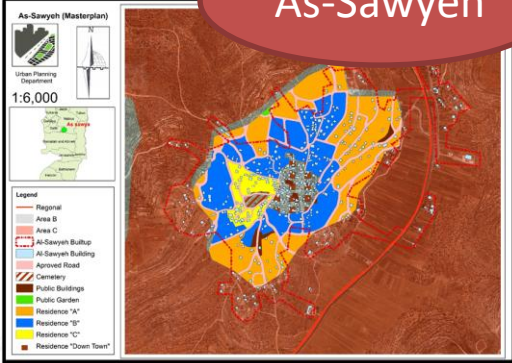
Bier-
Nabala,Aljib,Al-
jedereh



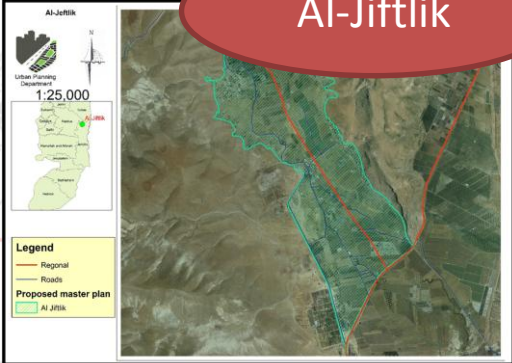
Biet-Hanina



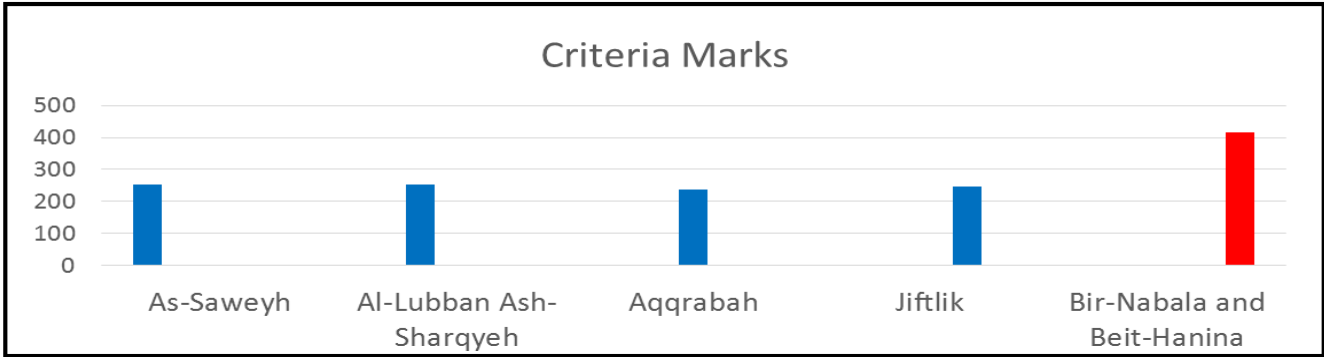
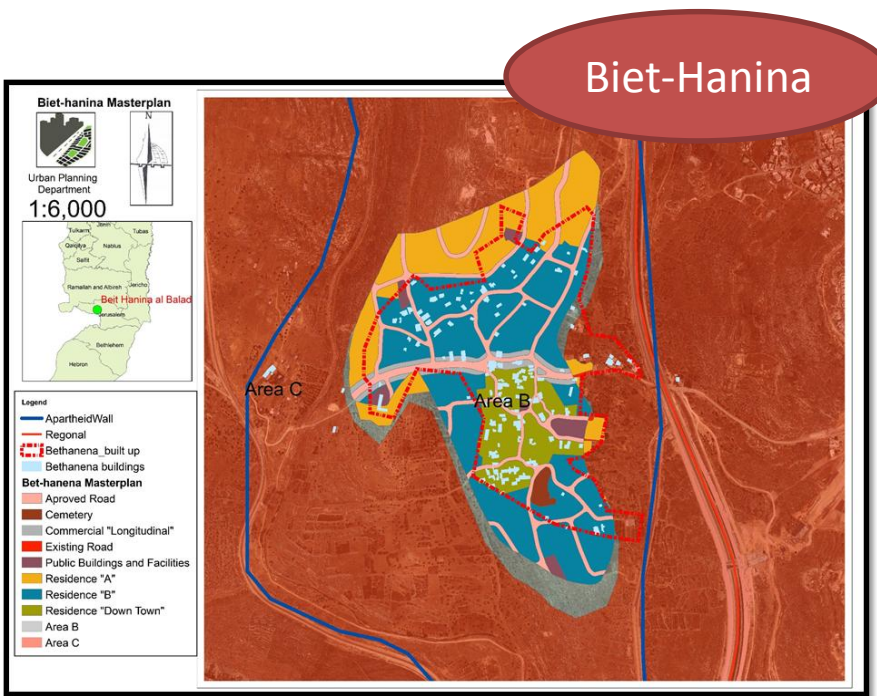
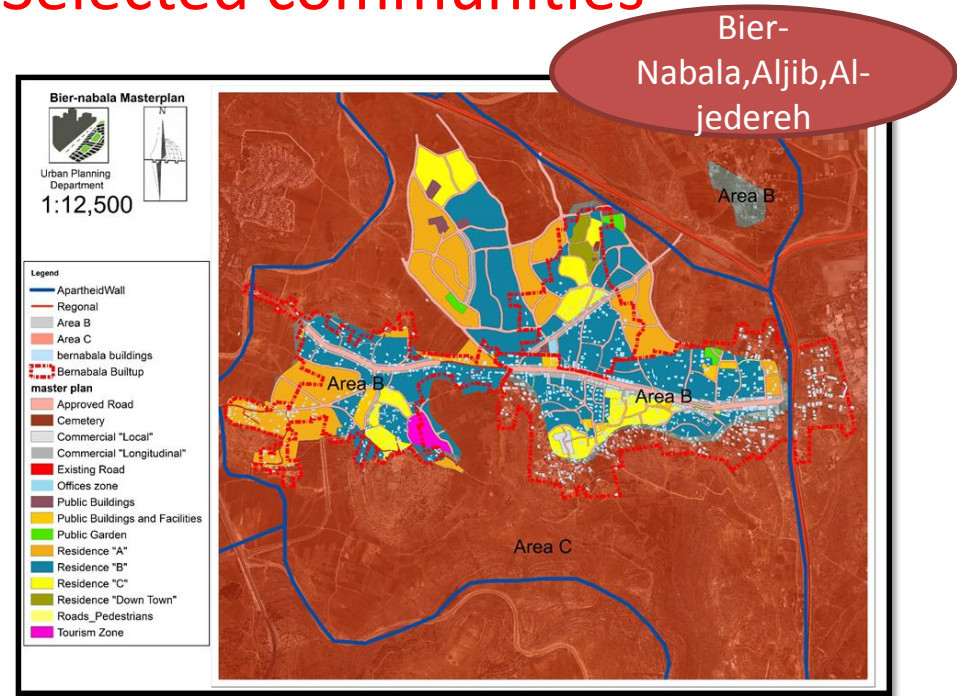
As-Sawyeh



Al-Jiftlik



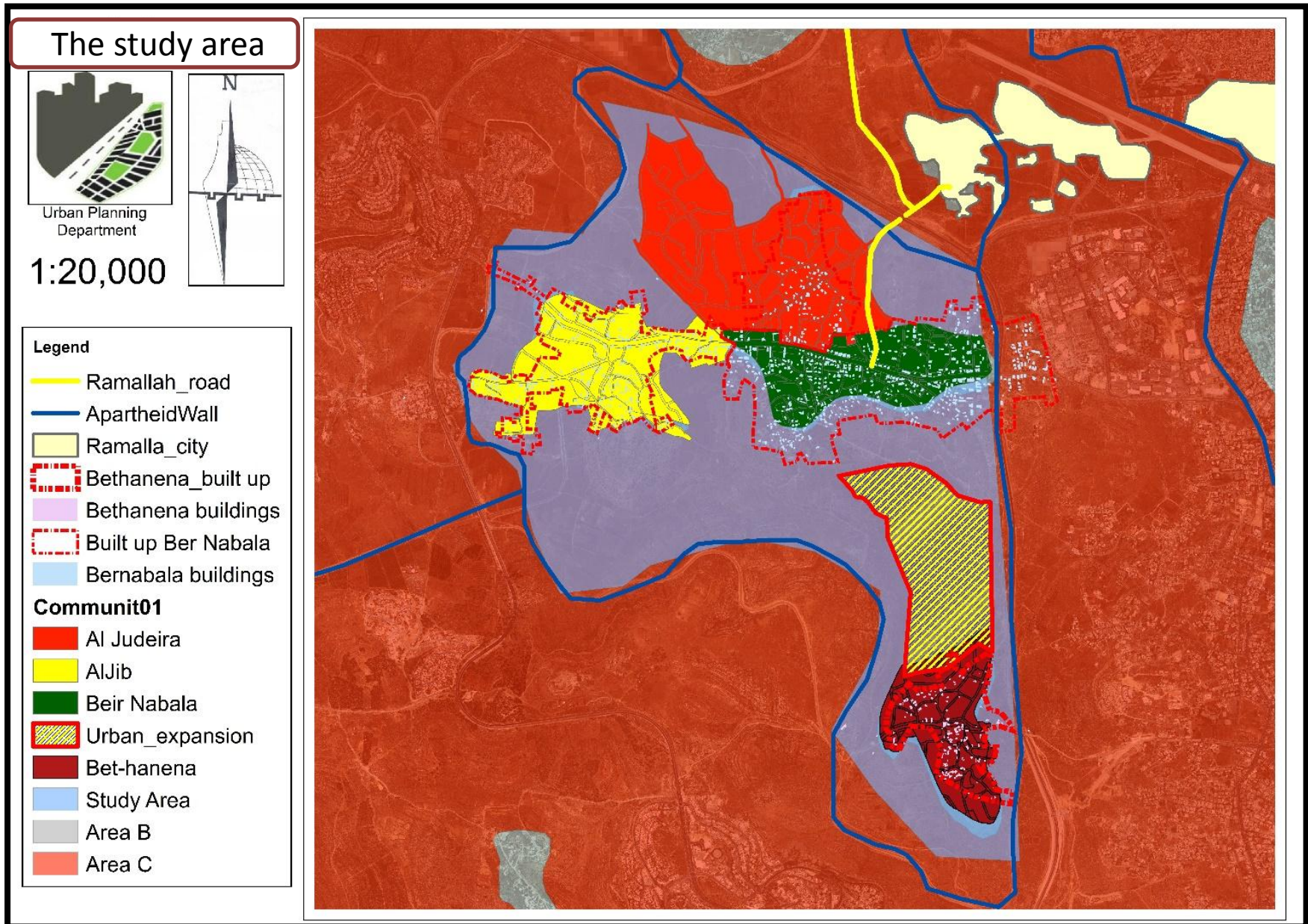
Selected communities



Site	As-Saweyh	Al-Lubban Ash-Sharqyeh	Aqqraba	Jiftlik	Bier-Nabala area & Beit-Hanina (town)
Mark	٢٥٢	٢٥٢	٢٣٨	٢٤٨	٤١٥

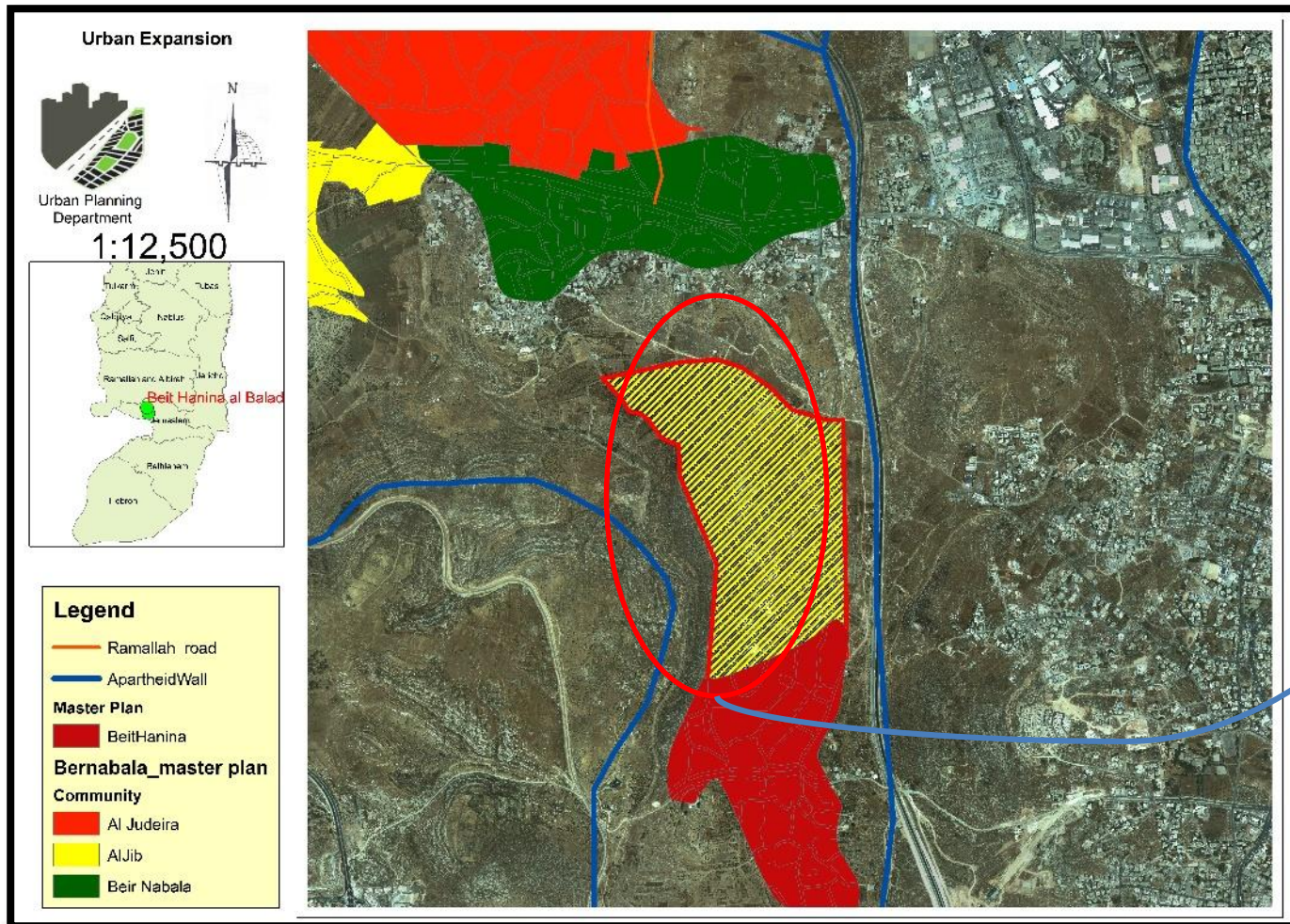


The study area



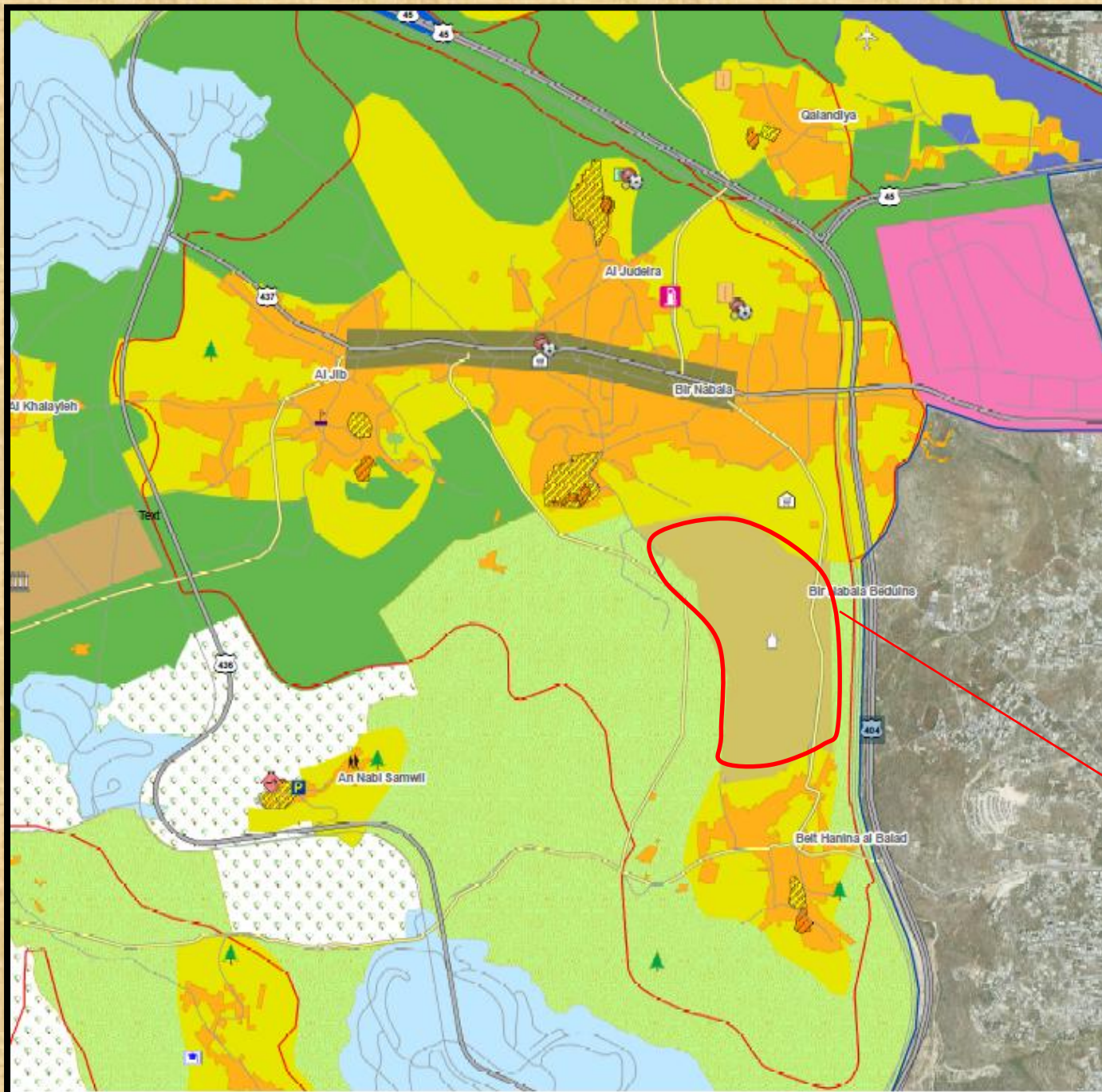
Related studies

- In 2011 (ipcc), issued a report about the villages in the northwest of Jerusalem, this report contains the regional plan for these villages.
- The study places covered by the report are: (Qalandia, Beit-Hanina(Town), Bir-Nabala, Al-Jedereh, Al-Jib, Bedo, Beit-Ijza, An-Nabi Samoel, Biet-Doqo, Al-Qubibah, Qatanah, Beit-Anaan, Rafat, Beit-Iksa, Emm-Allaham.)

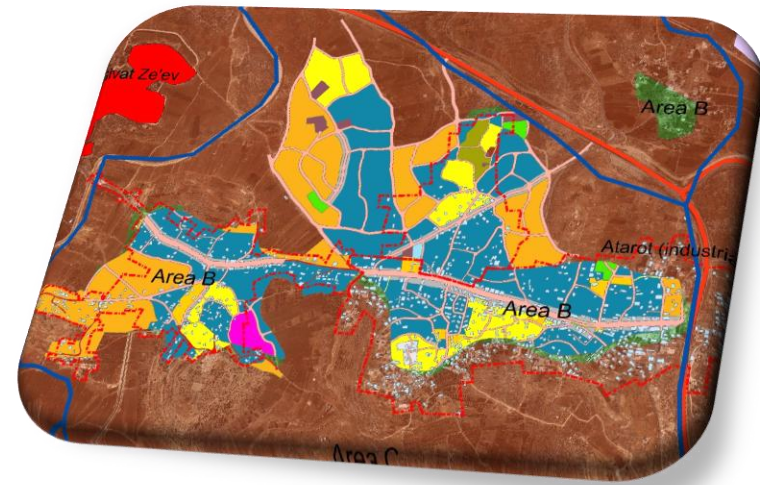


Urban
expansion

BUILD



- الشوارع الإقليمية القائمة
- الشوارع الرئيسية المقترحة
- الشوارع المحلية
- الجدار
- مركز وظائف
- سكن تجاري
- تطوير مركز حضري جديد
- منطقة صناعية مقترحة
- مقابر بحاجة للتوسعة
- مراكز التوطن القديمة للحفظ والترميم
- المناطق السكنية
- التمدد العمراني لعام 2035



Site analysis for selected communities



SWOT Analysis

Strengthens

- 1- Availability of proposed urban expansion area.
- 2- Accessibility to infrastructure network.
- 3- Easy access to Ramallah.
- 4-The development plan recommends to construct a new suburb in urban expansion area
- 5-The availability of water sources in study area.
- 6-Availbility of full electricity service.

Weaknesses

- 1-Lack of some health facilities.
- 2-Poor internal roads.
- 3-Lack of education services.
- 4-Presence of lands of medium agricultural value.
- 5-Lack in some community facilities.
- 6-Poor service in Sewage Network in Biet-Hanina.
- 7-The solid waste collection service is poor in Biet-Hanina.

SWOT

Opportunities

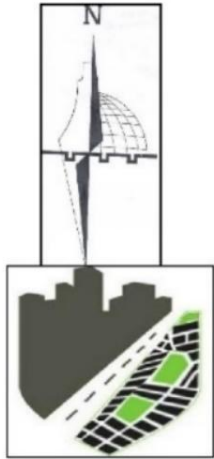
- 1-Availability of some community facilities.
- 2-Job opportunities in the area .Proximity to industrial zones.
- 3-Availability of industrial activities
- 4-An expected increasie in population in 2030.

Threats

- 1-Existance of apartheid wall around the study area.
- 2-Many settlements located around the study area.
- 3-The Atarot industrial zone located near expansion area.
- 4-Many demolition orders issued against Palestinians.

The strengthens

Strength



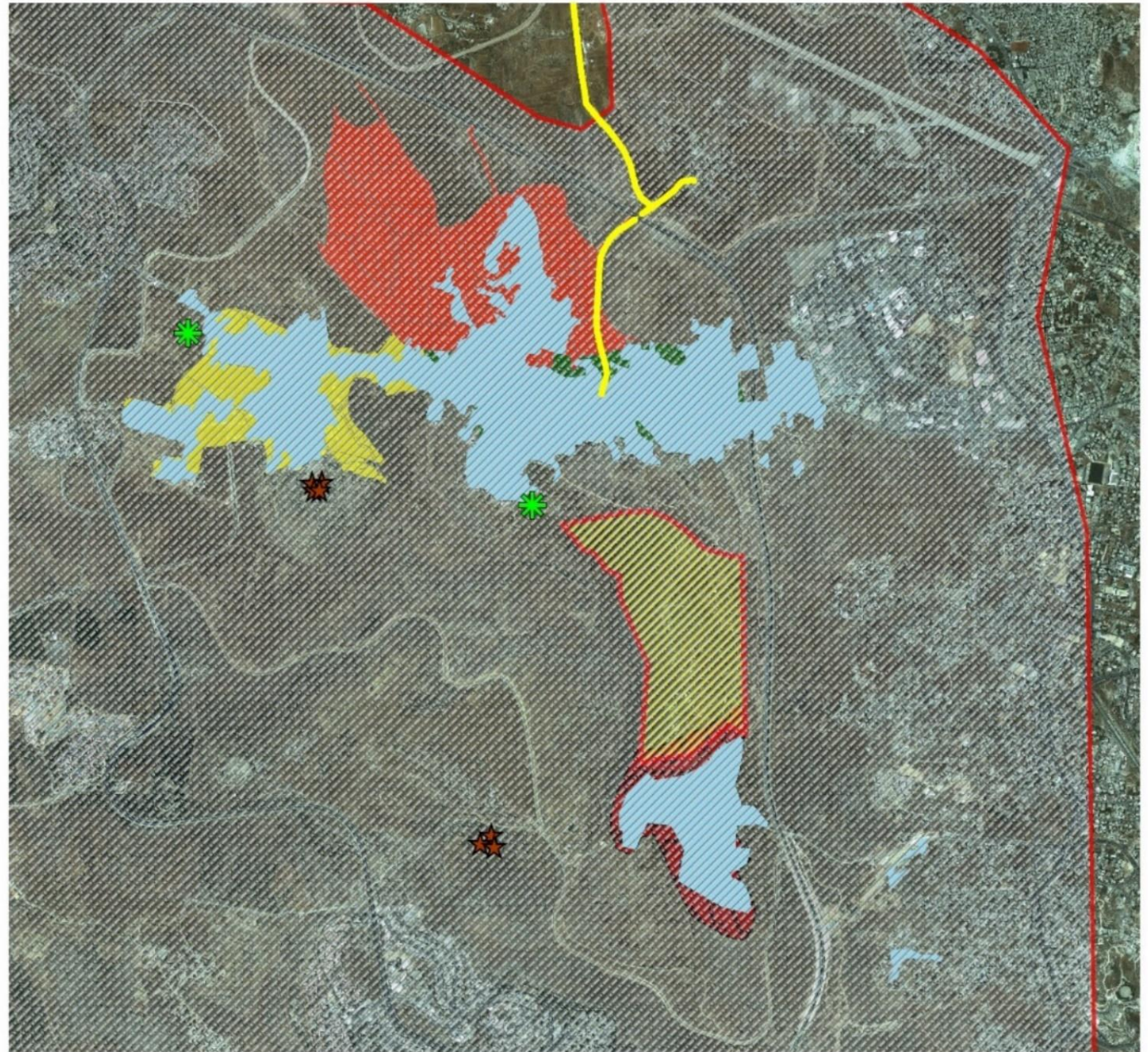
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1:20,000

Legend

- Ramallah_road
- Served electric area
- Electricity_service
- Al Judeira
- AlJib
- Beir Nabala
- Urban_expansion
- Bet-hanena

Water_sources

- Artesian wells
- springs



Weaknesses

Weaknesses

Legend

 Car Wash station

 Cemetery

 Civil defence

 Feminist Center

 Gas station

 Hall

 Housing

 Post Box

 Public garden

 Taxi

 Village Council

 Youth Center

 Al Judeira

 AlJib

 Beir Nabala

 Urban_expansion

 Bet-hanena

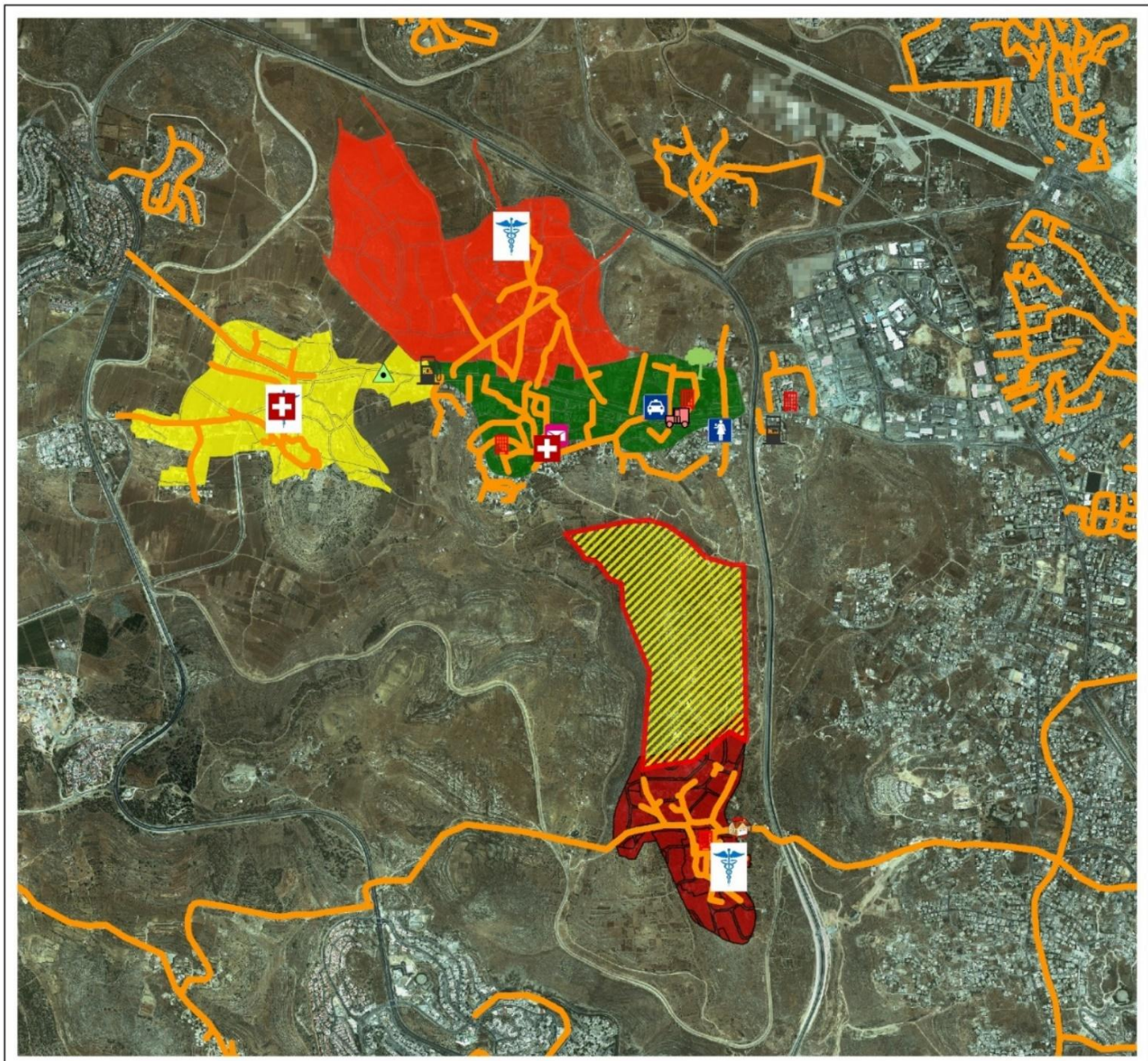
Health_facilities

 Clinic

 Health center

Road Classification

 Internal



Opportunities

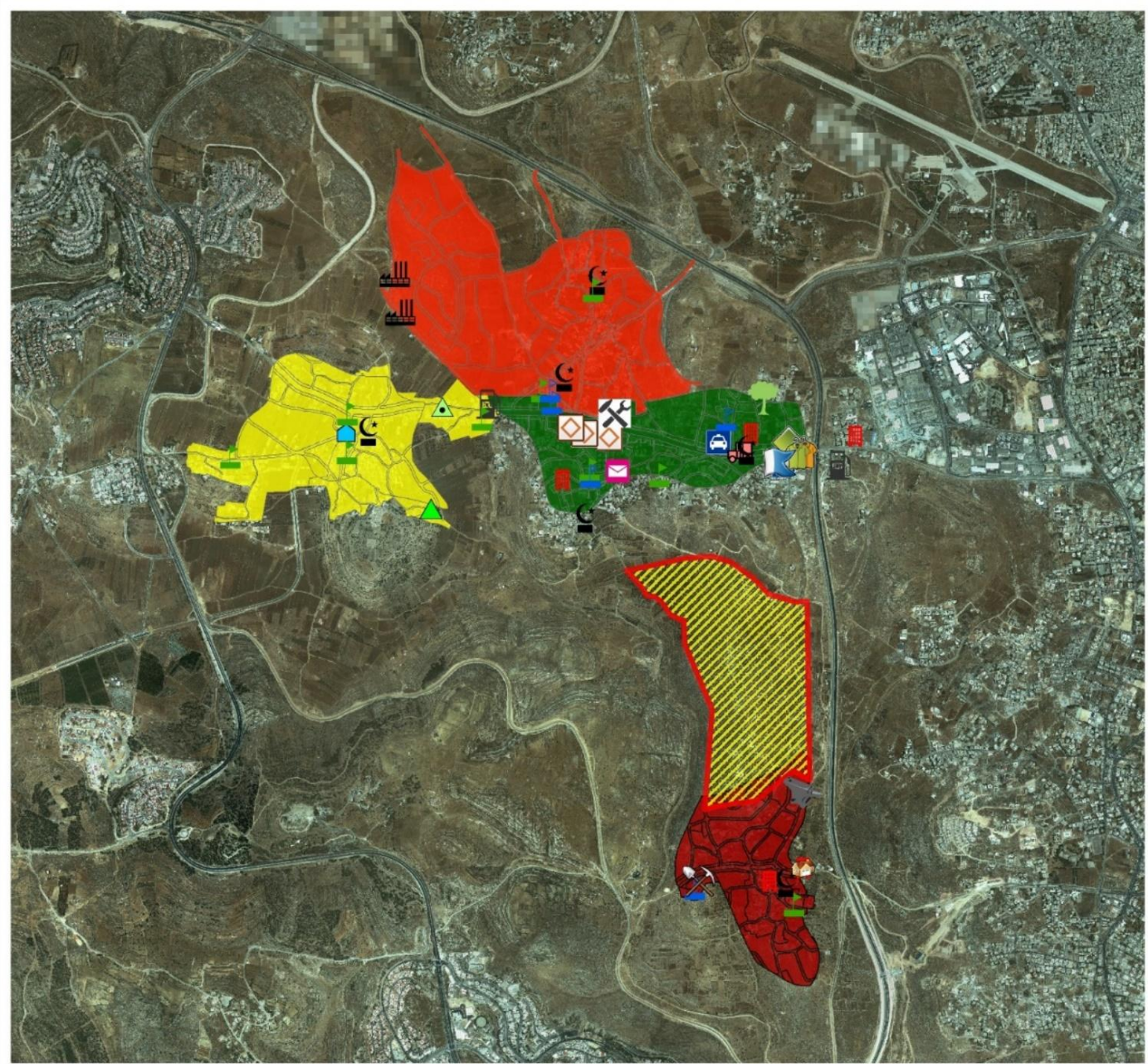
Opportunities

1:20,000



Legend

- Al Judeira
- AlJib
- Beir Nabala
- Urban_expansion
- Bet-hanena
- Car Wash station
- Cemetery
- Civil defence
- Feminist Center
- Gas station
- Hall
- Housing
- Post Box
- Public garden
- Taxi
- Village Council
- Youth Center
- Mosques_schools
 - Mosque
 - Primary school
 - Secondary school



Threats

Threats



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1:20,000

Legend

Al Judeira

AlJib

Beir Nabala

Urban_expansion

Bet-hanena

DemolitionOrders

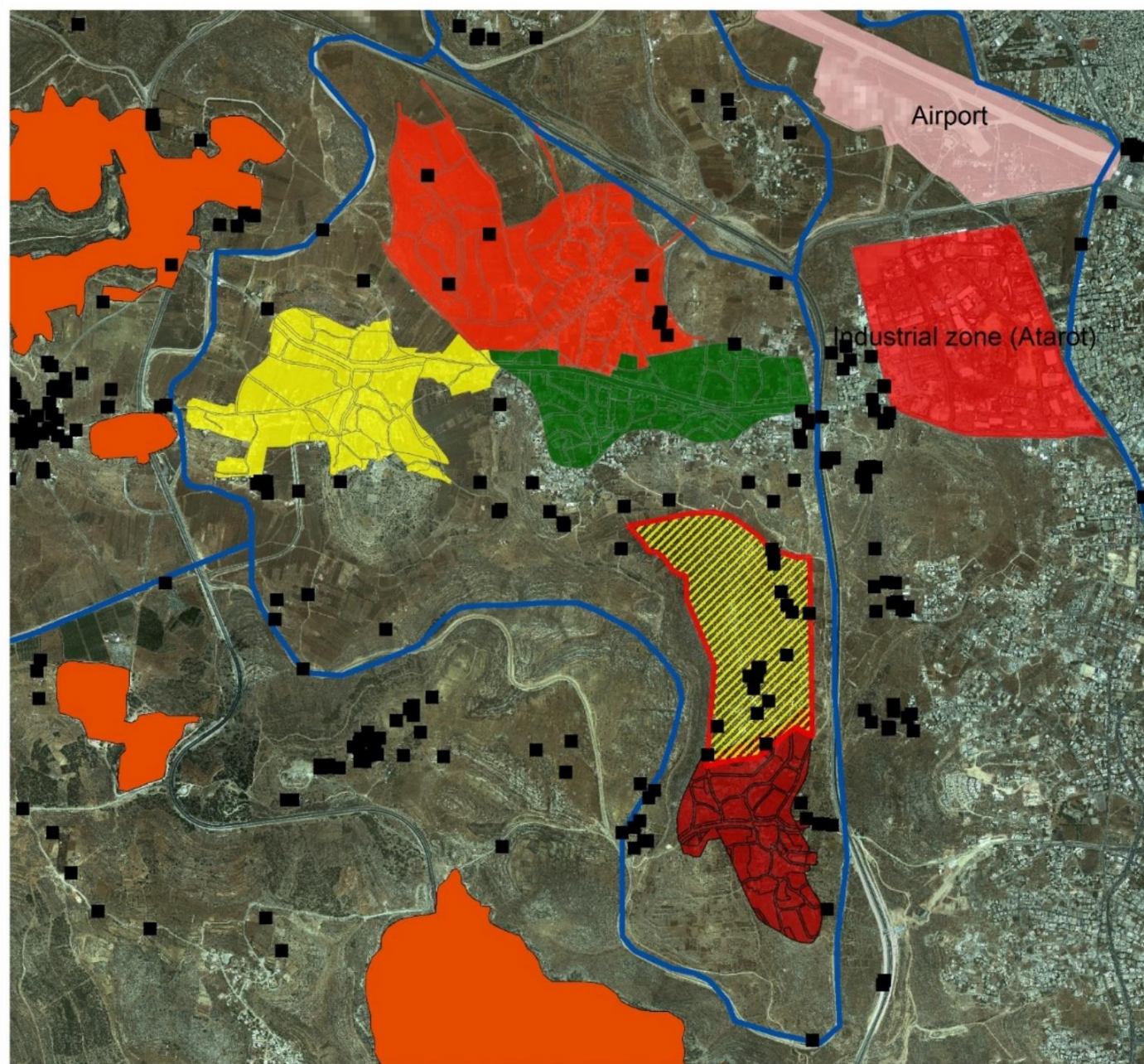
ApartheidWall

Military and industrial zones

uses

Airport

Industrial zone (Atarot)



The results of a comprehensive analysis for the selected site

The results

- 1) Lack of educational and health services
- 2) The number of people expected to live in the new urban expansion is equal 6,000 people.
- 3) There are many demolition orders in the Bier-Nbala area, Beit –Hanina, and also in the urban expansion area.
- 4) There is an Israeli industrial area located near Bier-Nabala although the apartheid wall separates them.
- 5) There is no road network in the urban expansion area.

BUILD

Concept development



The objectives of the project

- Encourage the Palestinians to build and invest in Area C.
- Having an affordable housing master plan that is suitable for the targeted categories.
- Provide housing with affordable standards and costs.
- Provide services, that cover the needs of the residents and the nearby communities.
- Efficient use of the proposal land project.



The Vision of the proposal project

- Counter planning, and support the Palestinian people in their lands, Confirmation on Palestinian rights in their lands, affordable houses with affordable price for middle income class, Sustainable, Suitable, safe suburb.

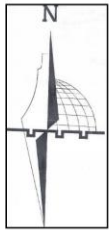


The project program and contents

The service	Area	Number
Kindergarten	1 acres	2
Mosque	2 acres	1
Primary school	15 acres	2
Secondary school	10 acres	2
Health center	900 m2	1
Civil defense	400 m2	1

The concept map

The concept map



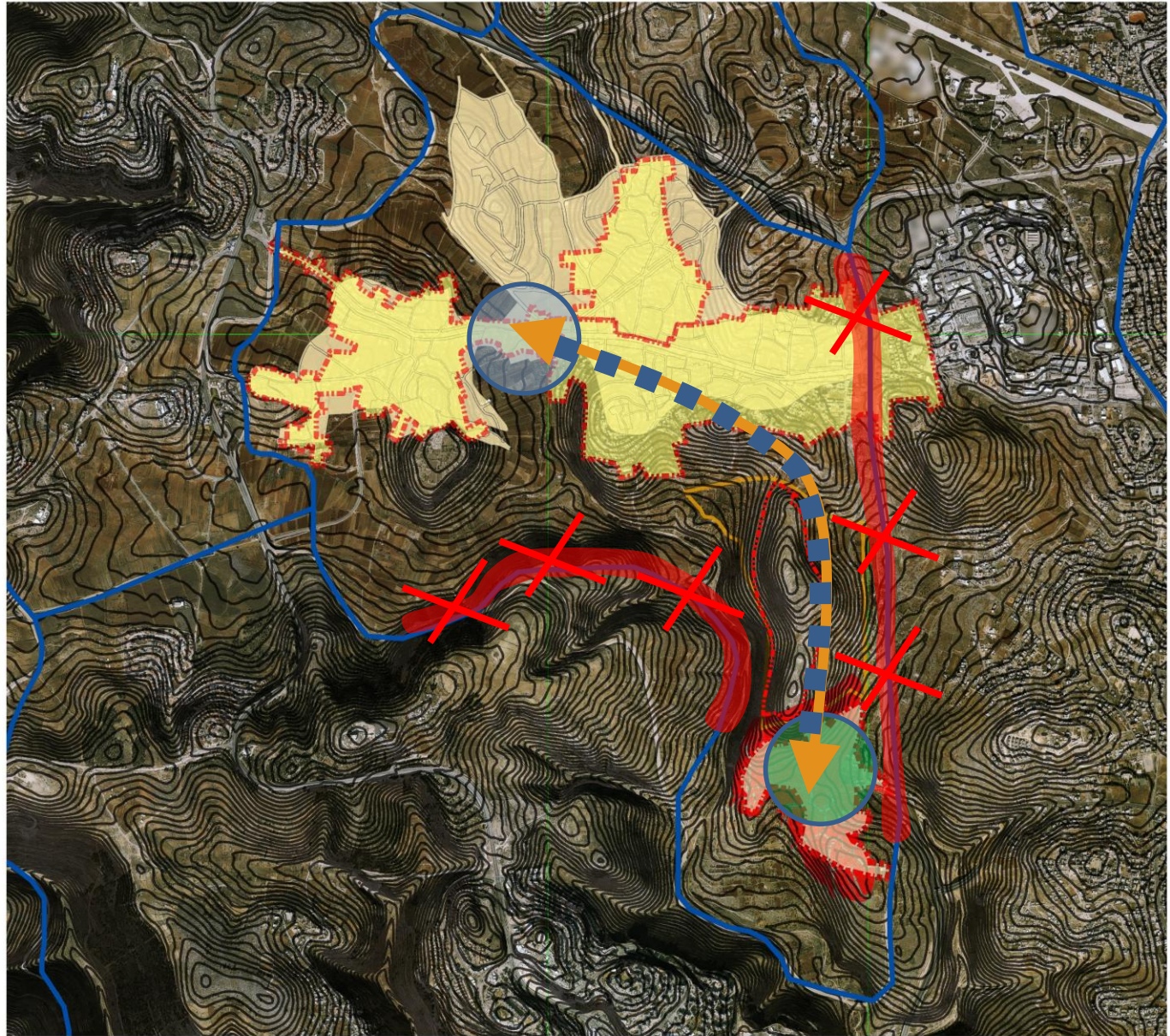
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Legend

-  project_bounary2
-  ApartheidWall
-  Bethanena_built up
-  Built up Ber Nabala
-  Bernabala
-  Urban_expansion
-  Bet-hanena
-  Contours_5m



The Landuse concept map

The landuse concept









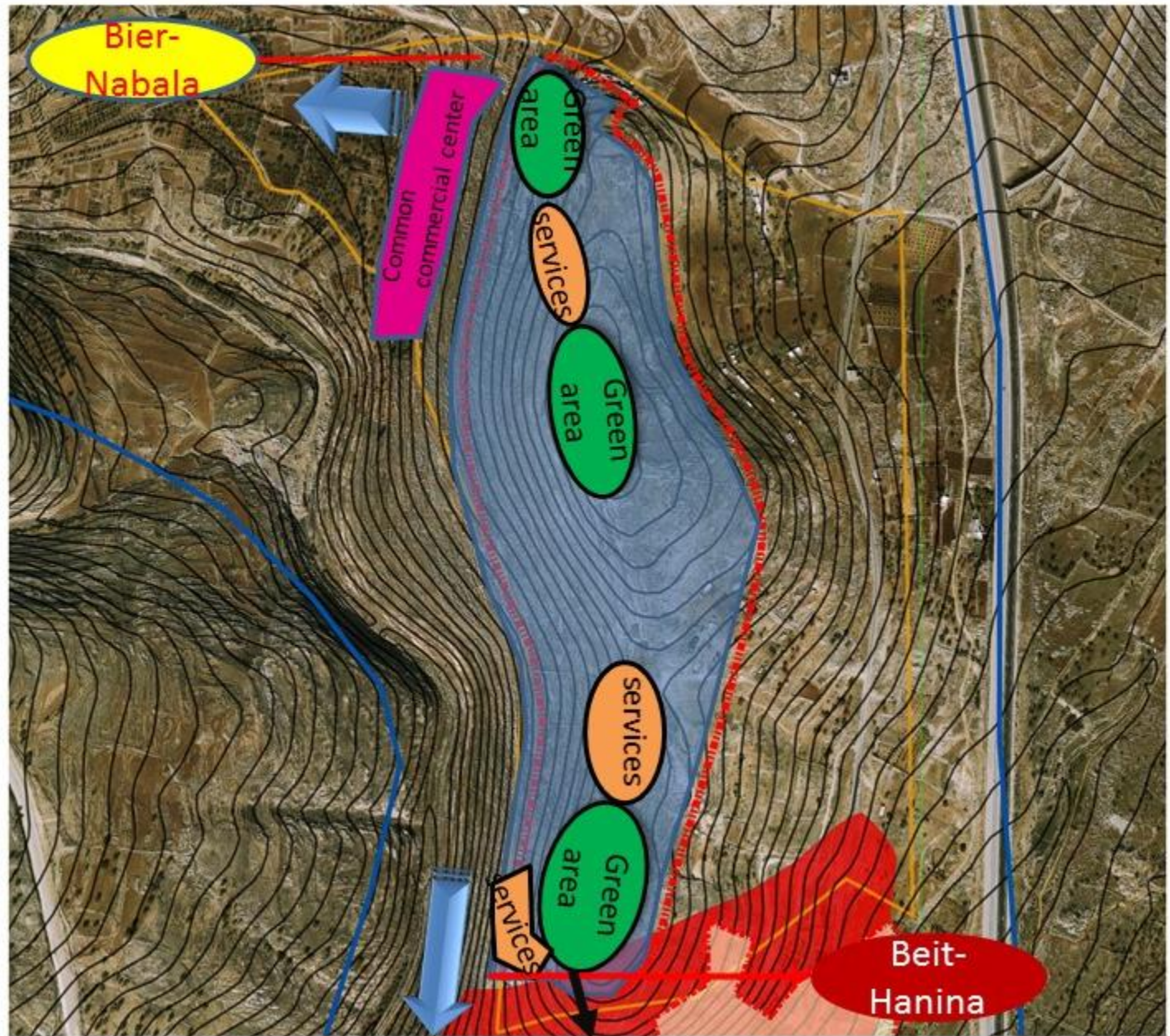
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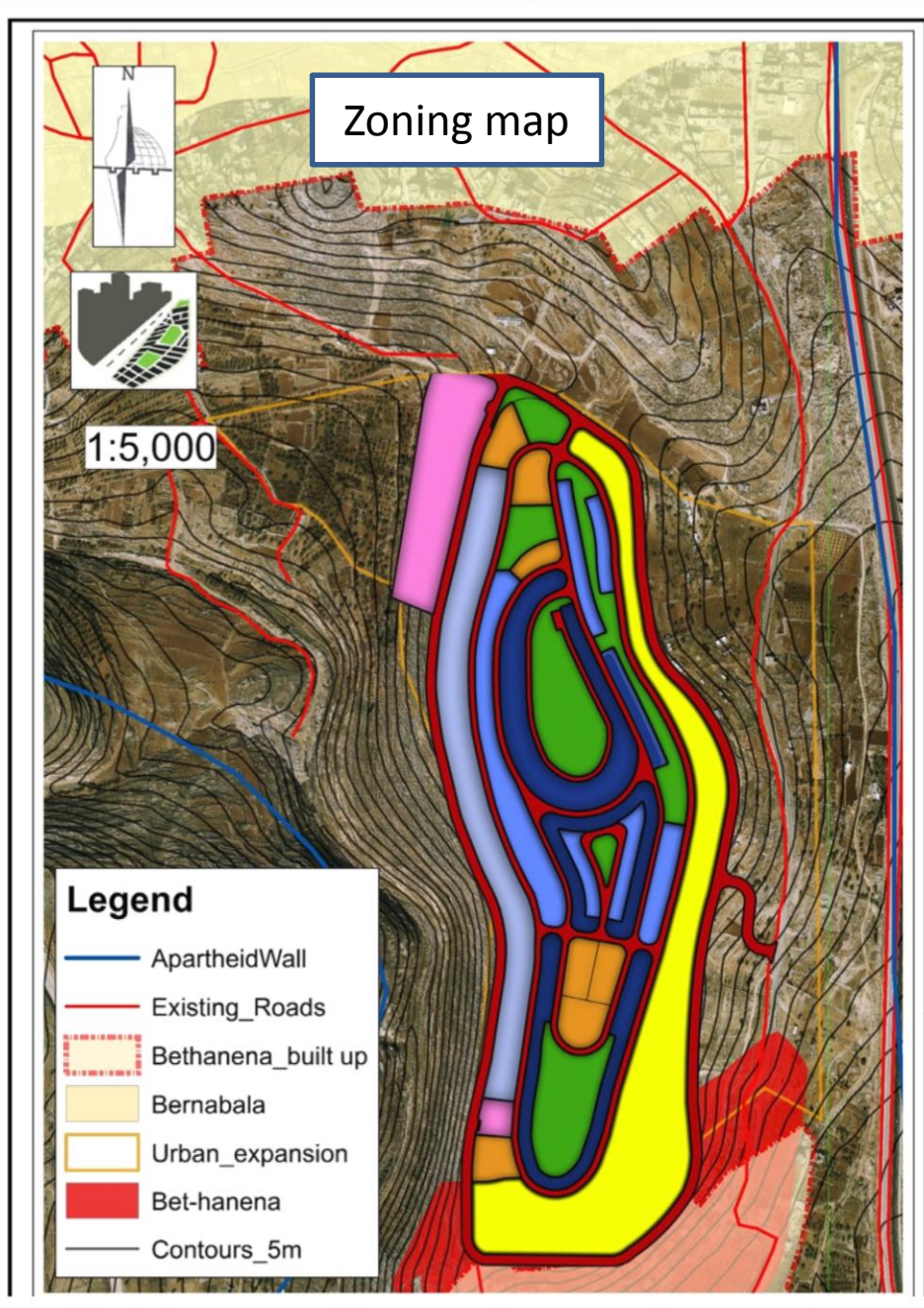


Legend

-  project_bounary2
-  ApartheidWall
-  Bethanena_built up
-  Urban_expansion
-  Bet-hanena
-  Contours_5m



Zoning map



- Commercial area
- Residential type 1
- Residential type 2
- Residential type 3
- Open spaces
- Services
- Future urban expansion
- Proposed Roads

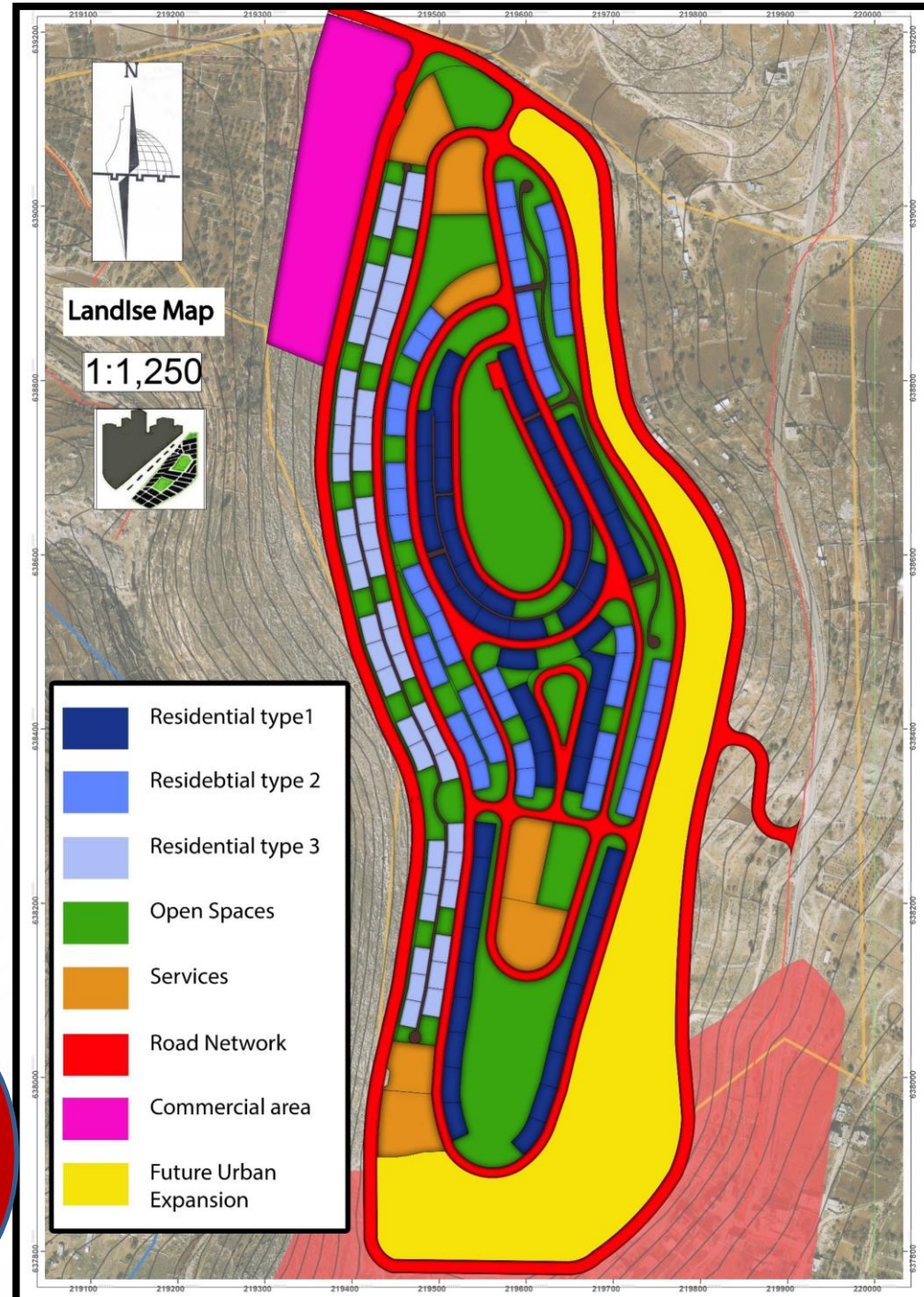


The Landuse map

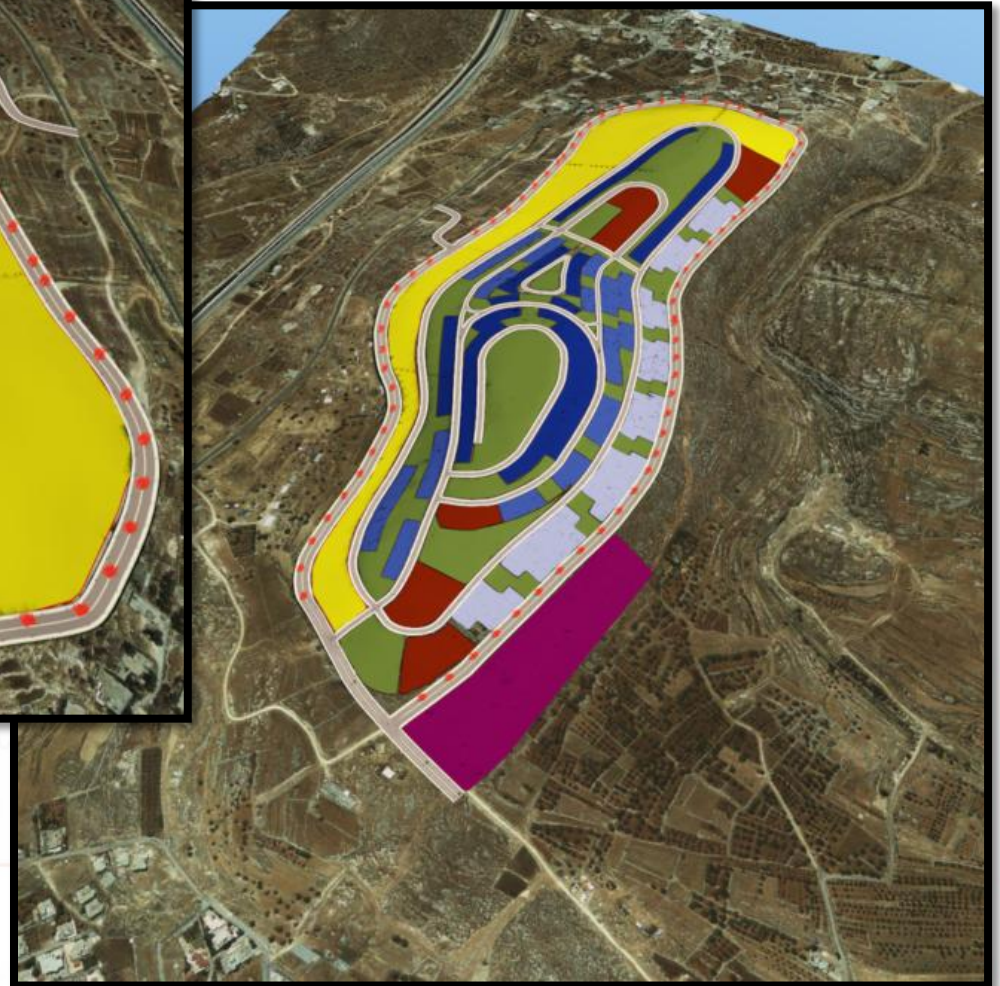
Land use	Area/acres	Percentage
Road	84.26	26.3%
Residential , 150 m ²	45.2	14.2%
Residential , 140 m ²	33.17	10.3%
Residential , 130 m ²	30.35	9.6%
Services	40.74	12.7%
Open spaces	86.28	26.9%
Total	320.0	100%

Land use	Area
Future urban expansion	93.2 acres
Commercial area	33.3 acres

**The
net
area=
446.5
acres**

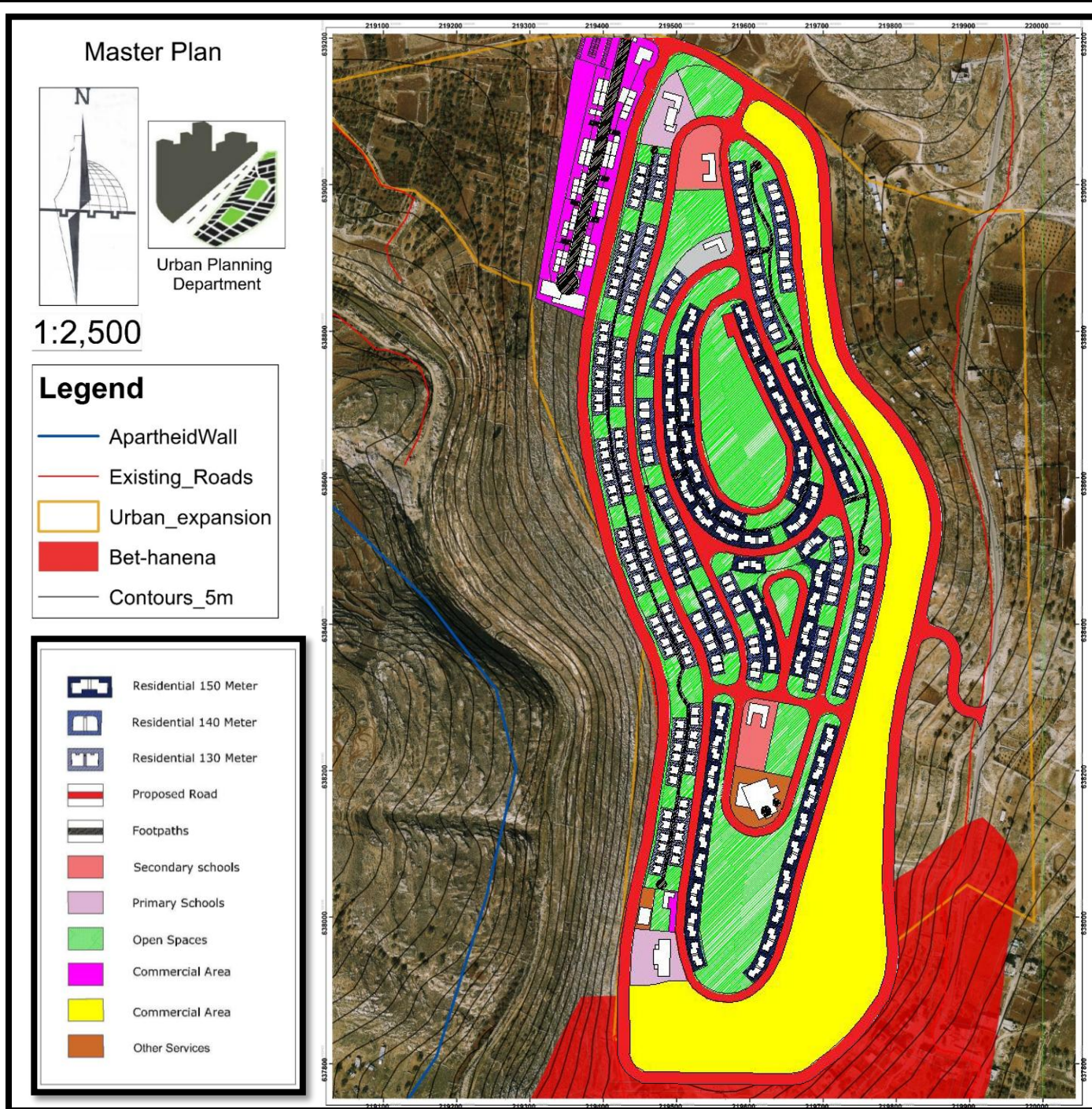


Landuse 3D

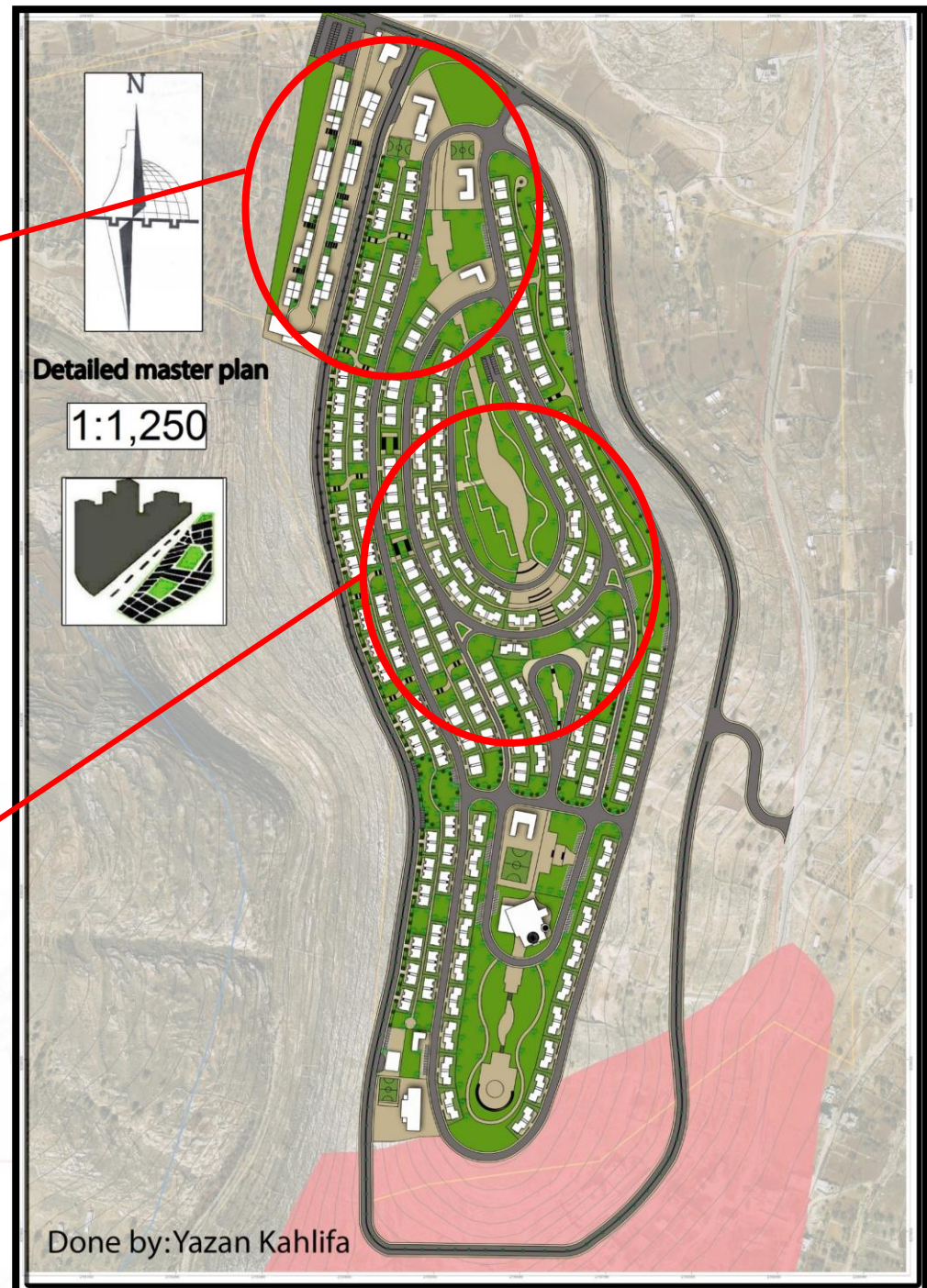


The Masterplan

- Housing Type C.
- Designed according to Regulations and building codes no.5/2011.
- Maximum percentage of construction is 48%.
- The setback:
 - from the front 4 meter.
 - from the back 4 meter.
 - from the side 3 meter.
- Maximum floor percentage is 240%.



Detailed Master plan



Detailed master plan

1:1,250

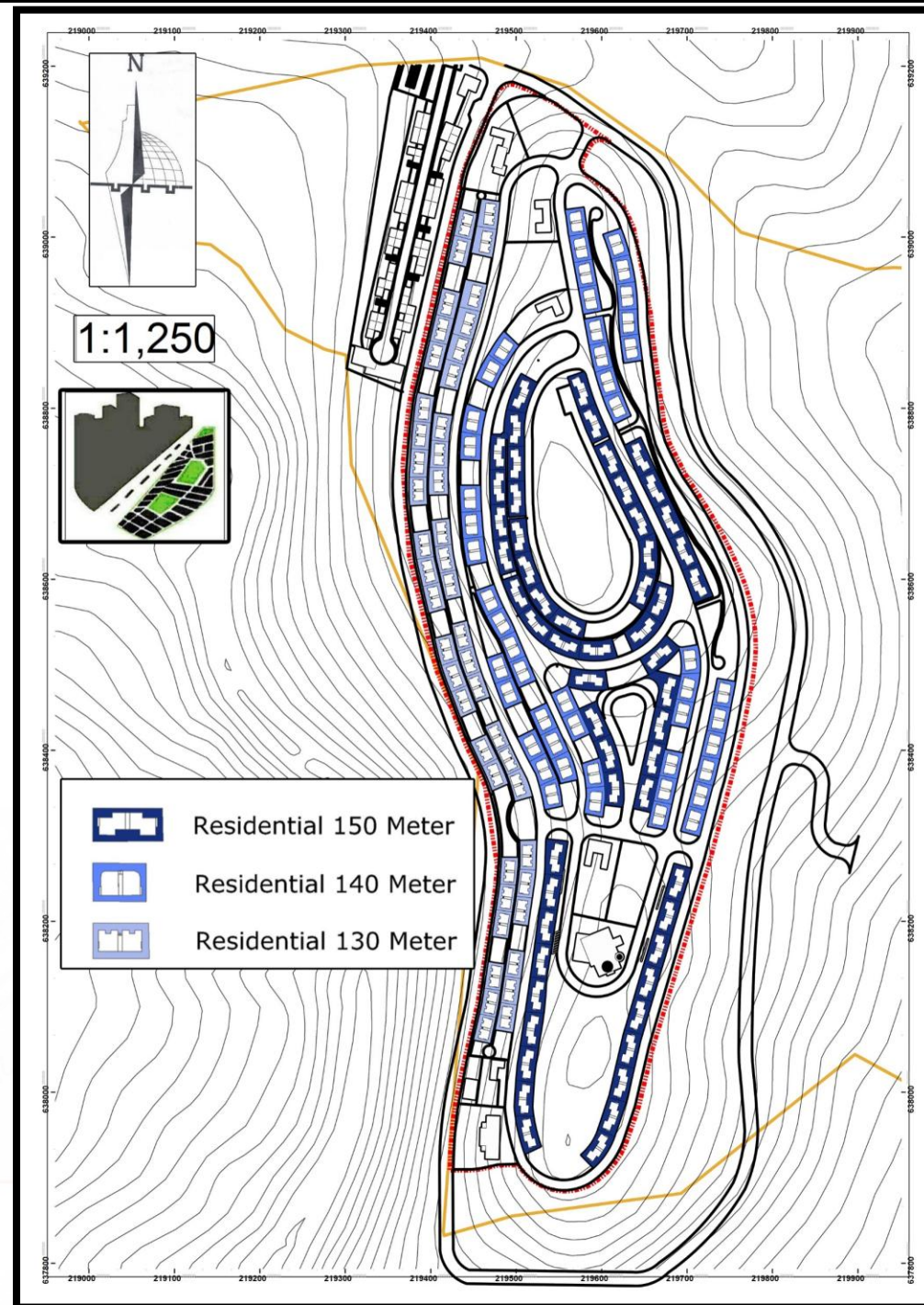
Done by: Yazan Kahlifa

The Residential Area



The Residential area

Types	No.Parcel	Parcel area	Percentage of construction
Type 1 (150 m ²)	57	790	43%
Type 2(140 m ²)	٤٧	700 m ²	45.7%
Type 3 (130 m ²)	47	645 m ²	43.8%



Housing typology

- Housing 150 m²



- Housing 140 m²



- Housing 130 m²

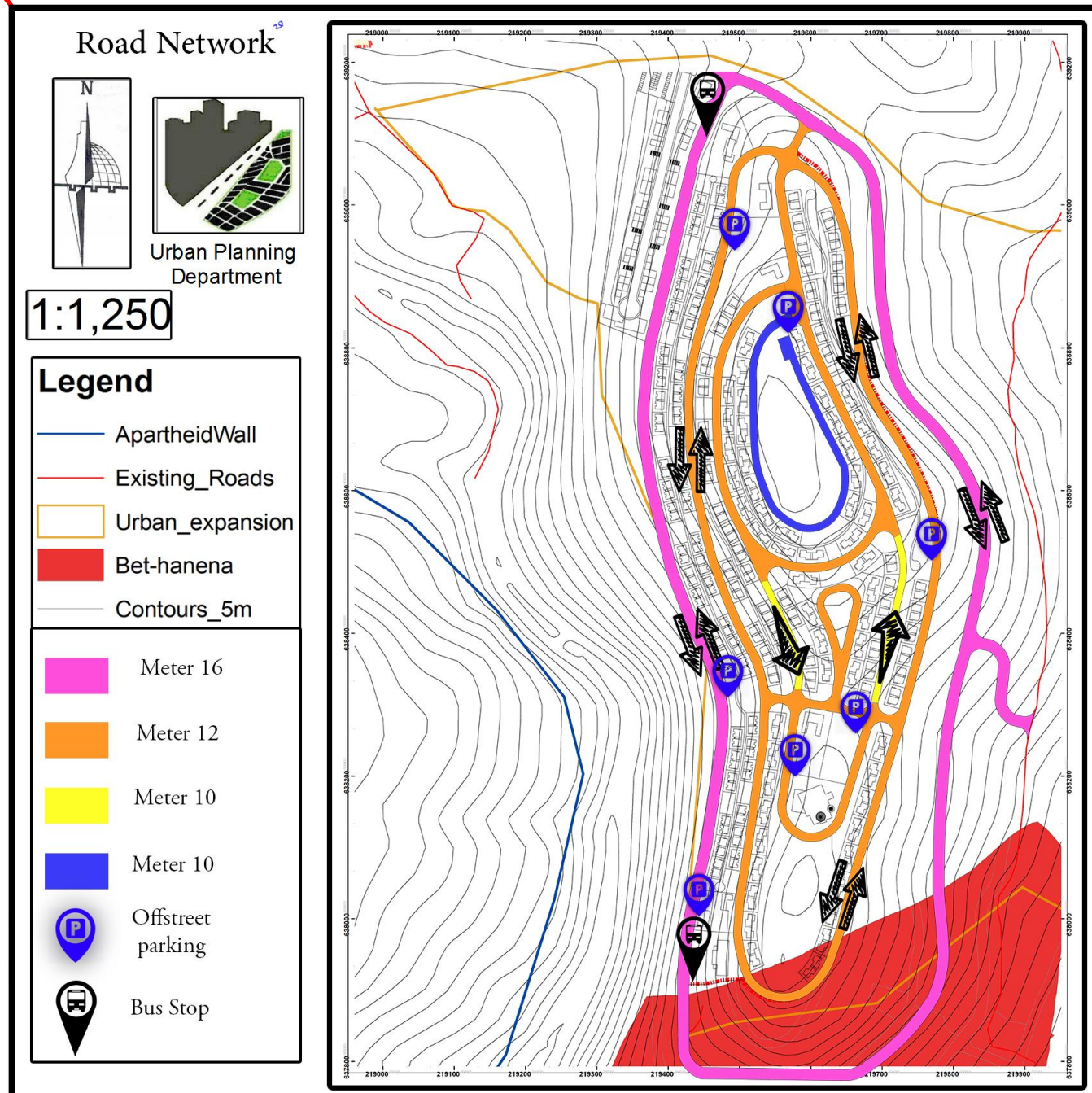


3D Shoots



The Road Network

- The total area of road network equal 84.26 acres.
- Three different width of road.
- More than 5 different places for offstreet parking.
- 2 roads are one way only.
- 2 Bus station near schools.



Section

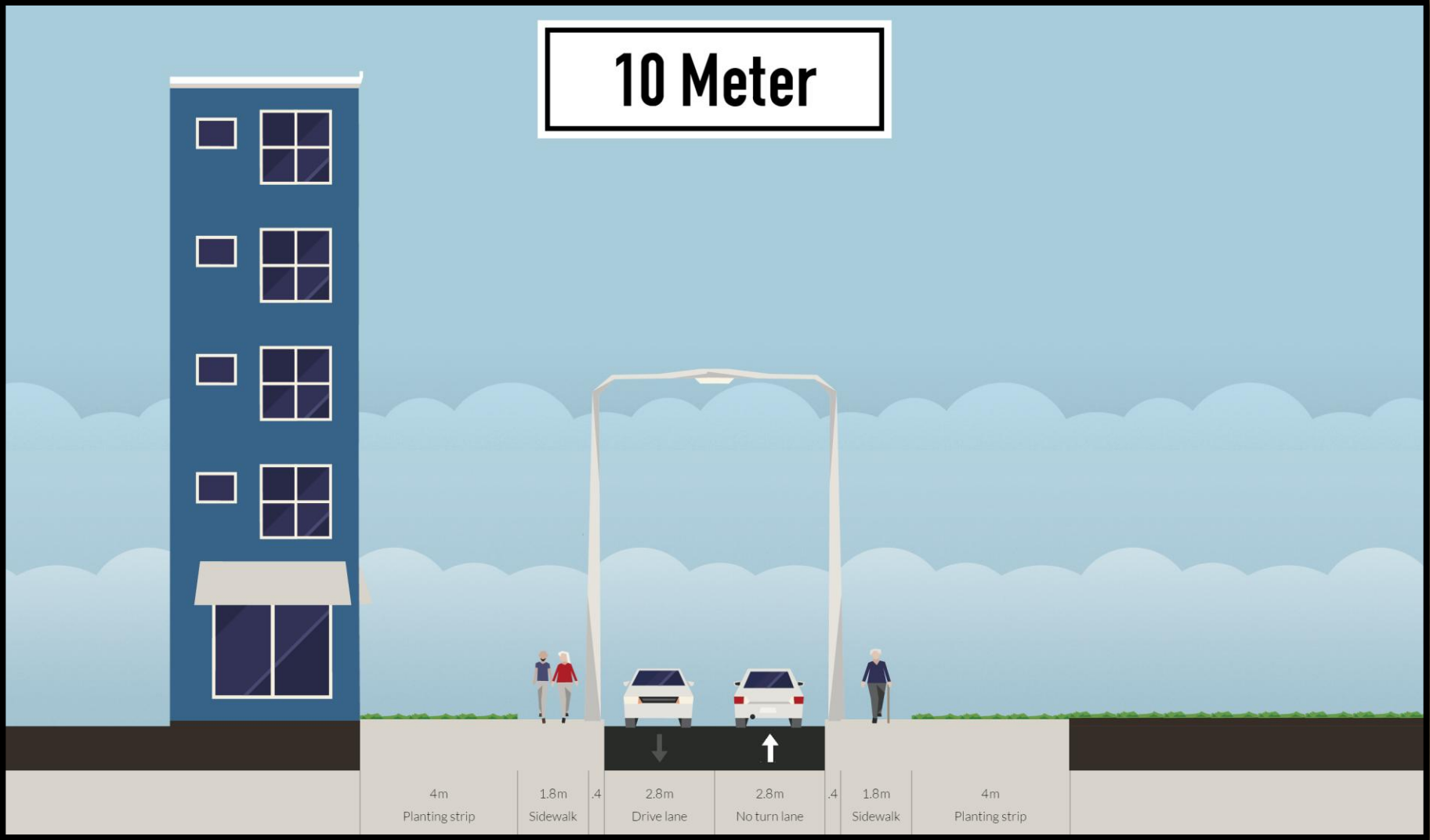
16 Meter road



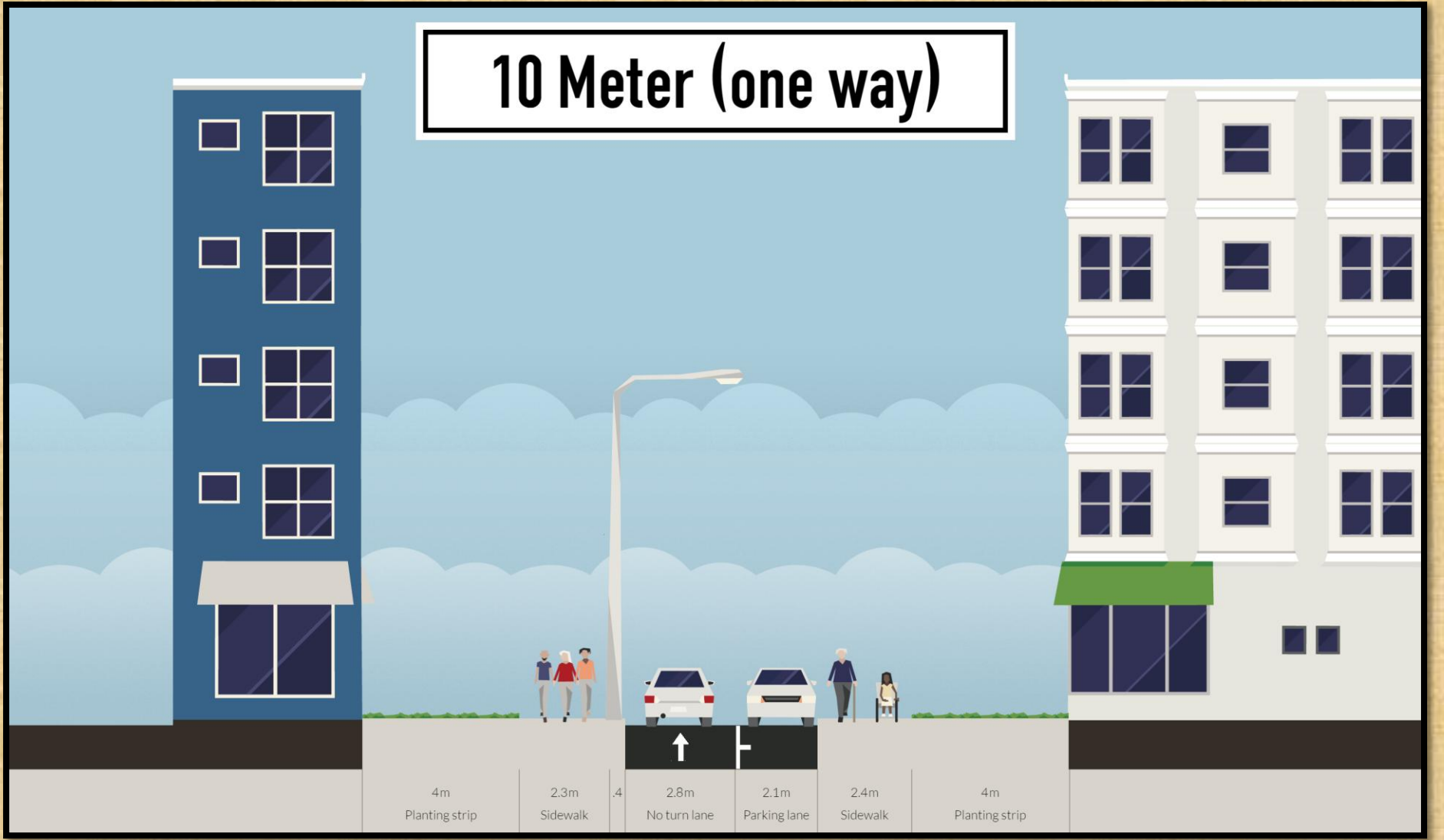
Section



Section



Section



3D Shoots



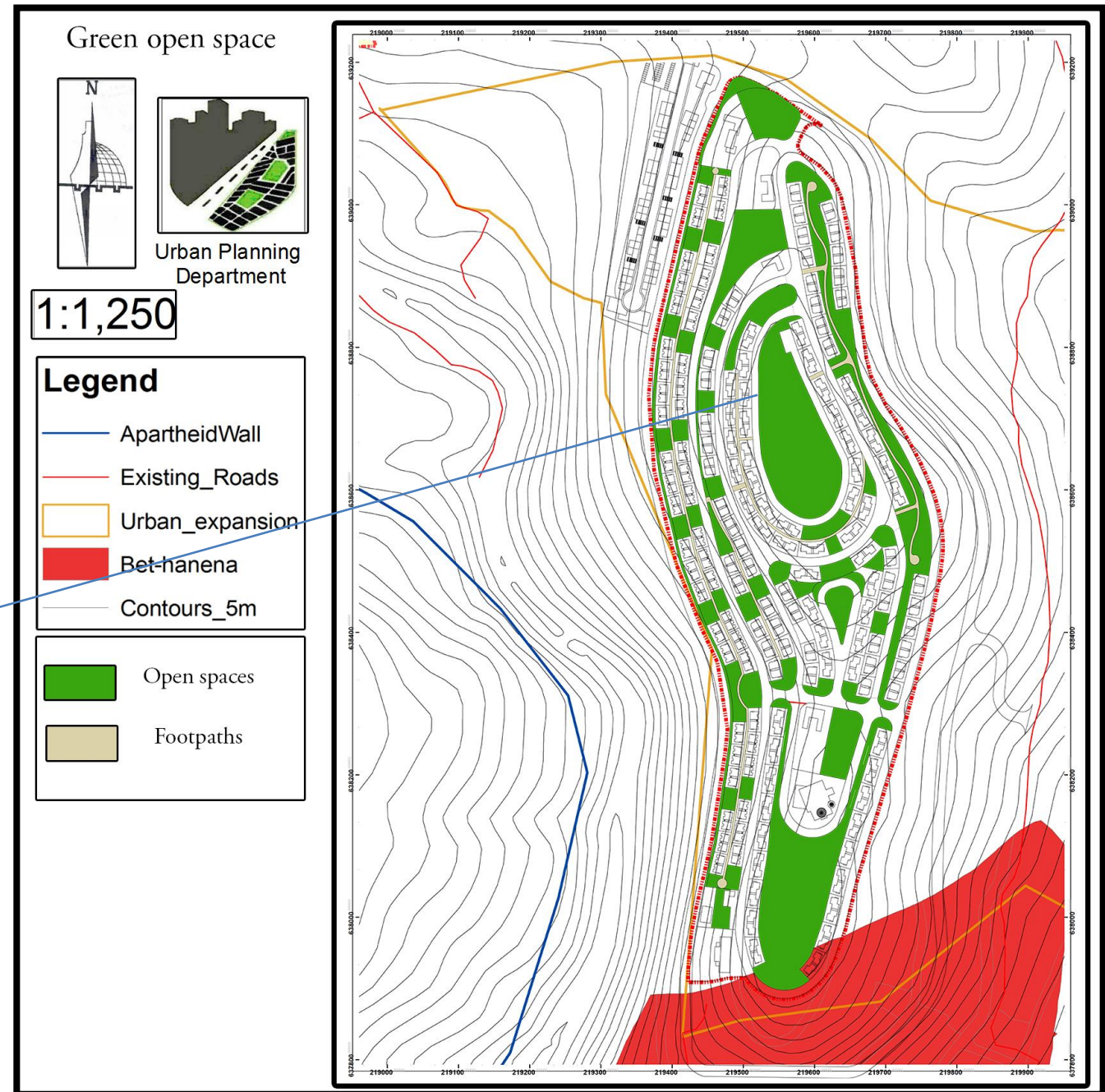
Open spaces and play ground



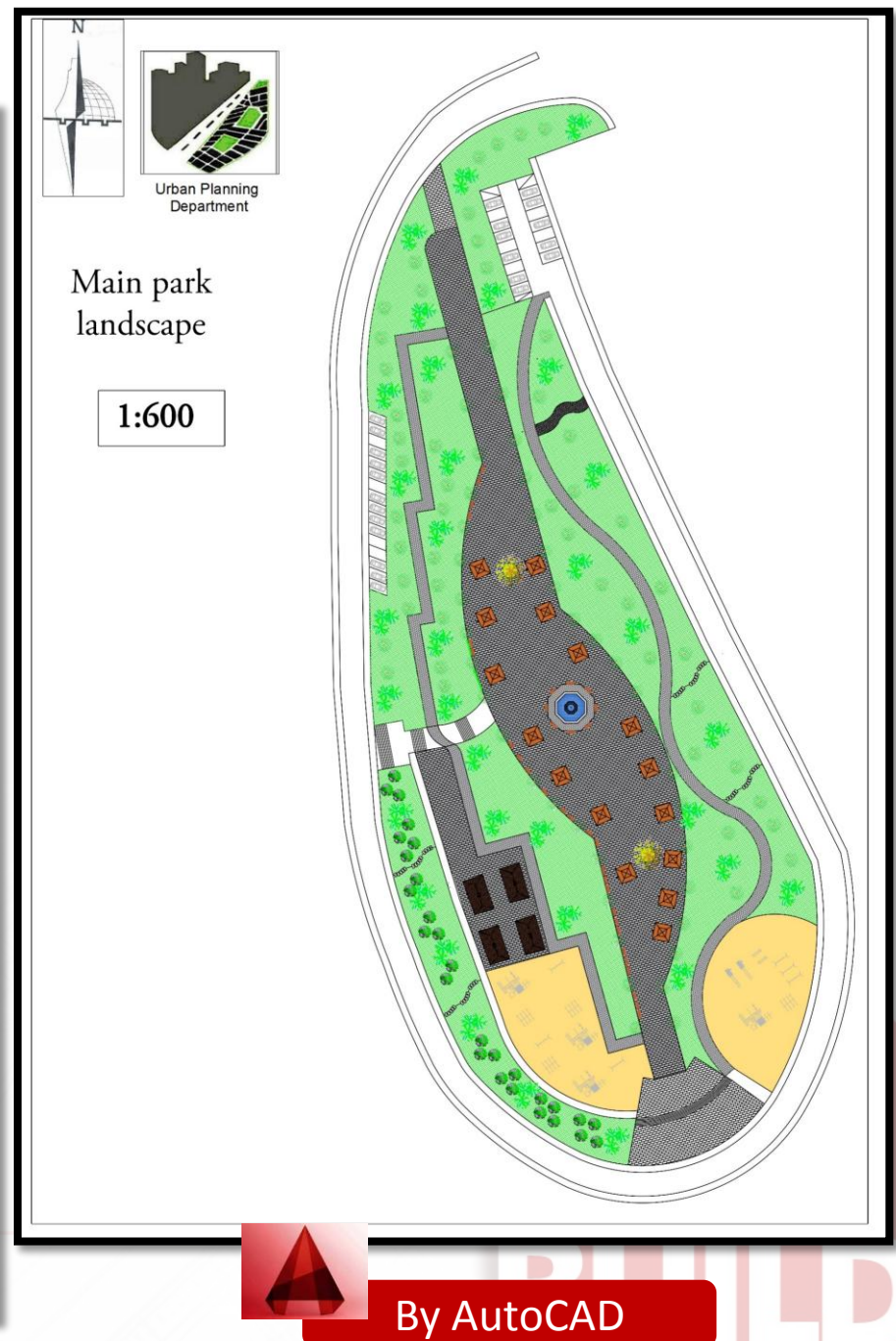
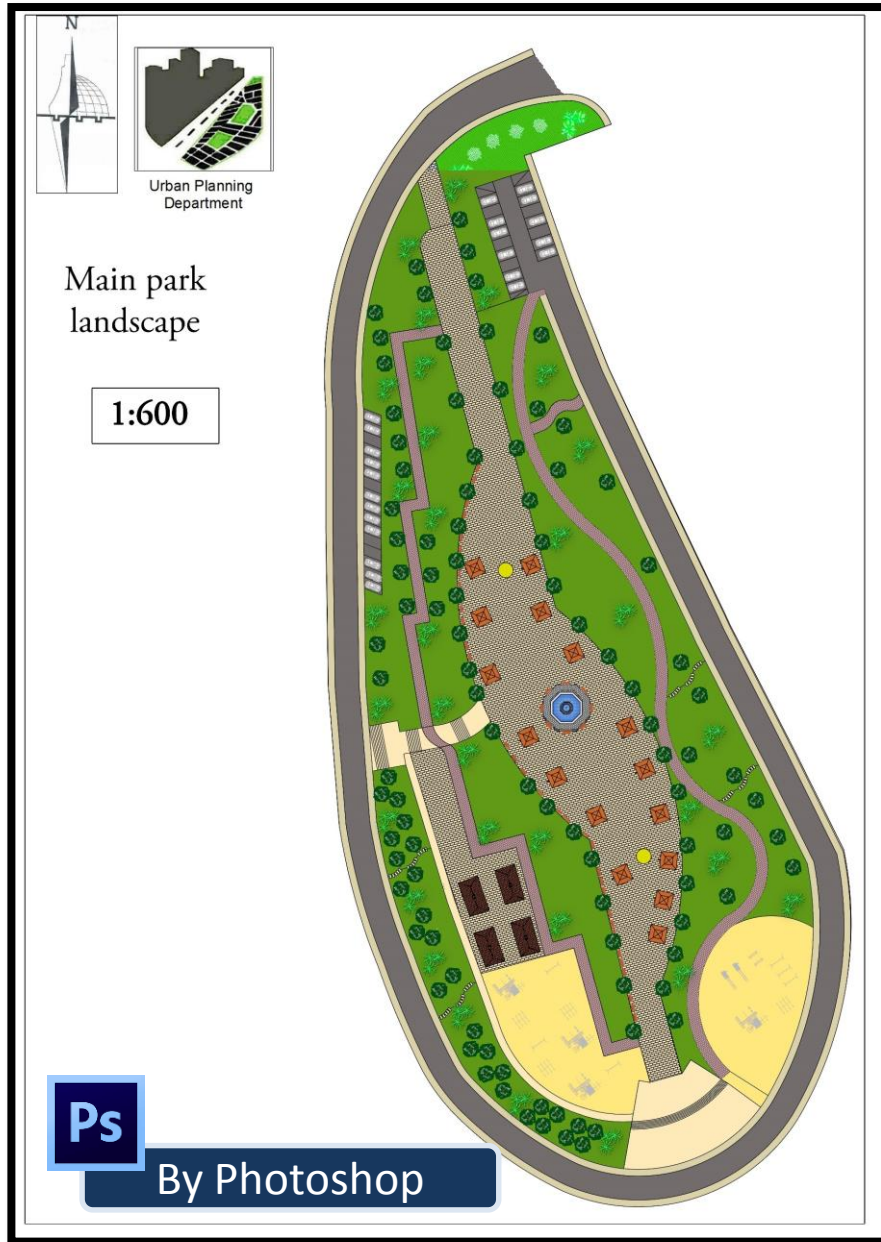
The open spaces and play grounds



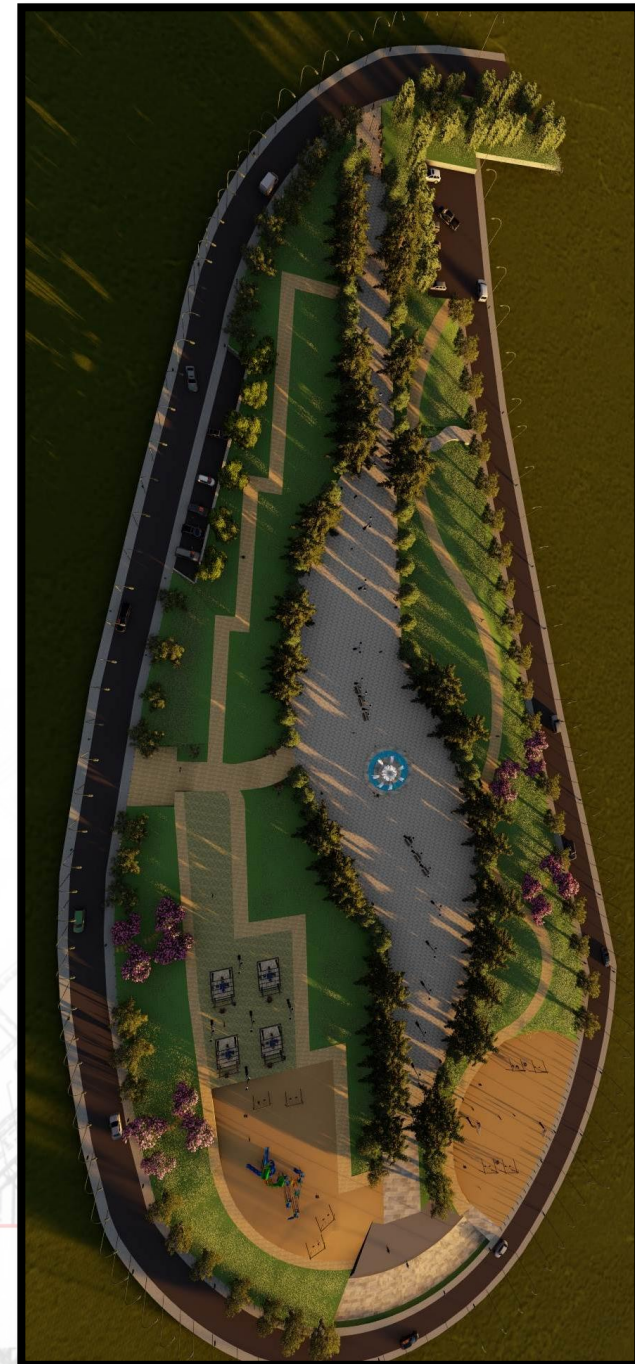
20.7 Acres

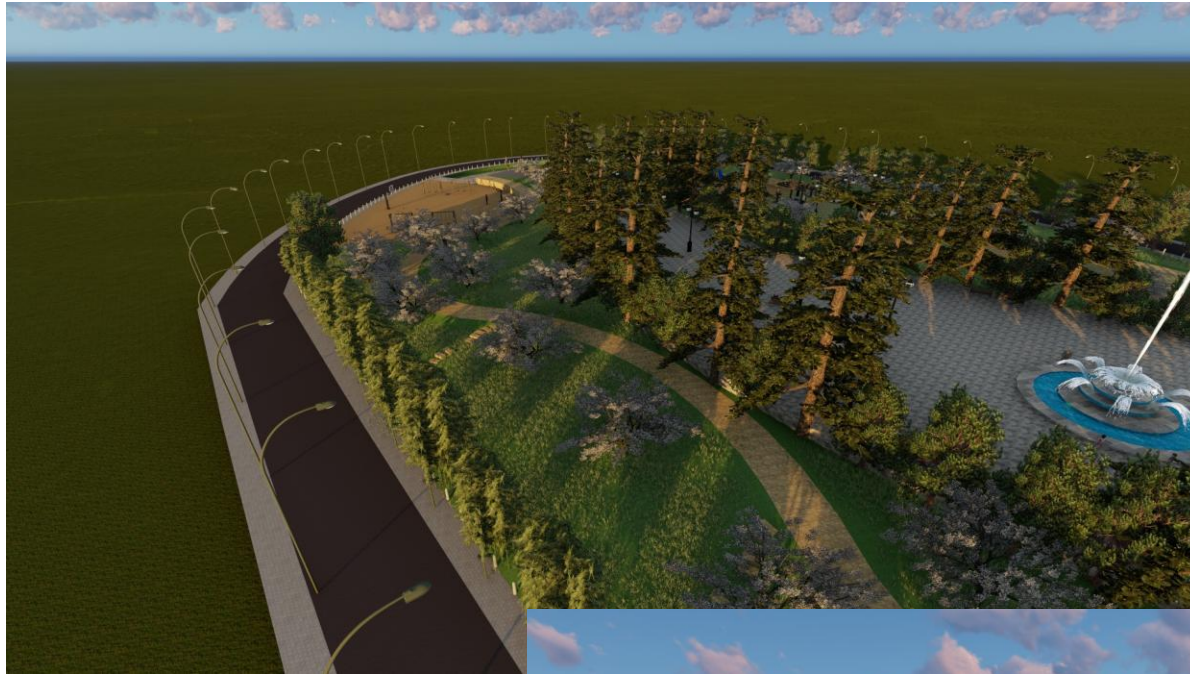


The Design of main park

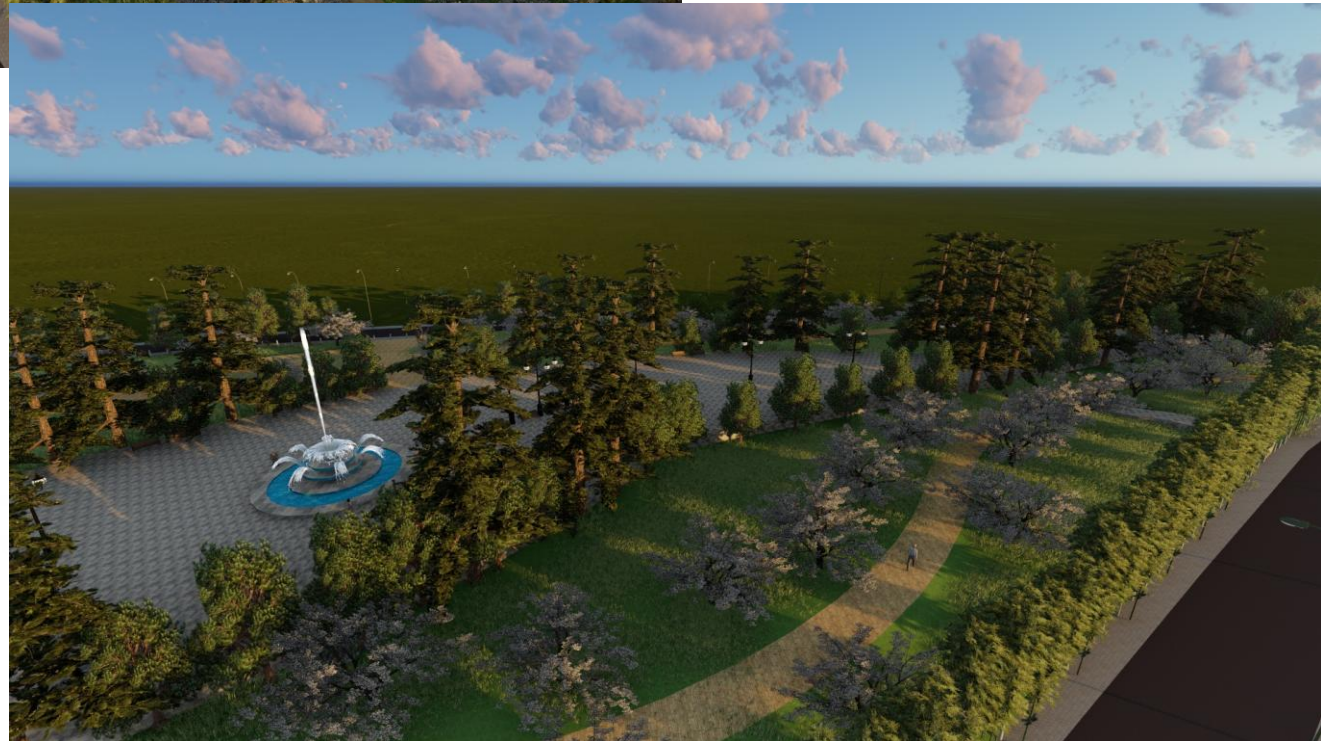


3D Shoots for main park





Main Park
in 3D



The open spaces and play grounds



21.5 acres

Green open space



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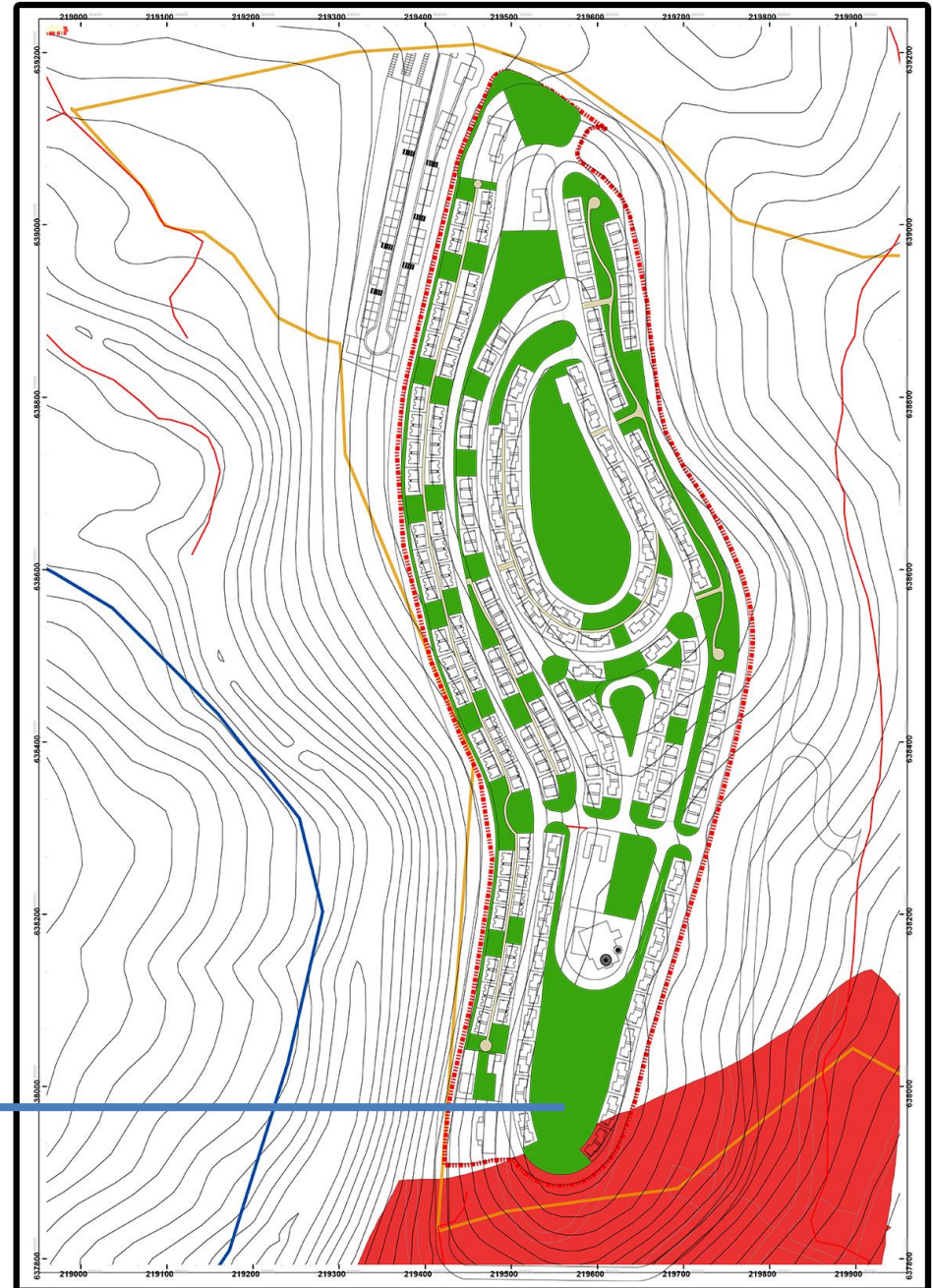
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Legend

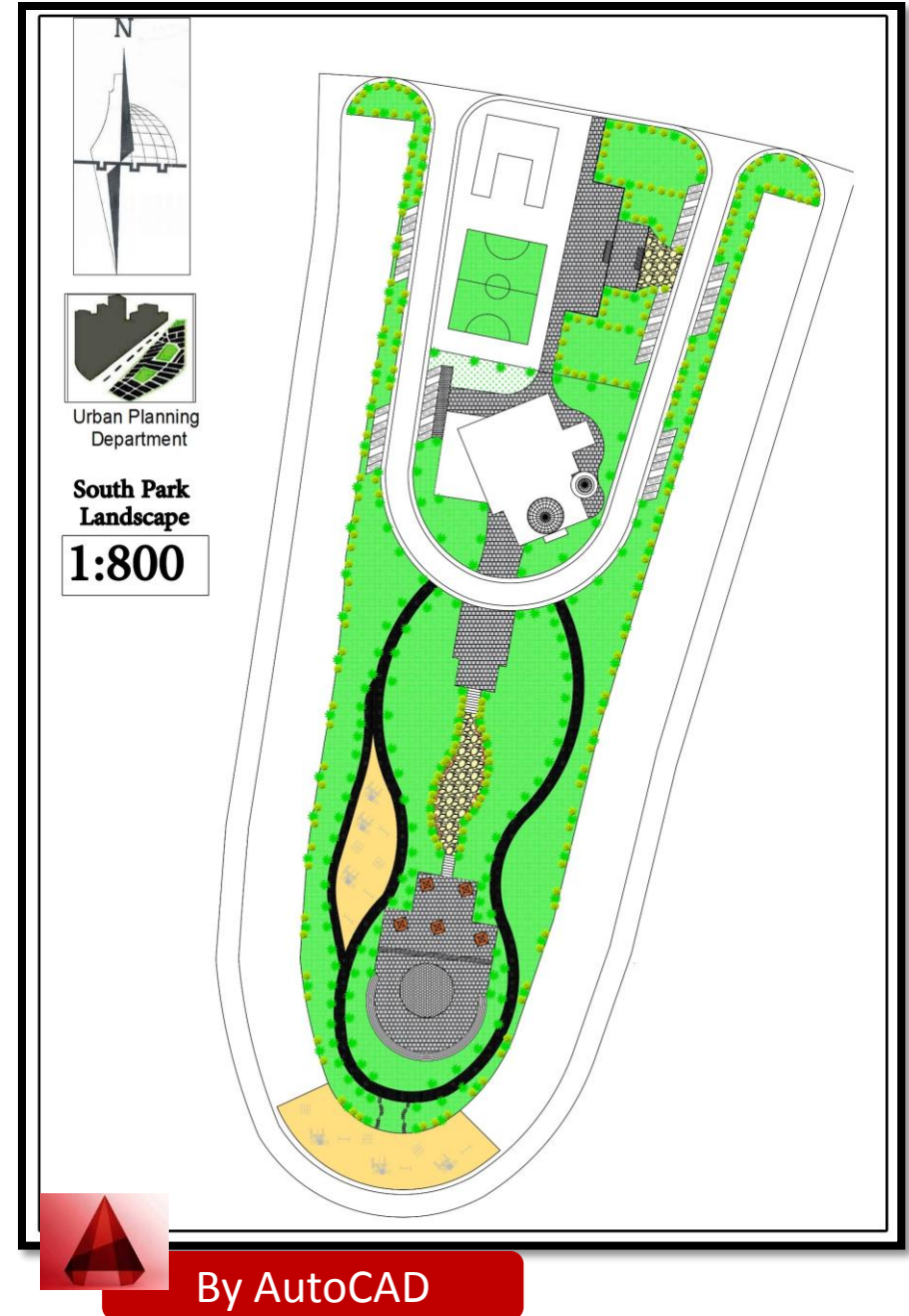
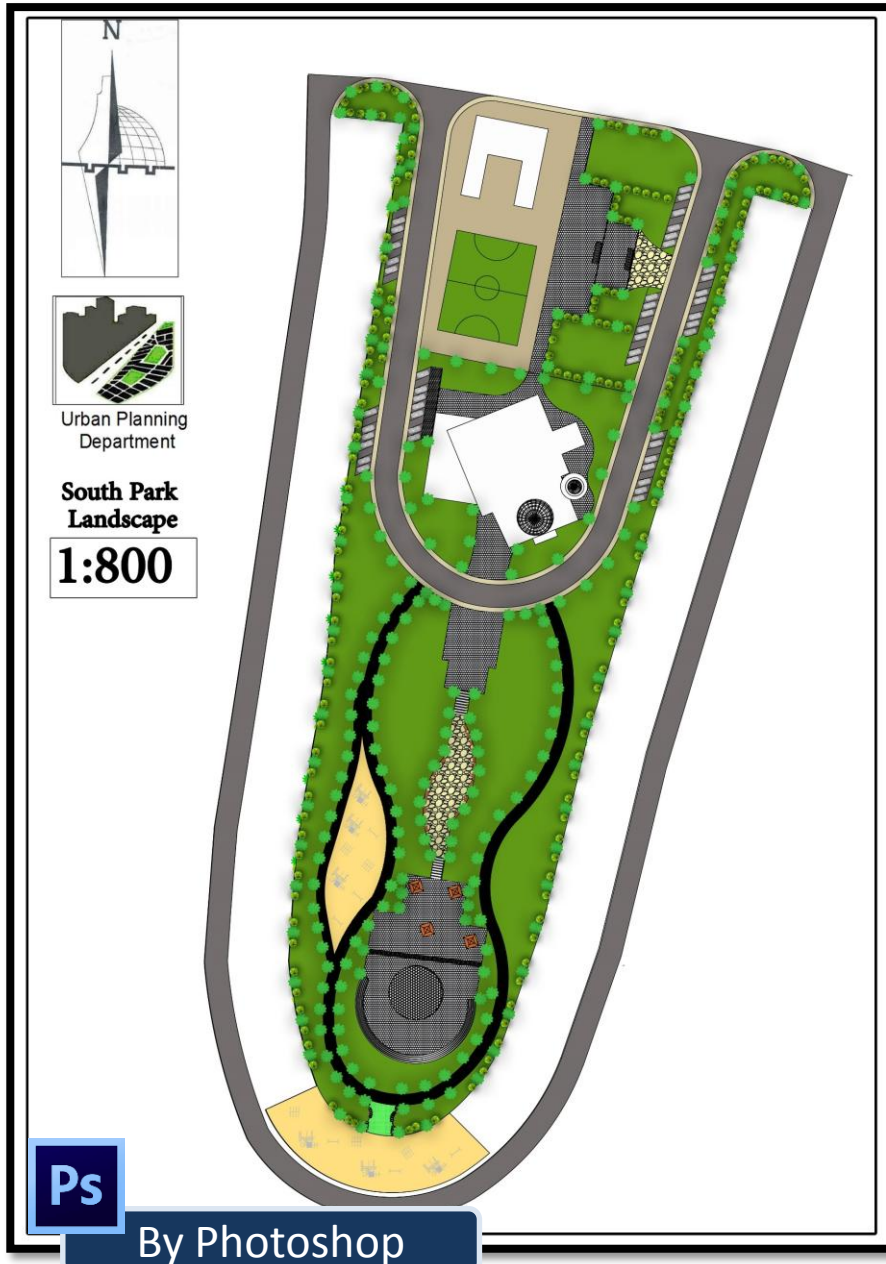
- ApartheidWall
- Existing_Roads
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- Bet-hanena
- Contours_5m

Open spaces

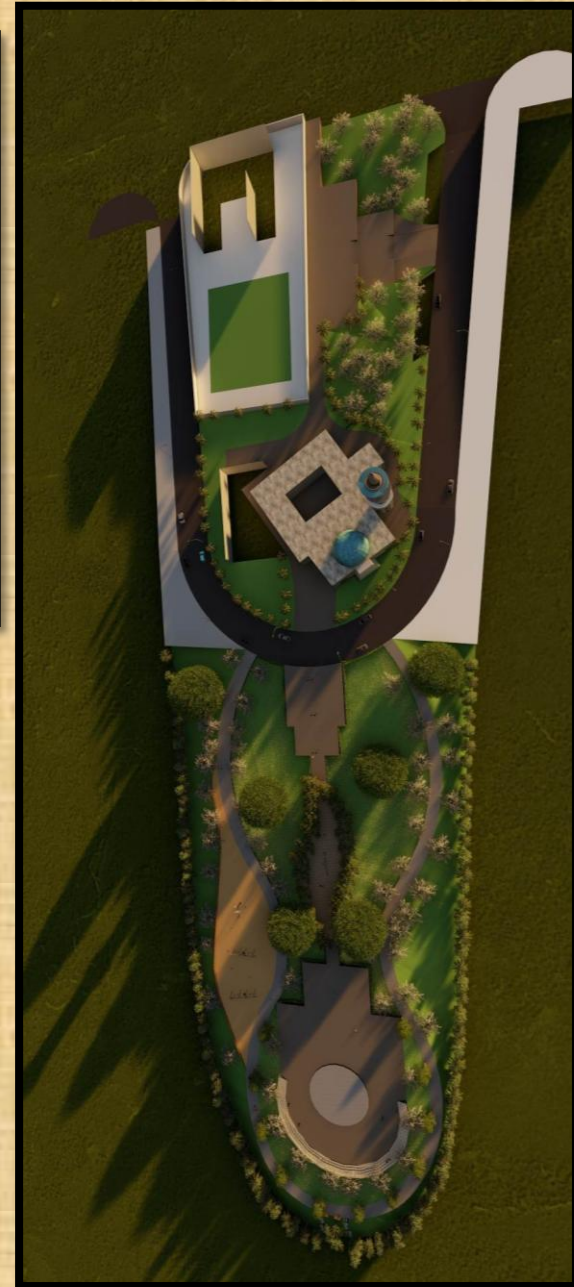
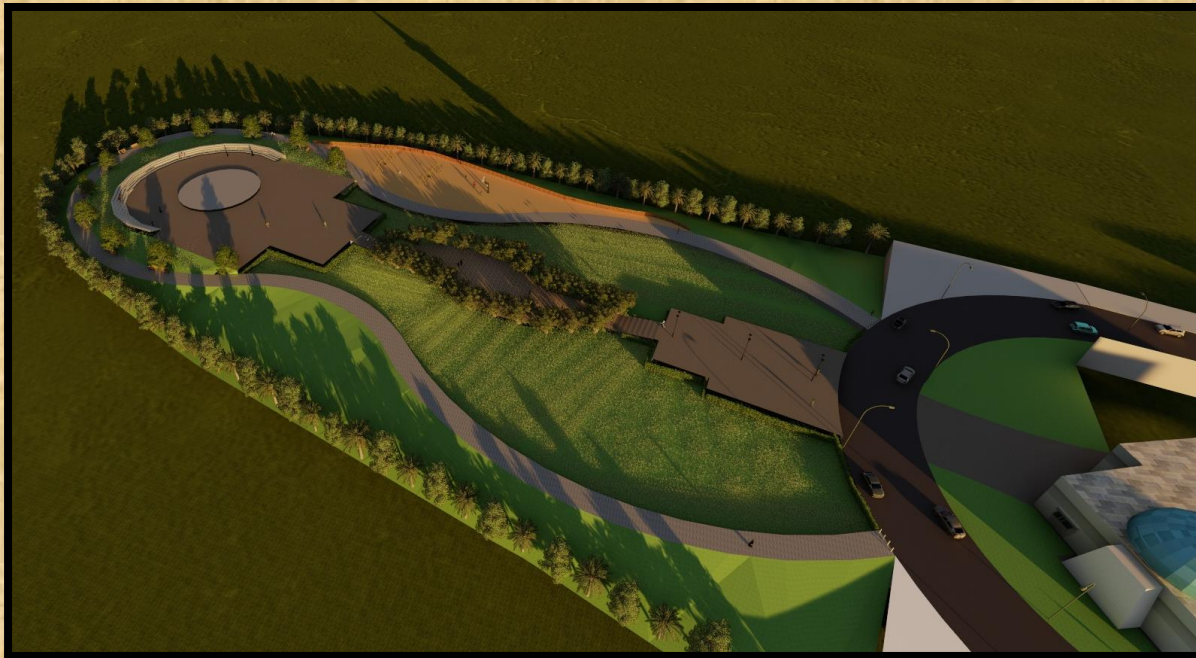
Footpaths

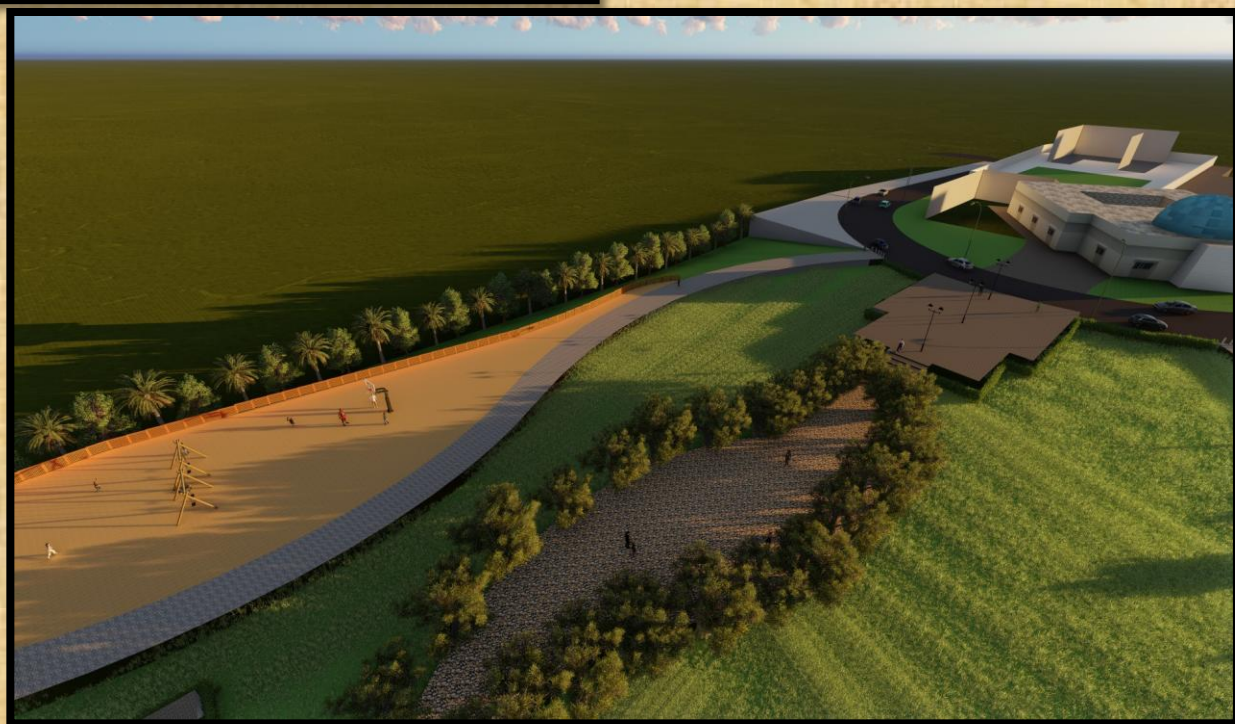
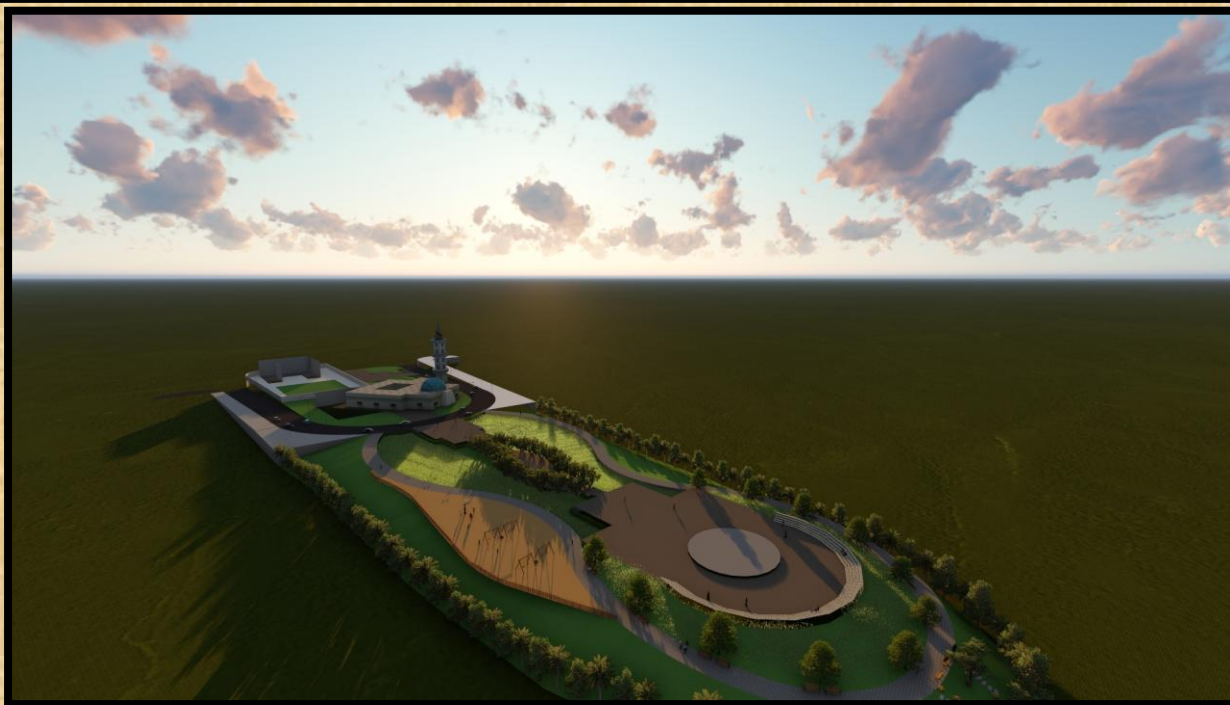


The Design of open spaces

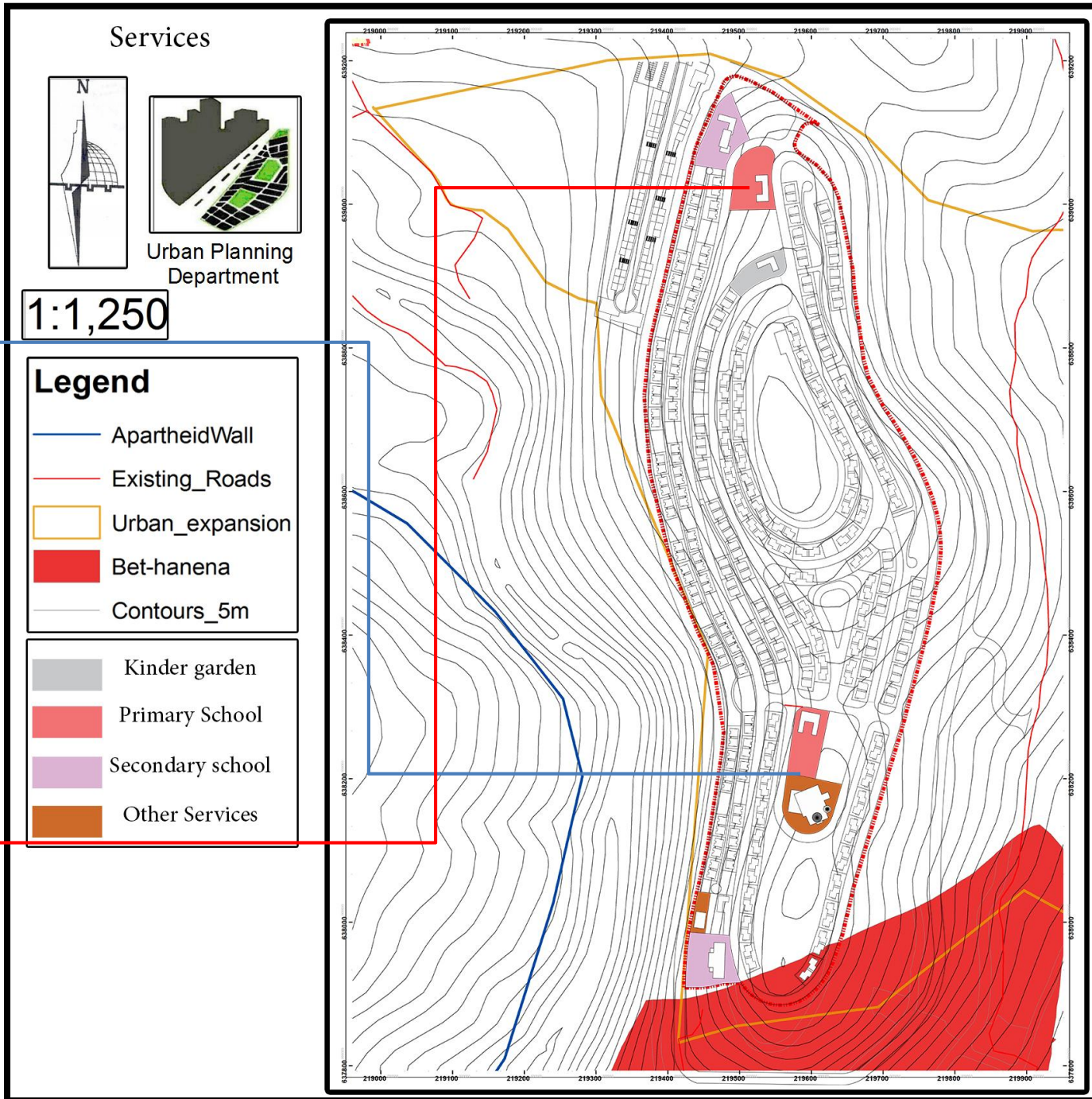
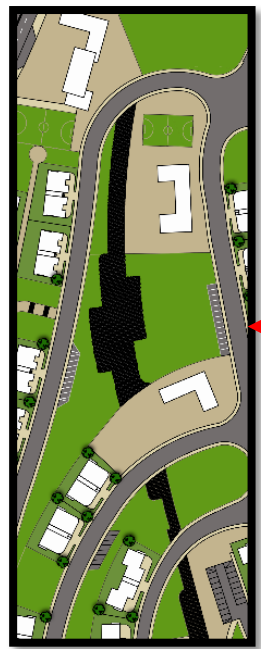
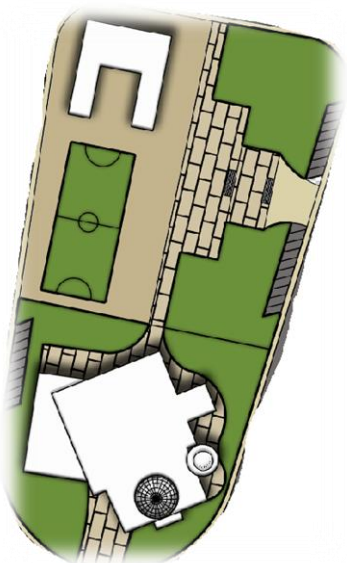


The Design of open spaces





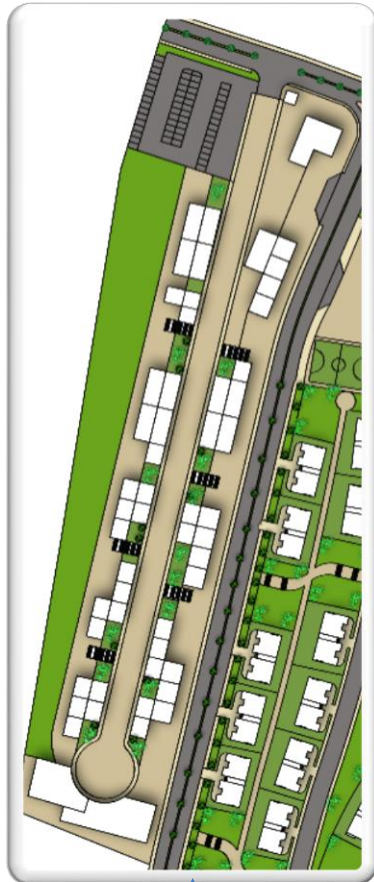
The services



3D shoots for services



The commercial area and urban expansion area



THE COMMERCIAL AREA AND FUTURE URBAN EXPANSION



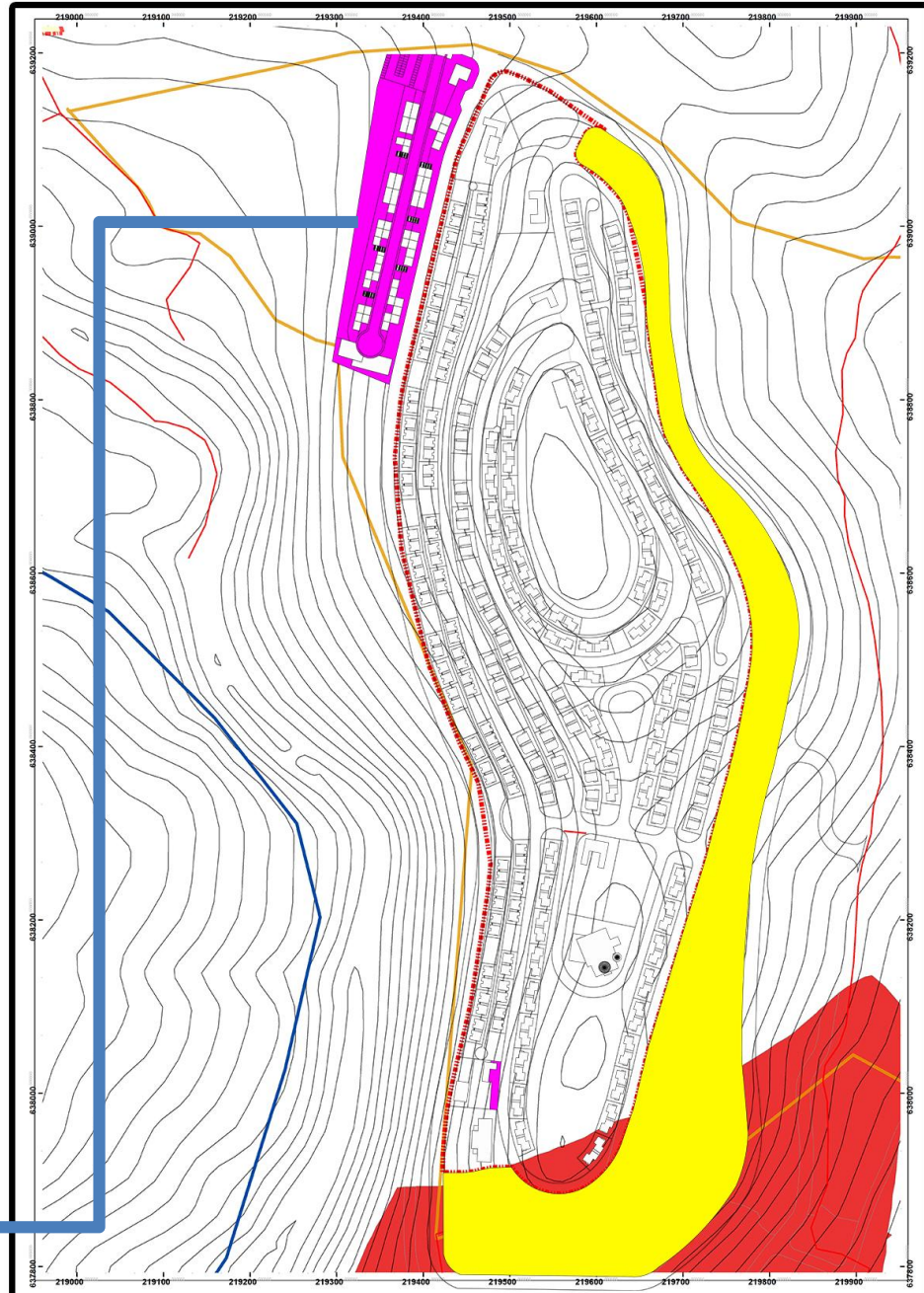
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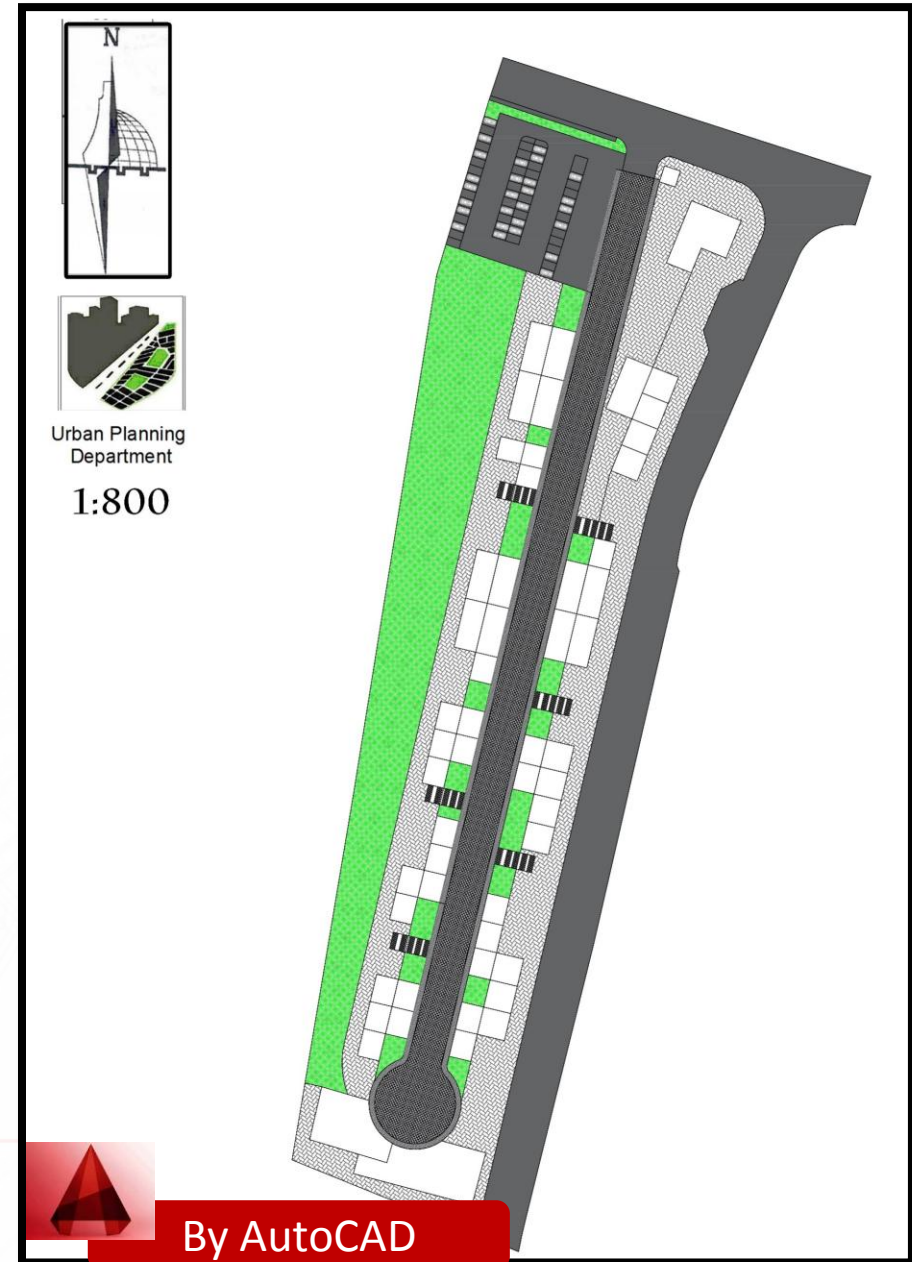
Legend

- ApartheidWall
- Existing_Roads
- Urban_expansion
- Bet-hanena
- Contours_5m

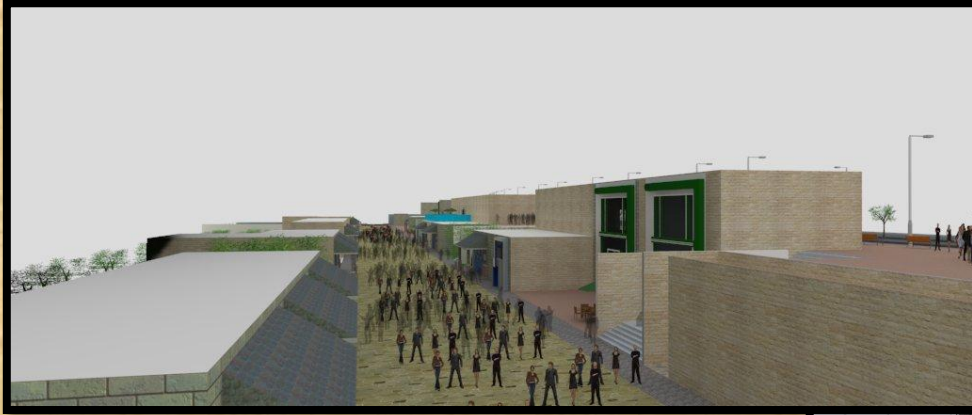
- COMMERCIAL AREA
- FUTURE URBAN EXPANSION AREA



The Design of Commercial area



3D Shoots for commercial area



3D shoots using Lumion





The Main park



Thanks for your listening

