Redevelopment of Residential District in the city of Nablus

Graduation Project

Urban Planning Department

Supervised by

Dr. Zahra' Zawawi

Dr. Ali Abdulhamid

Presented by

Yara Khayyat

Outlines

1. Project Idea
2. Project Justification
3. Methodology
4. Analysis
5. Output

Project Idea

Provide improved, comfortable and livable neighborhoods, And Solve the problems faced by neighborhoods, as a result of lack of services and poor distribution.

Project Justification

1. Most neighborhoods in the city were randomly generated without prior planning and thus do not meet the basic criteria for residential neighborhoods.

2. Services are concentrated in specific areas of the city compared to other regions.

3. Difficulty in accessing services in some areas due to the topography and mountainous nature of the city.

4. Insufficient services with population in some areas.

5. Neglecting recreational services in general.

Methodology

Analysis At the Scale of the city

Services Analysis (using GIS Model)

Result (study area)

Analysis at the scale of the District

Physical Analysis

- Population
- Floor's Number
- Building's uses
- Figure ground
- Infrastructure

Services Analysis

- Coverage Area
- Quantitative analysis

Output

Detailed Plan

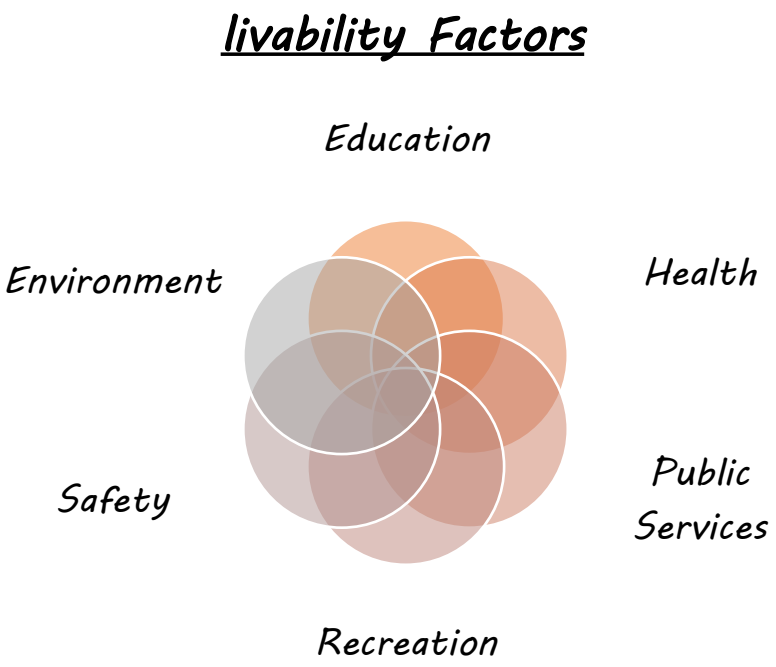
Analysis At the Scale of the city

Services Analysis

Services Coverage Analysis | GIS Model Result

Analysis At the Scale of the city based on the livability Factors

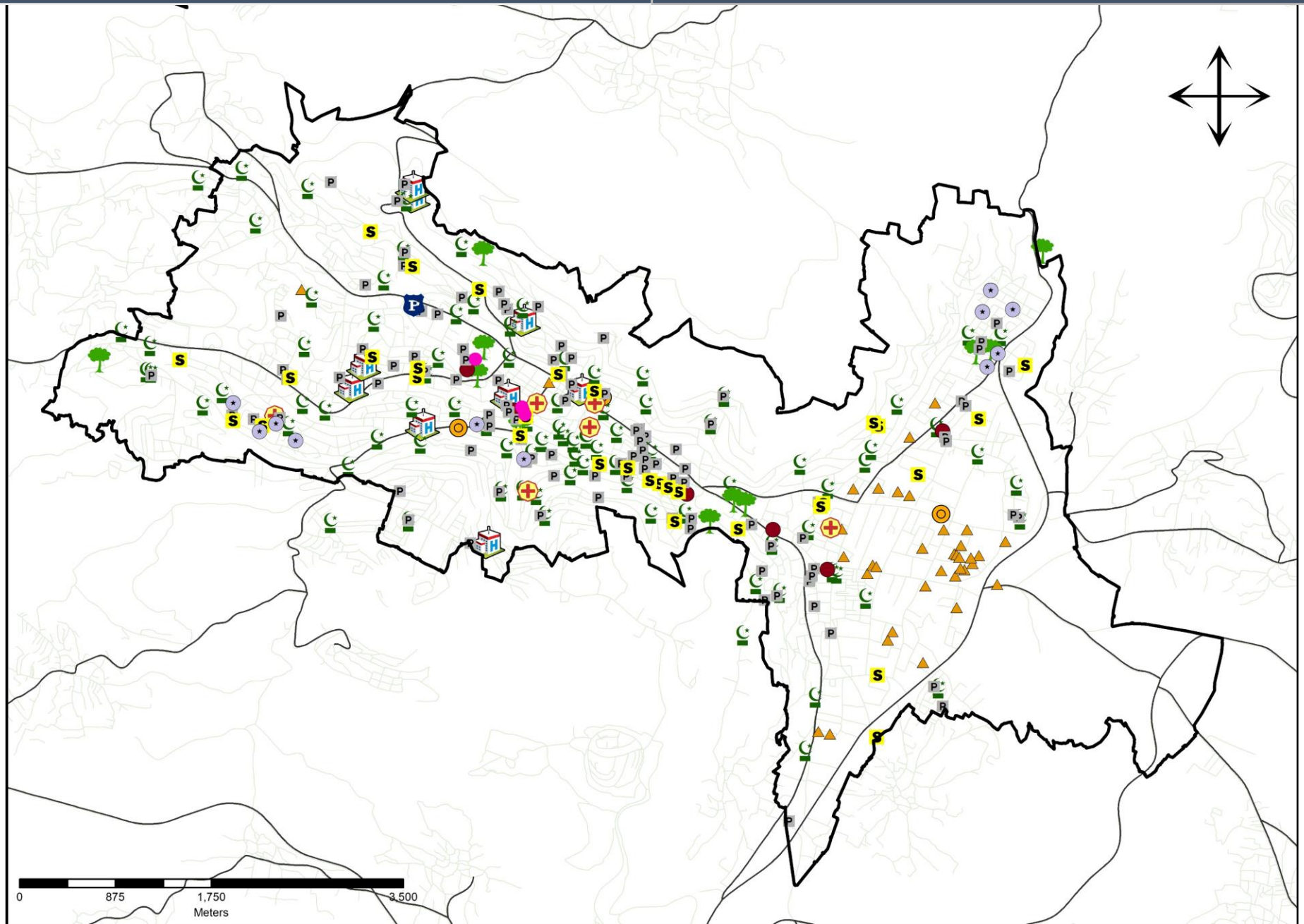
Symbol	Services	Coverage Area (m2)	Weights
	Kindergarten	200	13%
P	Primary School	500	13%
S	Secondary School	2500	8%
	Health Center	800	11%
	Mosques	800	10%
	Parks & Gardens	800	11%
	Libraries & cultural centers	5000	8%
	Clubs and playgrounds	500	6%
P	Police	5000	5%
	Civil Defense	1600	5%
H	Hospital	20000	4%
	Slope	(1-17)%	6%



Services Analysis

Services Coverage Analysis

GIS Model Result



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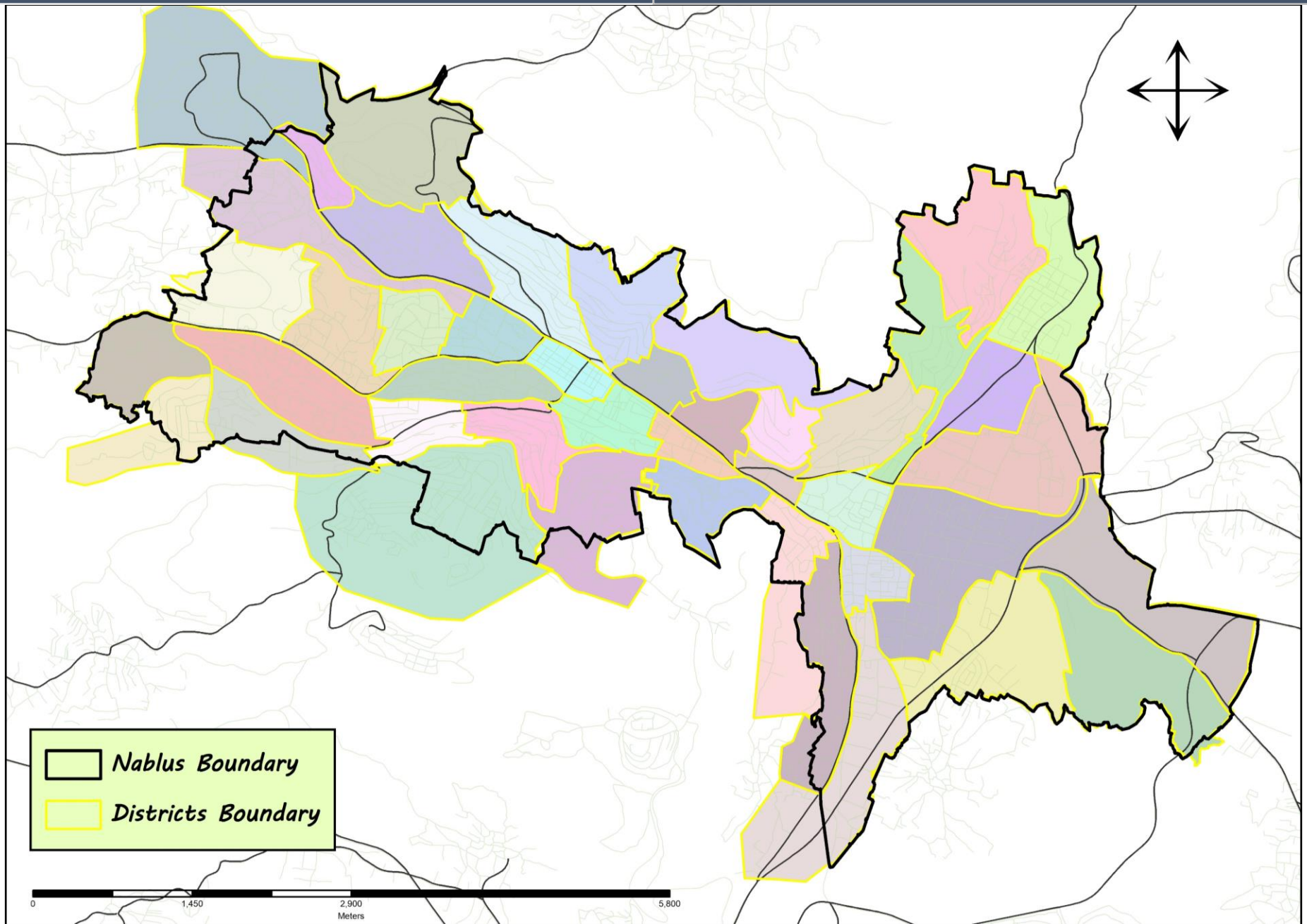

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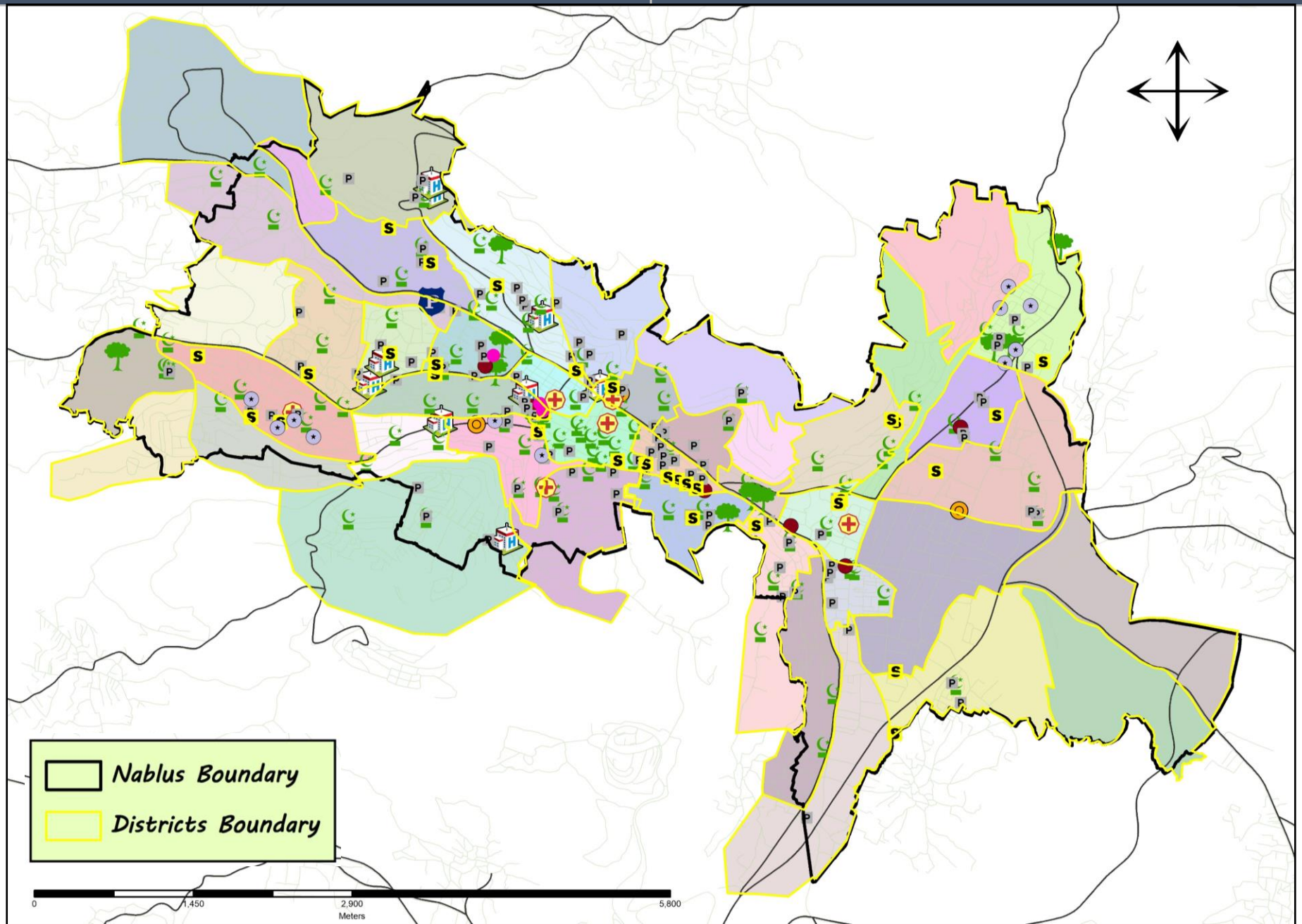

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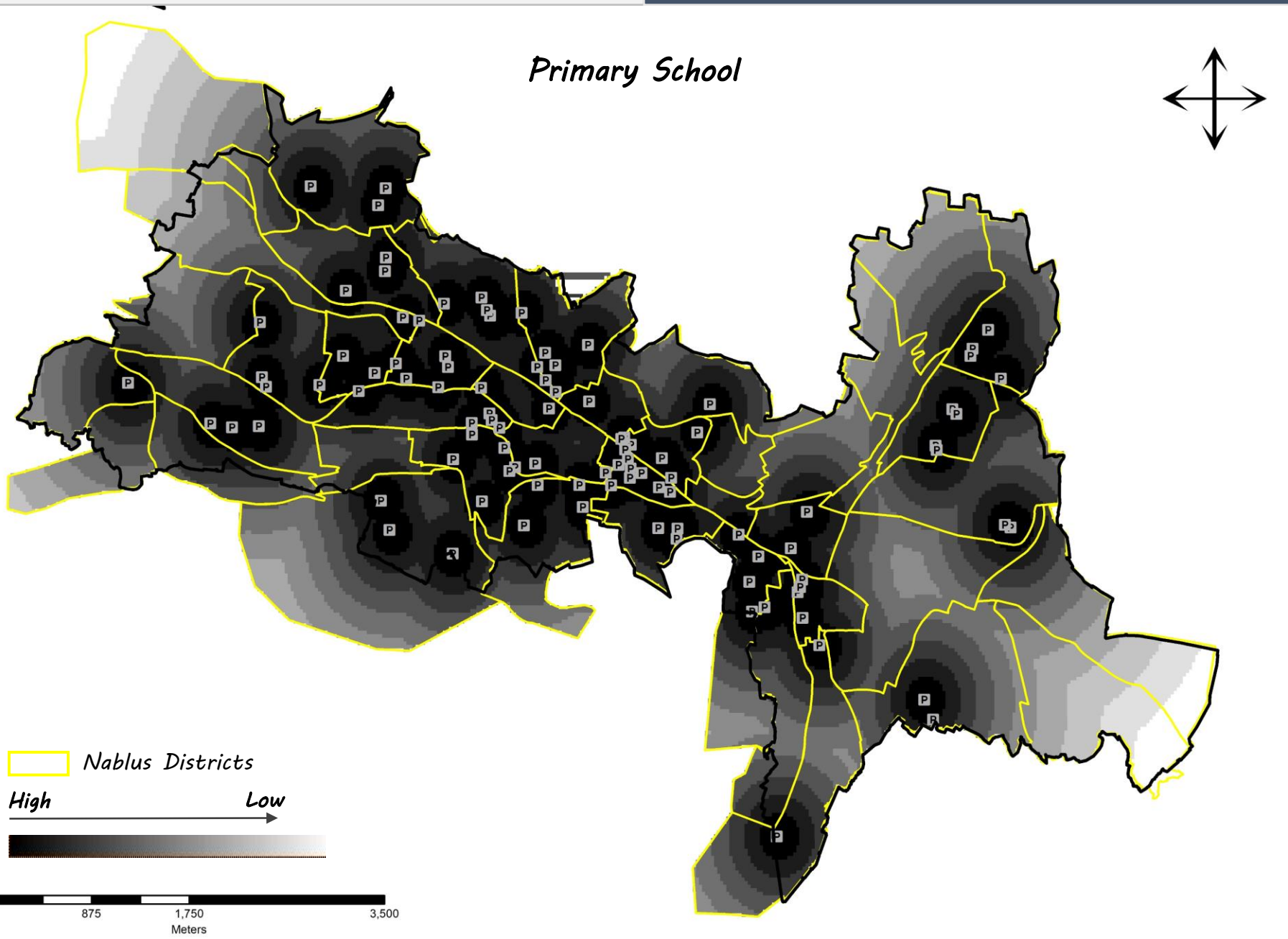

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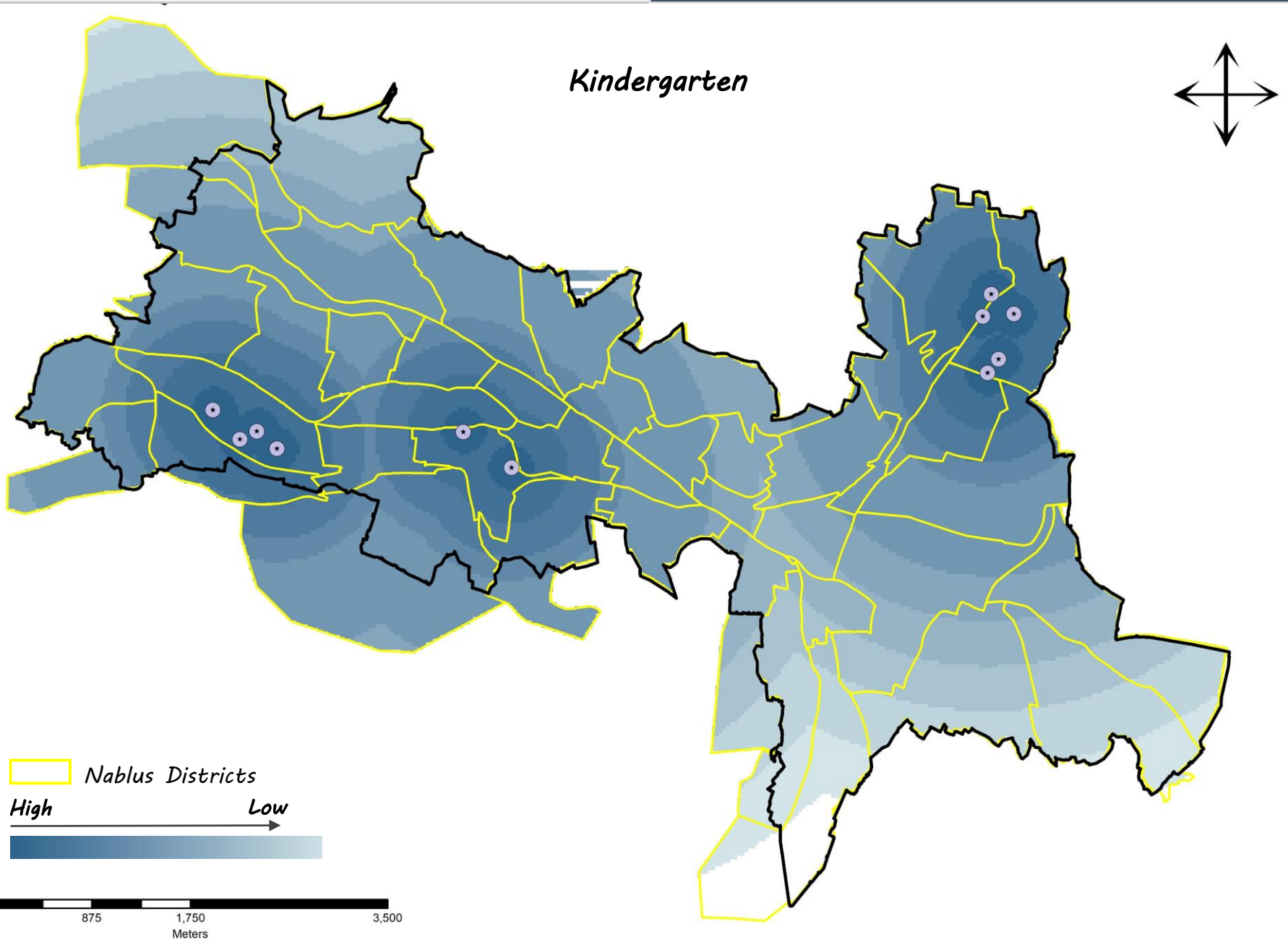

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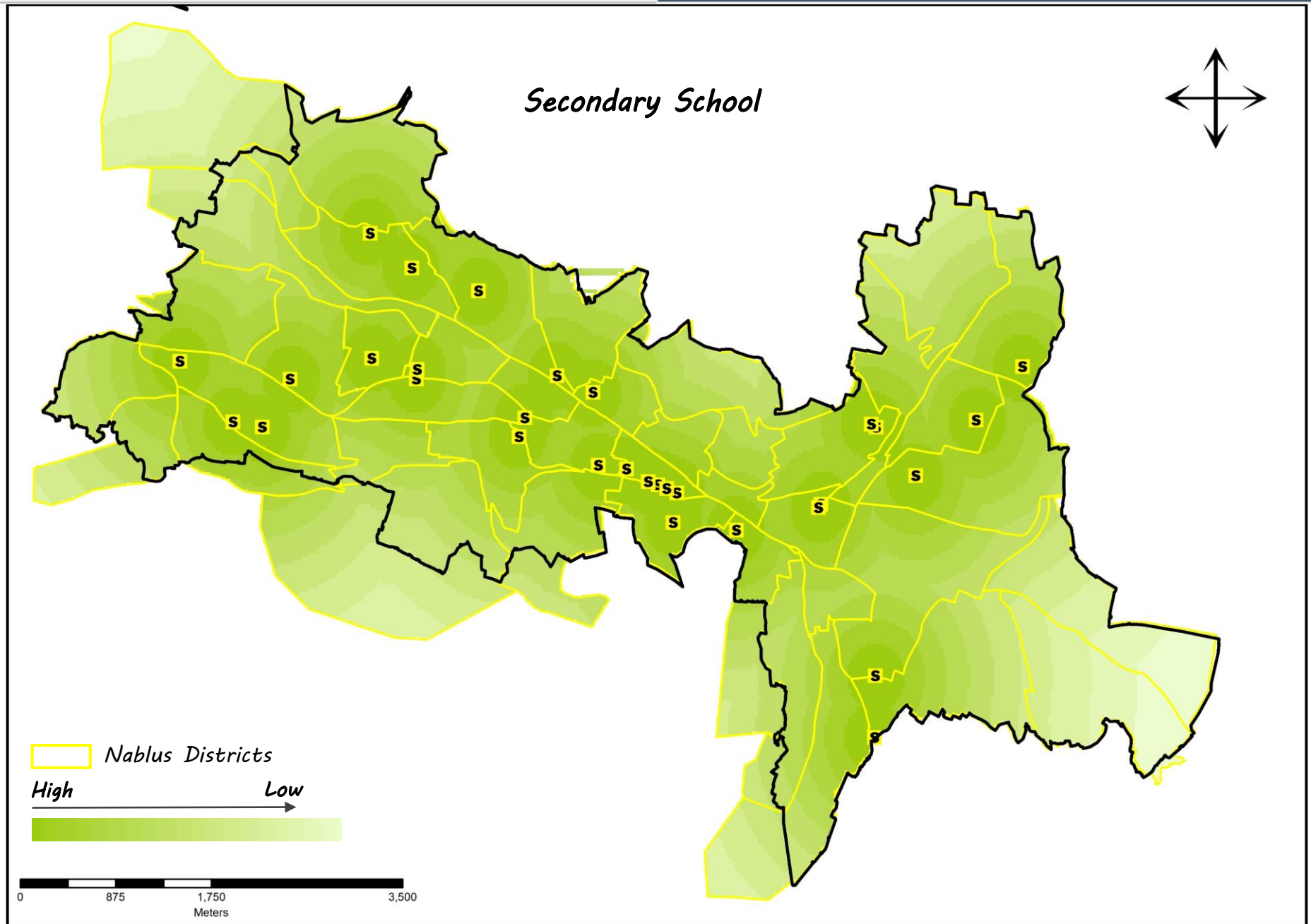

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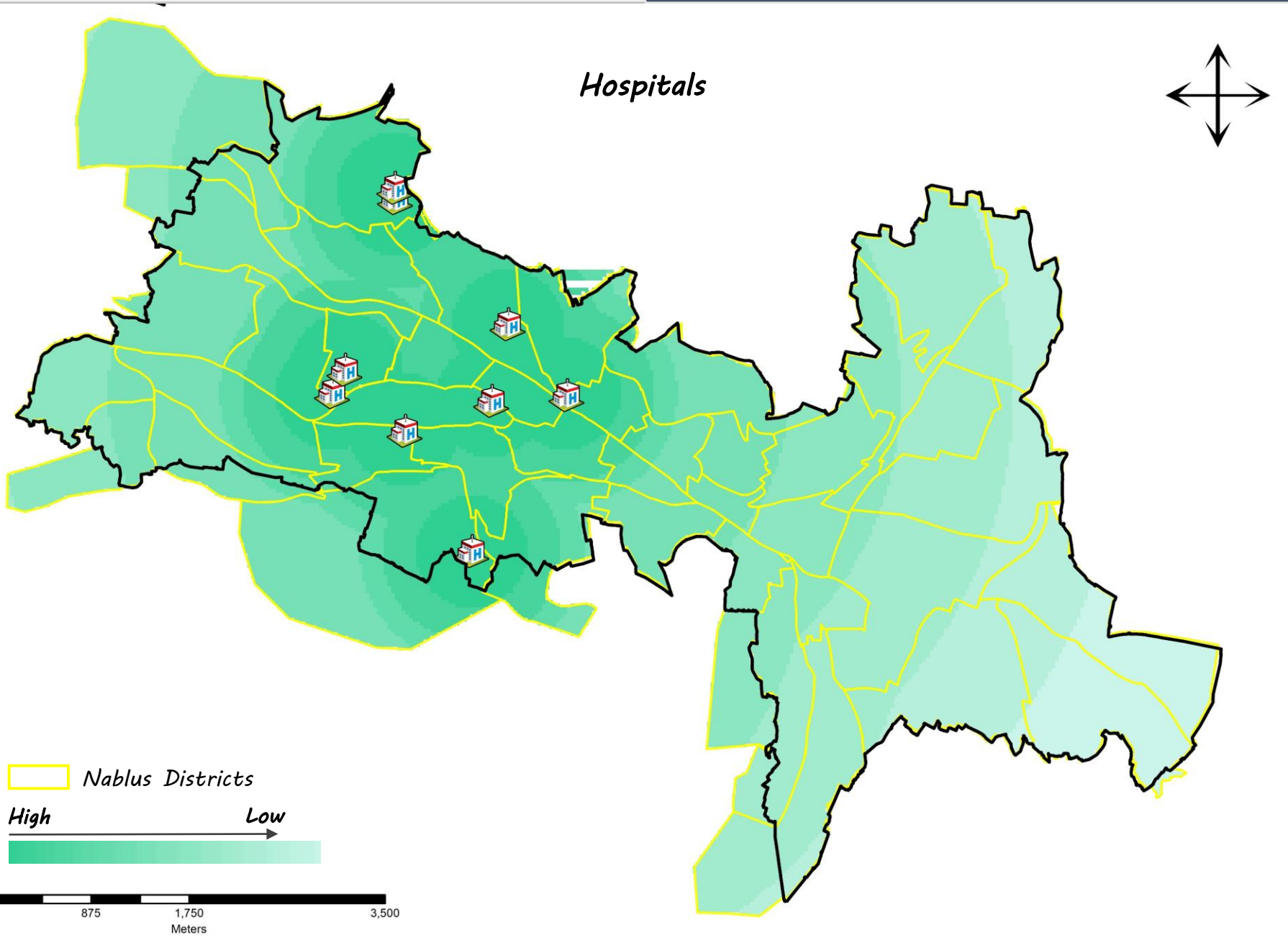

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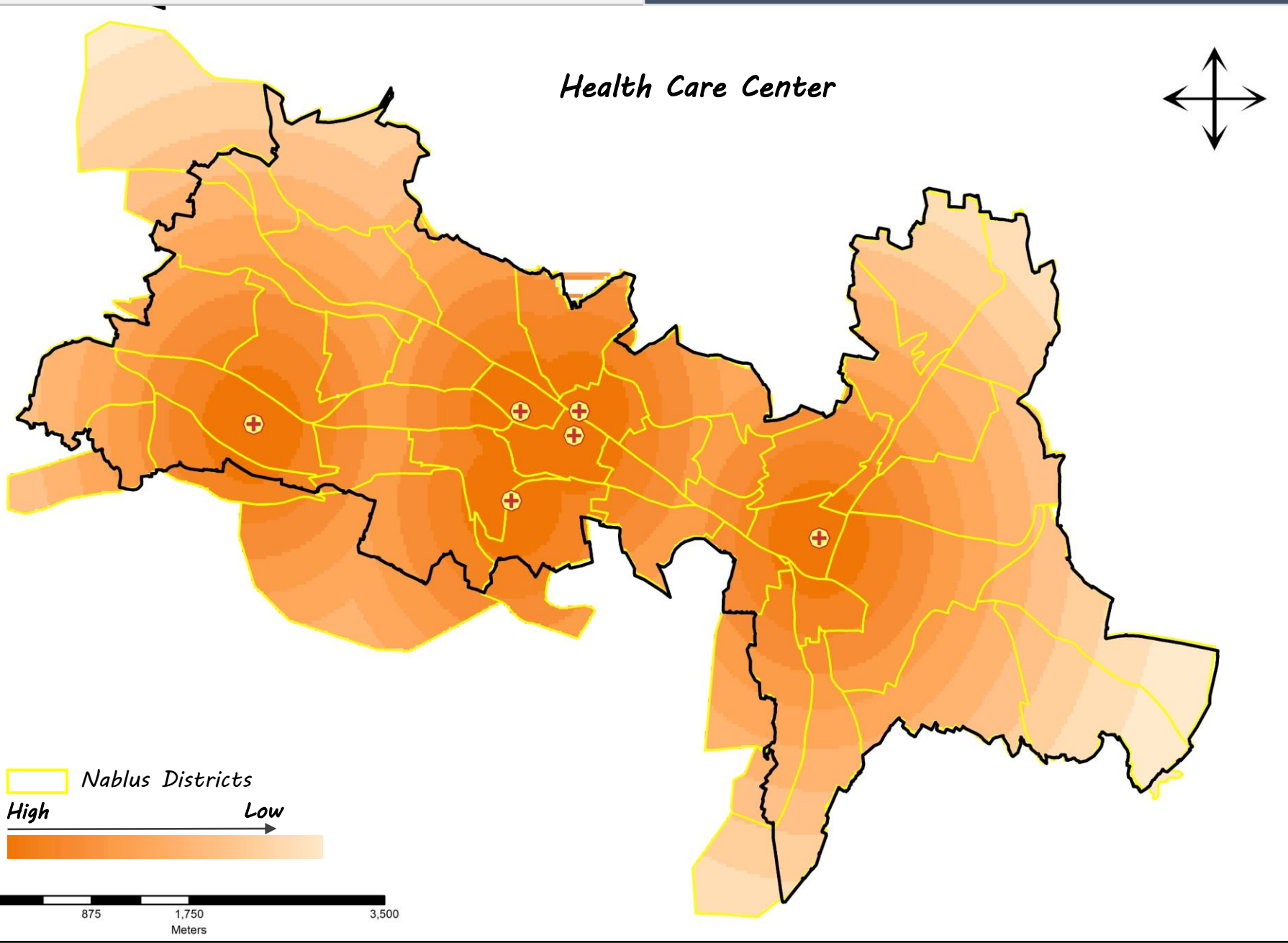

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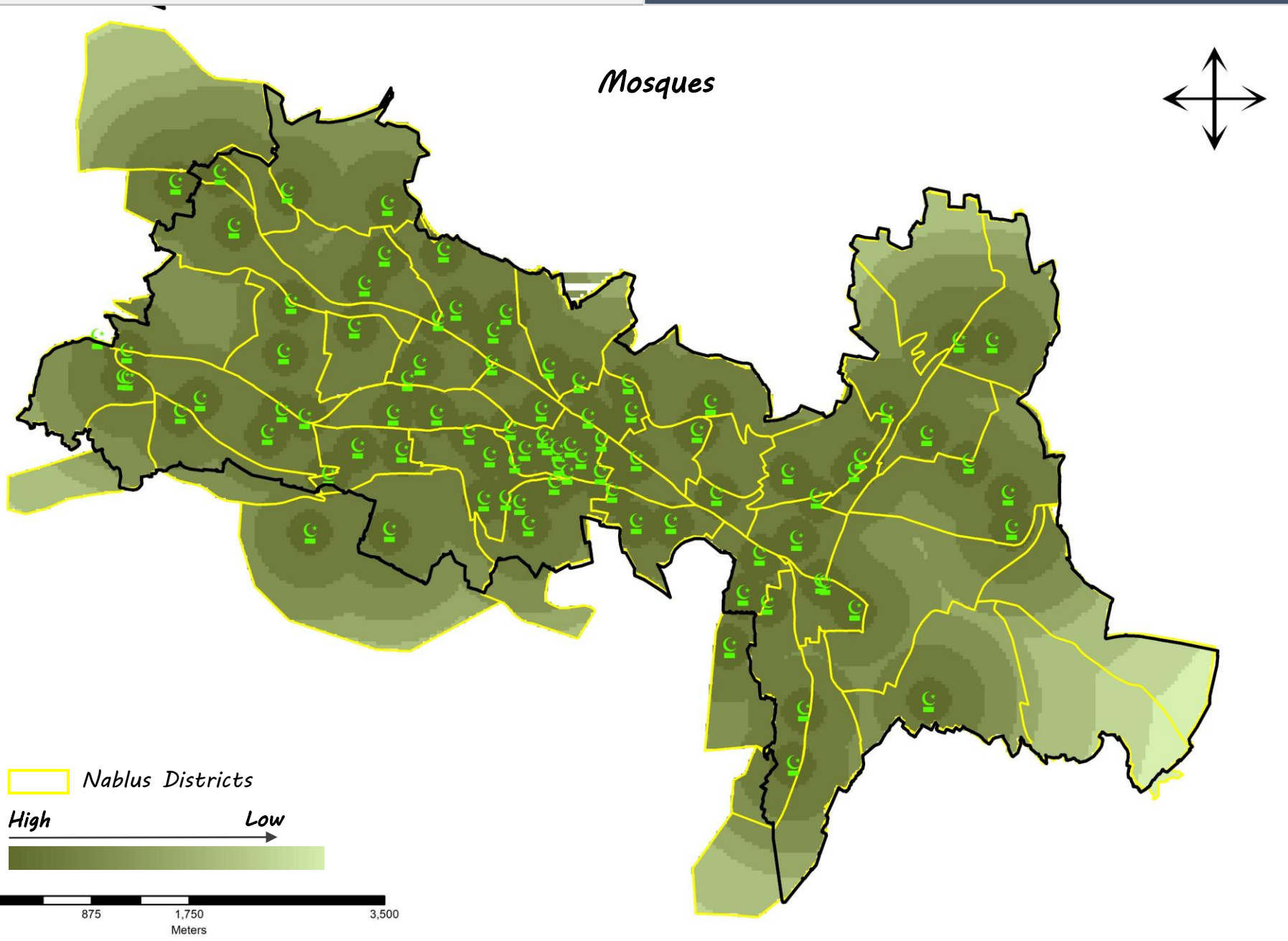

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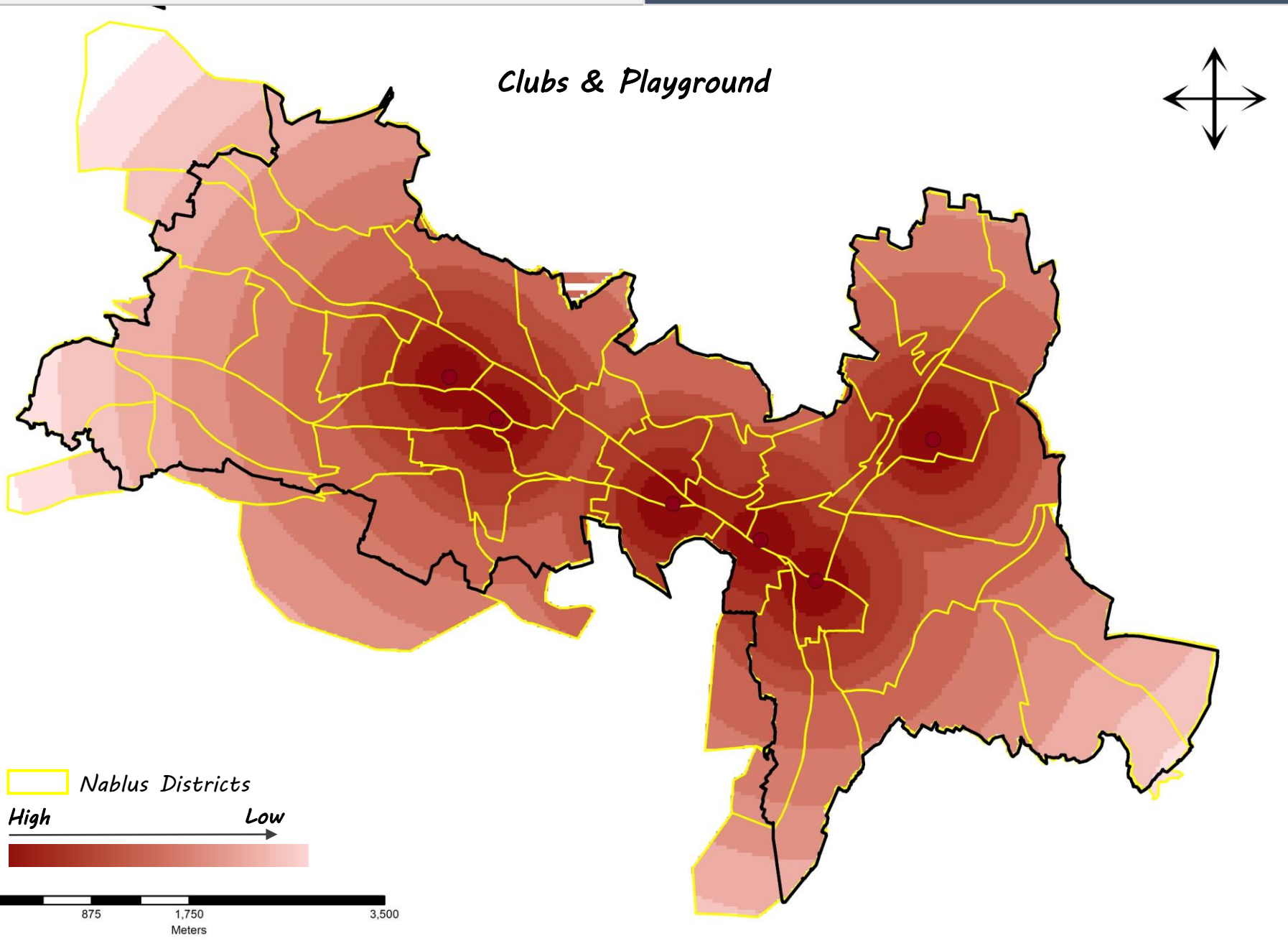

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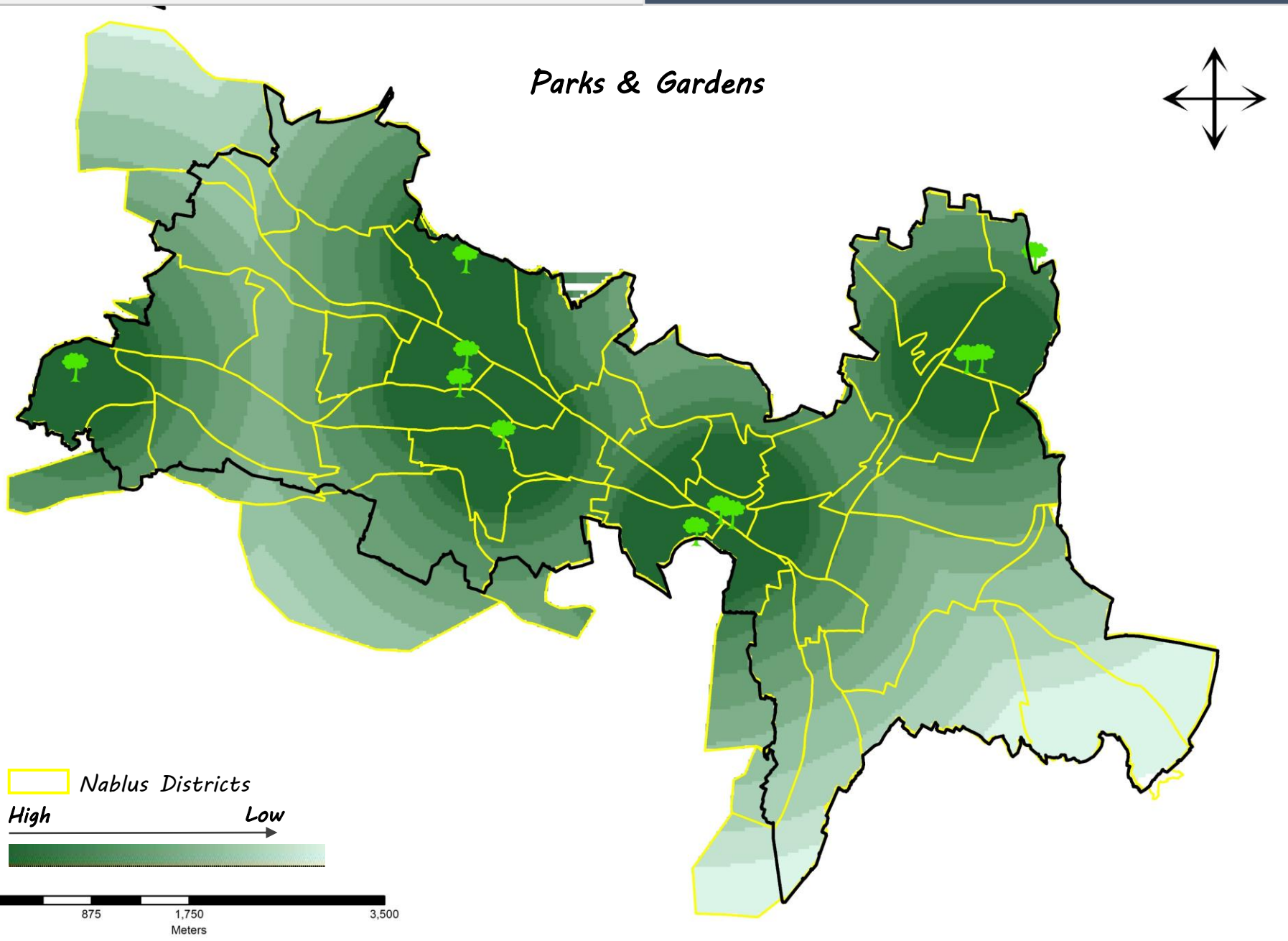

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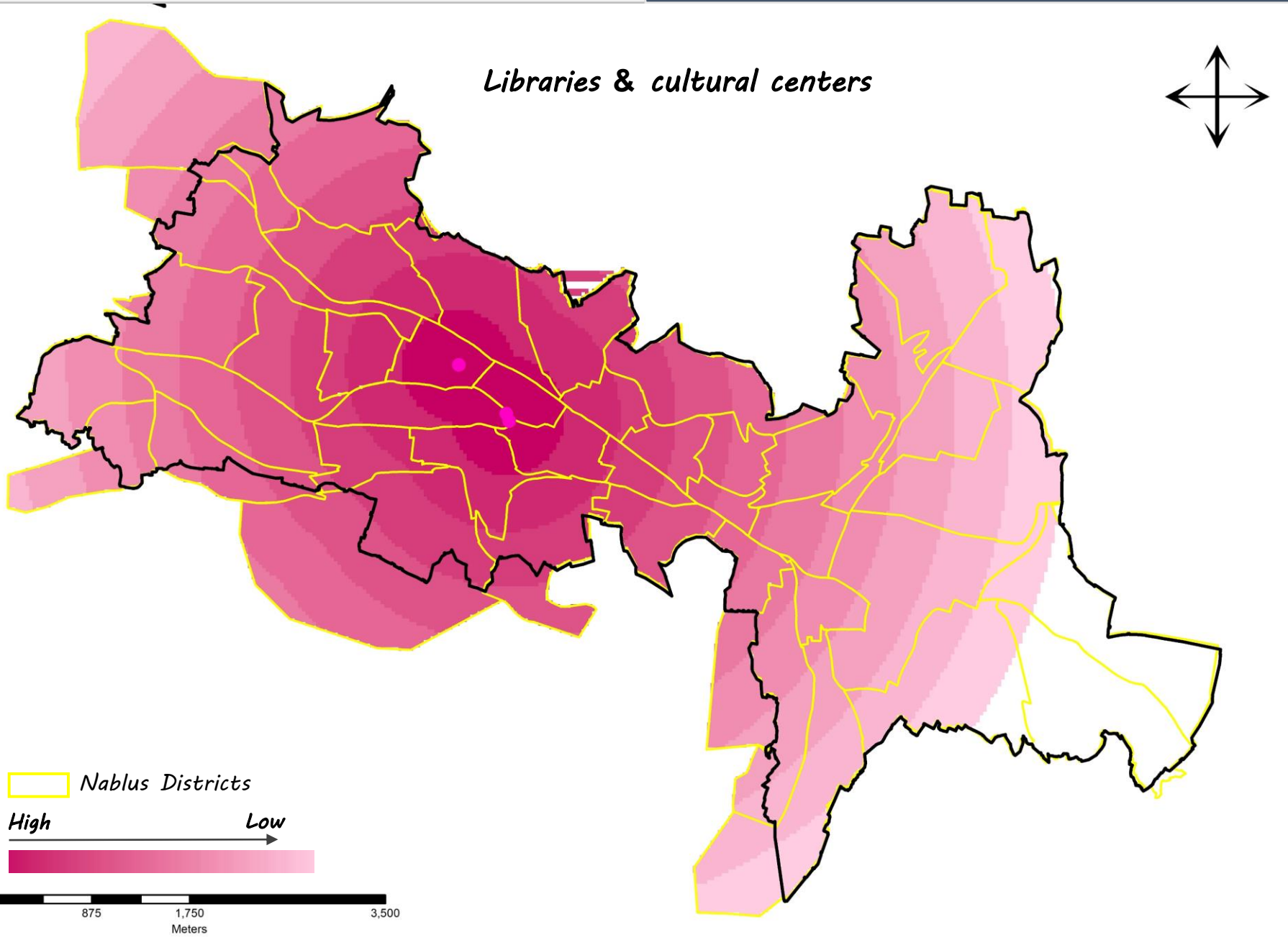

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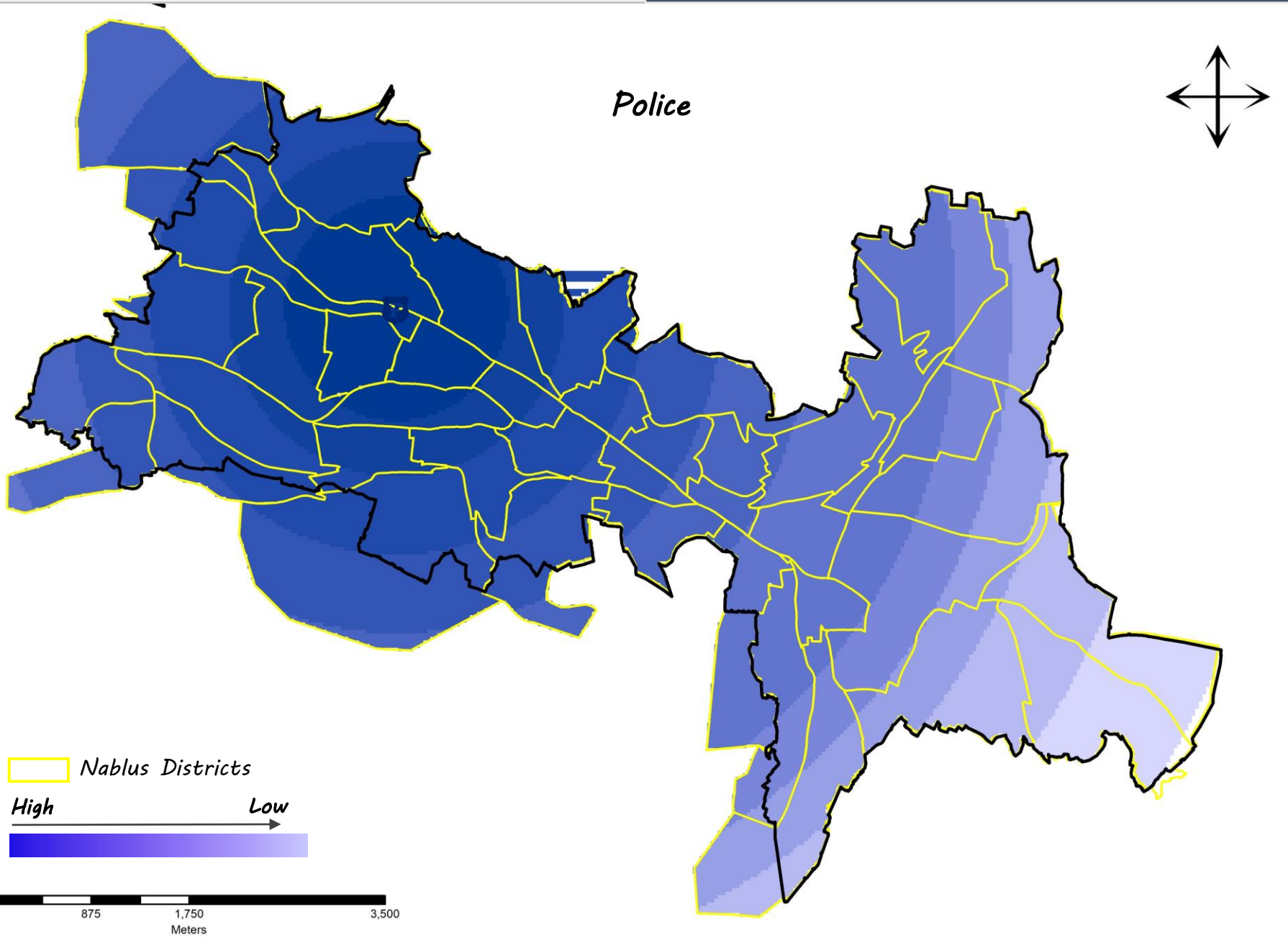

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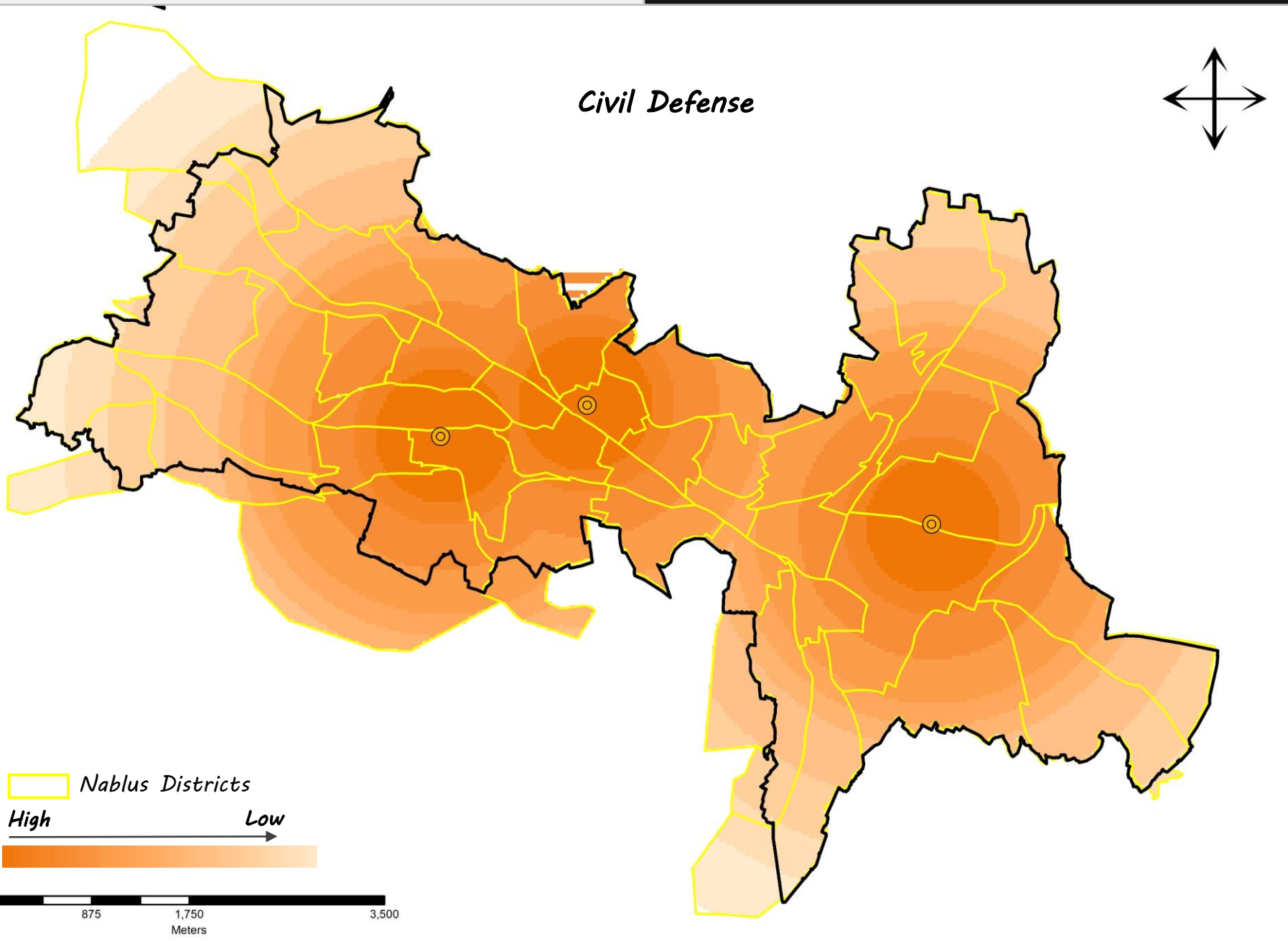
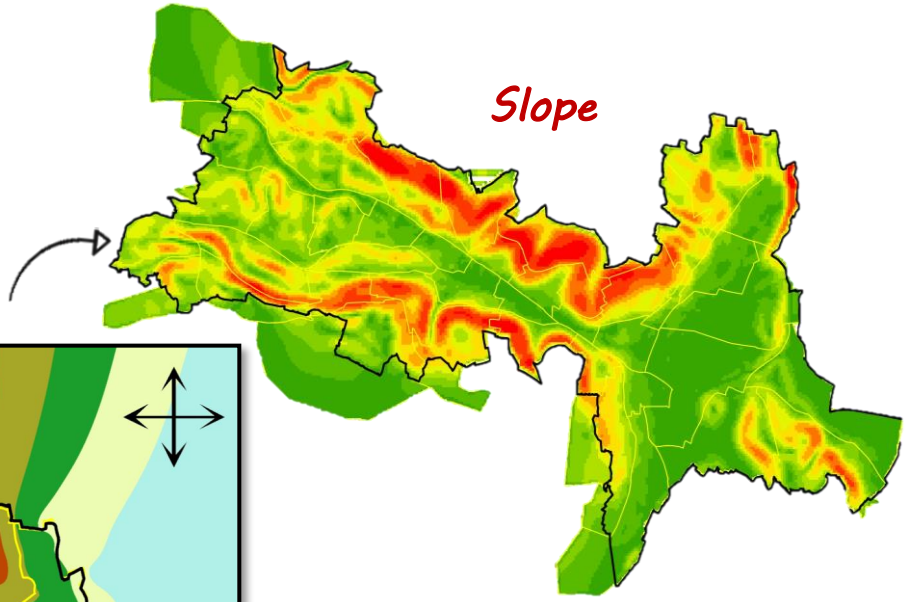


Services Analysis

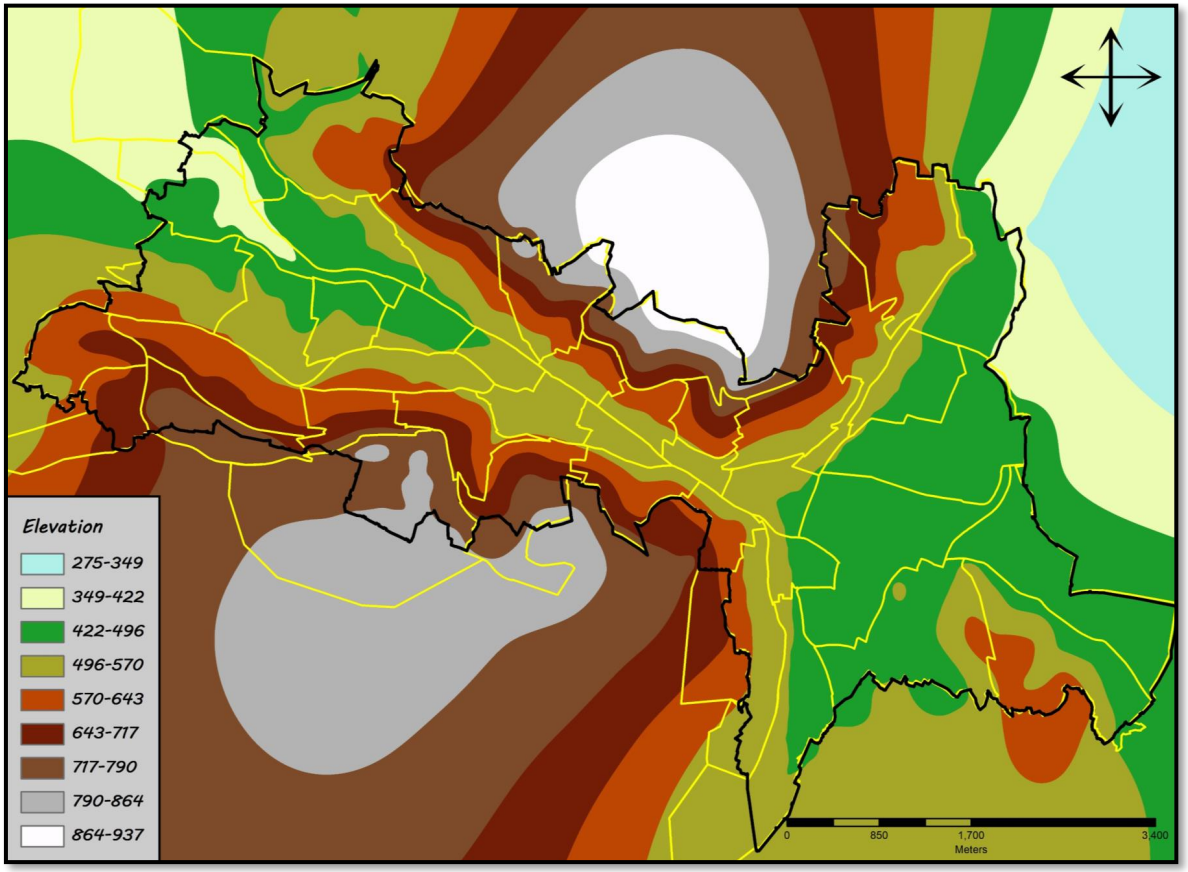
Services Coverage Analysis | GIS Model Result

Topography (Elevation & Slope)

Slope



Elevation

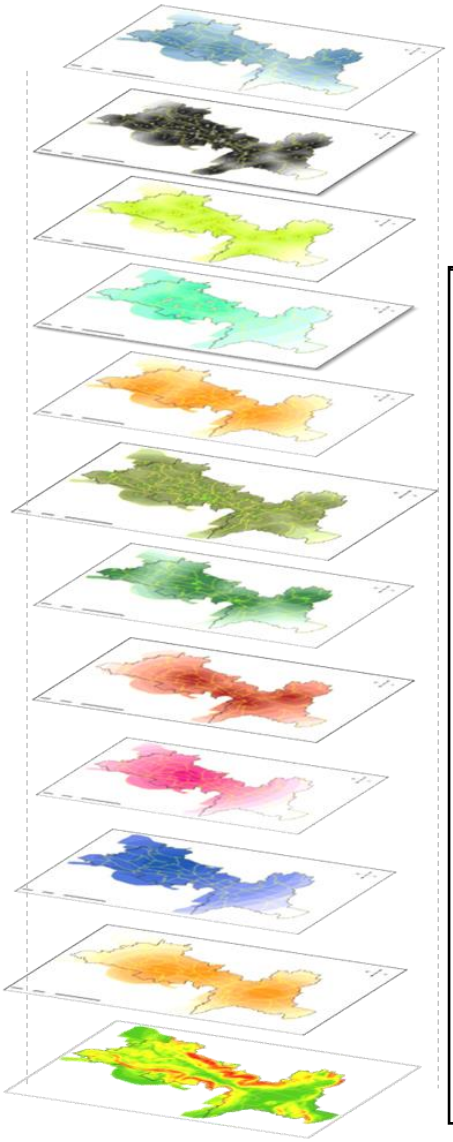


Services Analysis

Services Coverage Analysis

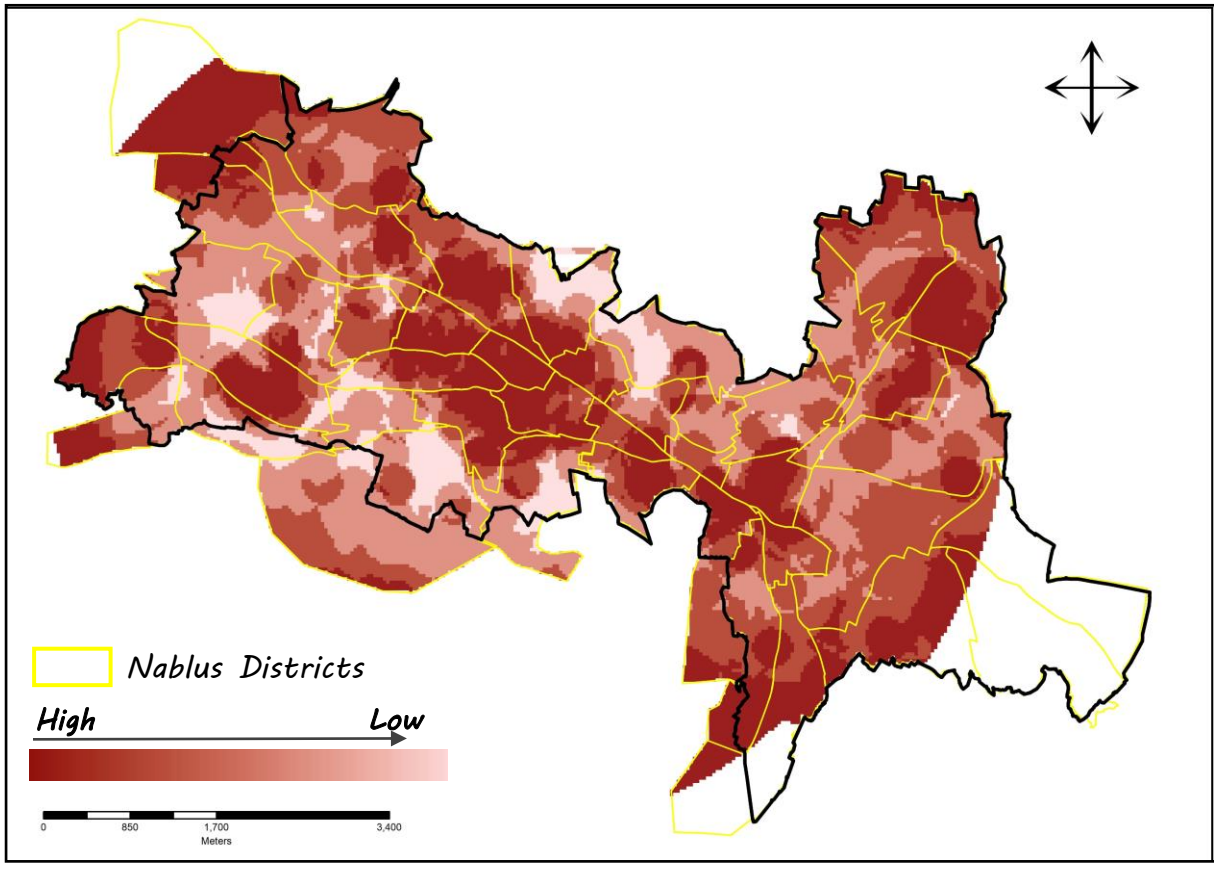
GIS Model Result

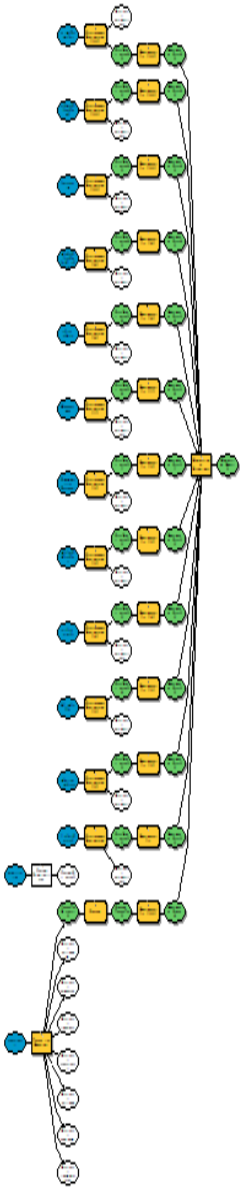
Overlapping



Weighted overlay

Result





Services Analysis

Services Coverage Analysis

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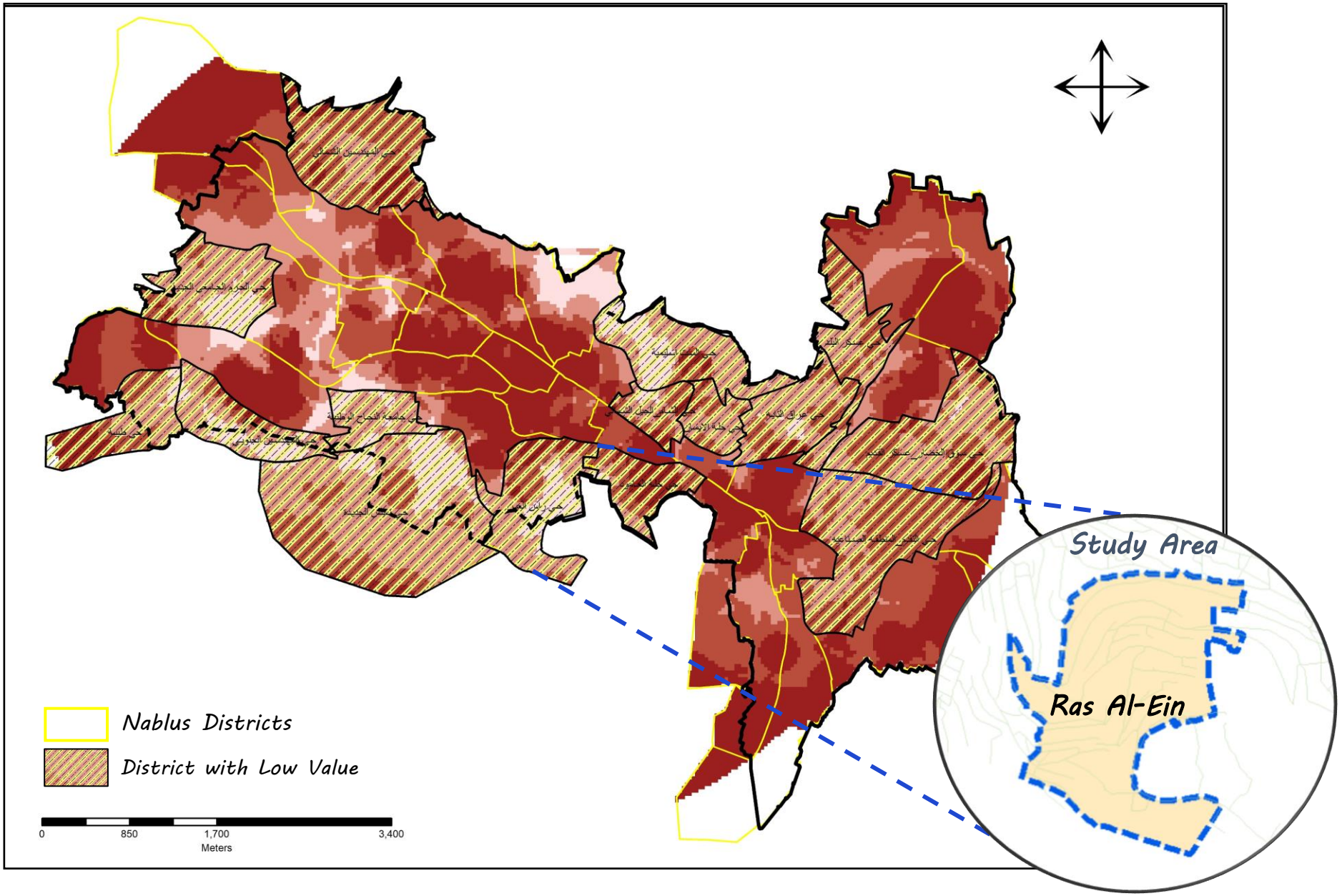


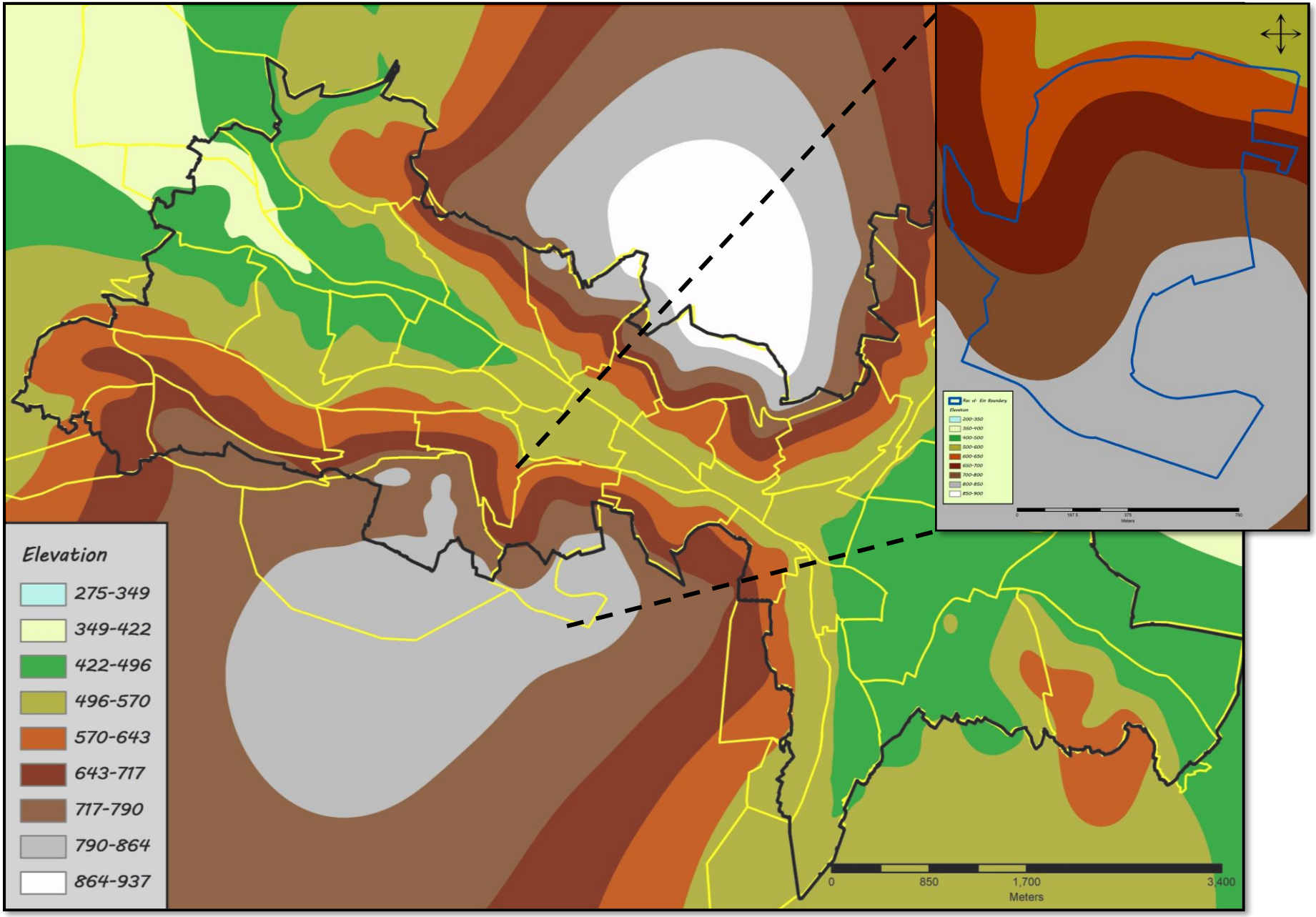
Analysis at the scale of the District (Study Area Analysis)

Physical Analysis

- Ras Al-Ain is located in the southern area of Nablus, Gerizim Mountain.

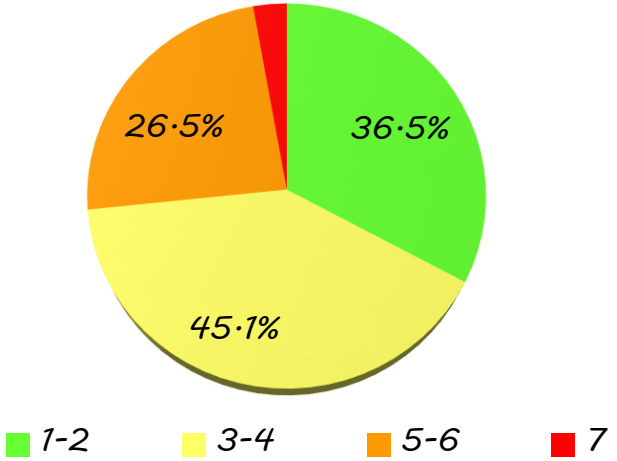
Zone Area (Donum)	977.8
Number of buildings	610
Population Number	28,200
Population Density	2.8%

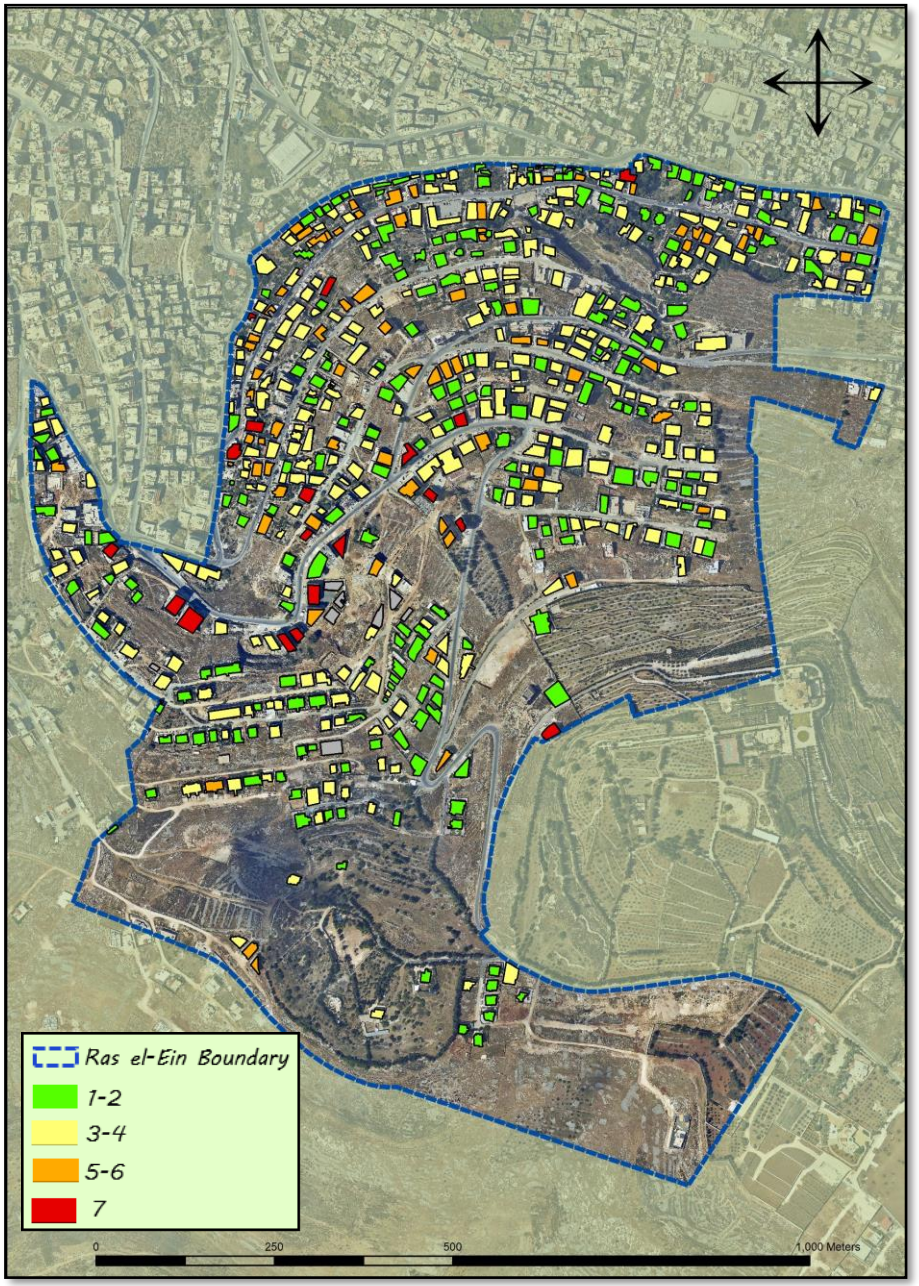
Physical Analysis



Physical Analysis

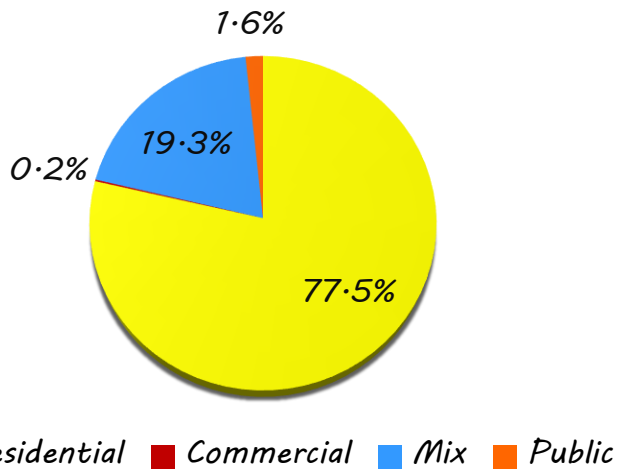
Floor's Number	1-2	3-4	5-6	7
Number of Buildings	223	275	162	19
Percentage	36·5%	45·1%	26·6%	3·1%

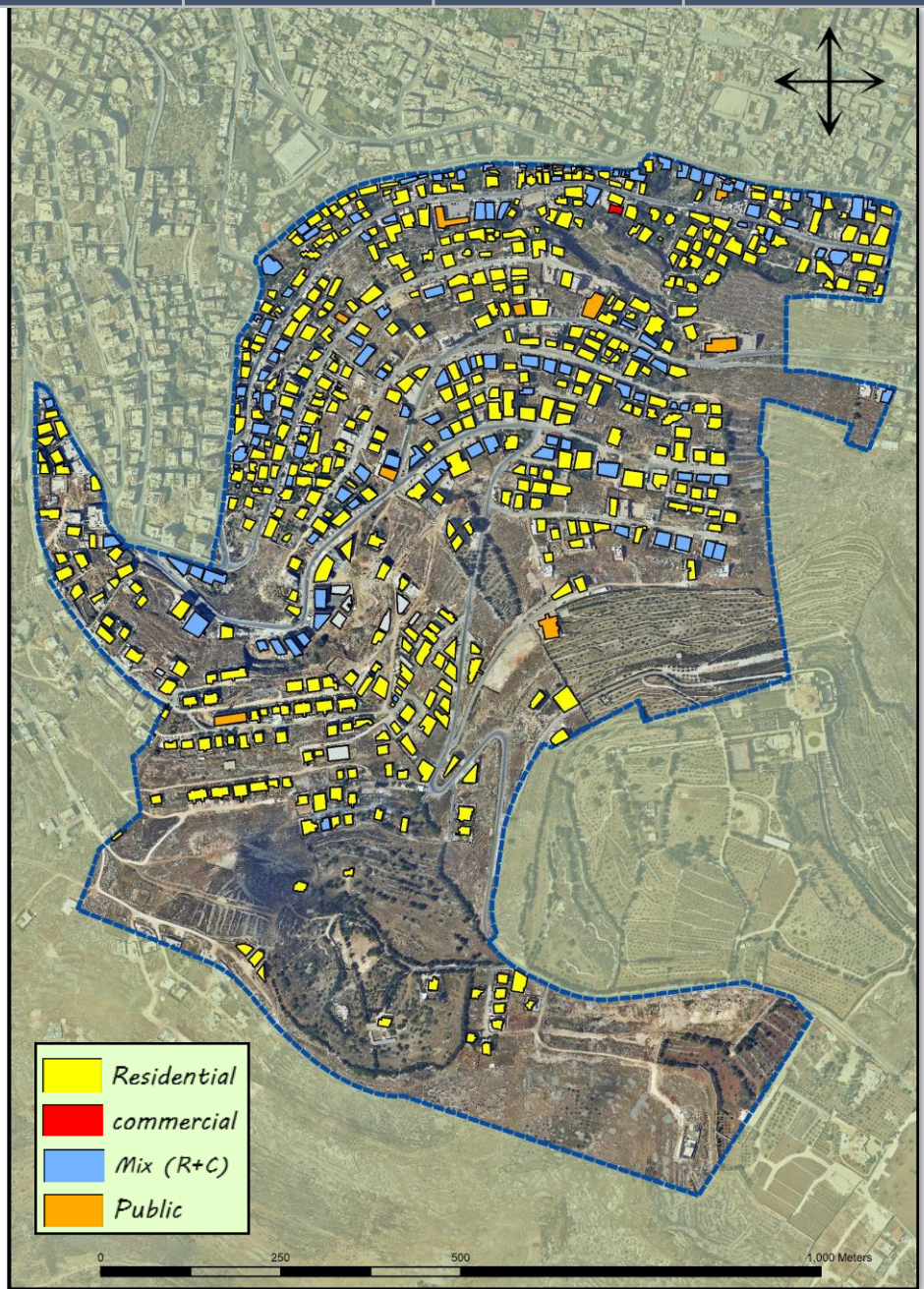




Physical Analysis

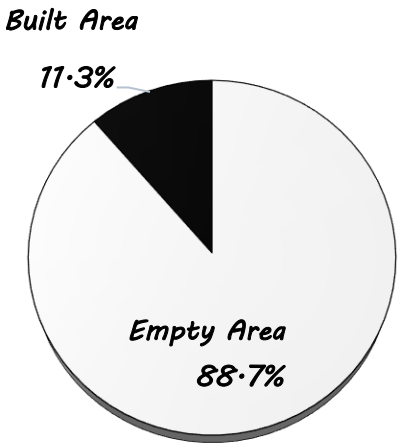
Building's Uses	Residential	commercial	Mix (R+C)	Public
Number of Buildings	473	1	118	10
Percentage	77·5%	0·2%	19·3%	1·6%

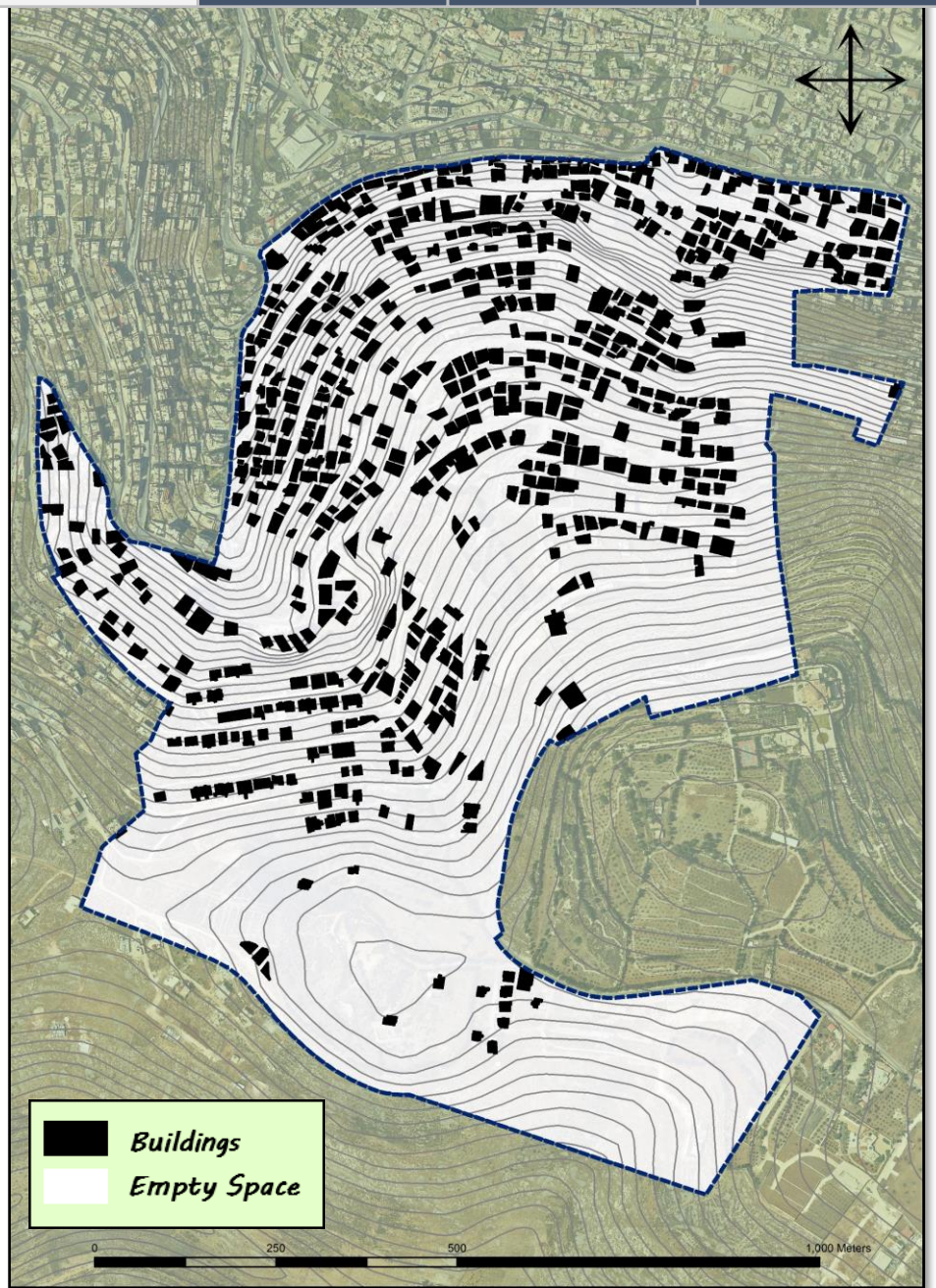




Physical Analysis

	Area (Donum)
Built area	110·9
Zone Area	977·8
Empty Space Area	866·9

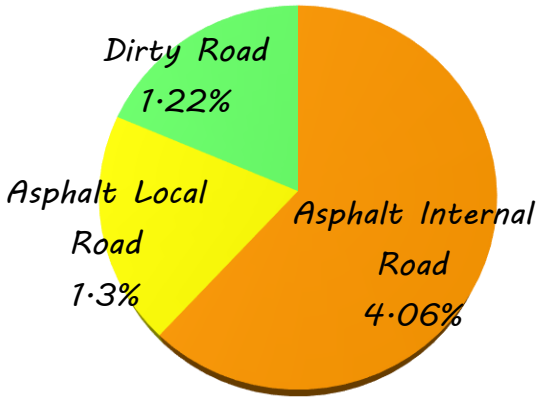


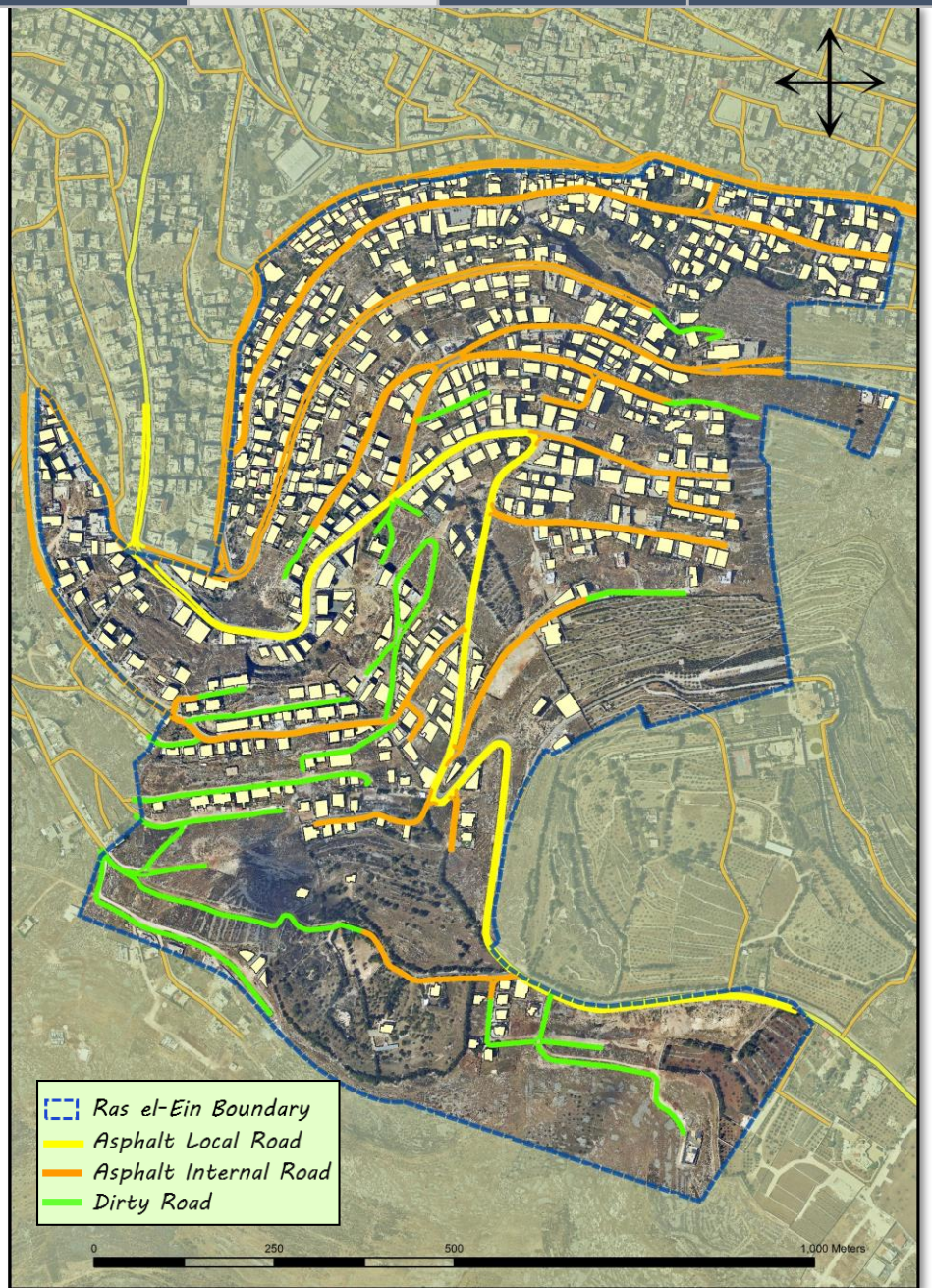


Physical Analysis

Roads Network

	width	Area	Percentage
Local Road	5m	12·5	1·3%
Internal Road	(5-6)m	39·7	4·1%
Dirty Road	3m	11·9	1·2%
		64·1	6·6%





Physical Analysis

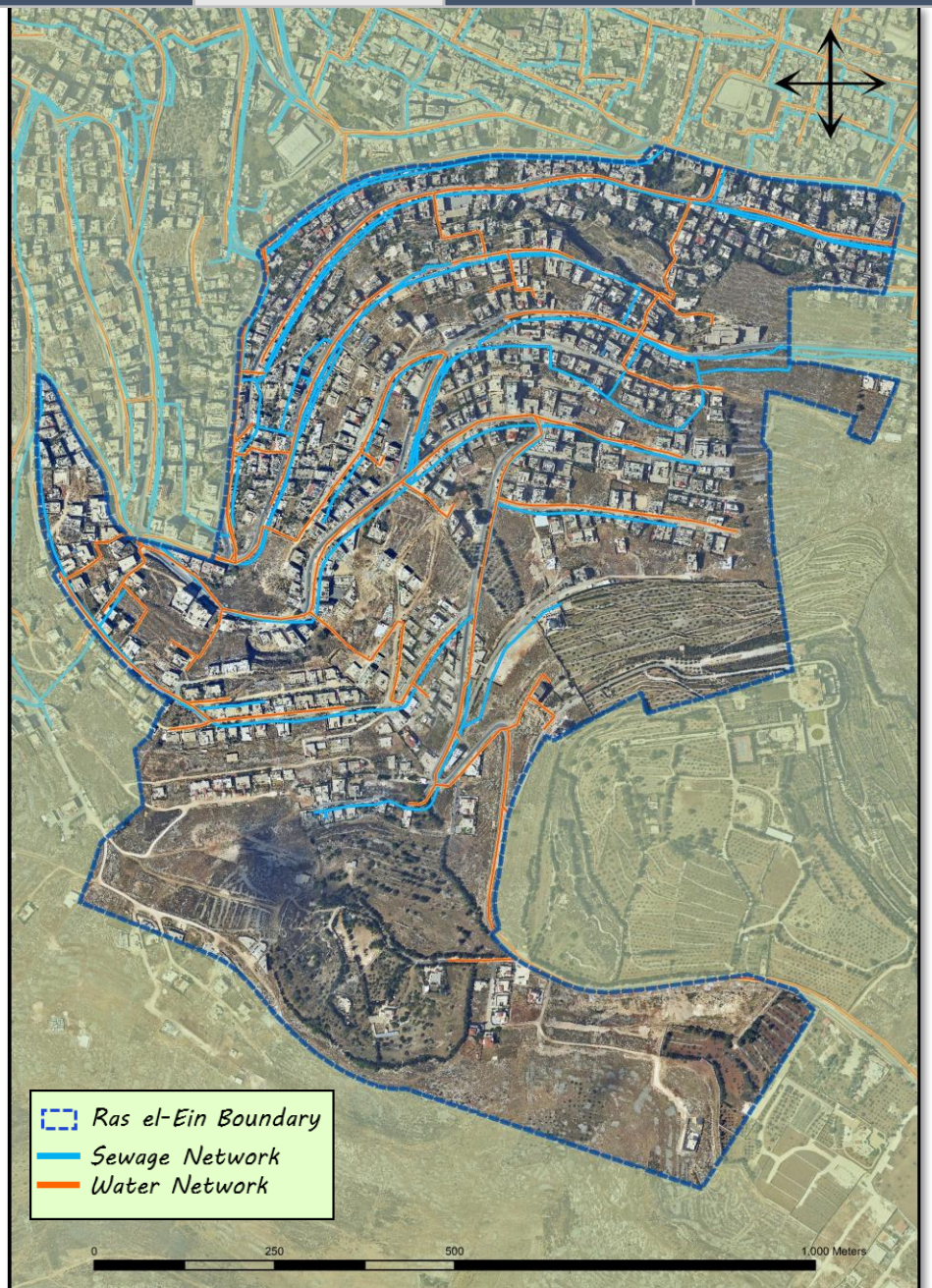
Electricity

Water

Sewage

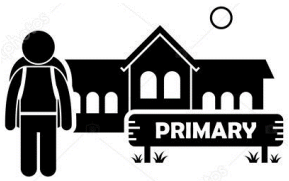
Coverage

100%



Physical Analysis

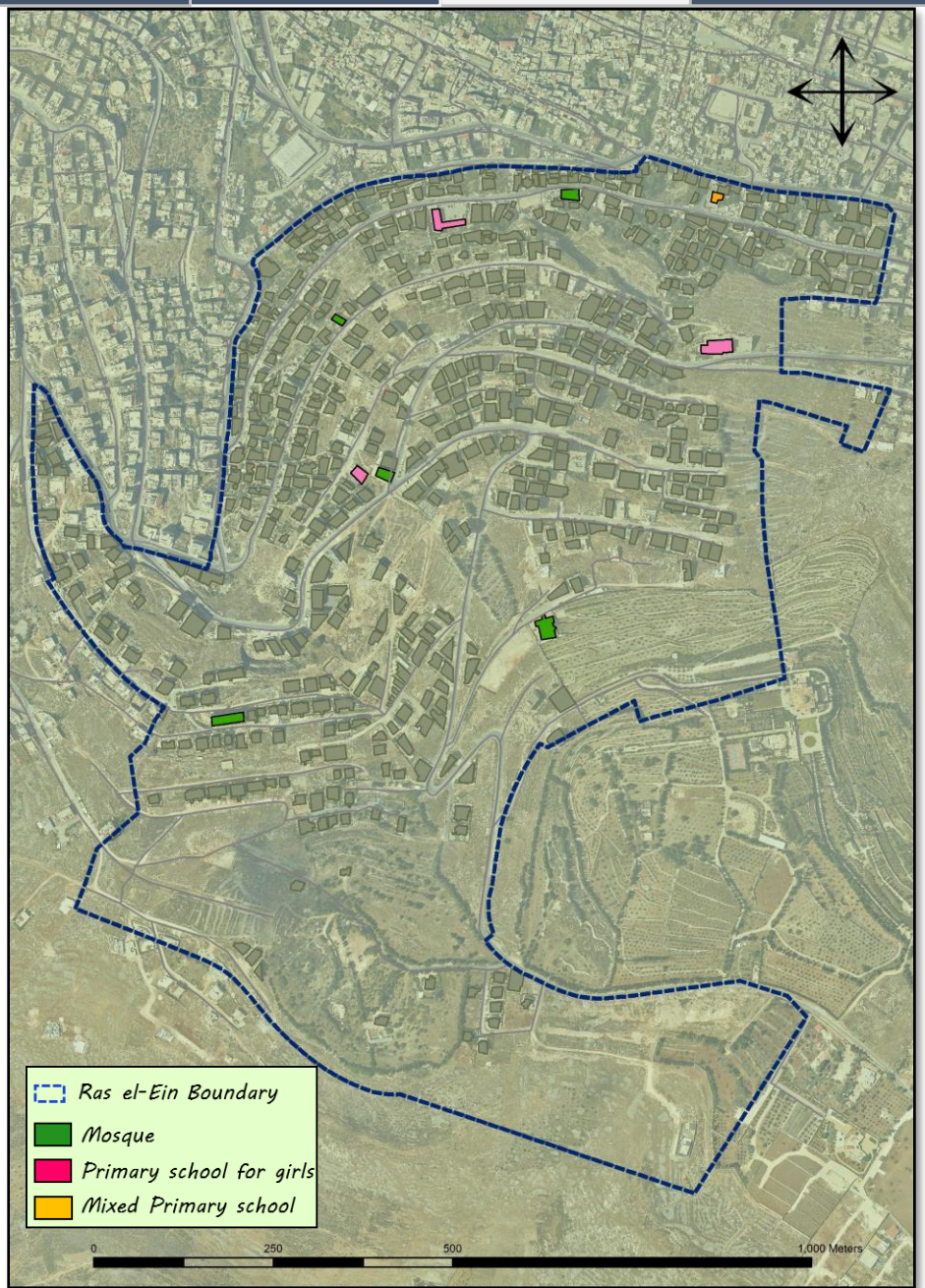
4 Primary Schools



3 ..... For Girls

1 ..... For Both

5 Mosques



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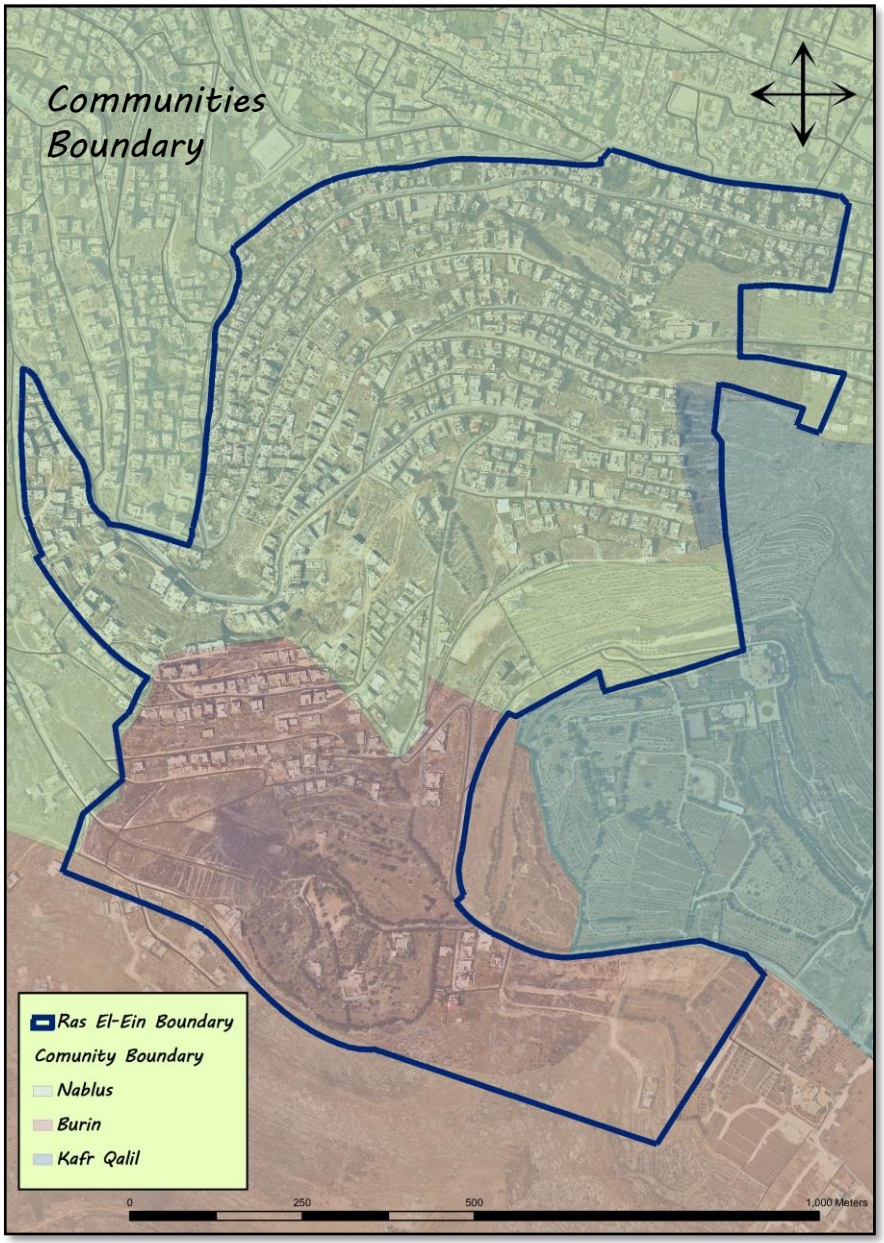
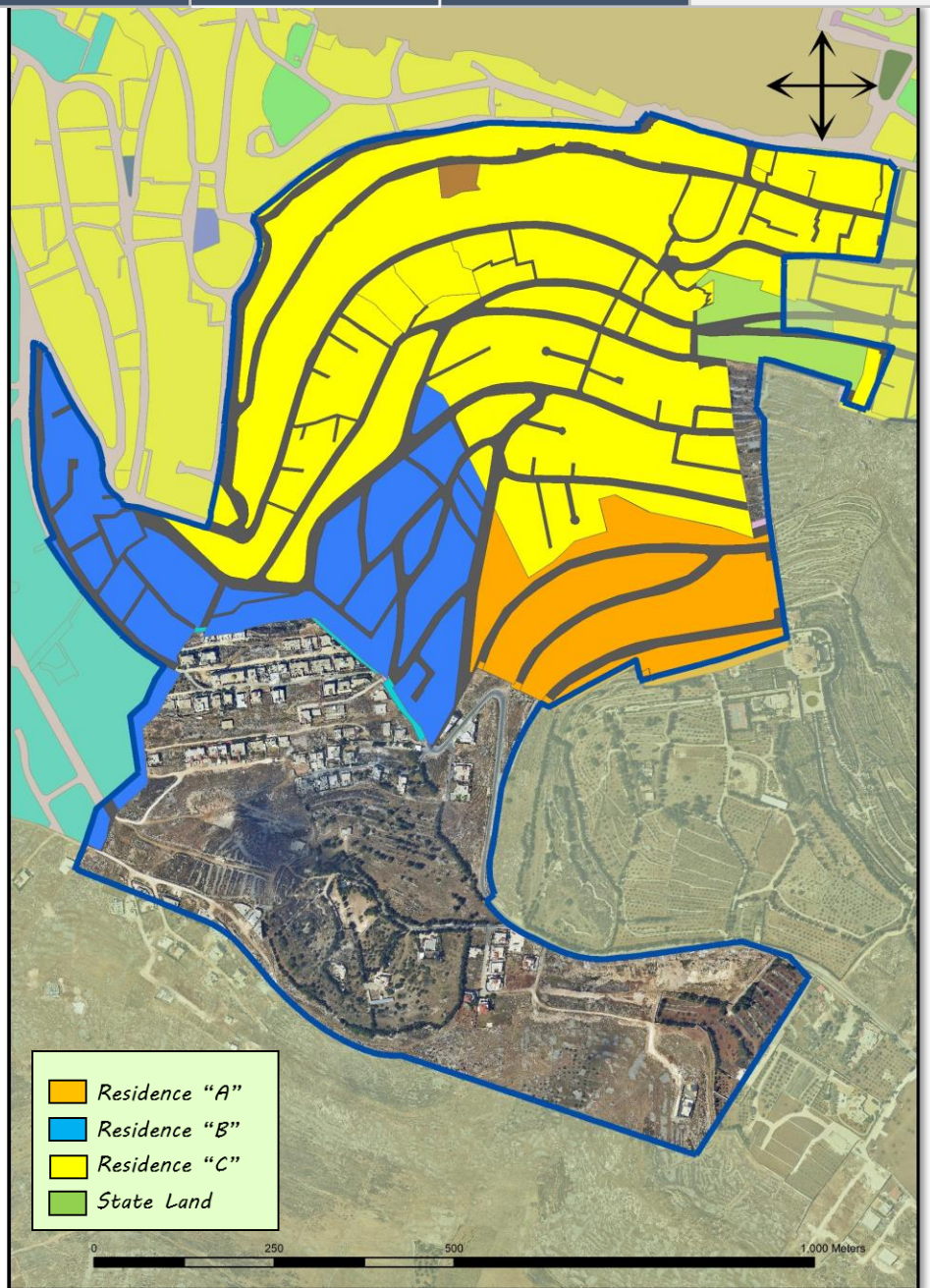




Service's Analysis

Services Analysis

Services Coverage Analysis | Quantitative Analysis

Type of Services

- **Services should be provided at the scale of the neighborhood:**

Mosque | Kindergarten | Primary School | Primary Health care | Commercial Activities

- **Services should be provided at the scale of the district:**

Secondary School | Gardens | Local Police Station | Civil Defense | Sub-Library | Commercial Center

Services Analysis

Services Coverage Analysis | Quantitative Analysis

Services Criteria			Notes
Mosque	Number of Served Population	3000 - 7500	Primary Service
	Coverage Area (m2)	1000	
	Area For each Person (m2)	1	
Kindergarten	Number of Served Population	1500 - 3000	For Girls &Boys
	Coverage Area (m2)	200 - 300	
	The Number of Served Children	100 - 200	
	Area For each Child (m2)	5	
Primary School	Number of Served Population	3000 - 6000	For Girls or Boys
	Coverage Area (m2)	800 - 1000	
	Number of Students	240 - 720	
	Area For each Student (m2)	3·7	
Secondary School	Number of Served Population	10000 - 20000	For Girls or Boys
	Coverage Area (m2)	2500	
	Number of Students	360 - 900	
	Area For each Student (m2)	3·83	
Primary Health Care Center	Number of Served Population	4000 - 15000	-
	Coverage Area (m2)	800	
	Area For each Person (m2)	0·12 - 0·50	
Garden or Park	Number of Served Population	10000 - 15000	Neighborhood Scale
	Coverage Area (m2)	1200	
	Area For each Person (m2)	0·3 - 1	

Services Analysis

Services Coverage Analysis | Quantitative Analysis

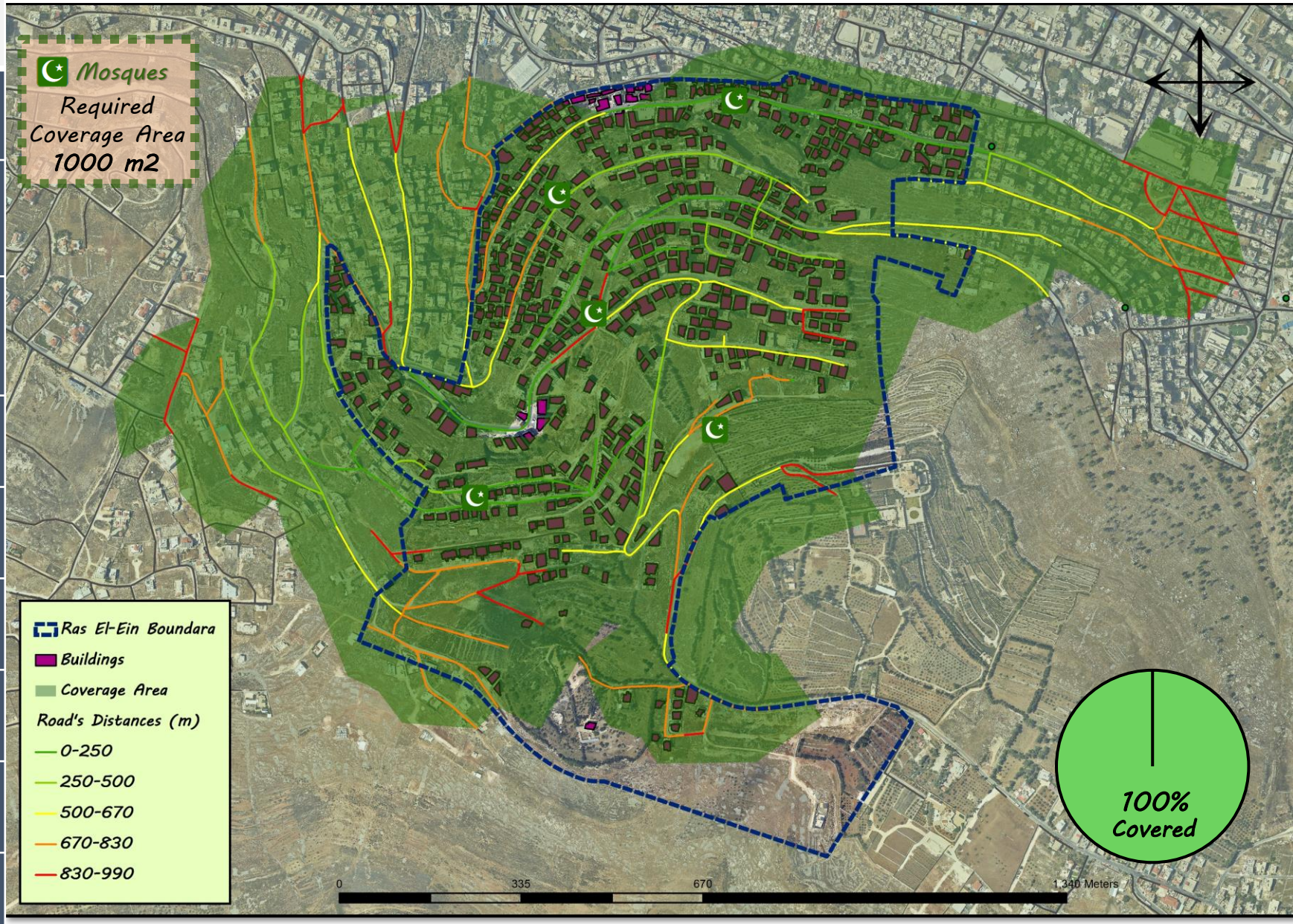
Services Criteria			Notes
Local Police Station	Number of Served Population	20000 - 30000	Scale of residential sector or district
	Coverage Area (km2)	3 - 5	
	Area For each Person (m2)	0·06 - 0·10	
Sub Library	Number of Served Population	30000 - 40000	Scale of residential sector or district
	Coverage Area (km2)	5	
	Number of seats per 1000 people	2	
	The space needed for each seat (m2)	15 - 25	
Civil defense center	Number of Served Population	15000 - 30000	Scale of residential sector or district
	Coverage Area (km2)	1·2 - 1·6	
	Area For each Person (m2)	0·05 - 0·10	
Neighborhood Commercial Center	Number of Served Population	10000 - 15000	Scale of Neighborhood
	Coverage Area (m2)	500	
	Area For each Person (m2)	0·25 - 1·5	

Services Analysis

Services Coverage Analysis

Quantitative Analysis

- Mosque
- Kindergarten
- Primary School
- Secondary School
- Health Care
- Parks
- Police
- Sub Library
- Civil Defense
- Commercial



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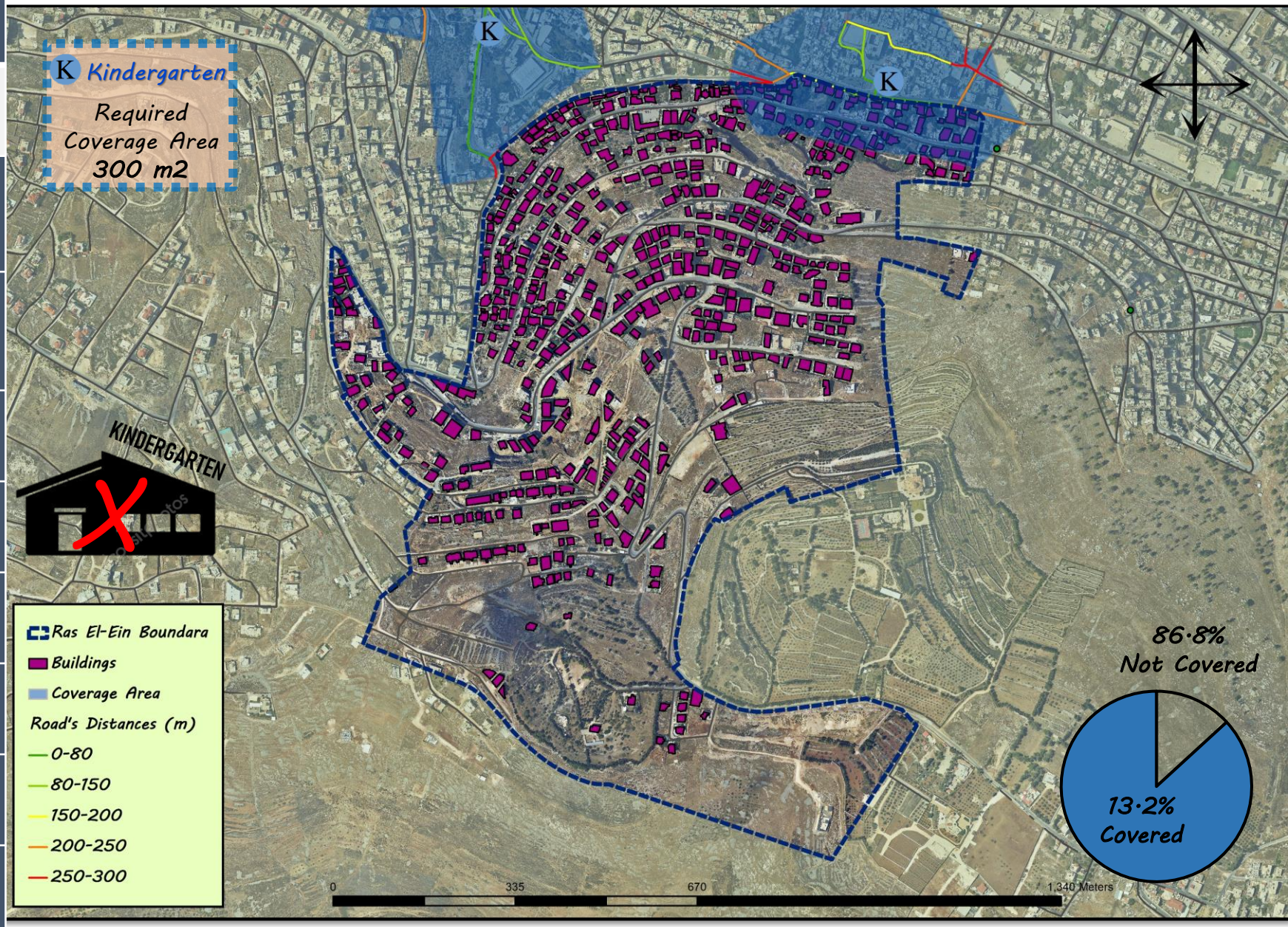

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Services Coverage Analysis

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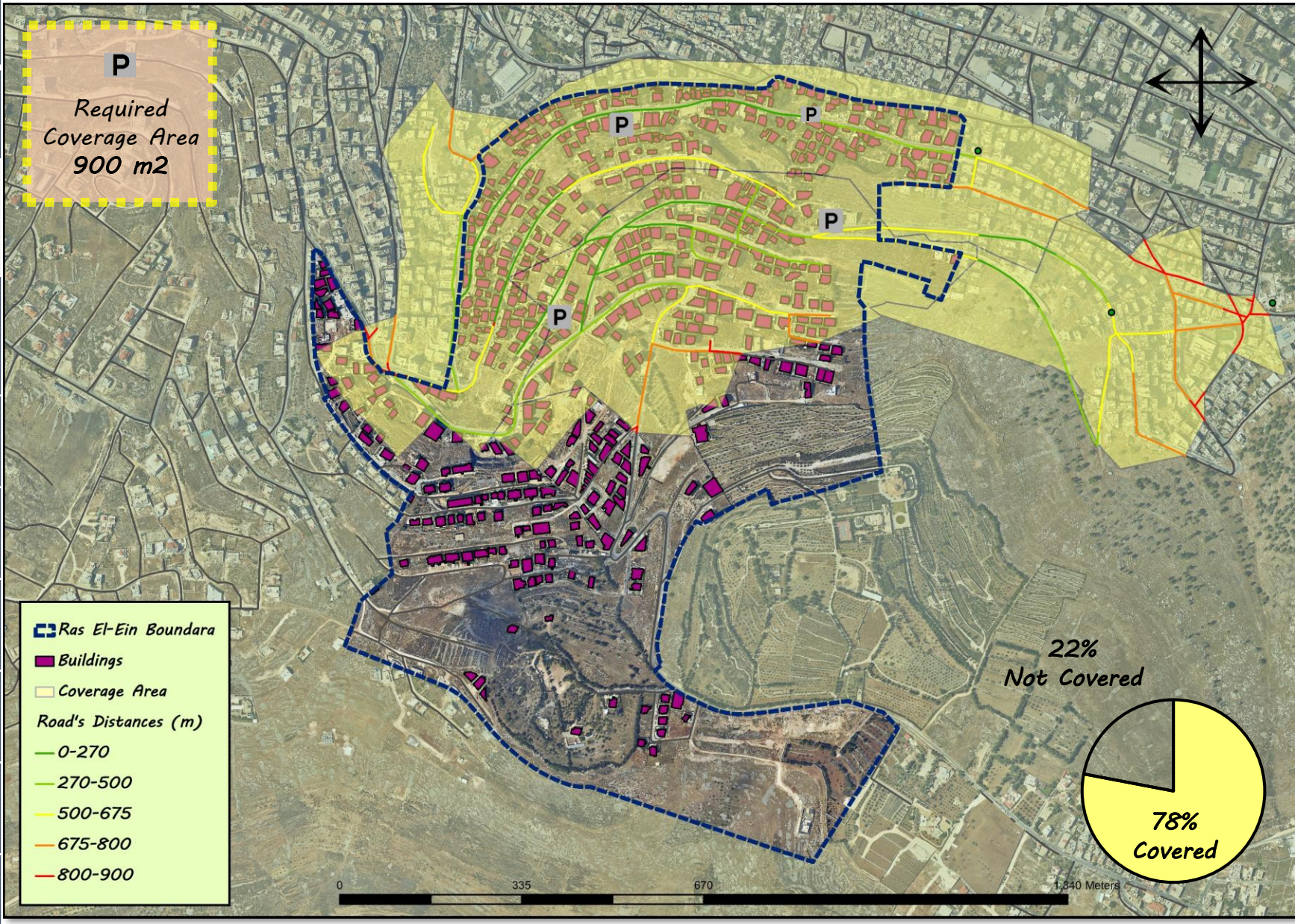

Services Analysis

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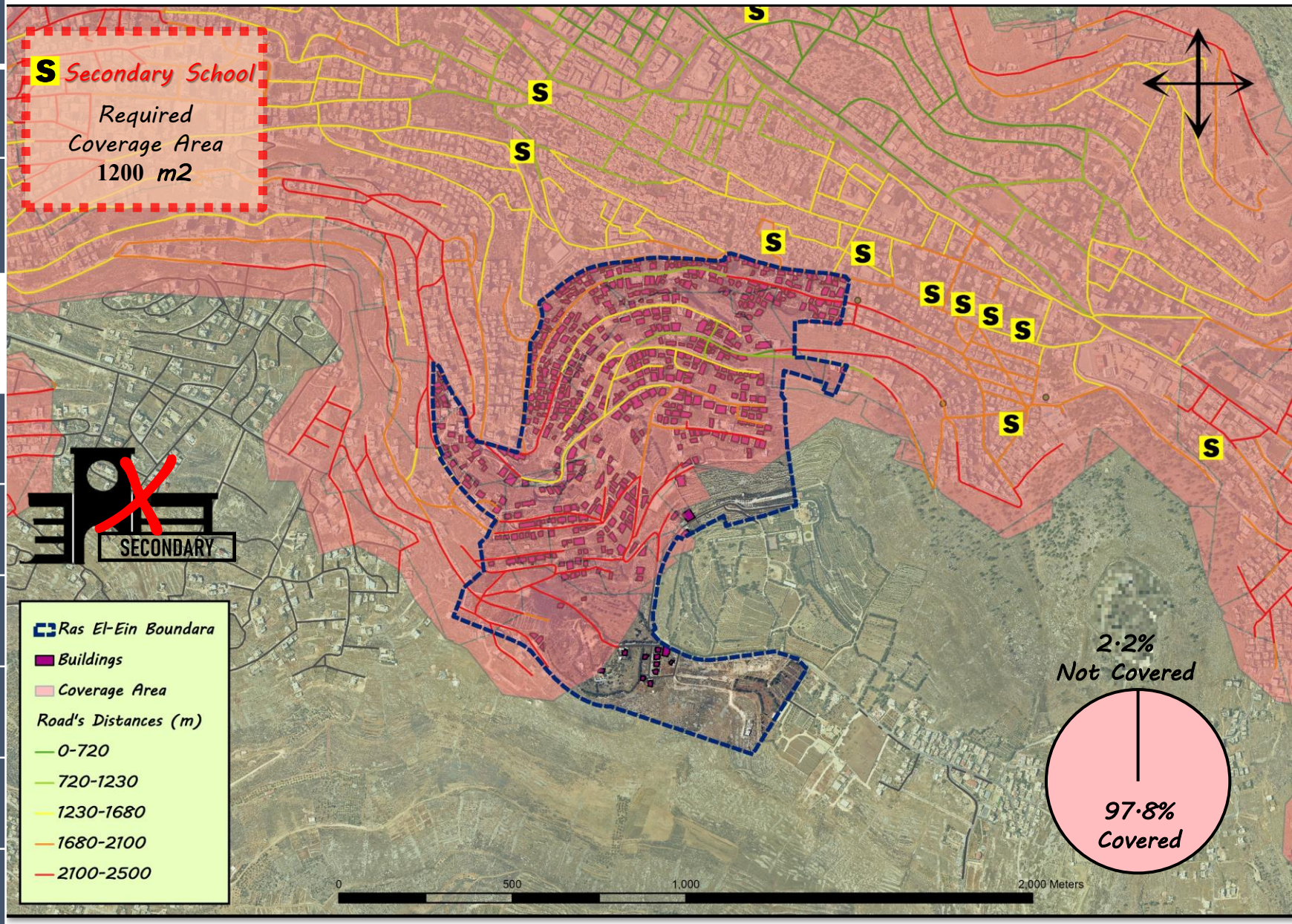

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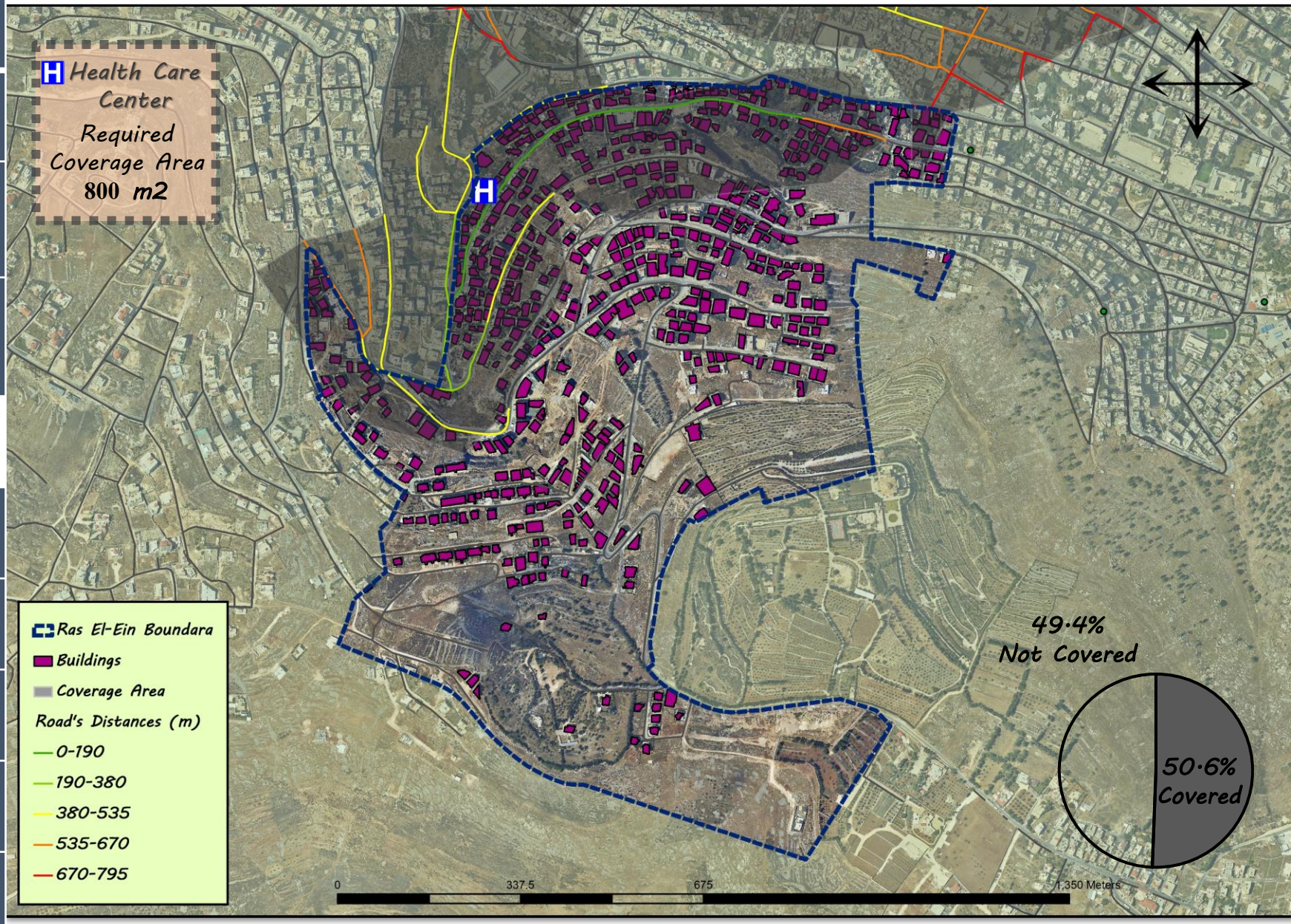

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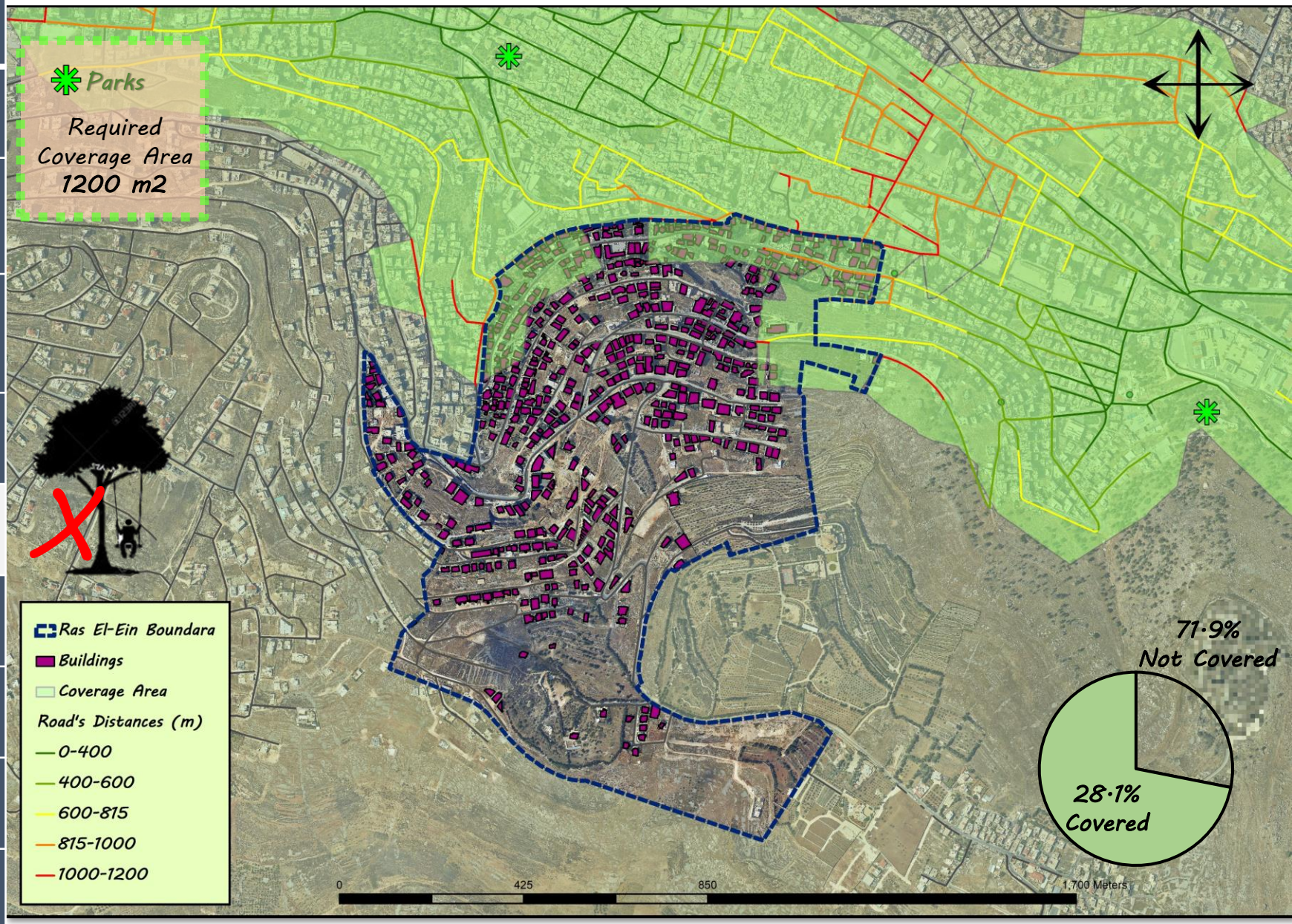

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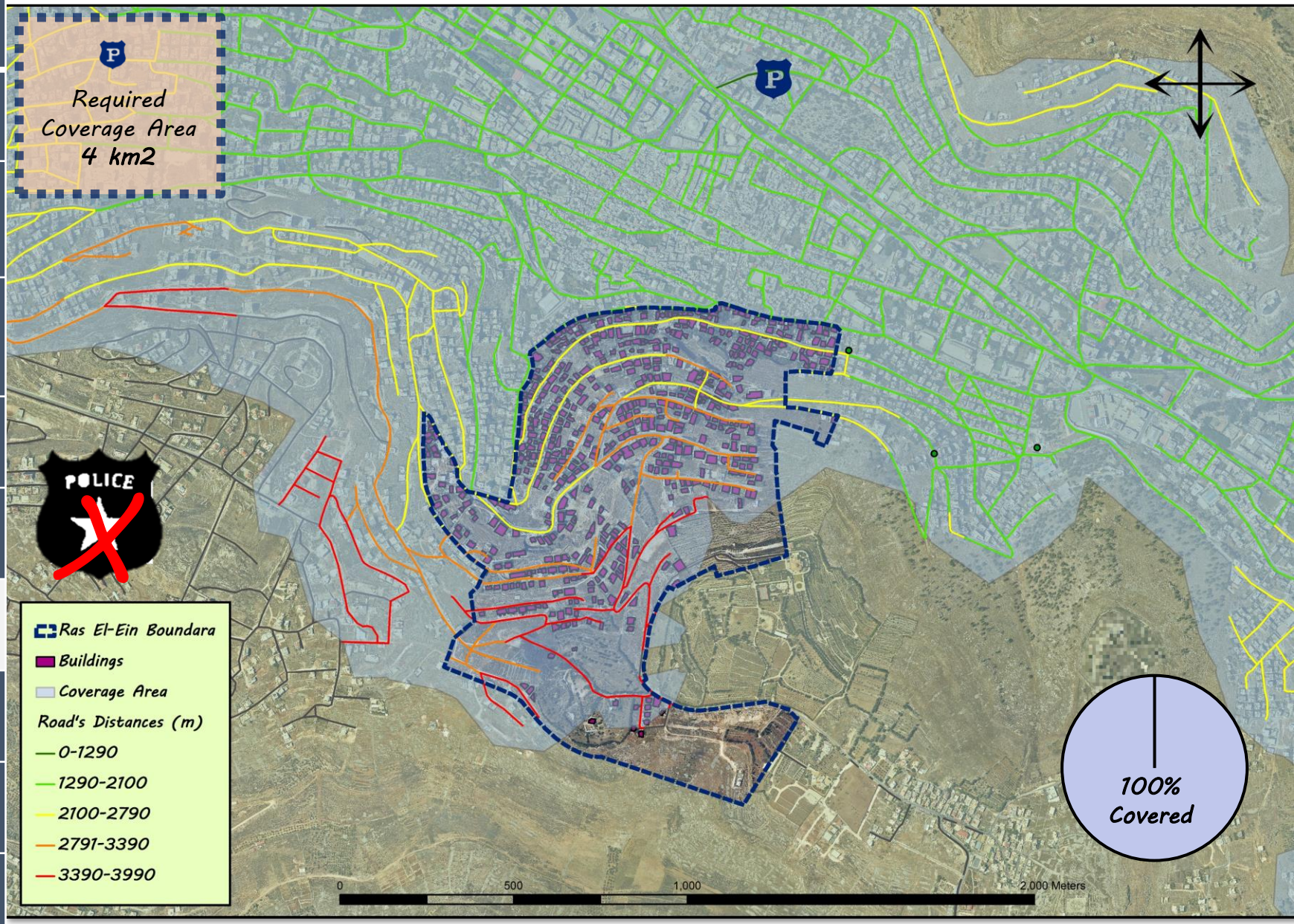
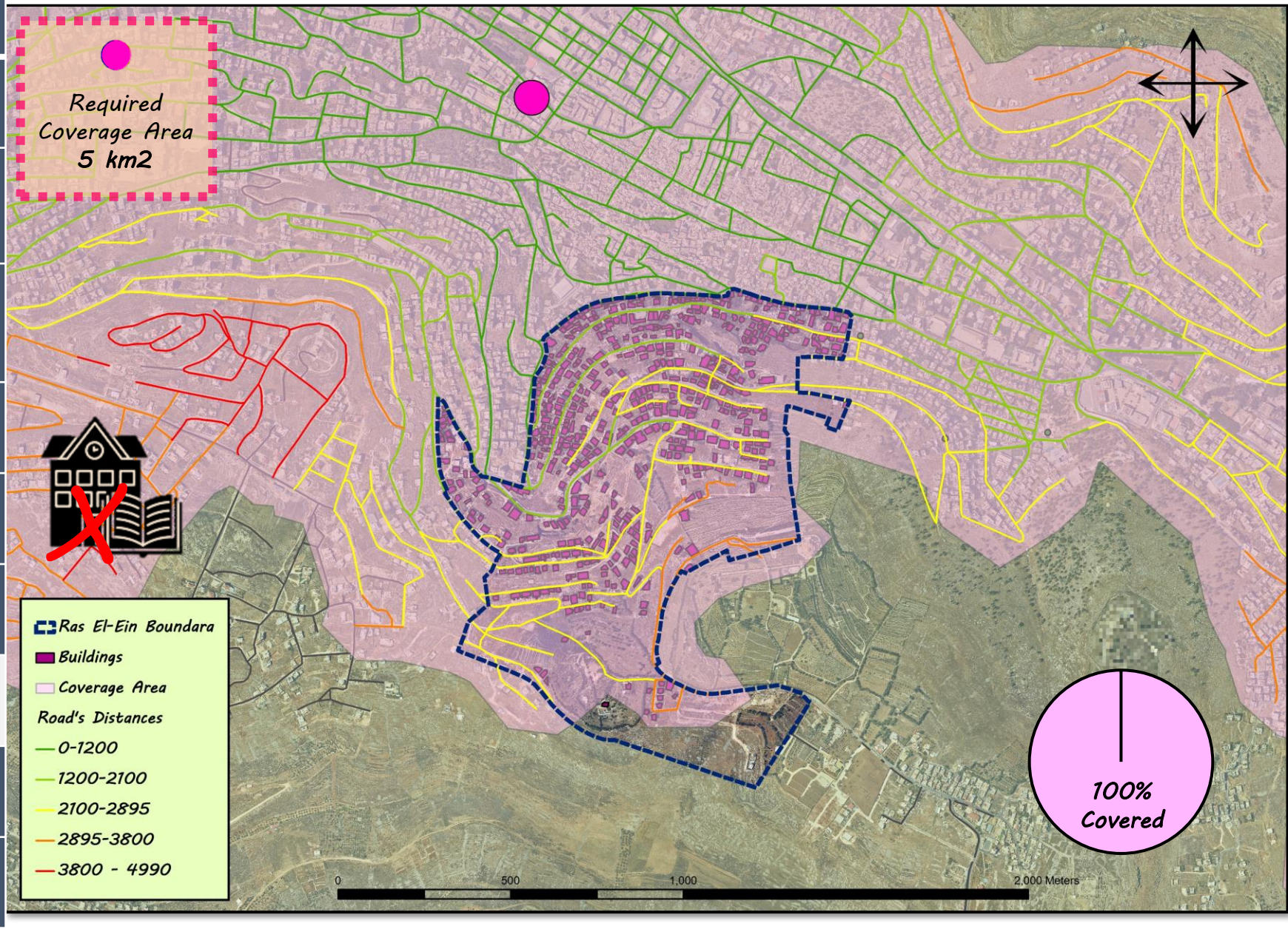


Services Analysis

Services Coverage Analysis

Quantitative Analysis

- Mosque
- Kindergarten
- Primary School
- Secondary School
- Health Care
- Parks
- Police
- Sub Library
- Civil Defense
- Commercial



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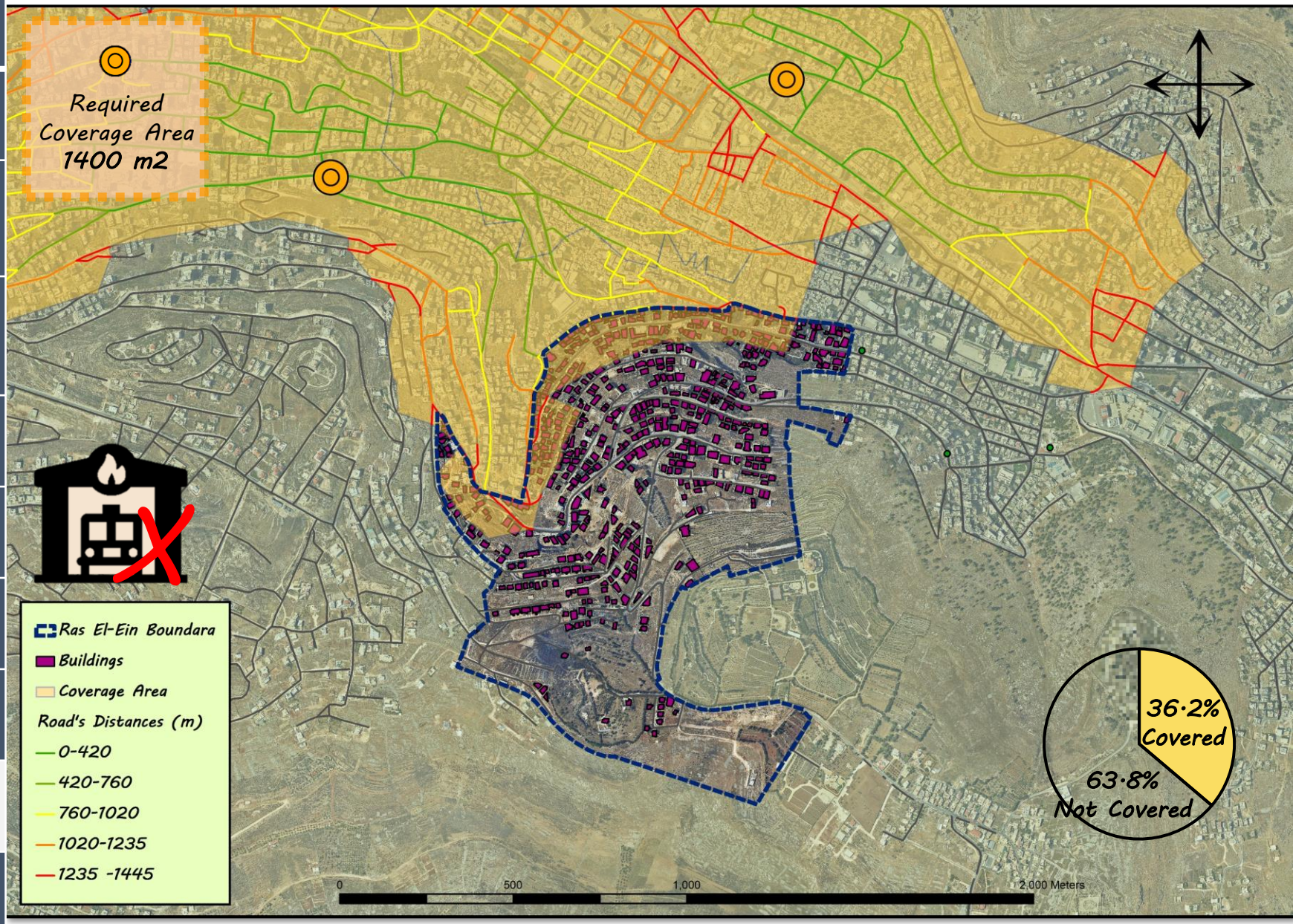

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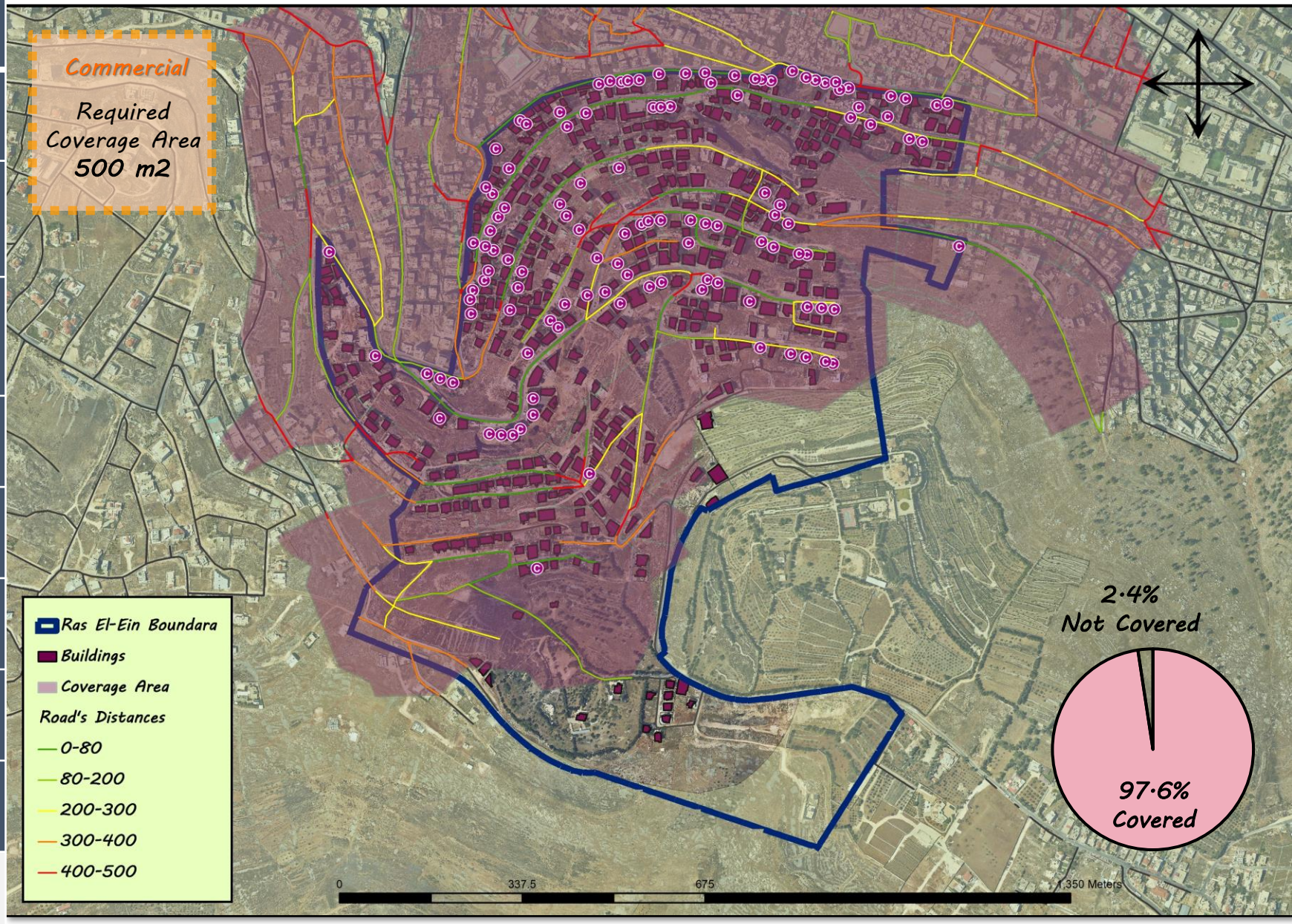


Services Analysis

Services Coverage Analysis

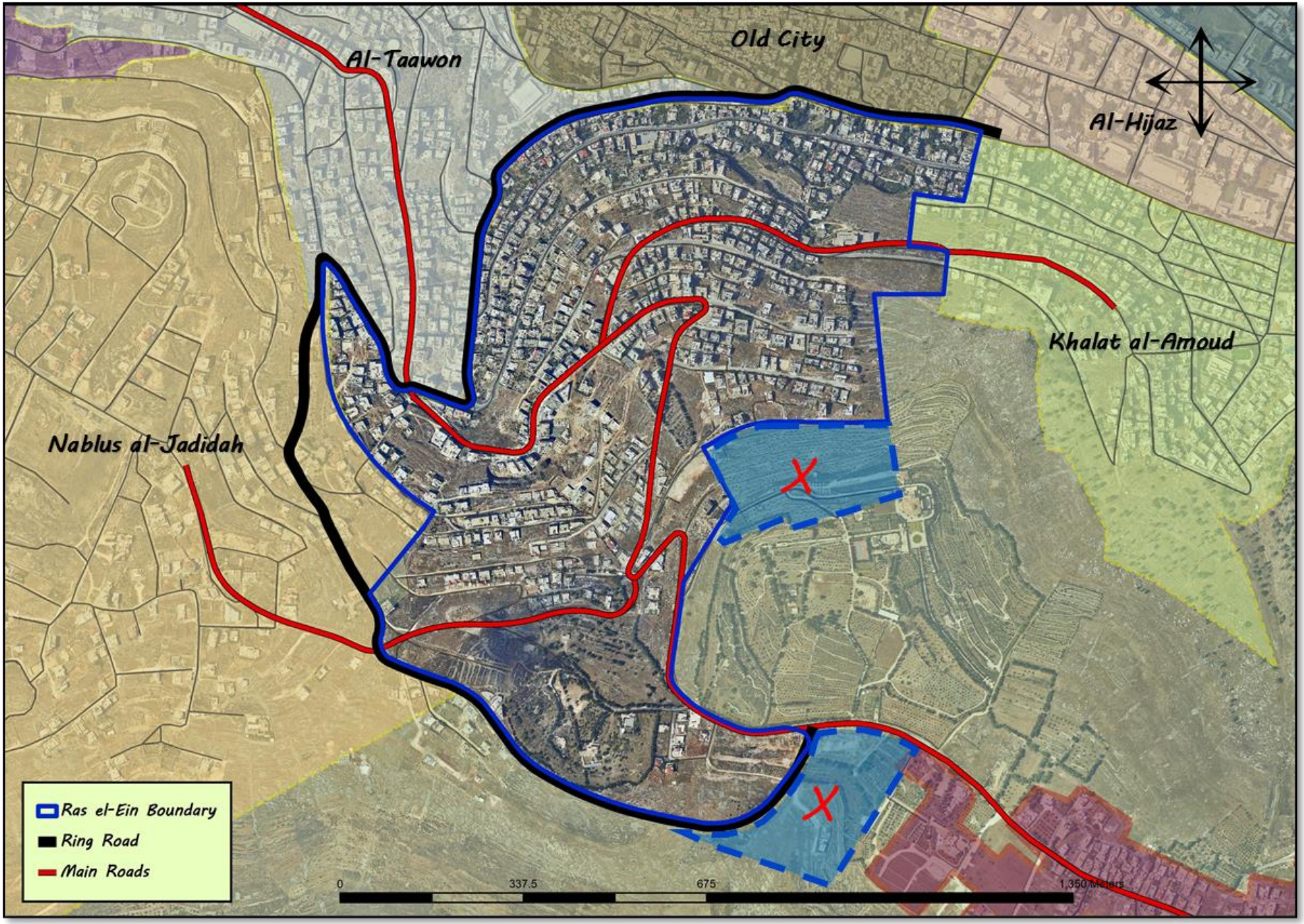
Quantitative Analysis

Service	Area For each Person (m2/person)	Exiting Pop NO. (2020)	Pop. NO. of this Categories	Area Needed (Donum)	Available Area (Donum)	Imperfection	The Increase in population (2036)	The increase in the Pop. NO. of this Categories	The Area Needed for population increase (Donum)	Total Need (Donum)
Mosque	-	28,200	(3000 - 7500) Person need 1 mosque				9,315	-		
Kindergarten	2		3,102	6	0	6		1,024	2	8
Primary School	3.7		2,820	10·4	6·7	3·7		931	3	6·7
Secondary School	3.83		2,961	11	0	11		978	3	14
Primary Health Care Center	0.12 - 0.15		-	3·6	0·5	3·1		-	1	4·1
Garden or Park	0.3 - 1		-	18·3	0	18·3		-	6	24·3
Local Police Station	0.06 - 0.1		-	2·2	0	2·2		-	0·7	2·9
Sub Library	1000 pop need: 1.5 / 2 seat Each seat need: 15 - 20 m2		-	0·8	0	0·8		-	0·2	1
Civil defense center	0.05 - 0.10		-	2	0	2		-	0·6	2·6
Neighborhood Commercial Center	0.25 - 1.5		-	-	-	-		-	-	-

Output

Output

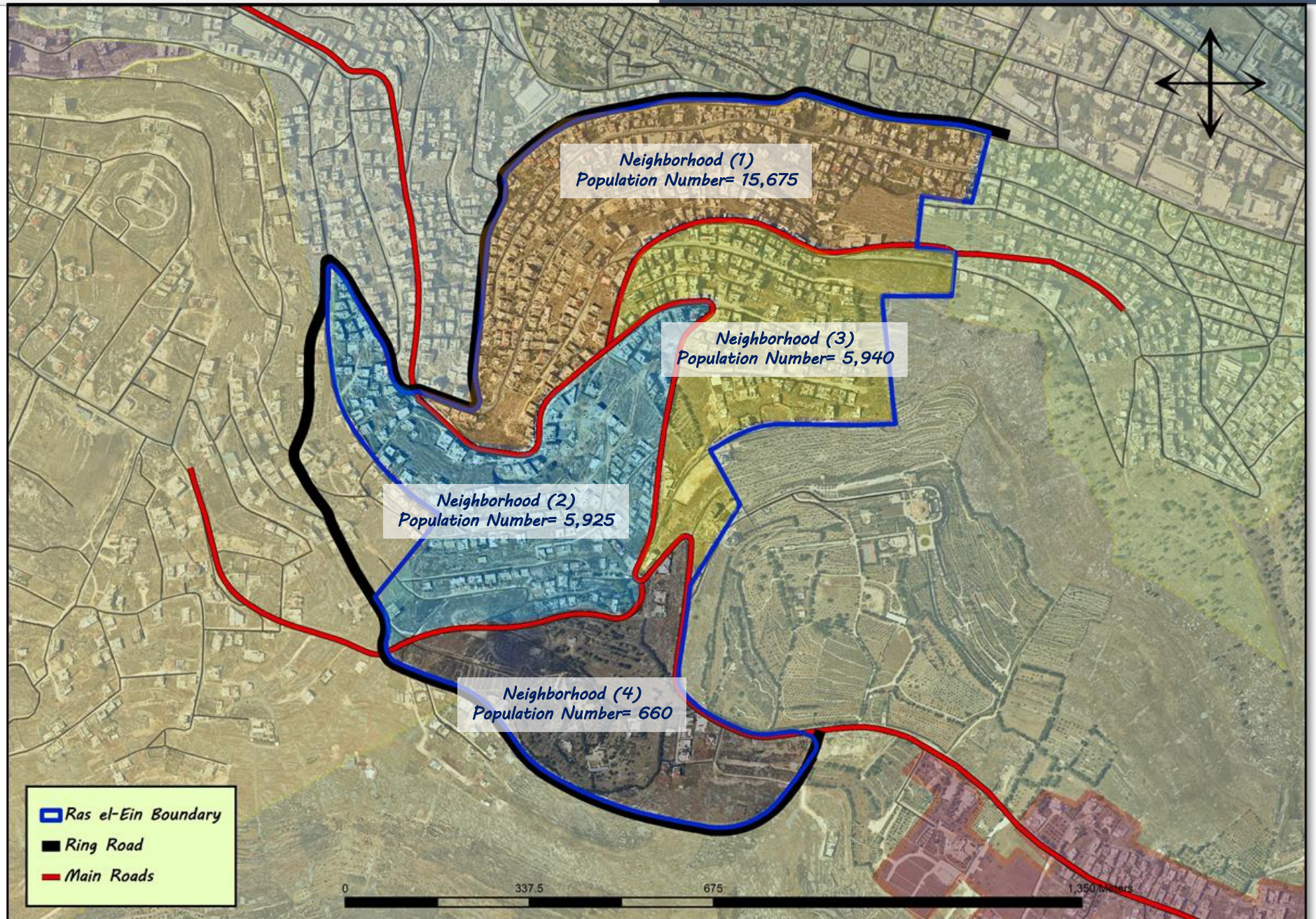
Interventions | **Recommended-Detailed Plan**



Output

Interventions

Recommended-Detailed Plan



Output

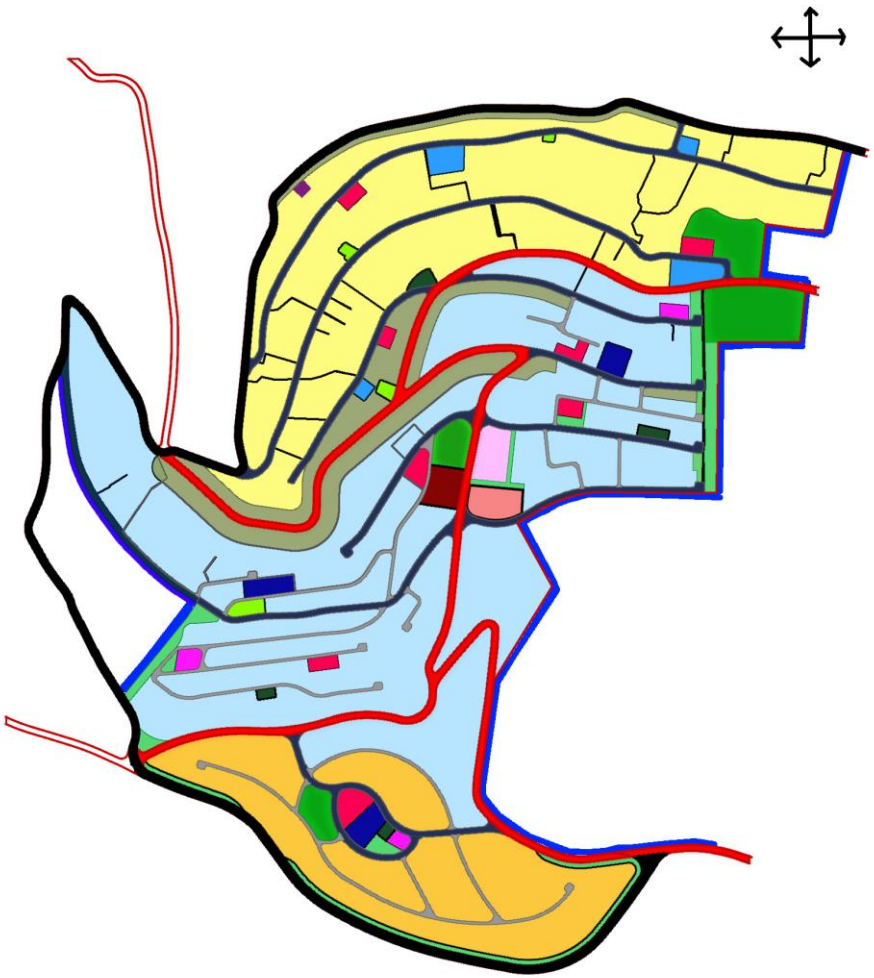
Interventions

Recommended-Detailed Plan

Land use Table

Symbol	Classification	Description	Area (Donum)	Percentage (%)
	District Boundary	-	860·8	-
	Residence (c)	2-6 floors (High Density)	204·9	23·8%
	Residence (B) with special regulation	2-4 floors (medium Density)	305·6	35·5%
	Residence (A)	2-3 floors (Low density)	99·1	11·5%
	Mixed Uses	4-7 floors (First floor commercial activities)	56·9	6·6%
	Green Areas	-	25·3	2·9%
	Ring Road	10-12 m	38·2	4·4%
	Main Road	10m	36·1	4·1%
	Collector Roads	8m	46·6	5·4%
	local roads	4m	15·2	1·7%
	Existing Stairs	-	-	-

Detailed Plan- Ras el-Ein District



Scale- 1:2500

Output

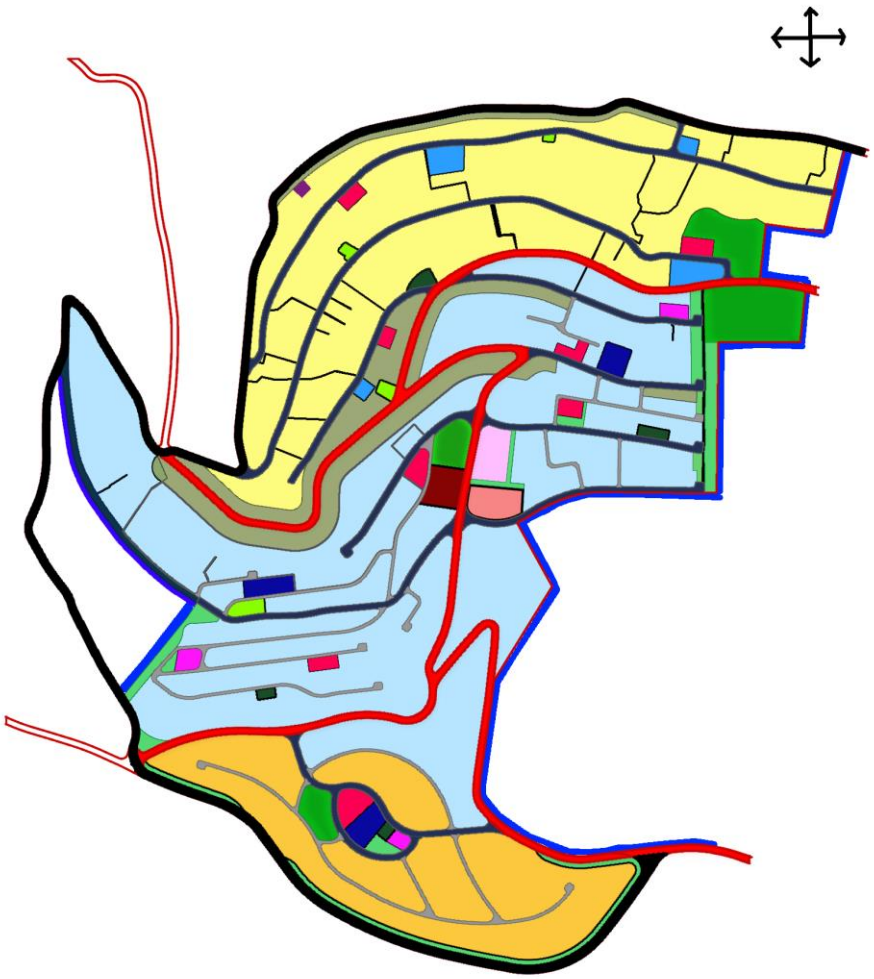
Interventions

Recommended-Detailed Plan

Table of services

Symbol	Services	Area of the proposed land (Donum)	Number	Total Area (Donum)	Needed Area (Donum)
Existing Services					
	Mosque				
	Primary school				
	Primary Health care center				
Proposed Services					
District-Level Services					
	Secondary School	4	-	-	14
	Library	1			1
	Civil defense& police station	6			5·5
	Parks	30·3			24·3
Neighborhood-Level Services					
	Mosque	-	4	-	-
	Kindergarten	1	6	6	6
	Primary school	2·2	3	6·7	6·7
	Primary Health care center	1·3	3	4·1	4·1

Detailed Plan- Ras el-Ein District



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Thank You