



TOWARD A MASTER PLAN

Phase 1 : data collecting

Sept-2022

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2- SITE ANALYSIS

Site Location

-Bu-Fakhra, Benghazi , Libya

-UTM zone 34N

-Coordinates :

Latitude $31^{\circ}56'29.49''\text{N}$

Longitude $19^{\circ}58'3.07''\text{E}$



Site Location

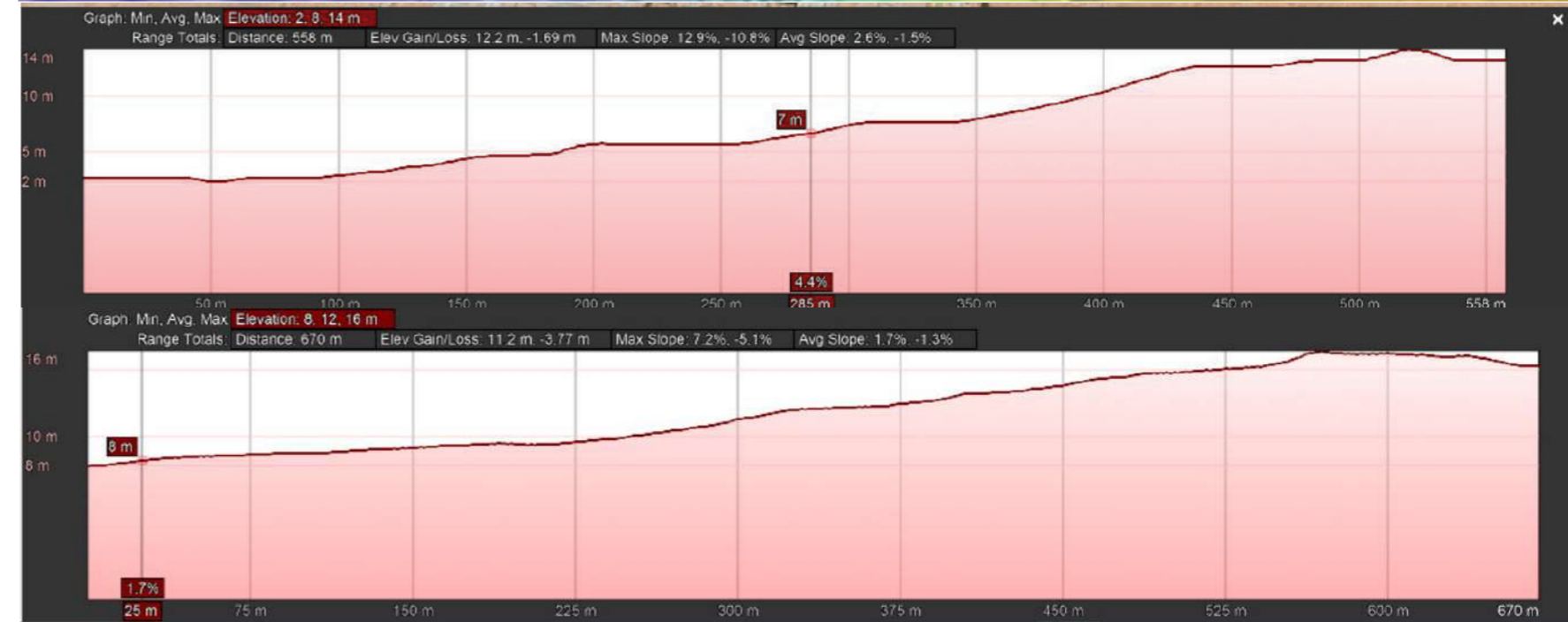
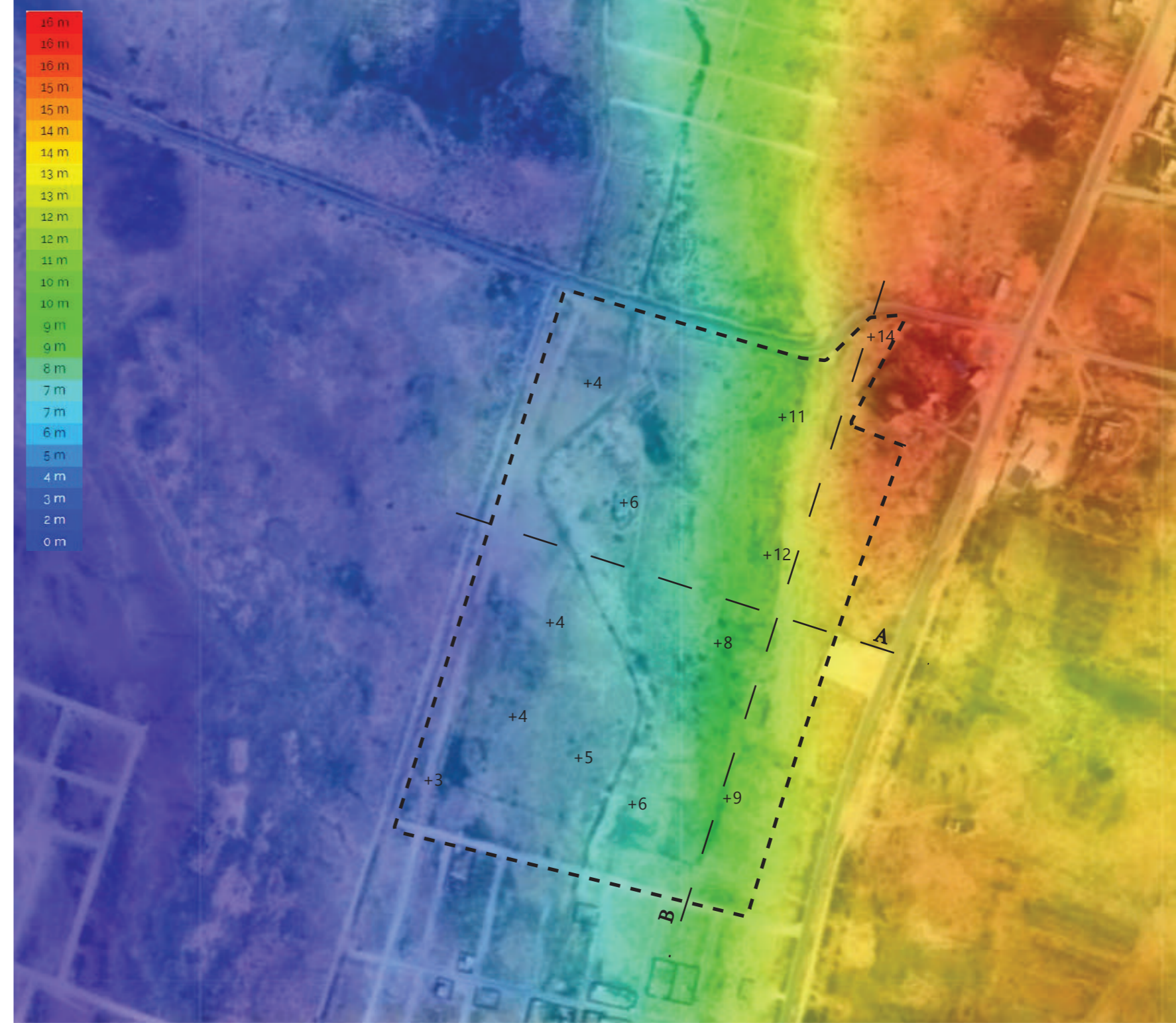
- Located on a regional road
- Near Benghazi sub business district
- Adjacent to the Al-Marisa Free Zone and close to the smart city inside of it
- Not so far from the sea shore



Environmental Features

Site Topography

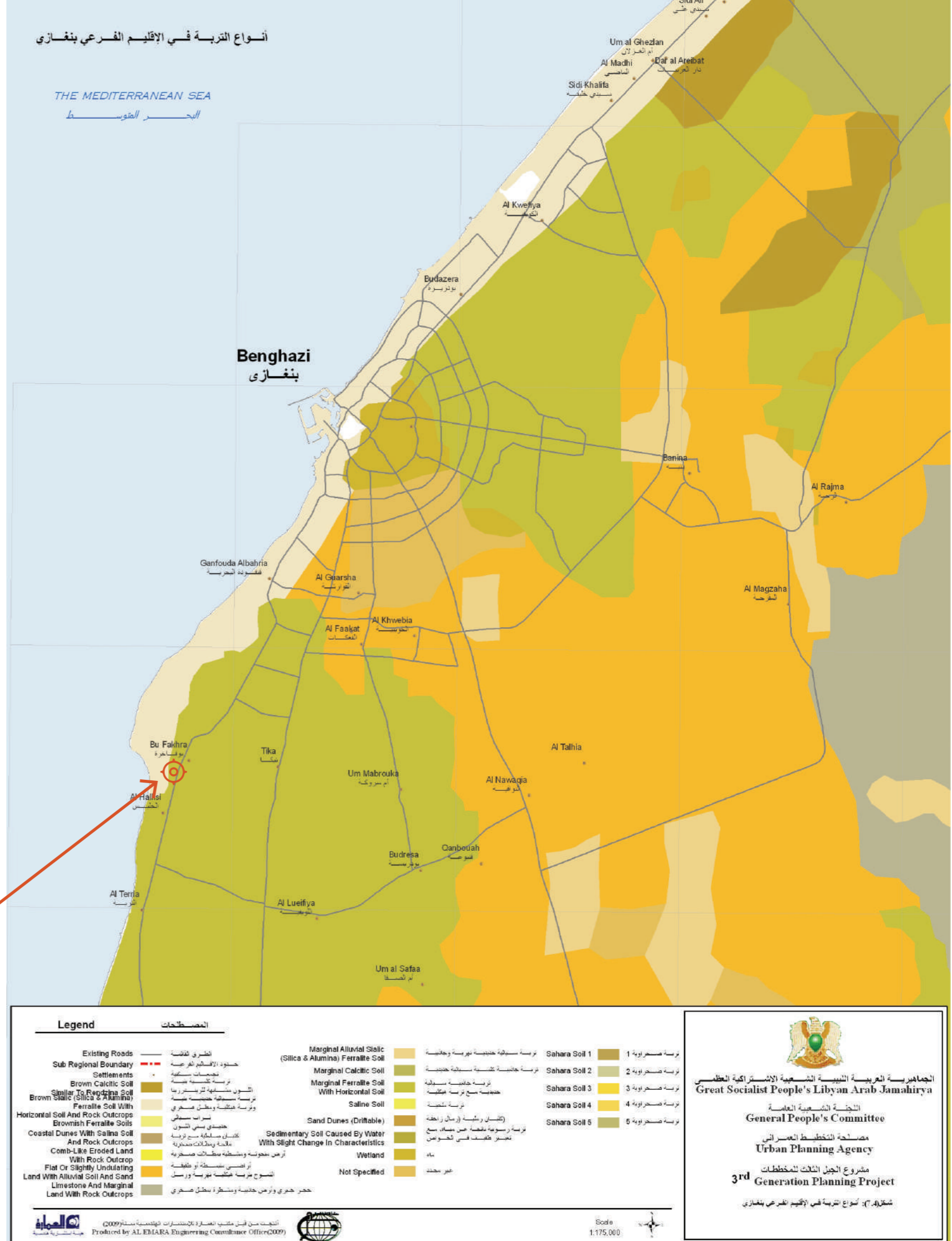
- The topography of the site ranges between 3 and 14 meters above sea level.



Environmental Features

Characteristics of The Land and Soil Type

- Marginal fertile soil
- Scrubland
- No evidence of water bodies




 الجمهورية العربية الليبية الشعبية الاشتراكية العظمى
 Great Socialist People's Libyan Arab Jamahiriya
 اللجنة الشعبية العامة
 General People's Committee
 مصلحة التخطيط العمراني
 Urban Planning Agency
 مشروع الجيل الثالث للتخطيط
 3rd Generation Planning Project
 شكل رقم 3: أنواع التربة في الإقليم الفرعي بنغازي

Environmental Features

Vegetation

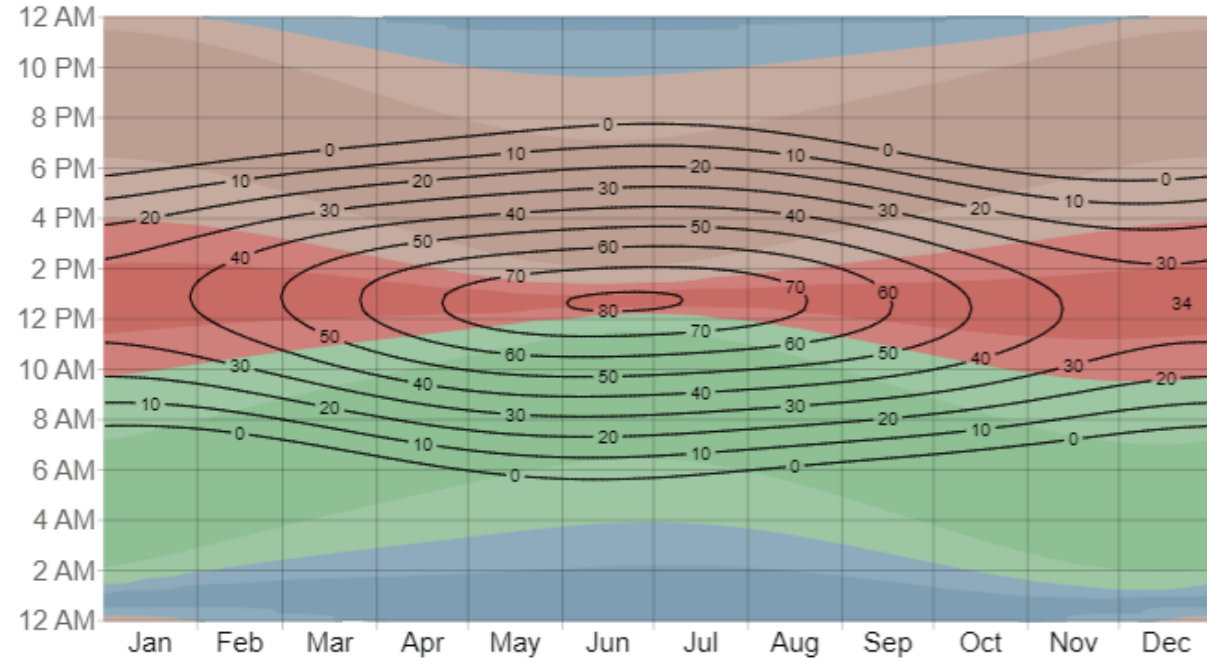
- The site is very poor in terms of vegetation, there are only some wild trees and shrubs.



Environmental Features

review of climate

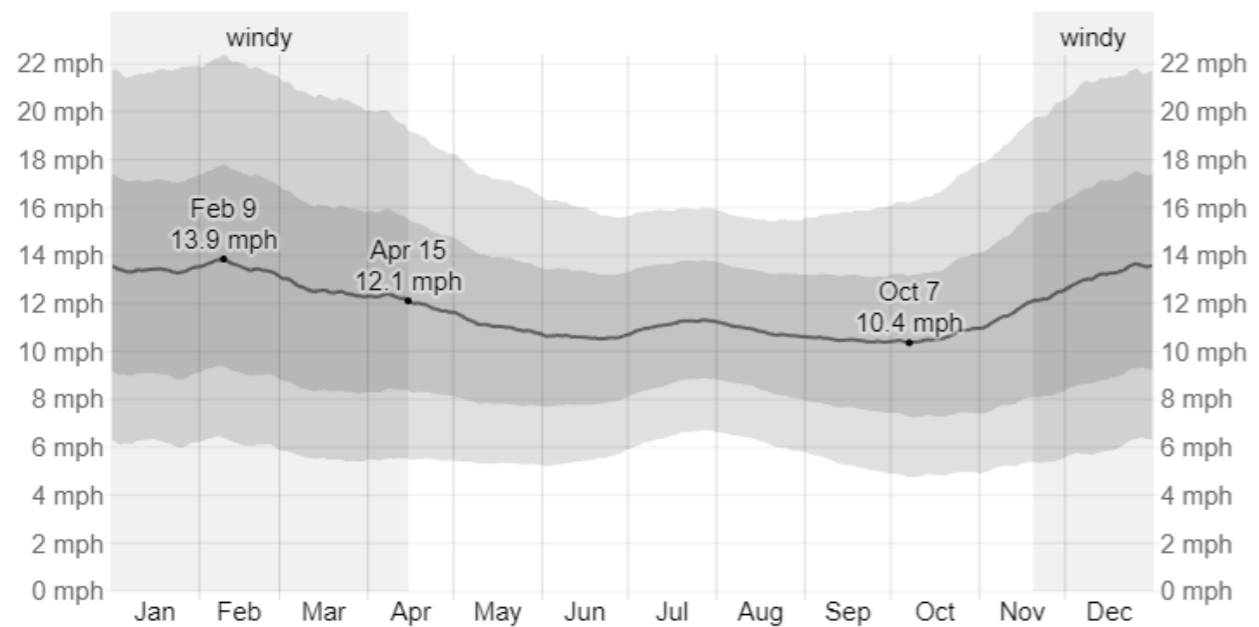
Solar Elevation and Azimuth



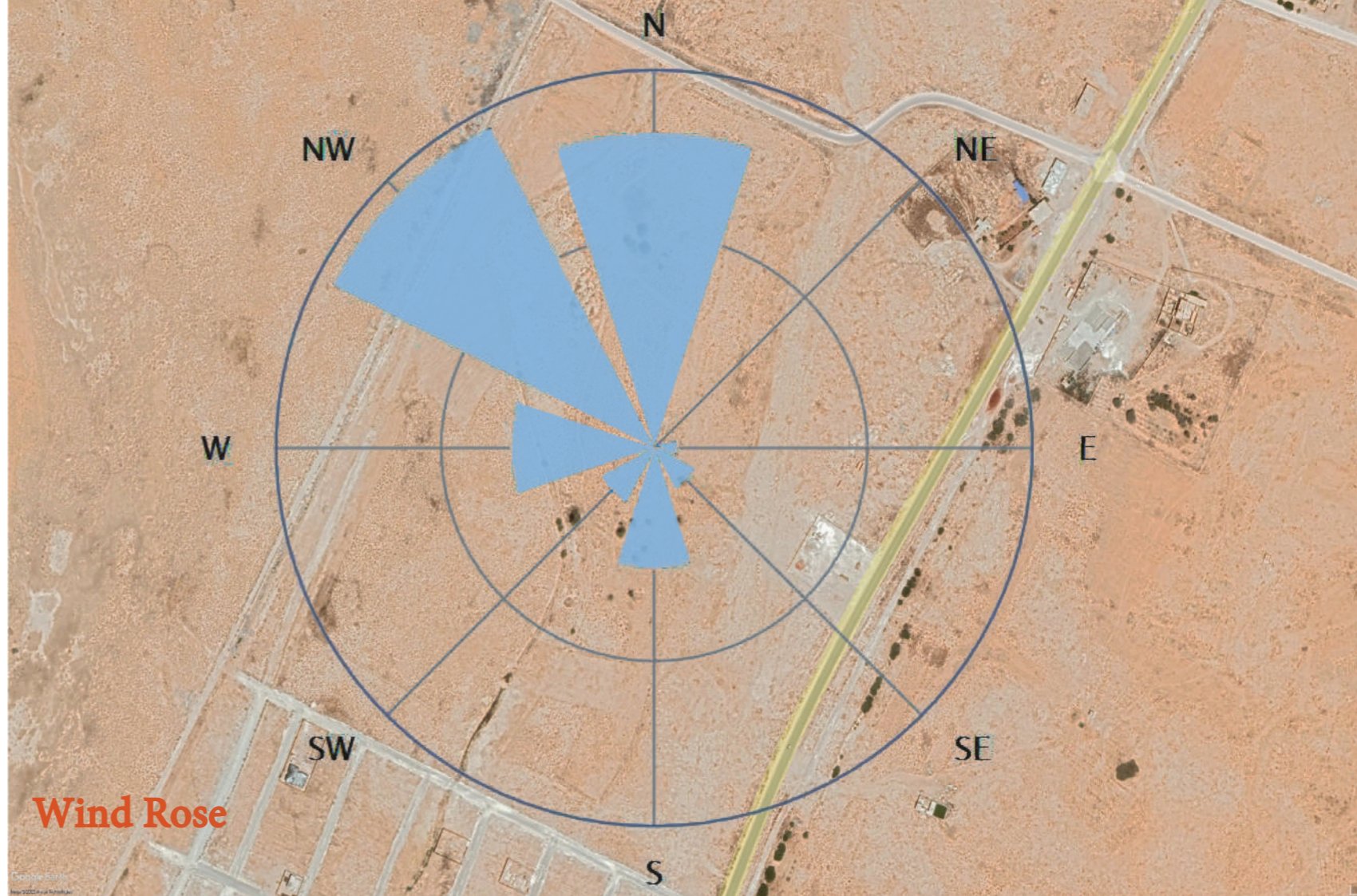
Wind Direction

N ▼	NE ▲	E ◀	SE ▼	S ▲	SW ◀	W ▶	NW ▲
Northern	Northeastern	Eeastern	Southeastern	Southern	Southwestern	Western	Northwestern
29.6%	0%	2.1%	4.2%	11.3%	5.6%	13.4%	33.8%

Wind Speed



Solar Path

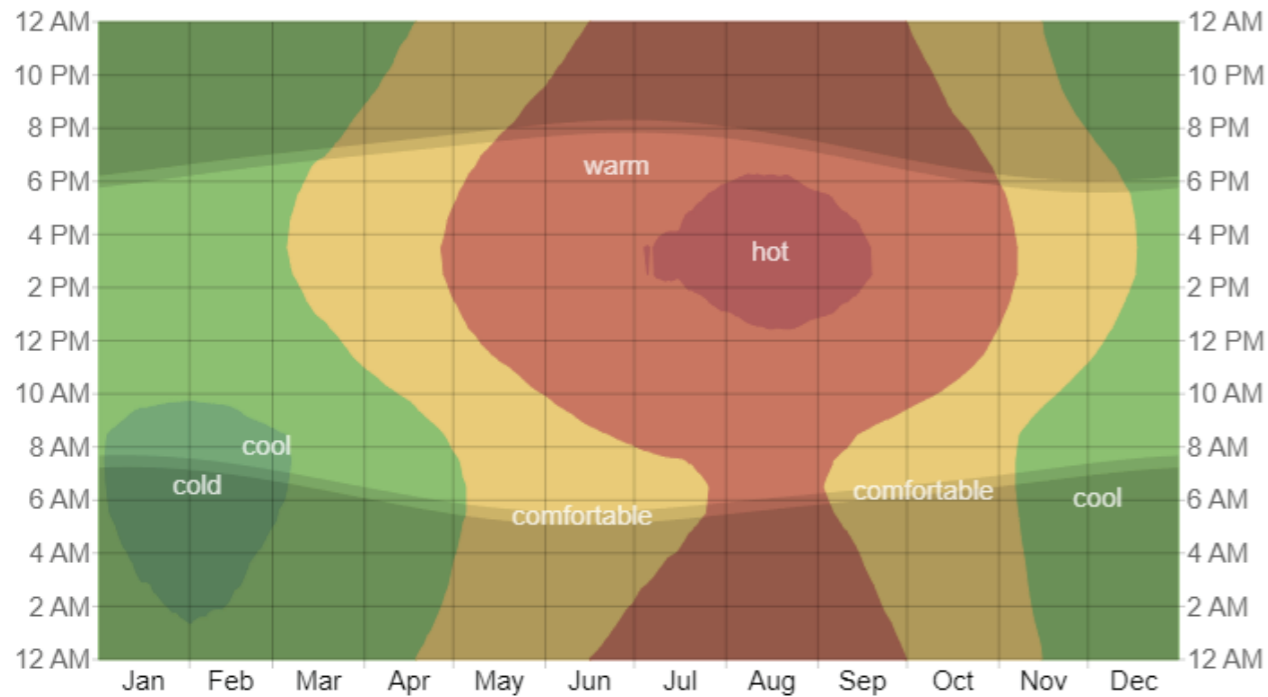


Wind Rose

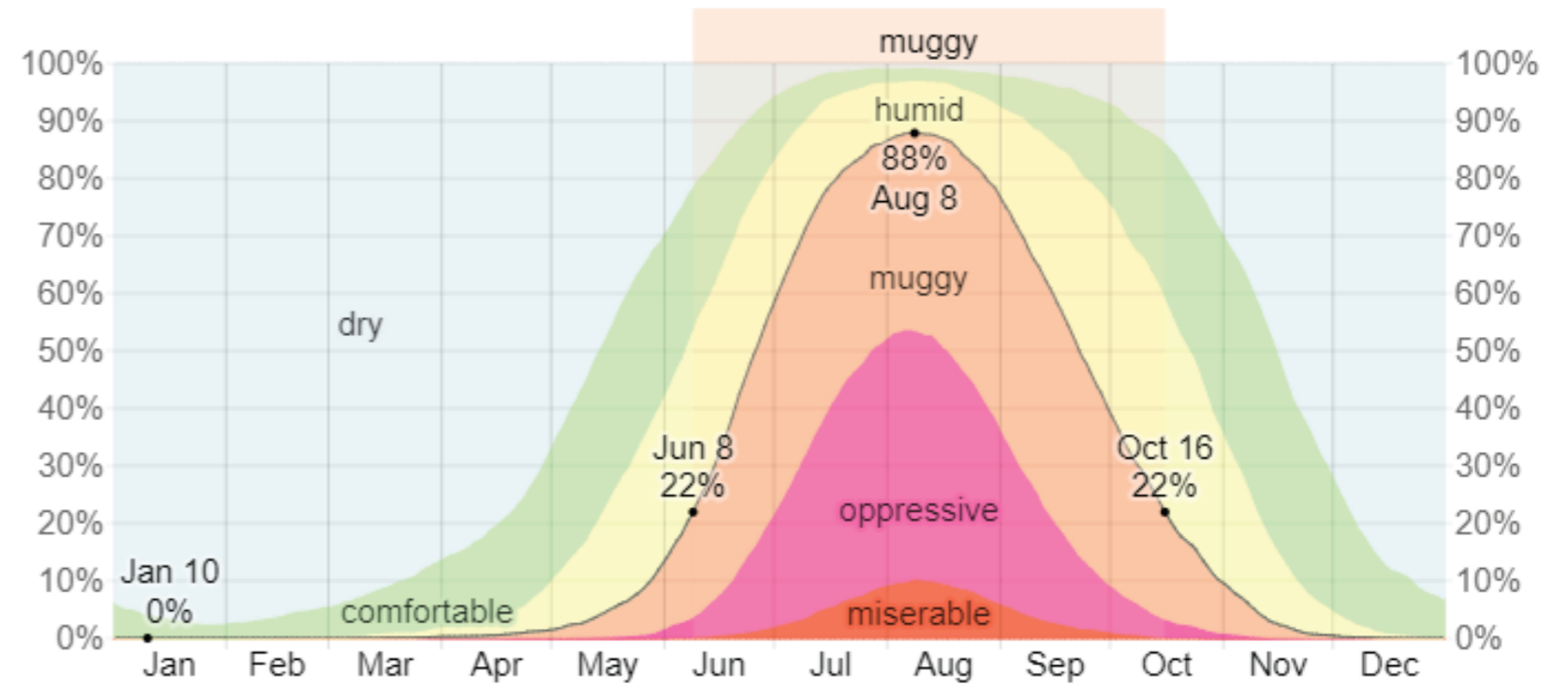
Environmental Features

review of climate

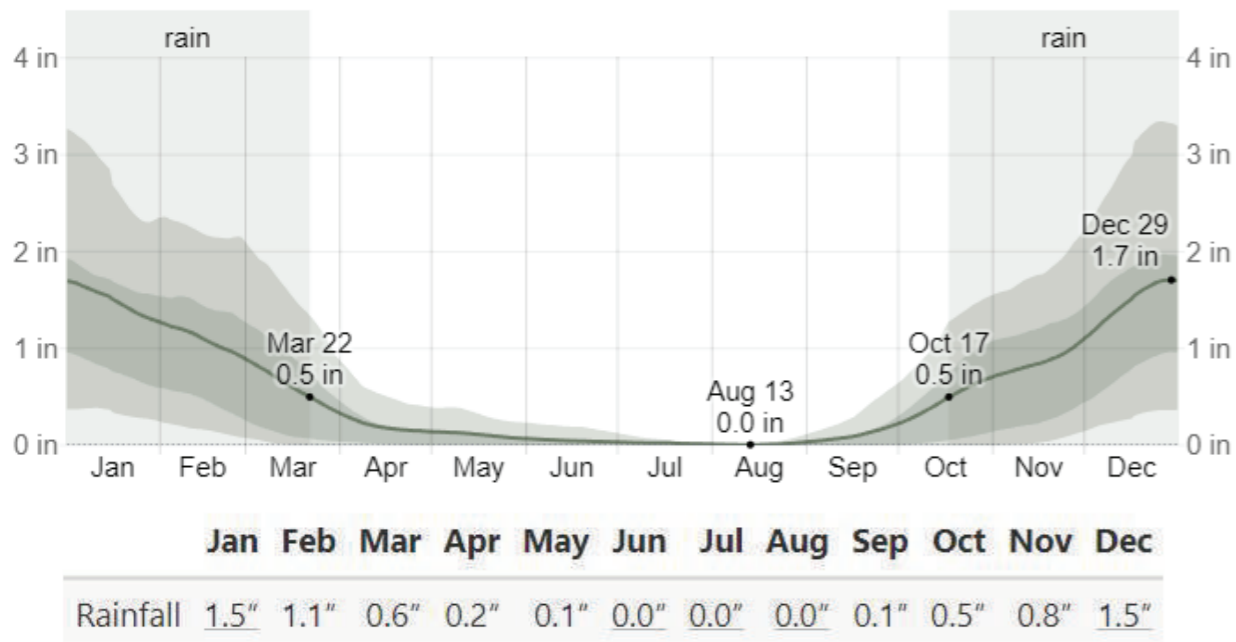
Average Hourly Temperature



Average Hourly Temperature



Average Monthly Rainfall



The percentage of time spent at various humidity comfort levels, categorized by dew point.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Muggy days	0.0d	0.0d	0.0d	0.2d	1.8d	10.6d	24.0d	26.2d	17.2d	6.7d	0.9d	0.0d

SITE'S LAND-USE
AND ITS SURROUNDINGS

Site landuse

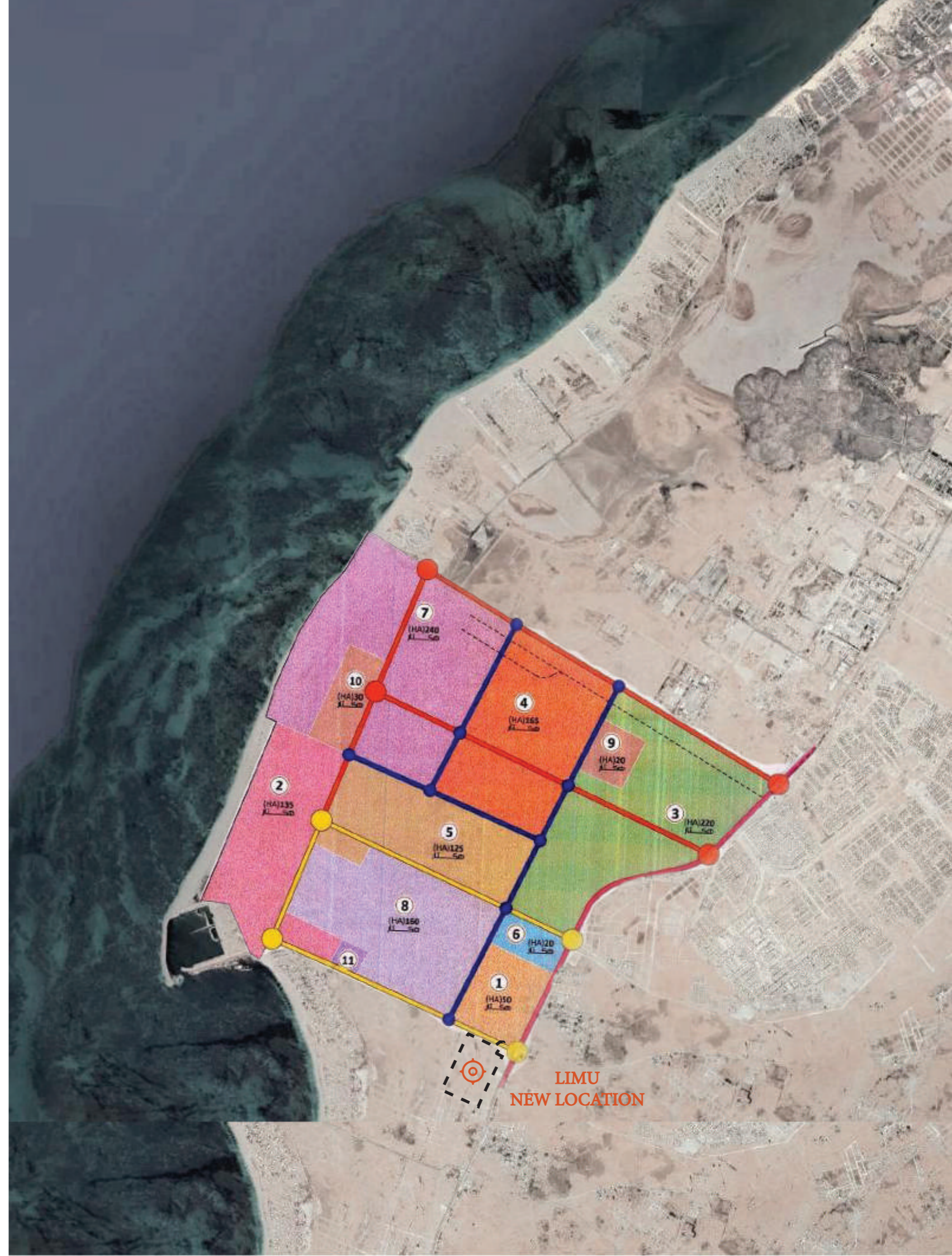
-The site was initially envisioned as recreational land in the 3rd Generation planning project.

-the land use of the surrounding area of the site has various usages from commercial use, Tourist use, to even a natural preserved area, all of the work in the favor of the site.



Site landuse

At the moment, there are no significant projects noted next to the site, but there is a plan for the Al-Marisa Free Zone project, which will have a substantial impact on the area, and on the flow of traffic from downtown Benghazi to the site.



MOVEMENT

Vehicular flow

Roads

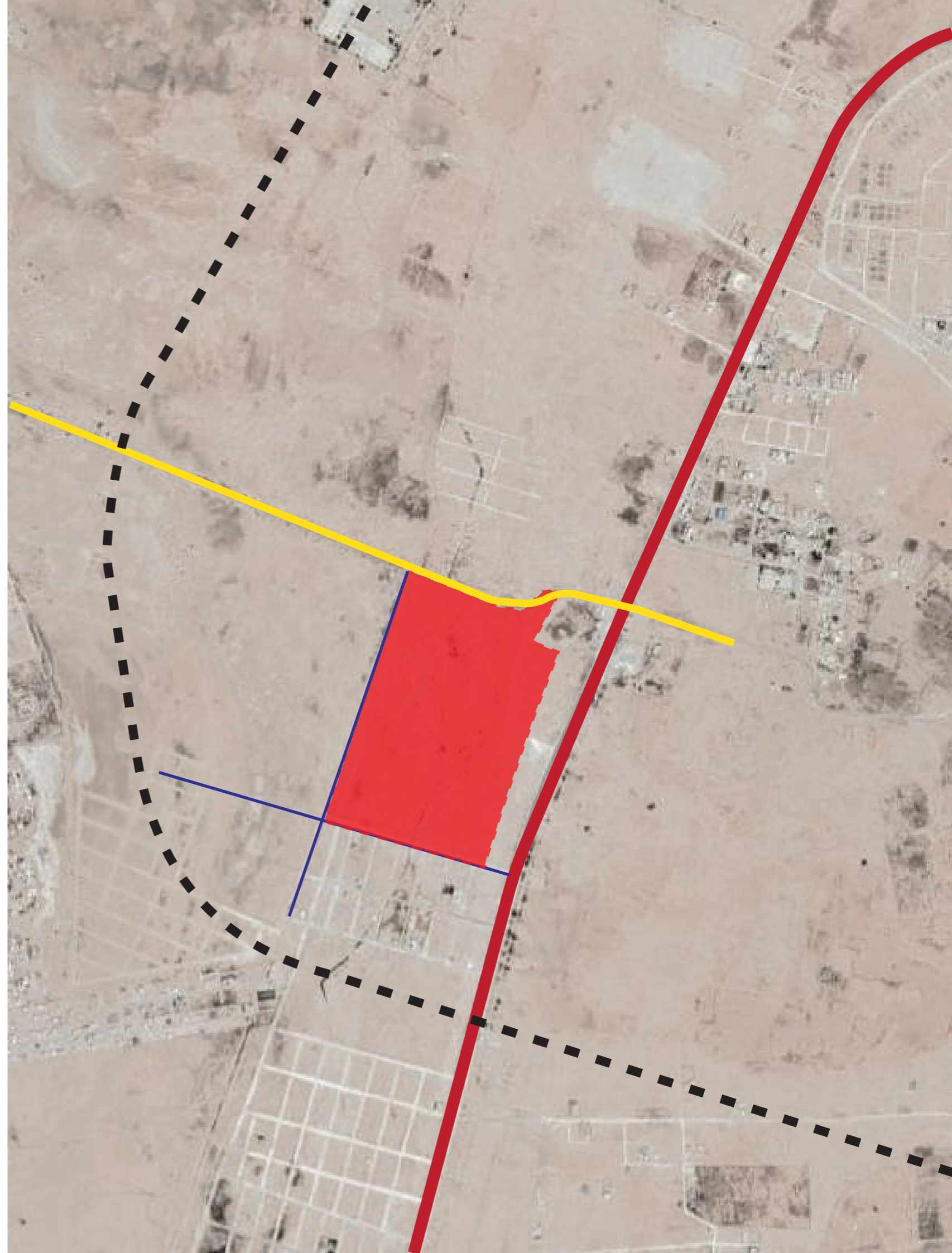
■ Second-ranked main road

■ Regional road

■ Bystreet

--- Train railway

Due to the delayed urban development in the area, there are no signs of pedestrian traffic.



SWOT ANALYSIS

Strength

- Almost regular site in shape.
- Longest side faces sea shore.
- Reasonable slope towards sea level.
- No obstacles within the site
- Accessible and exist of two paved roads
- Easily recognized and has spatial advantage
- Nearness to proposed Al Marsa free zone.
- Clear and stable - absolute land ownership.
- Excellent nature and healthy environment.

Weakness

- A bit Remote location from Benghazi C.B.D
- Poor vegetation
- Dependence on access by cars
- No near source for water supply available.
- In general Poor surrounding infrastructure

Opportunities

- Great potential and nearness Al Marsa proposed fee zone
- Future expansion of Benghazi in South direction
- Speedy growth of small villages along side of seashore.
- Future proposed train route and terminal so close.
- Great potential to create positive impact on local community.
- Expansion of the site area almost cheap and available .

Threats

- Changing legislation of land classification
- Delay in rate of surrounding development
- Unexpected change in local environment due free zone
- Unclear what will be the nature of land uses surrounding the site

4- GENERAL SPACE PROGRAM

(LIMU) MASTER PLAN LANDUSE

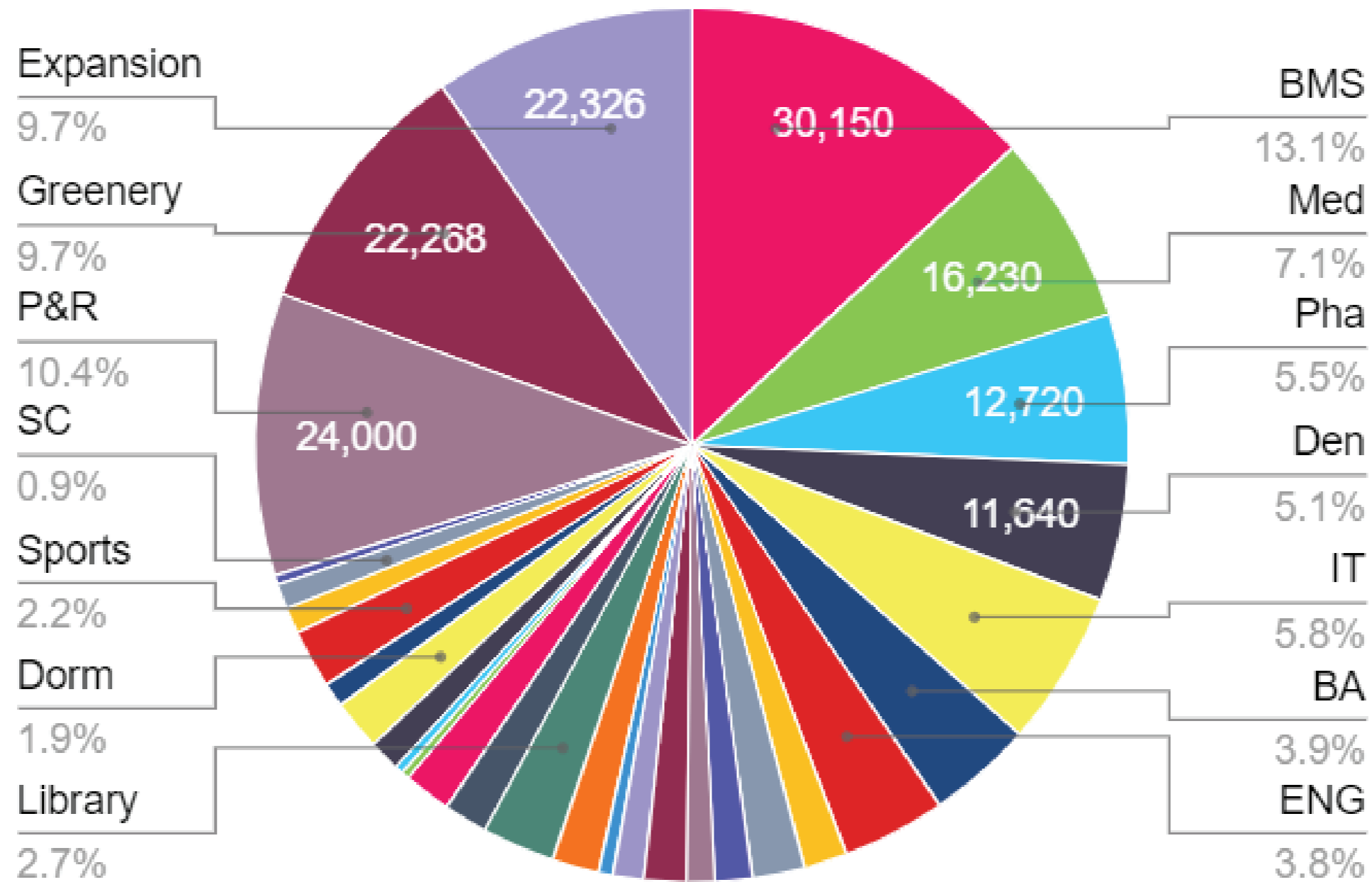
Zone description		NO. of enroll. 2022	NO. of enroll. 2035	exi. Area in Sqm	Planed Area in Sqm
1	Faculty of Basic Medical Science	533	1005	40200	30150
2	Faculty of Medicine	287	541	21640	16230
3	Faculty of Pharmacy	225	424	16960	12720
4	Faculty of Dentistry	206	388	15520	11640
5	Faculty of Information Technology	234	441	17640	13230
6	Faculty of Business Administration	181	341	11935	8651
7	Faculty of Engineering	30	295	11800	8850
8	Faculty Of Law & Human Sciences	-	140	4900	3675
9	Faculty of Media & Mass Communication	-	170	5950	4463
10	Faculty of Archeology & Tourism	-	120	4200	3150
11	Faculty of Aviation Sciences	-	80	3200	2400
12	Faculty of Petroleum & Renewing Energies	-	120	4800	3600

Zone description		NO. of enroll. 2022	NO. of enroll. 2035	exi. Area in Sqm	Planed Area in Sqm
13	Faculty of Political science & Diplomacy	-	100	3500	2625
14	Graduate studies	-	4165	-	1200
15	University Administration	15	250	-	3750
16	Educational hospital 50 beds	-	50	4000	4000
17	Central Library	-	8380	-	6200
18	Cafeteria	-	1332	-	4032
19	Expedition	-	-	-	640
20	Mosque	-	-	-	720
21	Conference Hall	-	600	-	2700
22	Dormitory	-	-	208	4260
23	Staff Accommodation	-	-	60	2100
24	Track & Stadium	-	-	-	5000

Zone description		NO. of enroll. 2022	NO. of enroll. 2035	exi. Area in Sqm	Planed Area in Sqm
25	Sports hall	-	-	-	2000
26	Civic defense	-	-	-	180
27	Student center	-	-	-	2140
28	Storage	-	-	-	800
29	Roads and Parking	-	-	-	24000
30	Greenery	-	-	-	22268
31	Future expansion	-	-	-	22326
Total Area					230000

General space program

The Percentage of the Land-use



5- LAND-USE
ZONING ALTERNATIVES

LIMU MASTER PLAN

LAND-USE PLAN 2035



faculty of basic M.Sc	sport & track
faculty of Medicine	IT faculty
Dentistry	Engg. Faculty
pharmacy	Bus. Faculty
C.hospital	Petroleum
library	Aviation
Graduate	Expansions
Confrence	Media Faculty
S.center	Political & De
Adminst	law faculty
Greenary	Tourism
s. Accom	Resturant
c.defense	Domitory
sport hall	utility -storage