



# Mpazi Project Introduction



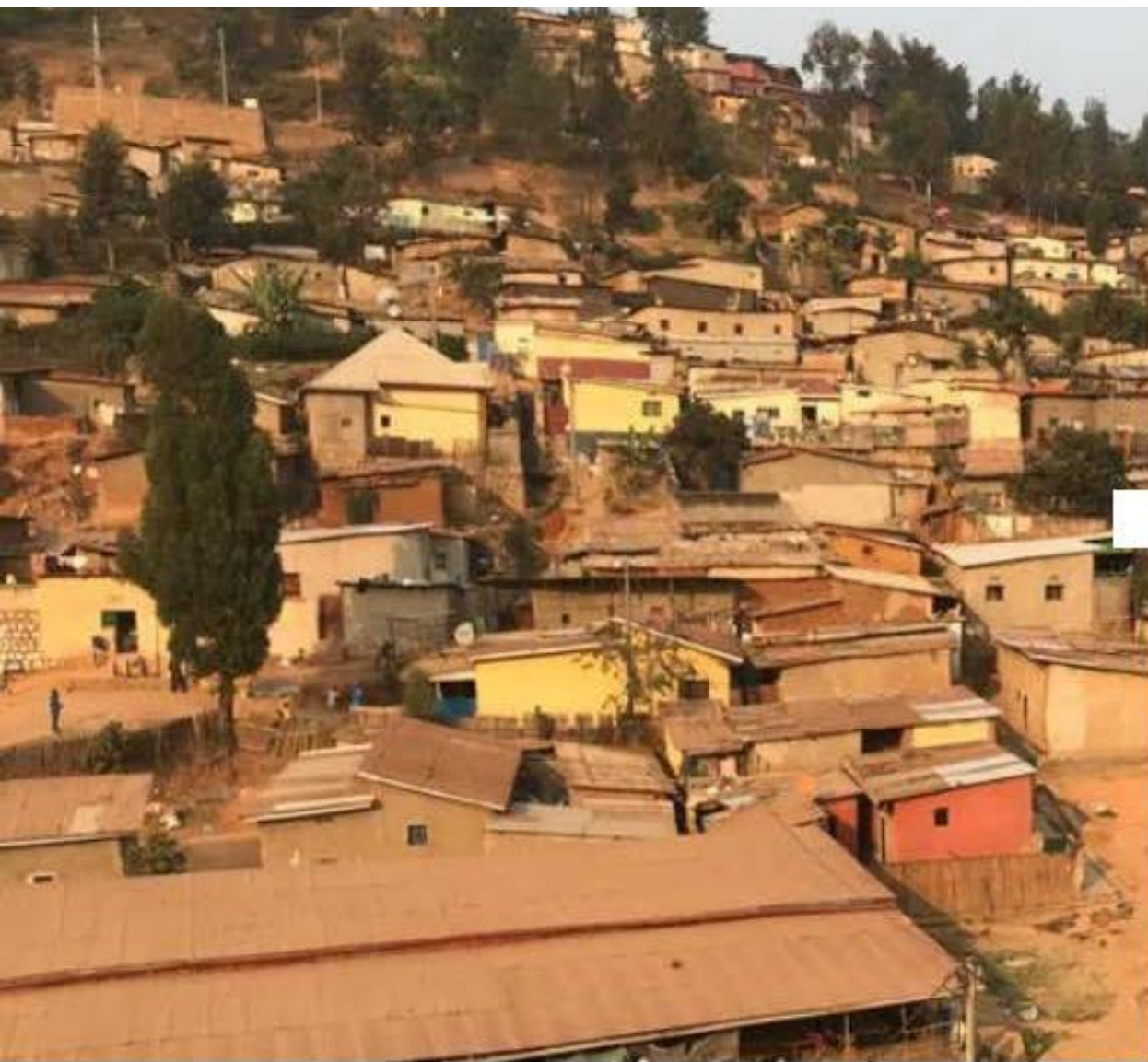
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Swiss Agency for Development  
and Cooperation SDC

**skat** Swiss Resource Centre and  
Consultancies for Development

**PROECCO** **PRO**moting **E**mployment through  
**CL**imate Responsive **CO**nstruction





# KIGALI MASTER PLAN VISION 2050



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before  
transformation



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# INCLUSIVE URBAN TRANSFORMATION



**after  
transformation**



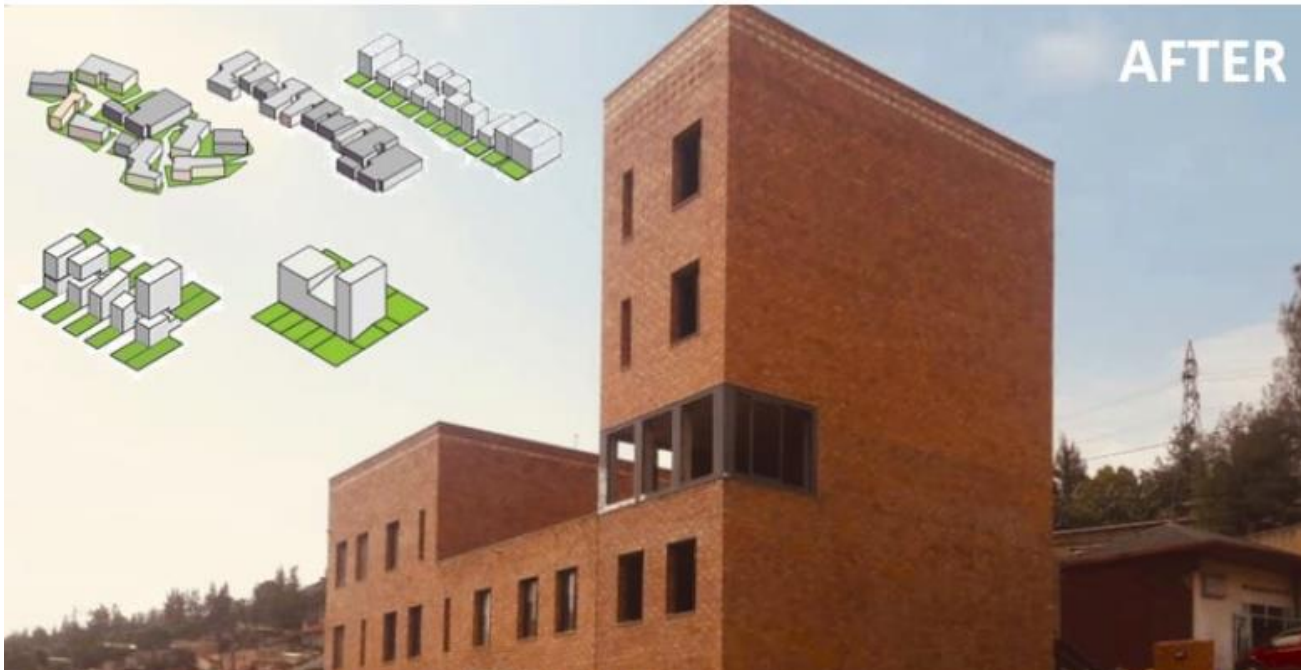
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# INCLUSIVE URBAN TRANSFORMATION





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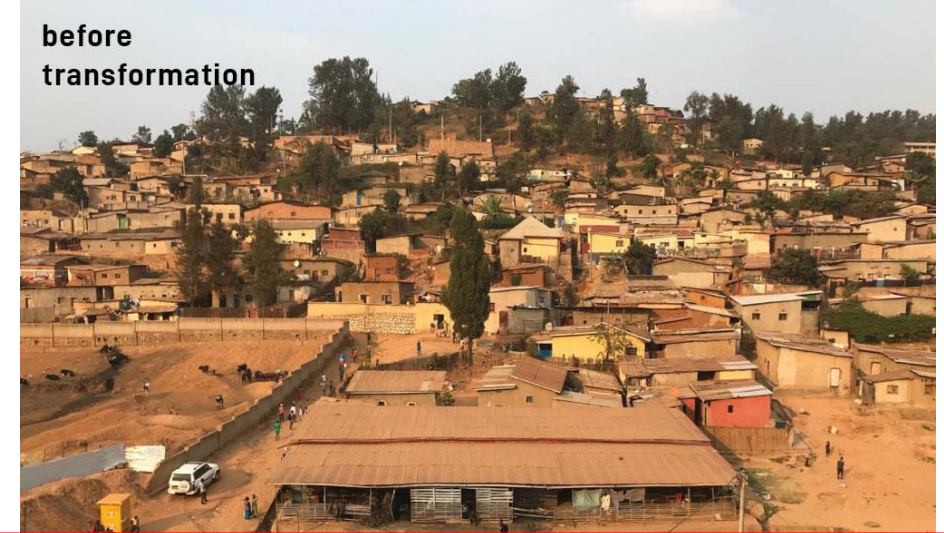
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# INCLUSIVE URBAN TRANSFORMATION

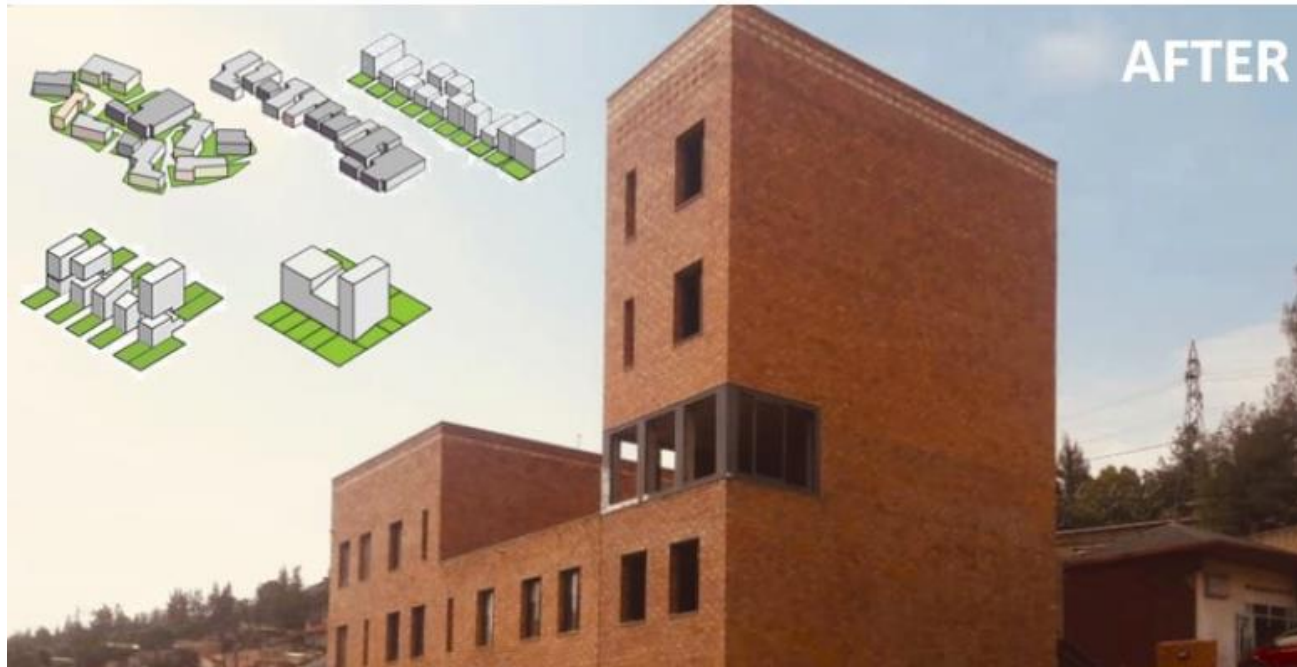




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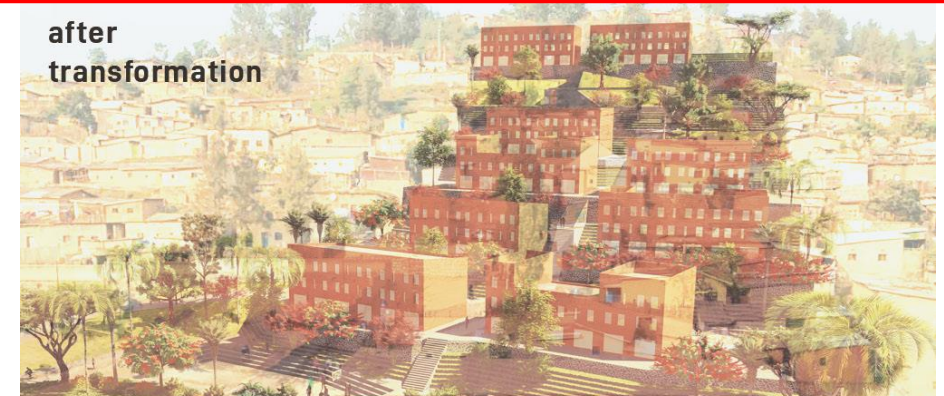
before  
transformation



AFTER



during  
transformation



after  
transformation



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# INCLUSIVE URBAN TRANSFORMATION



- 
- Respectful of regulations (master plan + building code)
  - Respects **health** and **safety** guidelines (covid / floods)
  - Made in Rwanda materials and technologies
  - Flexible design elements / customizable
  - Community centered
  - **Participatory + inclusive**





# AKABAHIZI CELL



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# MPAZI REHOUSING PROJECT PHASING





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# MPAZI REHOUSING PROJECT PHASING





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# MPAZI REHOUSING PROJECT PHASING





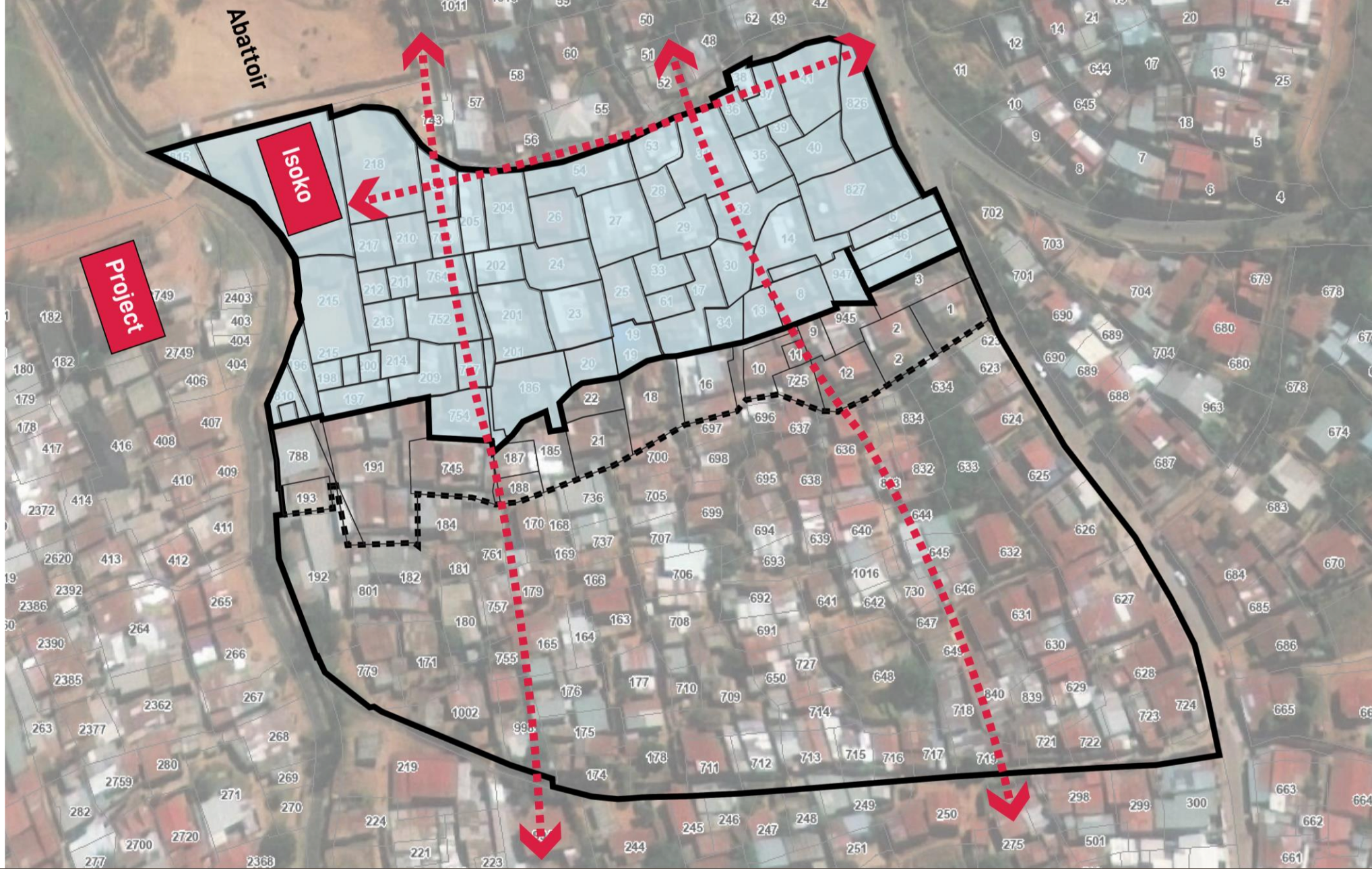
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# MPAZI REHOUSING PROJECT PHASING





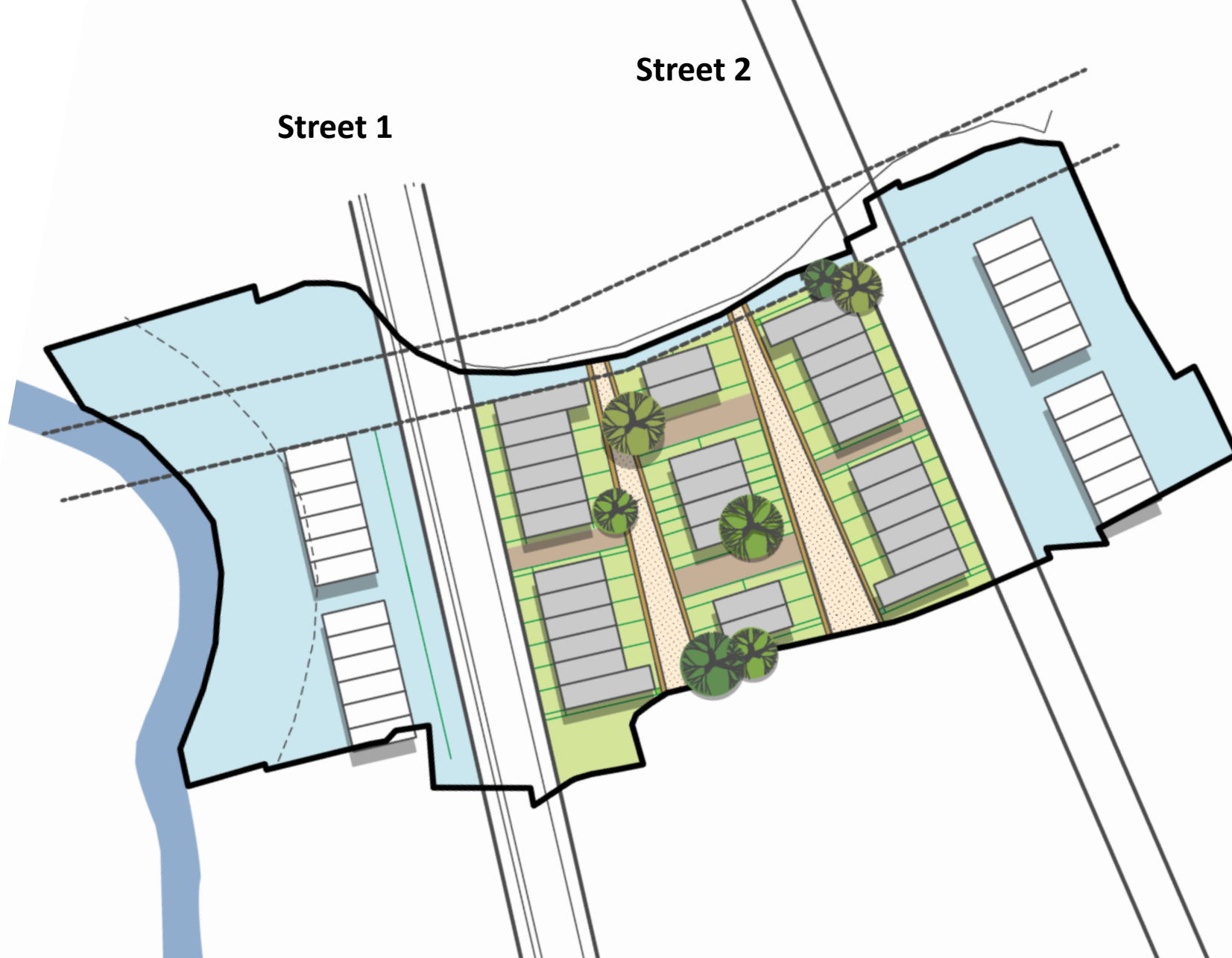
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# MPAZI REHOUSING PROJECT OVERVIEW





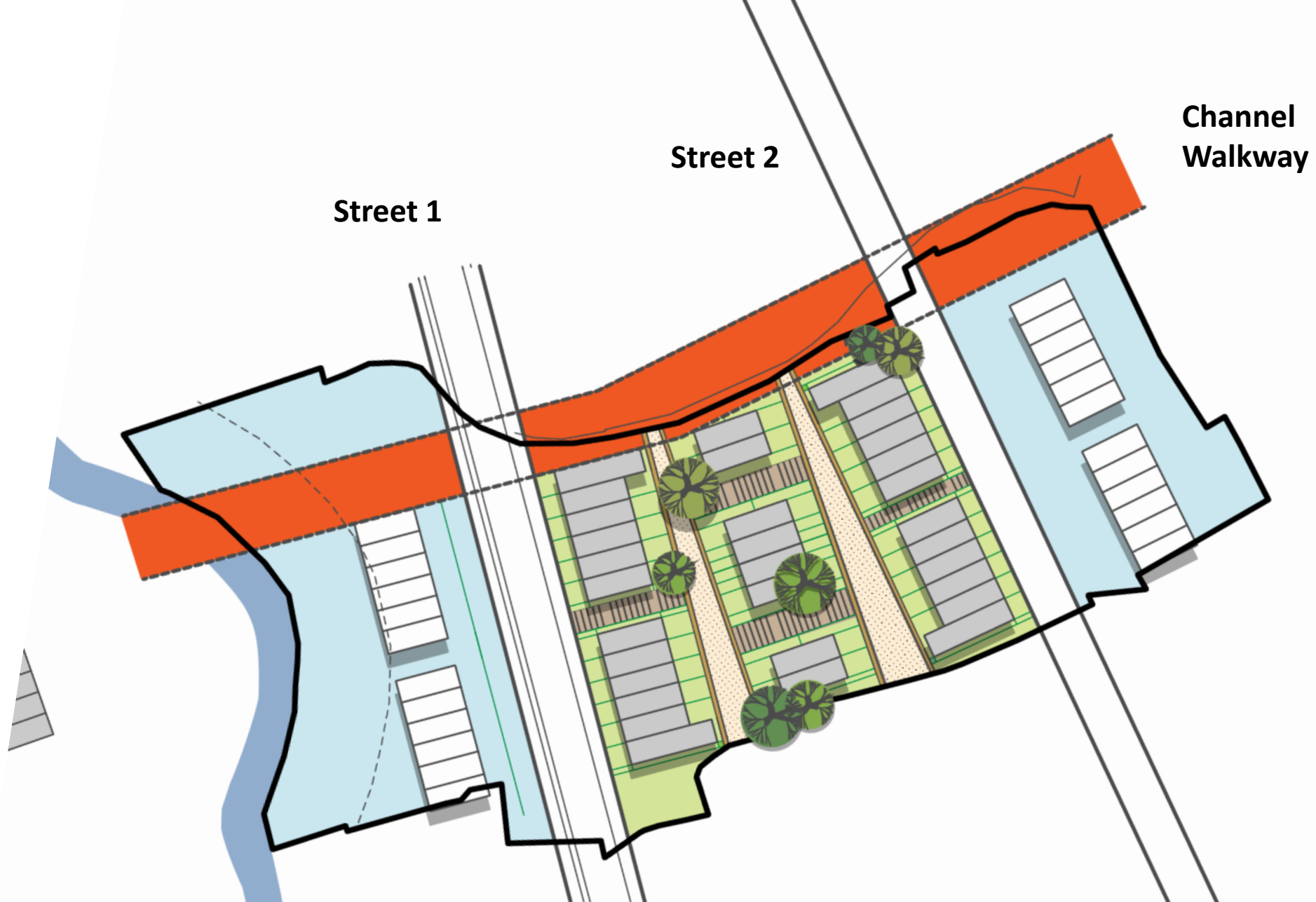
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# MPAZI REHOUSING MASTER PLAN





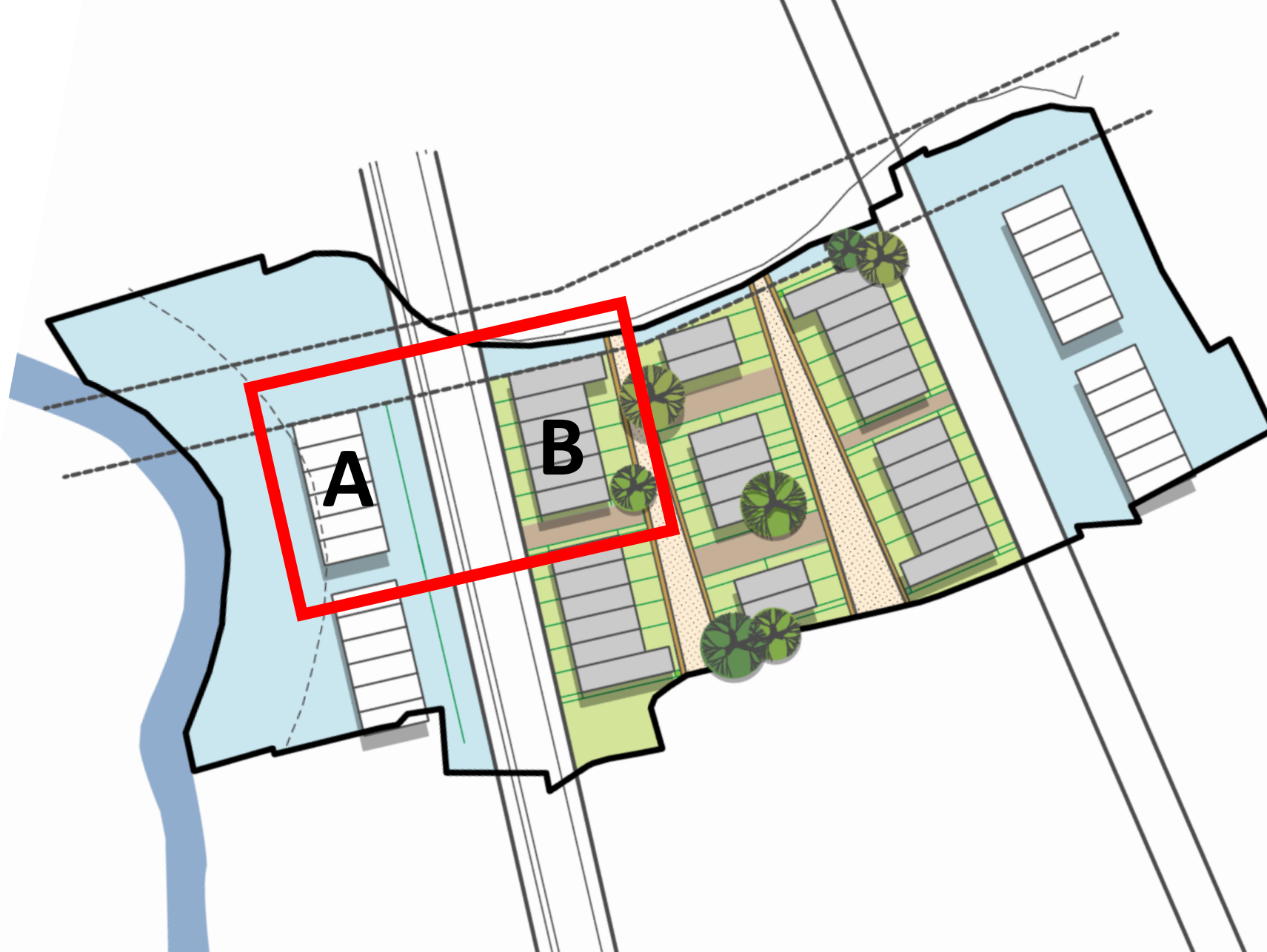
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# MPAZI REHOUSING MASTER PLAN





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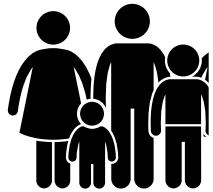
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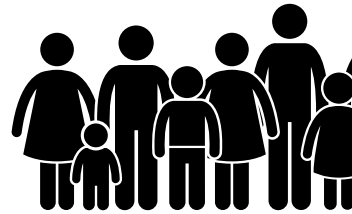


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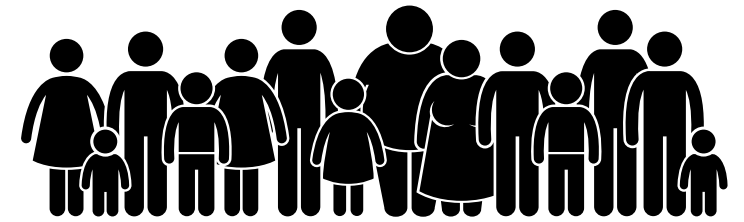
Dwelling  
Unit

# Level 2



Housing  
Block

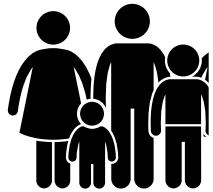
# Level 3



Community  
Level

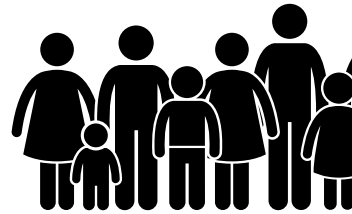


## Level 1



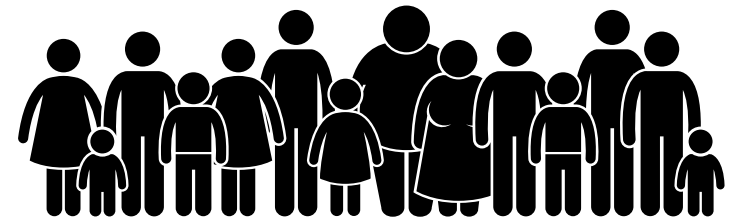
Dwelling  
Unit

## Level 2



Housing  
Block

## Level 3



Community  
Level

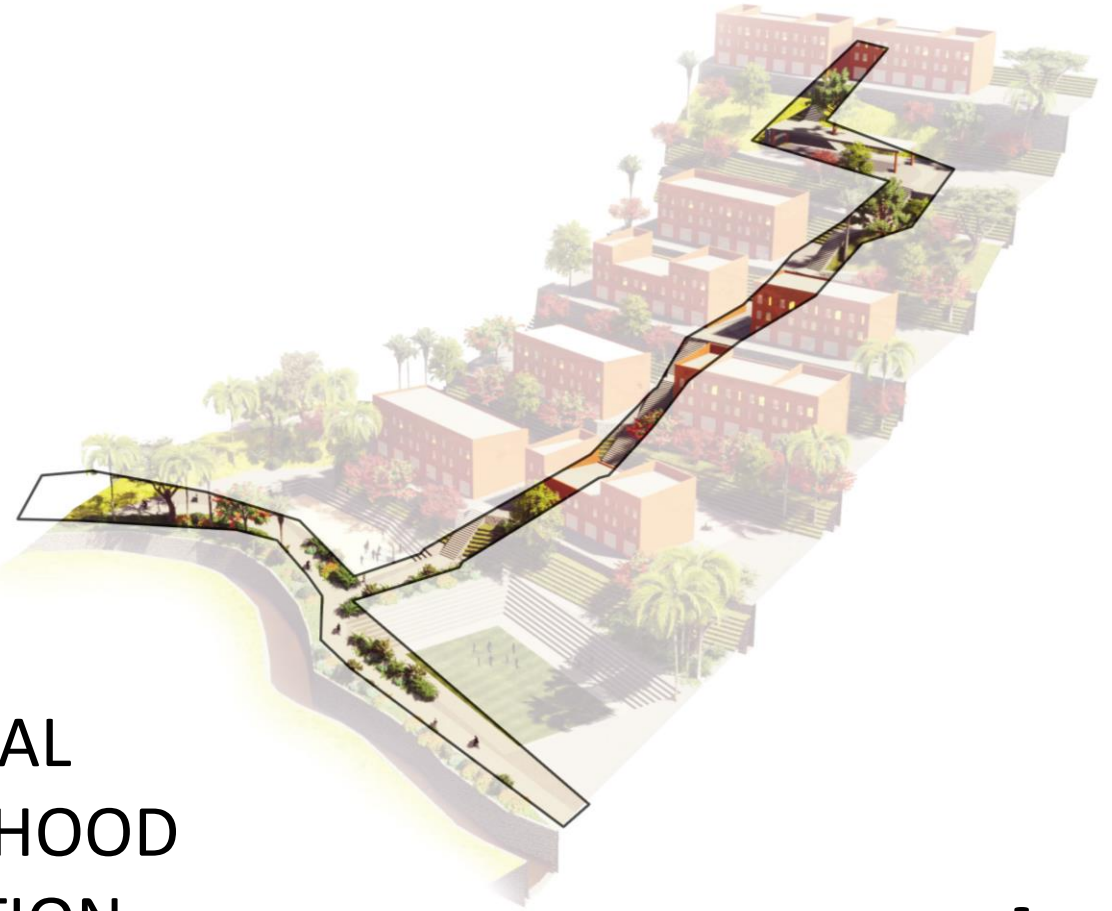
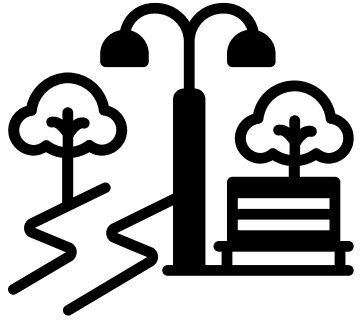


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# REHOUSING COMMUNITY DECISION LEVELS





INTERNAL  
NEIGHBORHOOD  
CIRCULATION

**Level 3**



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# REHOUSING PROJECT DECISION LEVELS





PUBLIC PARK?  
RECREATION?  
STORMWATER RETENTION  
POND?

**Level 3**



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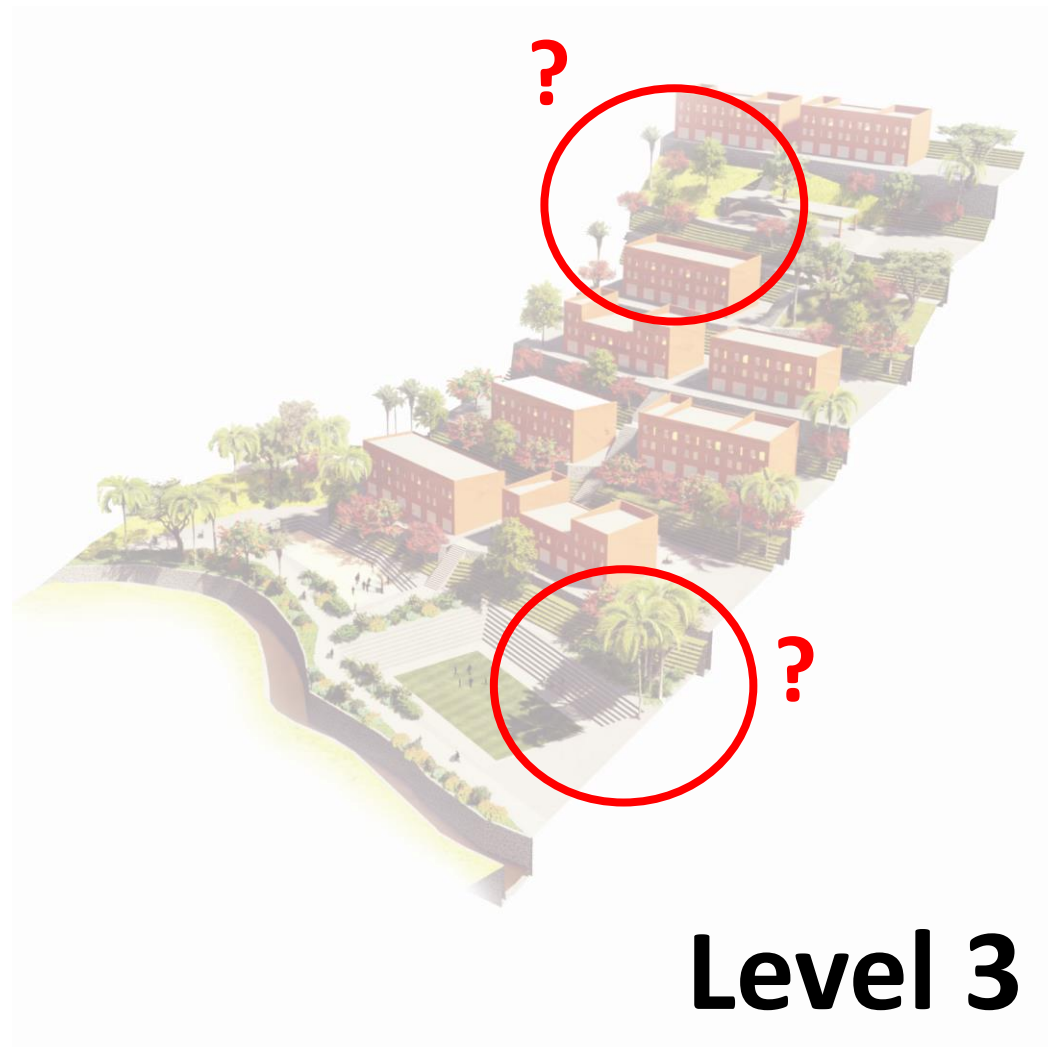
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**EXAMPLE OF COMMUNITY DESIGN ELEMENT**





MARKET?



Level 3



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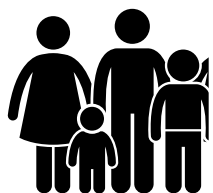
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EXAMPLE OF COMMUNITY DESIGN ELEMENT

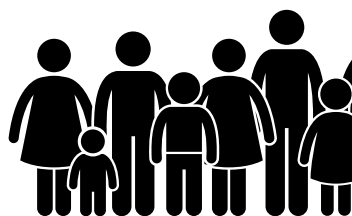


# Level 1



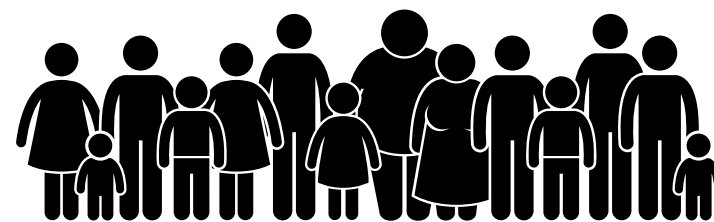
Dwelling  
Unit

# Level 2

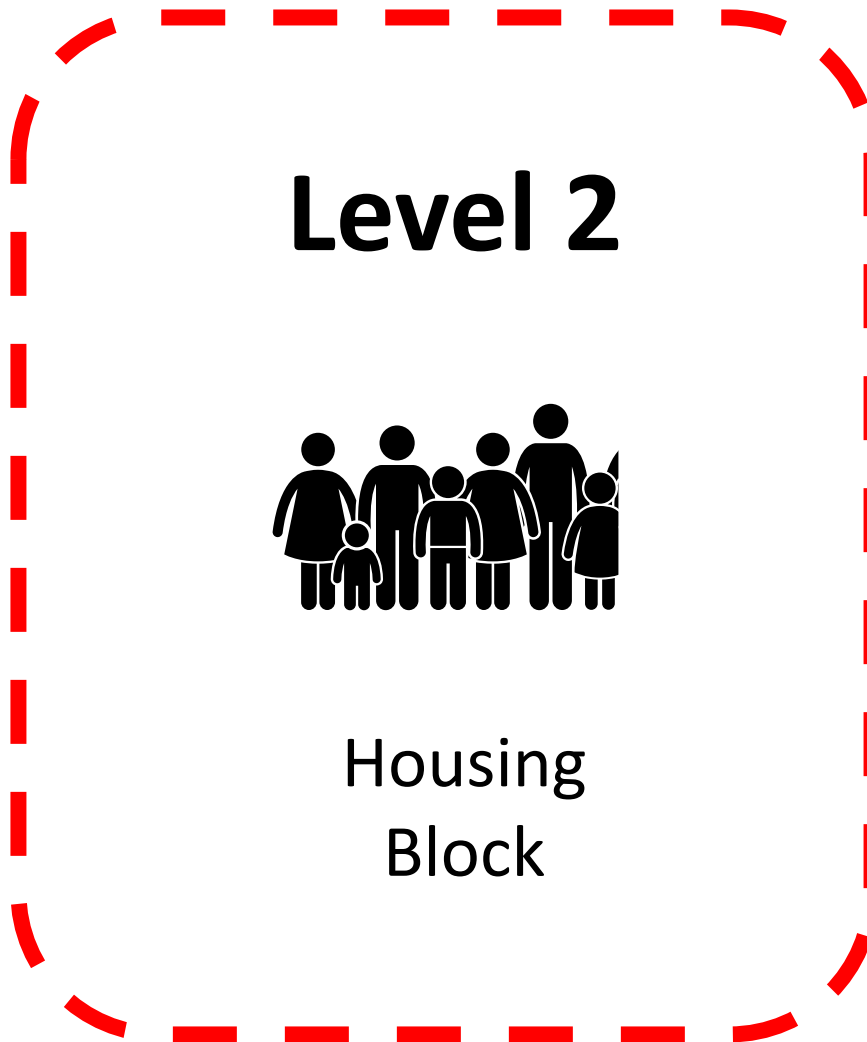


Housing  
Block

# Level 3



Community  
Level



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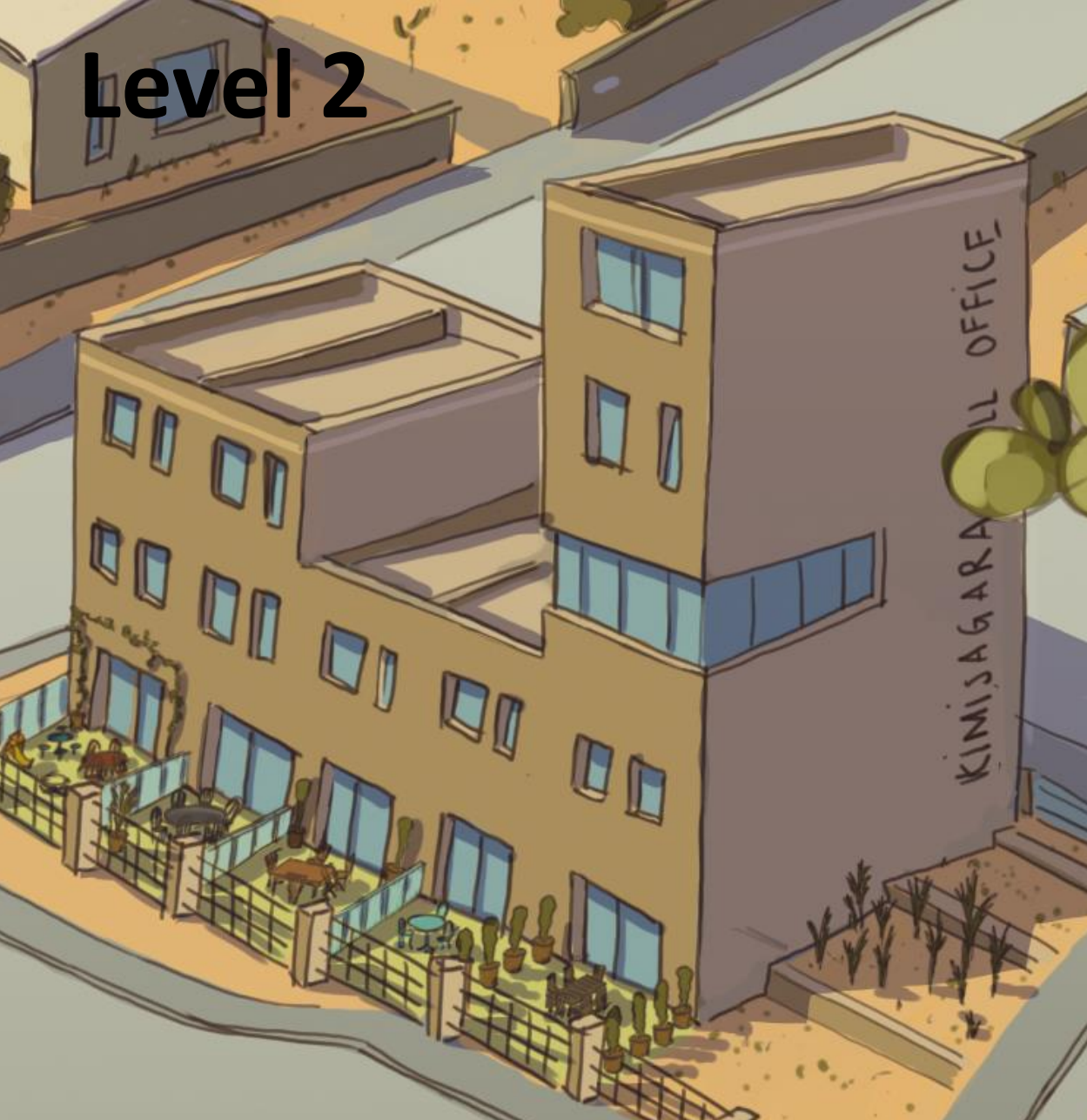
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# REHOUSING COMMUNITY DECISION LEVELS



# Level 2



## EXAMPLE OF BLOCK DESIGN ELEMENT



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# Level 2



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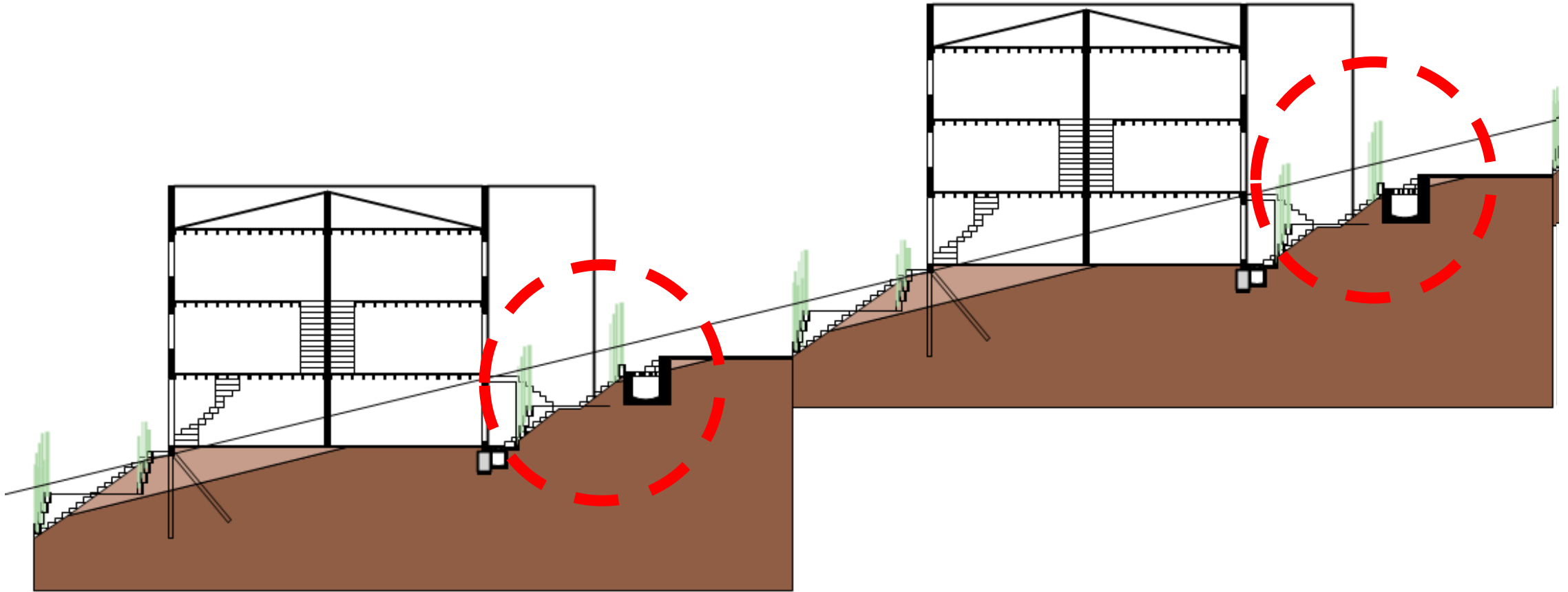
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## EXAMPLE OF BLOCK DESIGN ELEMENT



# Level 2





# Level 2



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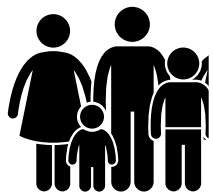
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## EXAMPLE OF BLOCK DESIGN ELEMENT

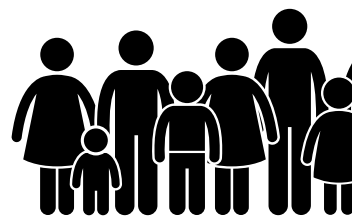


## Level 1



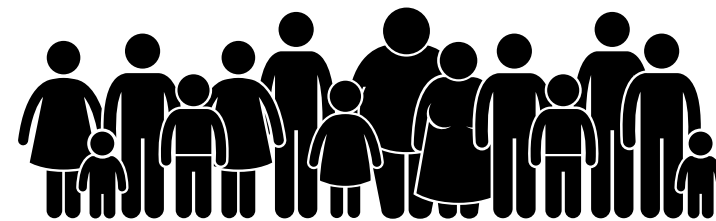
Dwelling  
Unit

## Level 2



Housing  
Block

## Level 3



Community  
Level





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# REHOUSING DWELLING DECISION LEVELS





- Lively commercial frontage along street

- Dignified, desirable residential living



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# MPAZI REHOUSING HOUSING SELECTION





Cohesive Community

Vertical development

Enhanced facilities (toilets, kitchen)

Flexible and customisable space

Save neighbourhood

Collective Property  
Management

Reduced living  
and maintenance  
costs



# Features of Future Neighbourhood



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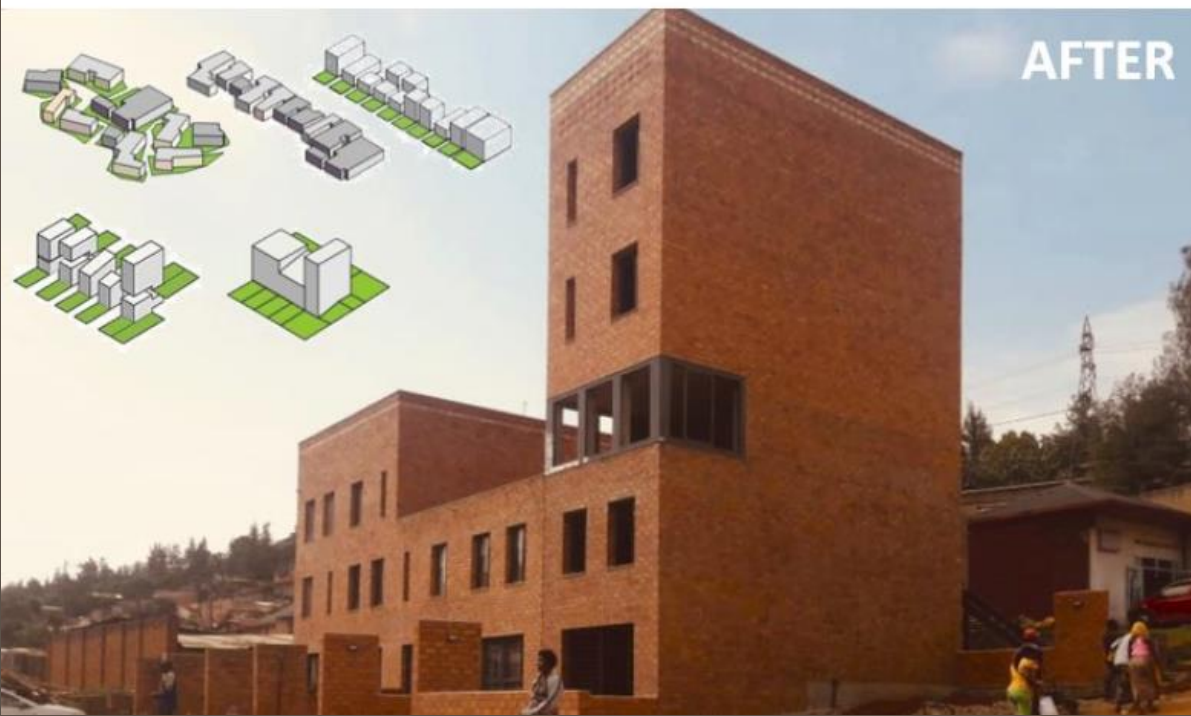
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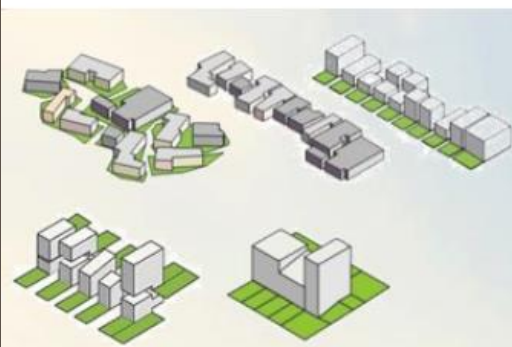




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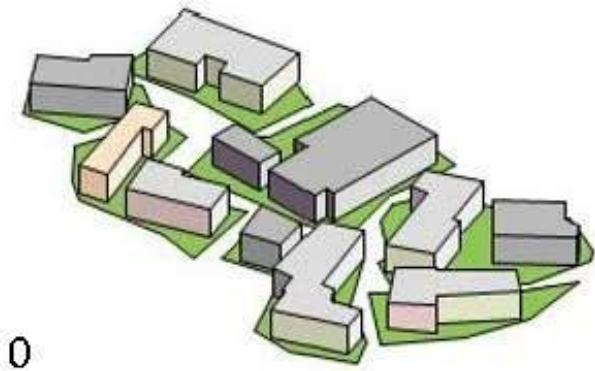


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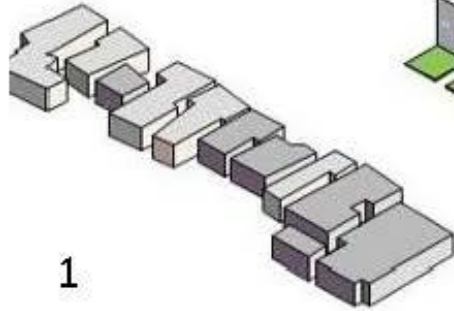


# PRINCIPLE I: GROUP MANAGEMENT

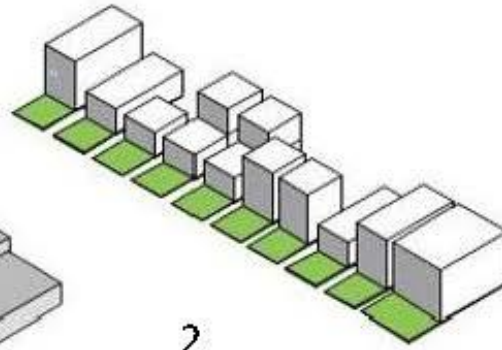




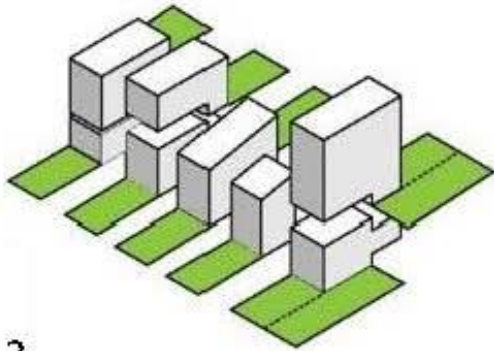
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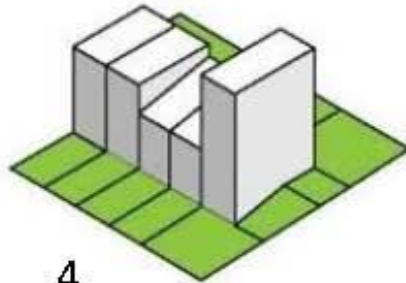
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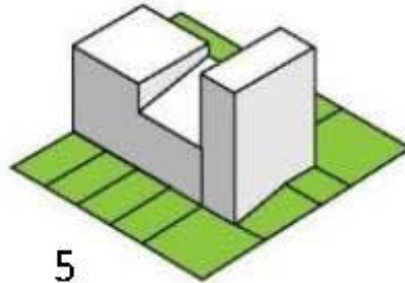
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3



4



5



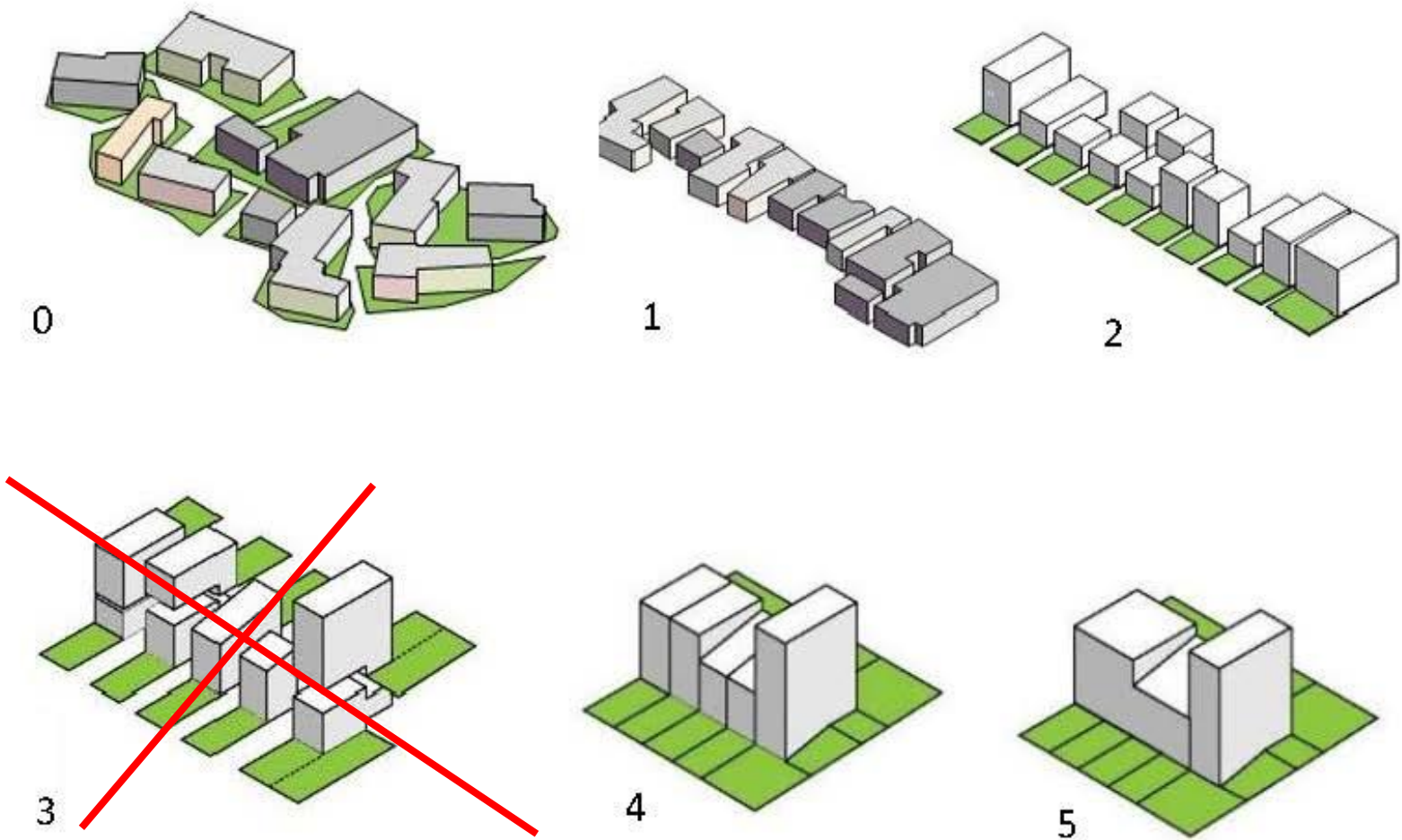
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# REHOUSING DWELLING DECISION LEVELS

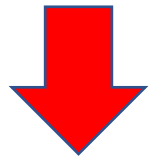








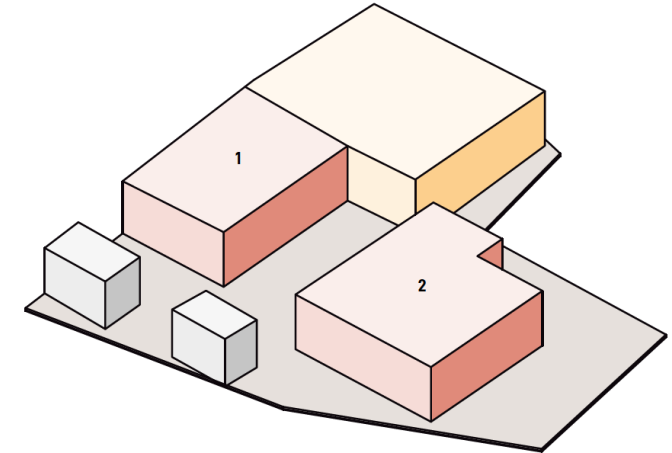




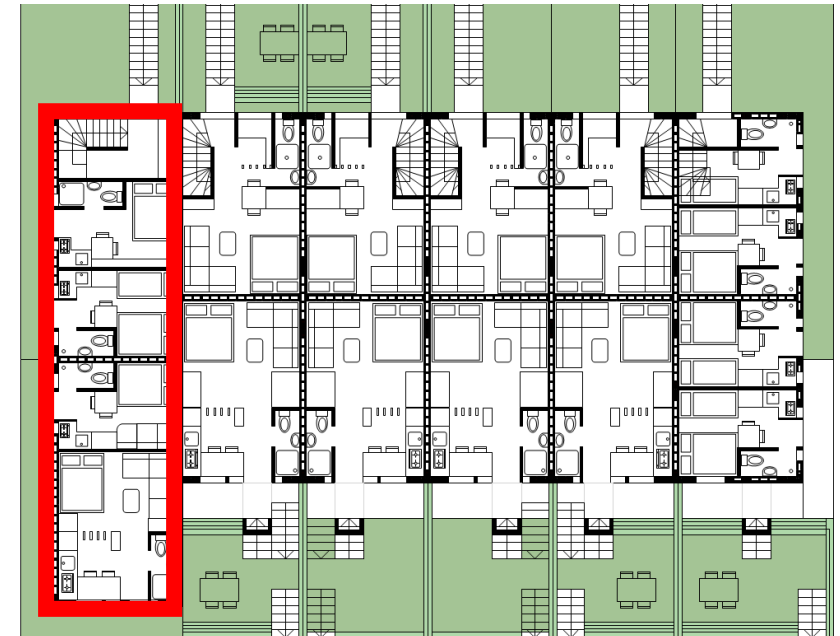




EXISTING PLOT ORGANIZATION



NEW HOUSING

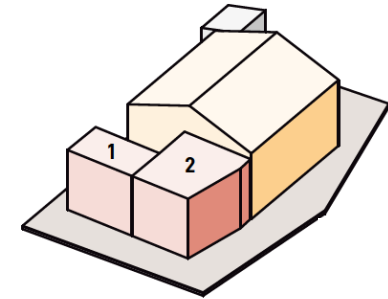


OWNER 1

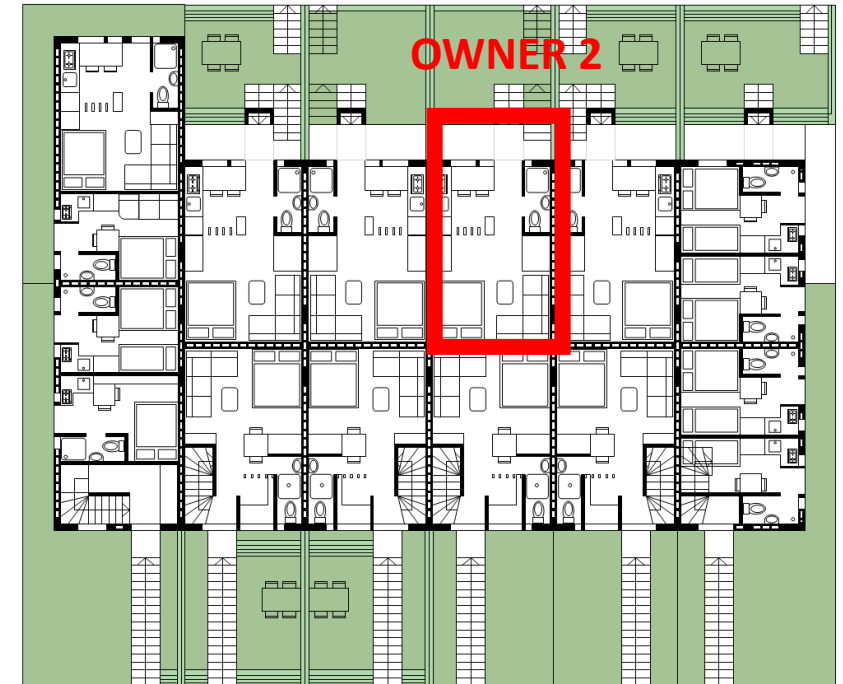




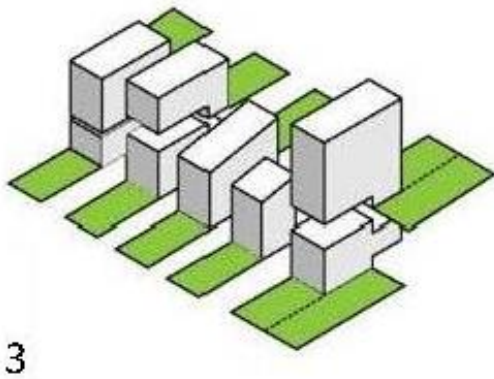
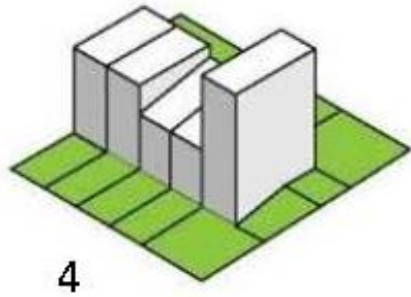
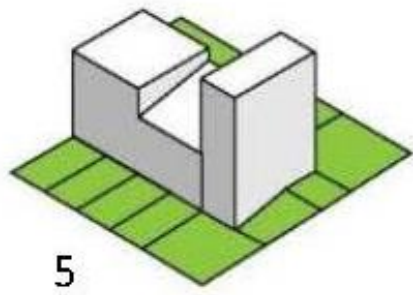
EXISTING PLOT ORGANIZATION



NEW HOUSING







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# REHOUSING DWELLING DECISION LEVELS



## M SHELL

Interior Dimer  
Room Height:  
Walling Mater  
Slab: Maxspan  
Flooring: Cem  
Roofing Mater



starting from  
FRW 9.000.000

S SLOPE SPLIT LEVEL DUPLEX (Unit 1)	54m <sup>2</sup>
Living Room/Dining Room	13.5
Master Bedroom	9
Additional Bedrooms (x2)	15 (or 6 + 7)
Kitchen	✓
Bathroom (x2)	✓
Storage	✓
Garden	✓



starting from  
FRW 18.000.000

S SLOPE SPLIT LEVEL TRIPLEX (Unit 2)	107m <sup>2</sup>
Living Room / Dining Room	36
Master Bedroom	10
Additional Bedrooms (x3)	24
Kitchen / Storage	8
Bathroom (x3)	✓
Garden	✓



S BACK-TO-BACK DUPL

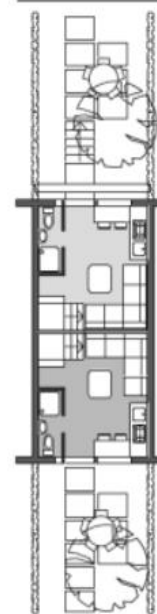
Living Room/Dining Room  
Bedroom (1 or 2)  
Kitchen  
Bathroom (x1)  
Garden



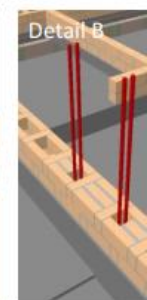
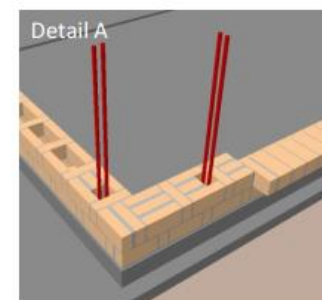
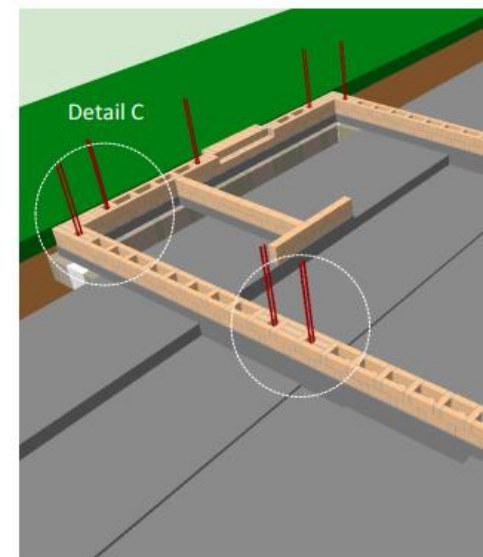
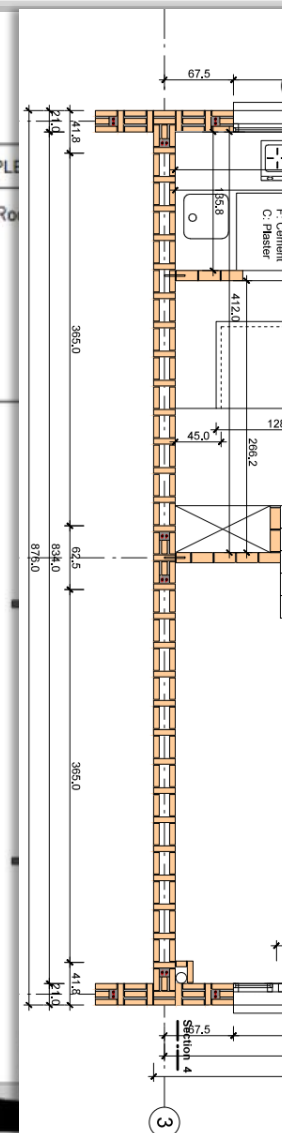
- ☐ Unit 1 L0 - L1
- ☐ Unit 2 L1 - L4



### S Split-level Duplex and Triplex



- ☐ Unit 1
- ☐ Unit 2

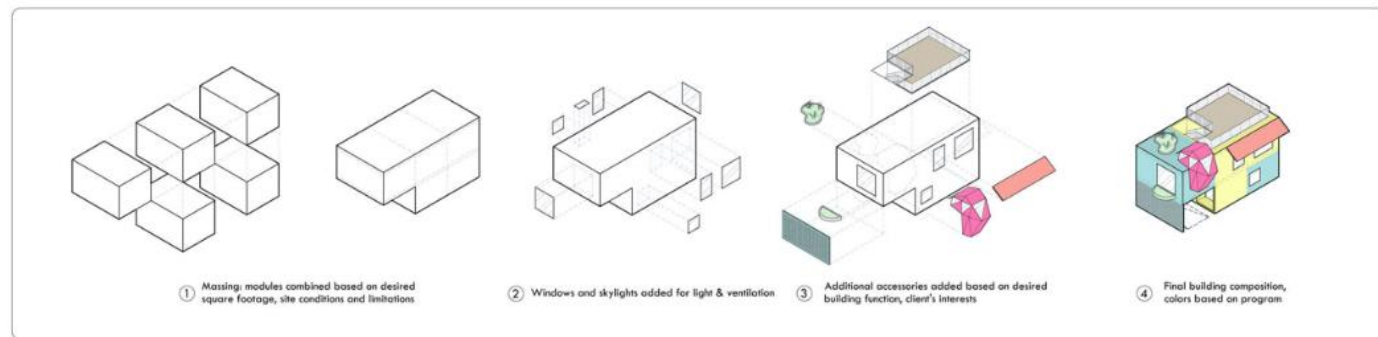
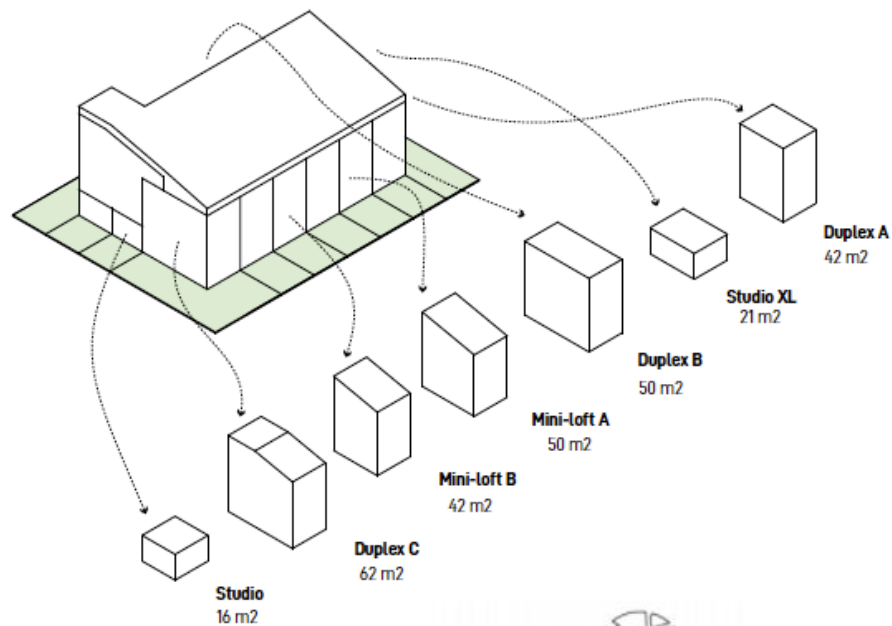


**Important!**

Always select the most beautiful brick side for the face.  
Perfectly align the bricks. PERFECTLY ALIGN THE

Date: 14<sup>th</sup> of June 2017    Update 1: 17<sup>th</sup> of June 2017    dwy





### BUILDING BLOCKS

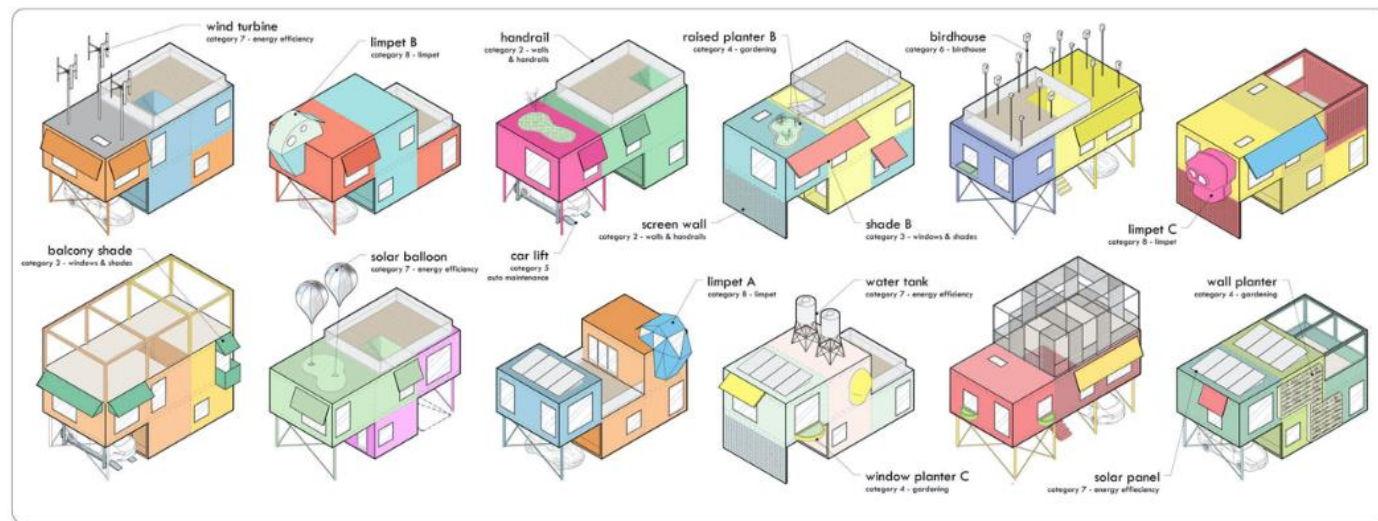
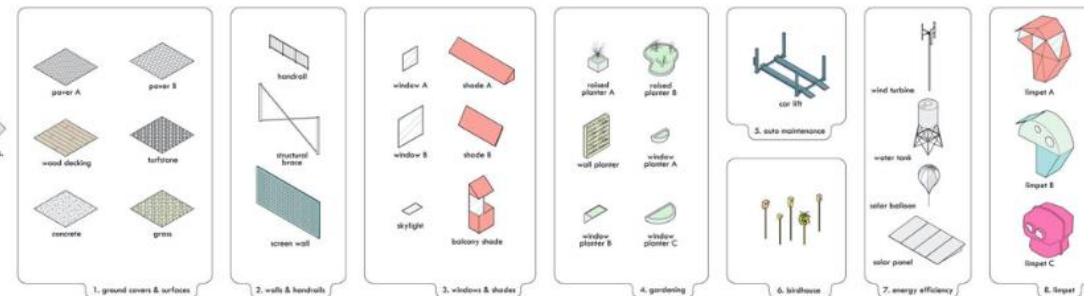
The basic unit of space is the massing module. These are conceptual blocks which are tailored to individual need with the addition of accessories.

### CATALOG OF ACCESSORIES

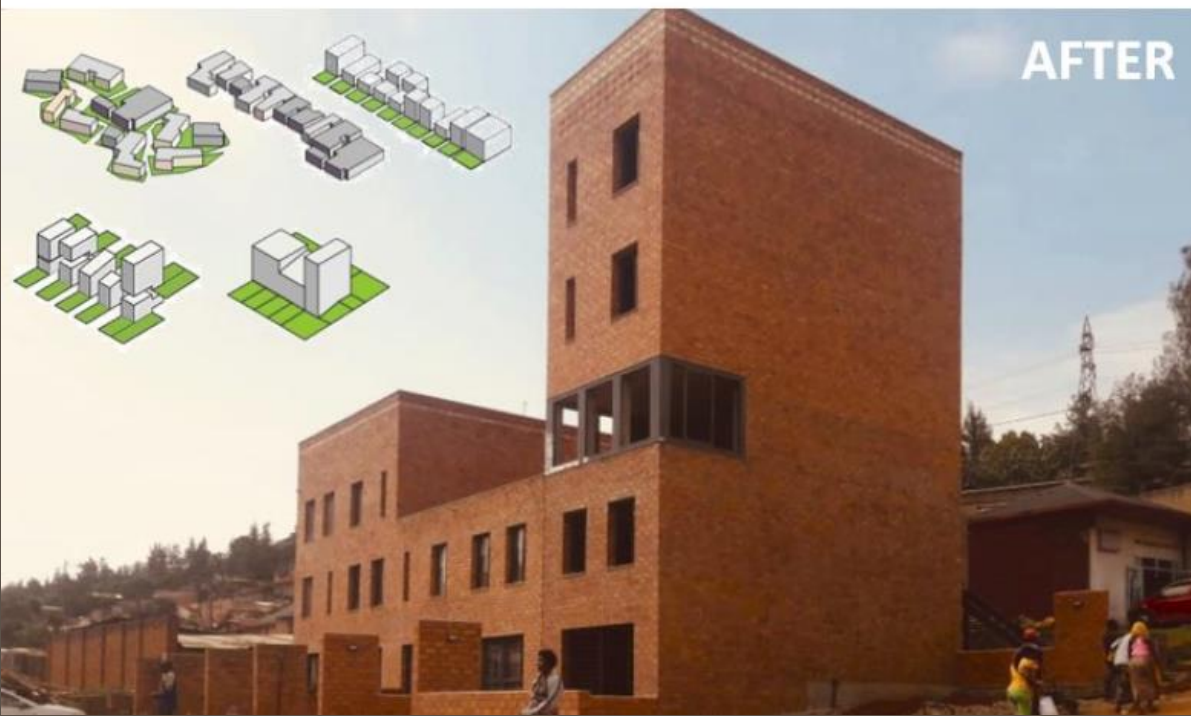
Accessories are picked according to individual tastes and needs. They give personality and usefulness to the basic modules.

### EXAMPLE COMBINATIONS

There really are an infinite variety of combinations. Here are just twelve possibilities out of a possible 320 trillion ways to combine accessories, and make a unique statement.







# PRINCIPLE I: GROUP MANAGEMENT

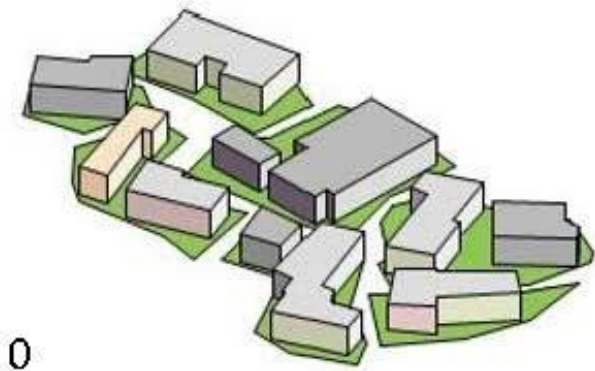


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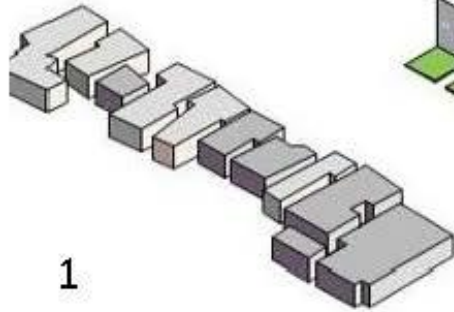
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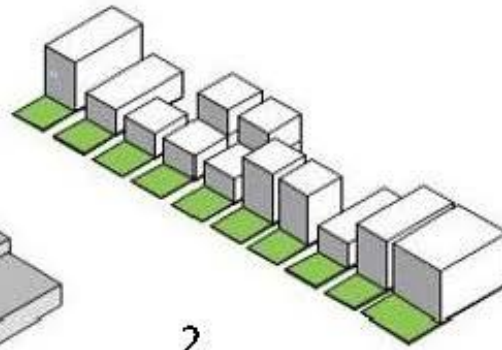




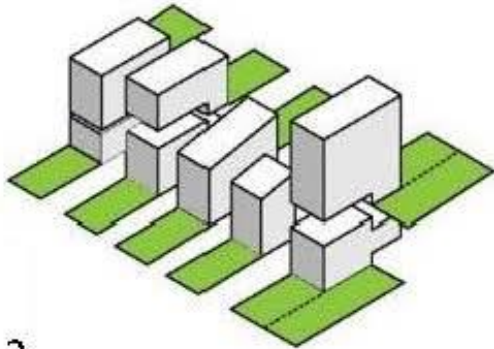
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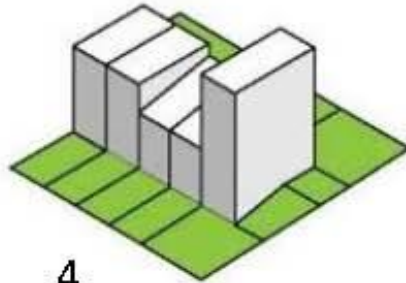
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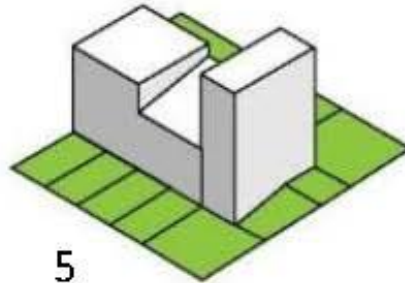
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4



5



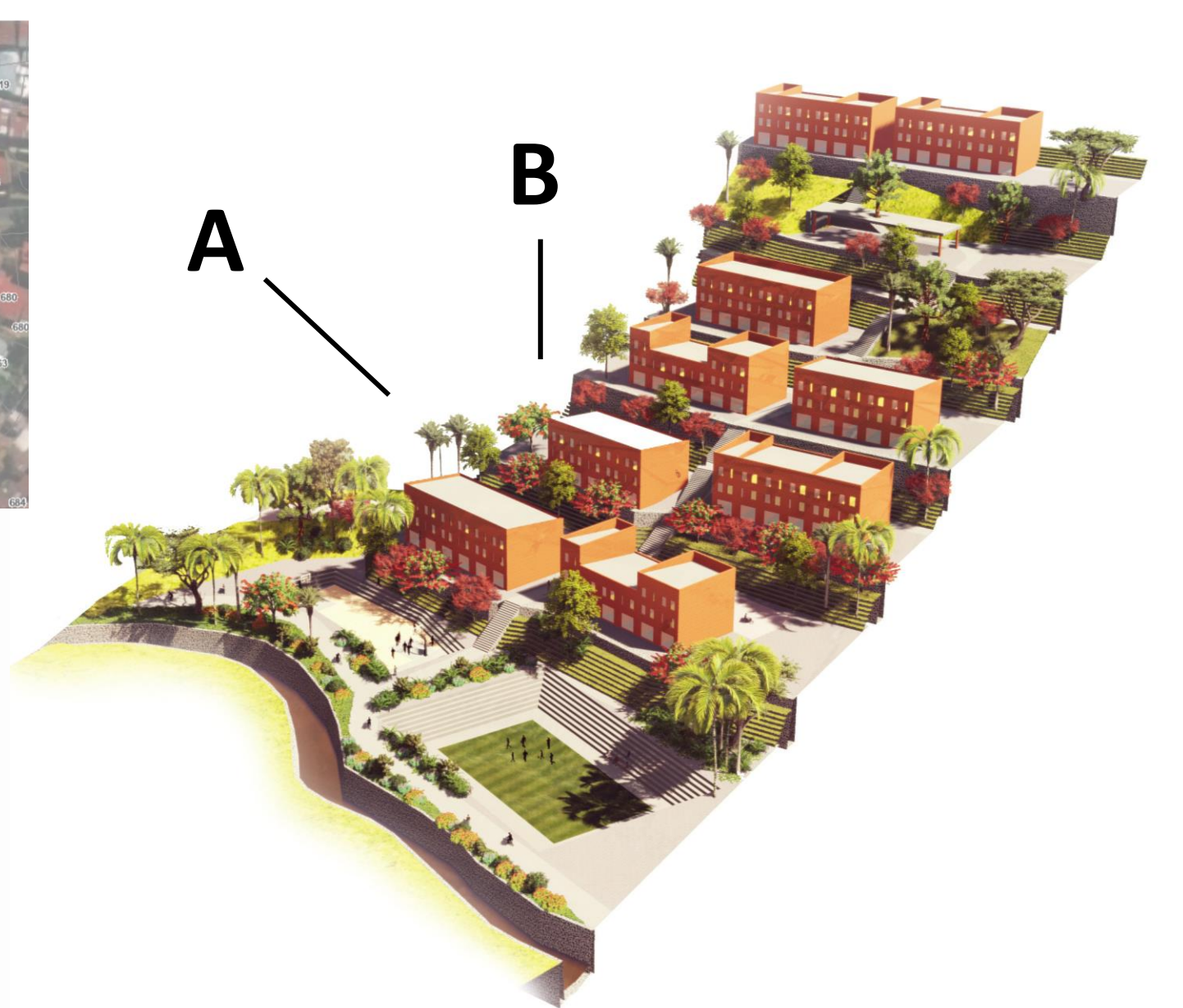
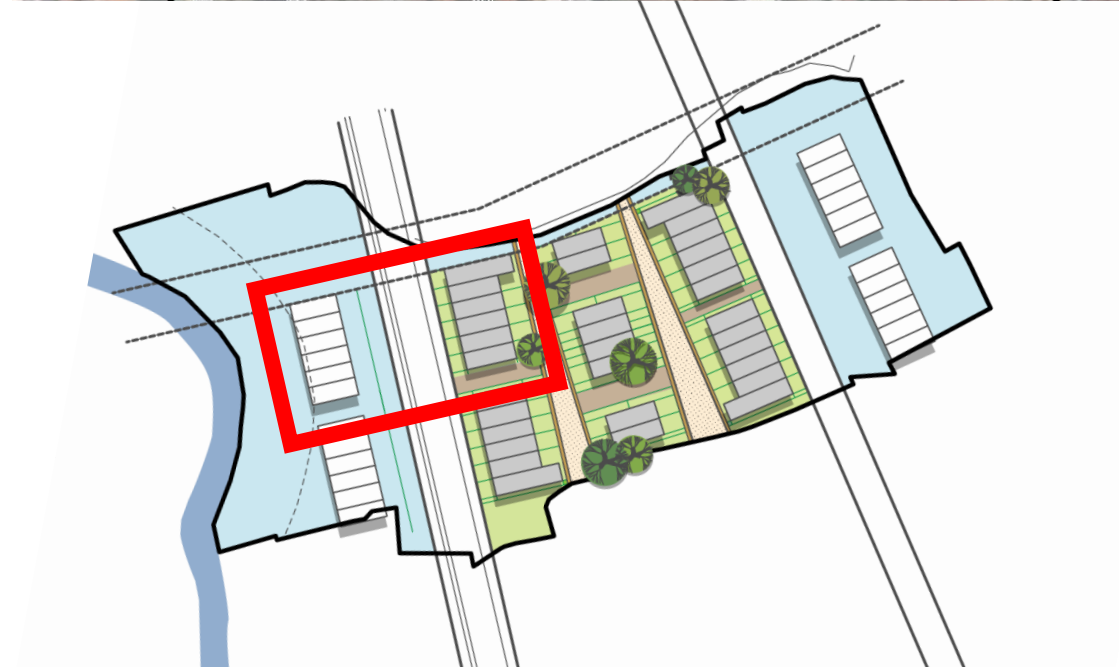
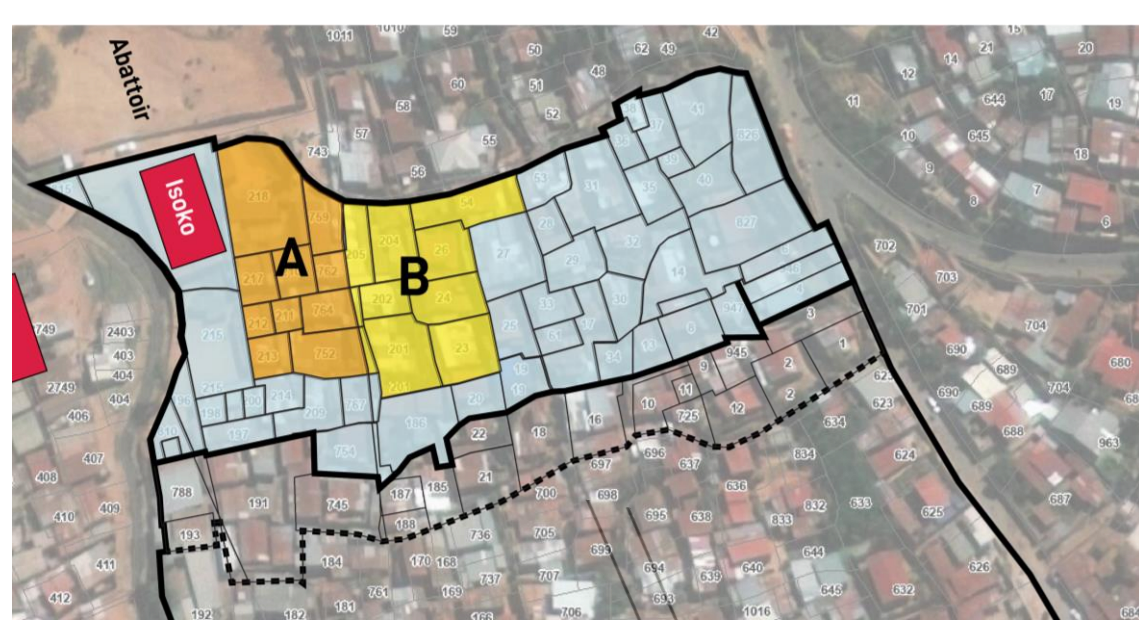
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# TRANSFORMATION TO MEET THE MASTER PLAN





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# MPAZI REHOUSING PROJECT PHASING



22 housing units





STARTING SITUATION

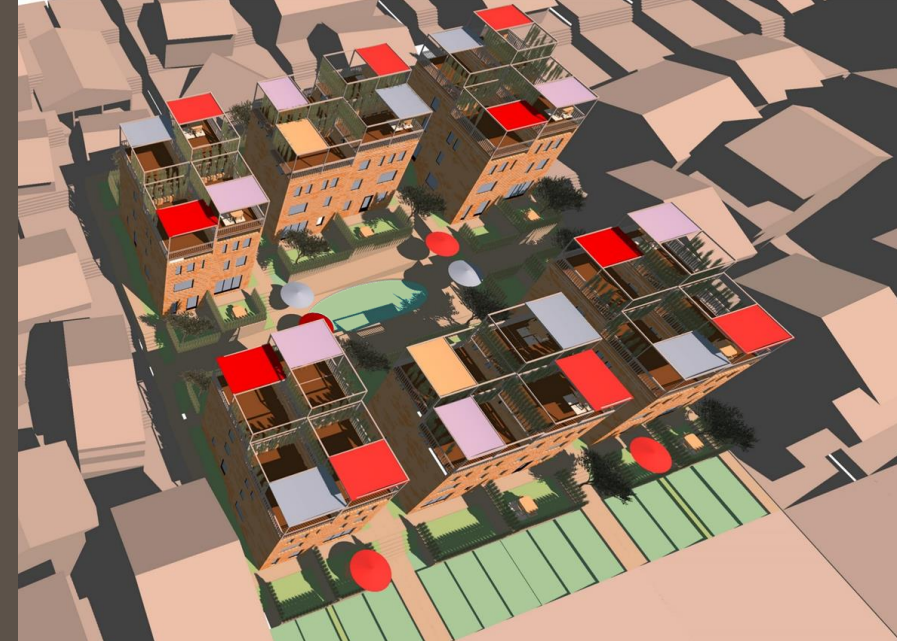
BUILDING FOOTPRINT

ORIGINAL PLOTS

REPLOTTING

CONSTRUCTION

FINAL SITUATION

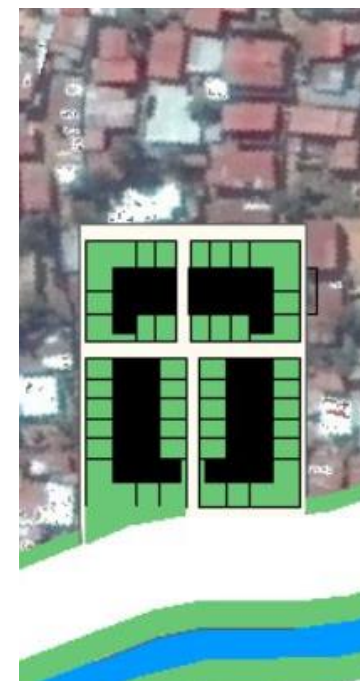
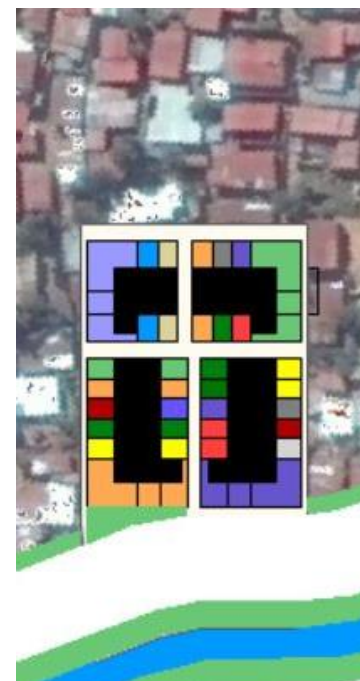


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# TRANSFORMATION PROCESS UNDERWAY





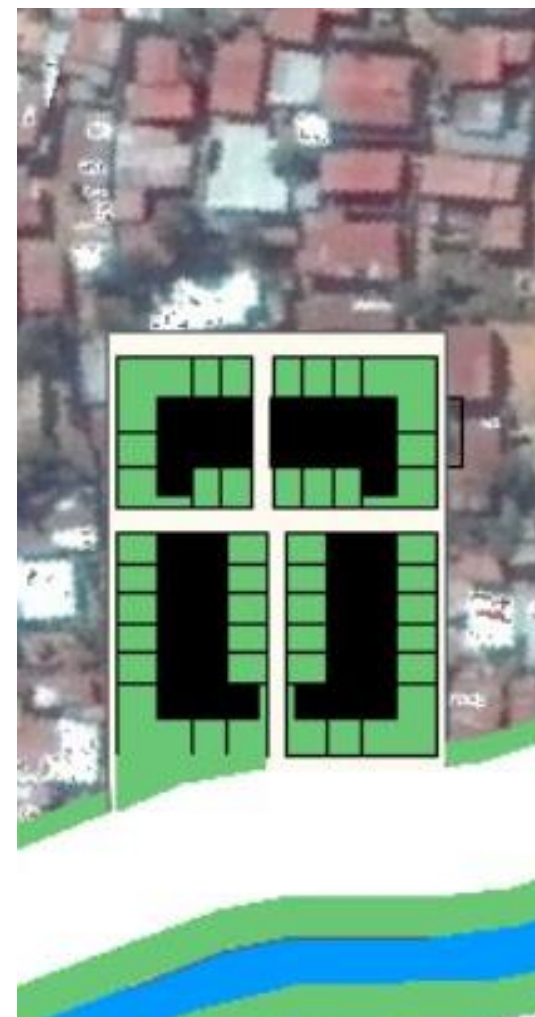
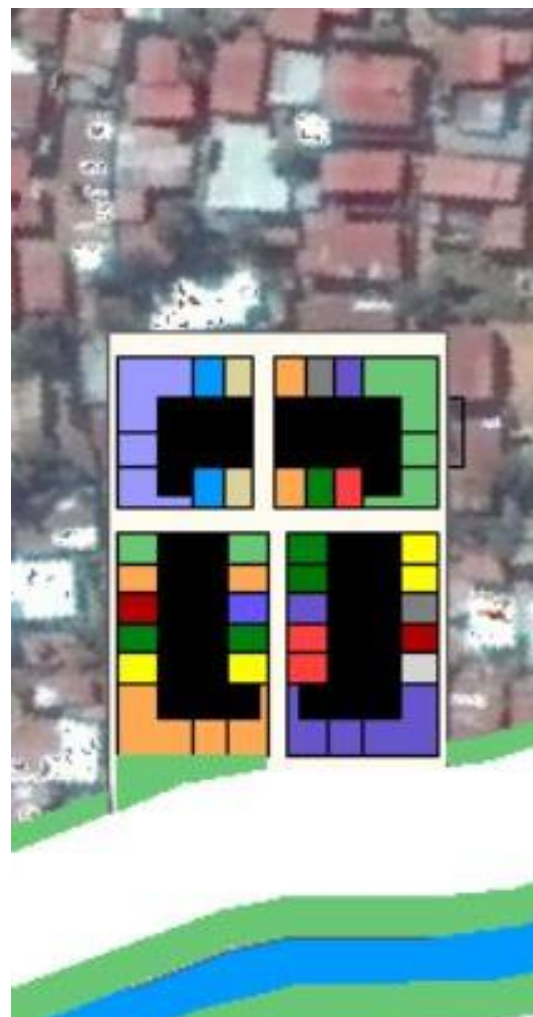
# MPAZI II : SAMPLE TRANSFORMATION PROCESS





# MPAZI II : SAMPLE TRANSFORMATION PROCESS

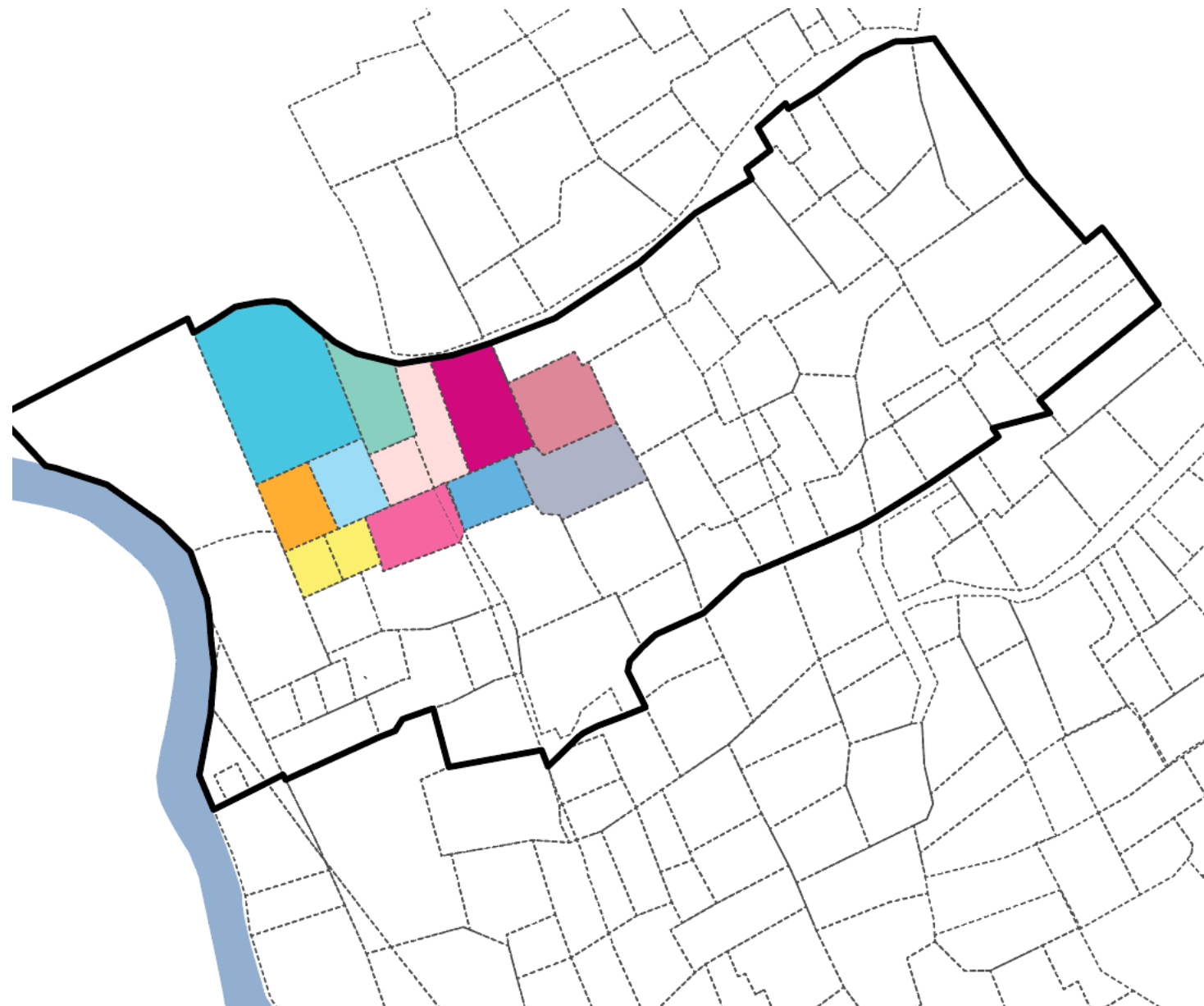
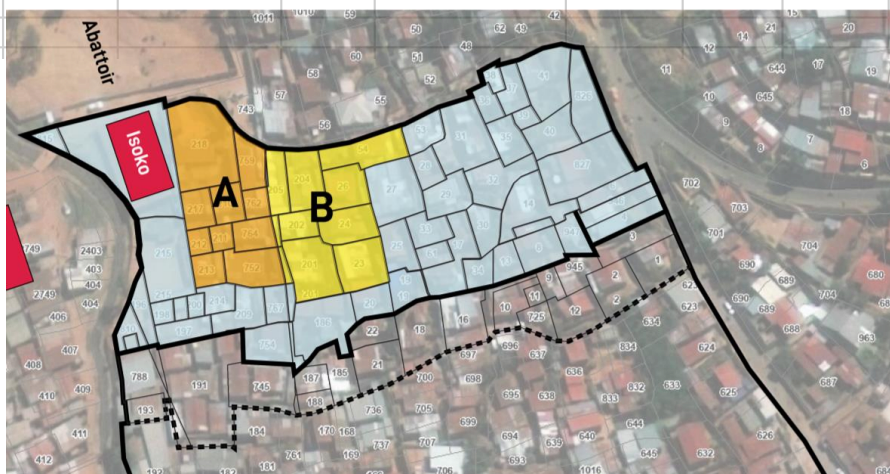




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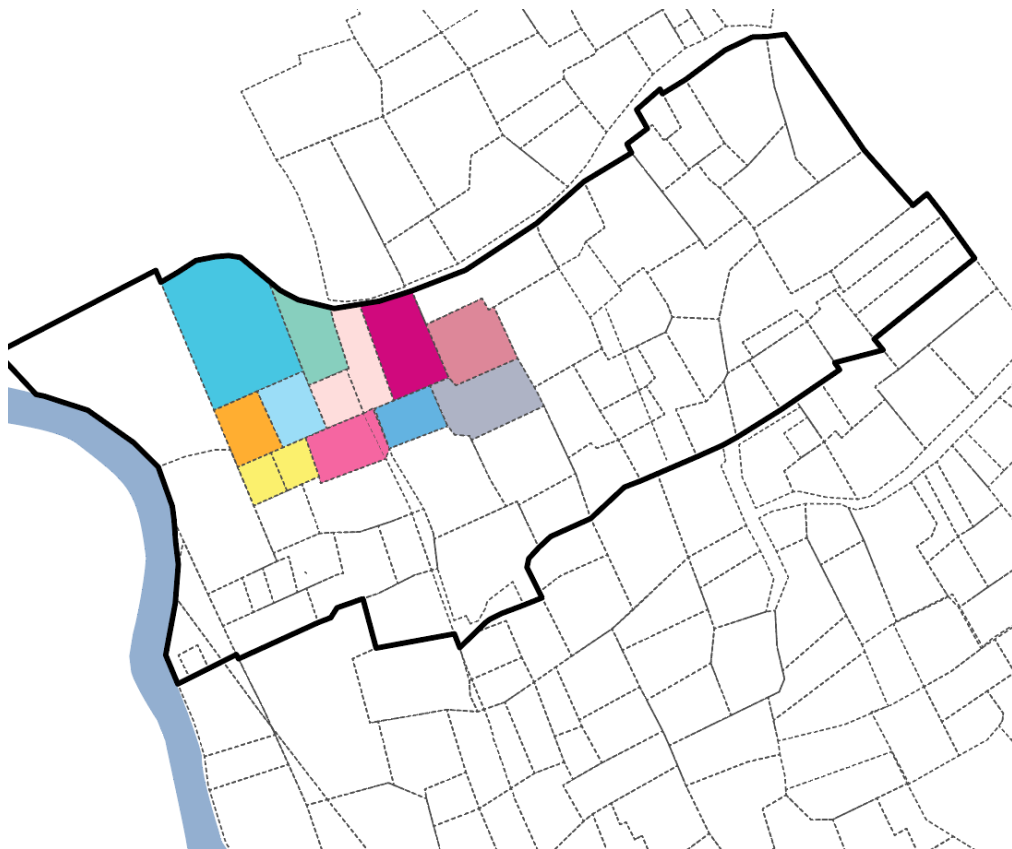


Block	Plot No	area_sqm	Value Land	Circulation % area (sat)	Built-up Area (sat)	Habitable Space (sat)
Downhill	210	133	RWF 3,336,473	25%	100	73
Downhill	211	65	RWF 1,628,692	100%	0	0
Downhill	212	66	RWF 1,654,696	100%	0	0
Downhill	213	117	RWF 2,926,462	100%	0	0
Downhill	215	441	RWF 11,030,660	100%	0	0
Downhill	217	130	RWF 3,250,000	27%	95	69
Downhill	218	587	RWF 14,686,720	69%	184	175
Downhill	752	232	RWF 5,798,625	42%	135	98
Downhill	759	162	RWF 4,057,377	35%	105	77
Downhill	762	83	RWF 2,073,840	20%	66	48
Downhill	764	142	RWF 3,560,270	20%	114	83
In-between	763	0	RWF 9,903	100%	0	0
Uphill	23	262	RWF 6,545,237	48%	136	99
Uphill	24	224	RWF 5,601,749	41%	132	97
Uphill	26	194	RWF 4,847,744	57%	84	62
Uphill	54	261	RWF 6,526,274	53%	122	89
Uphill	201	318	RWF 7,940,134	56%	141	103
Uphill	202	116	RWF 2,895,643	27%	85	62
Uphill	204	242	RWF 6,041,582	32%	164	120
Uphill	205	147	RWF 3,684,258	30%	104	76
Uphill	206	4	RWF 105,735	100%	0	0
Uphill	207	21	RWF 518,560	100%	0	0

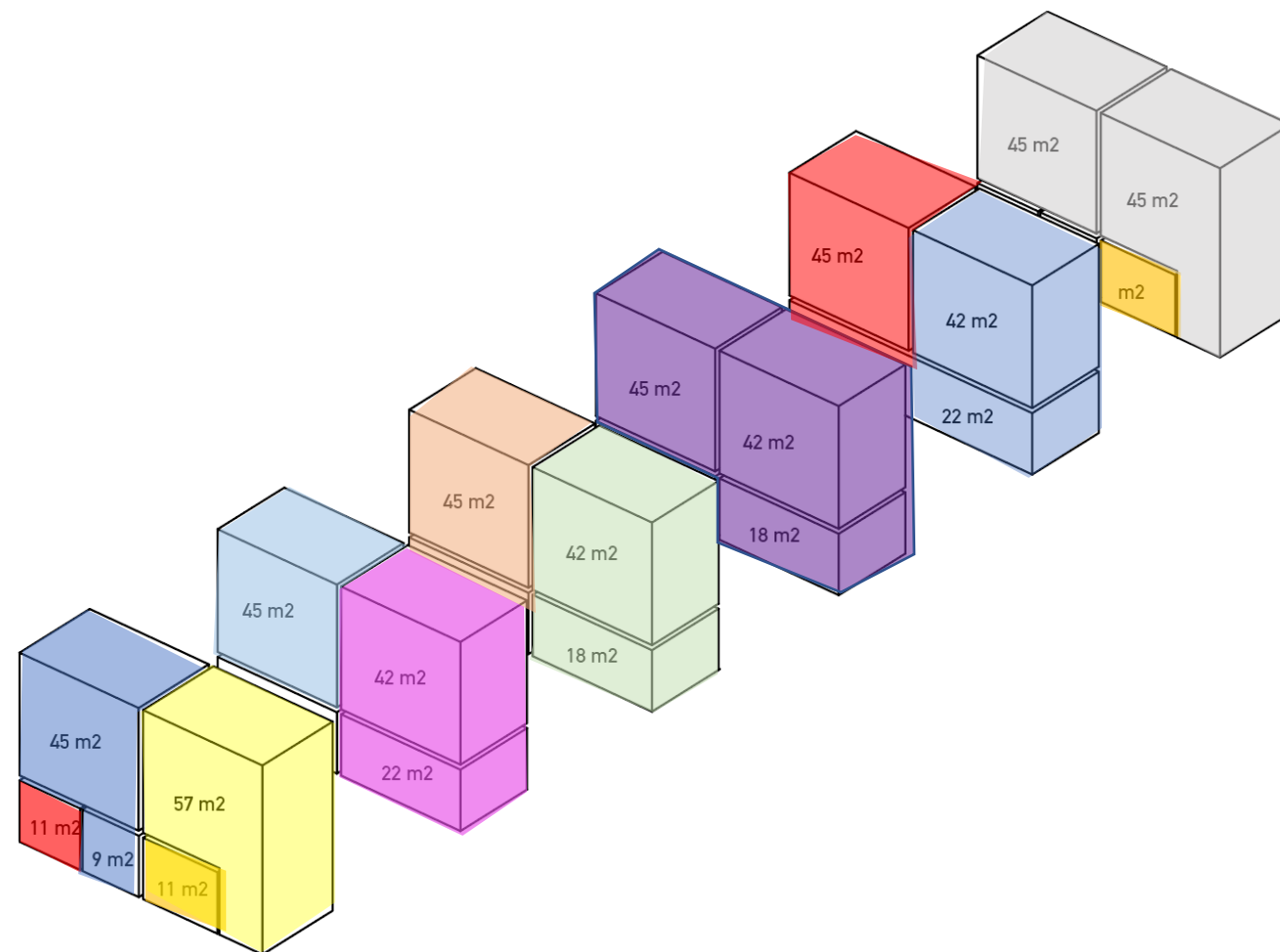


# MPAZI II REHOUSING : ORGANIZATION



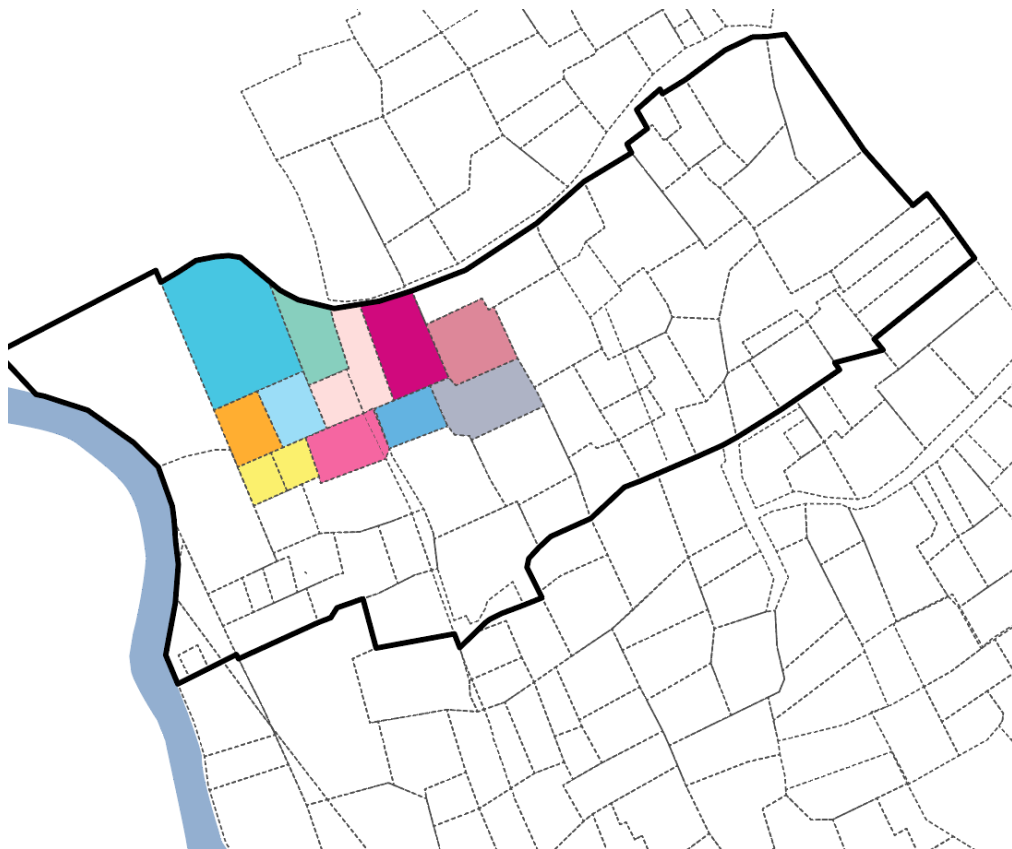


## Scenario 1

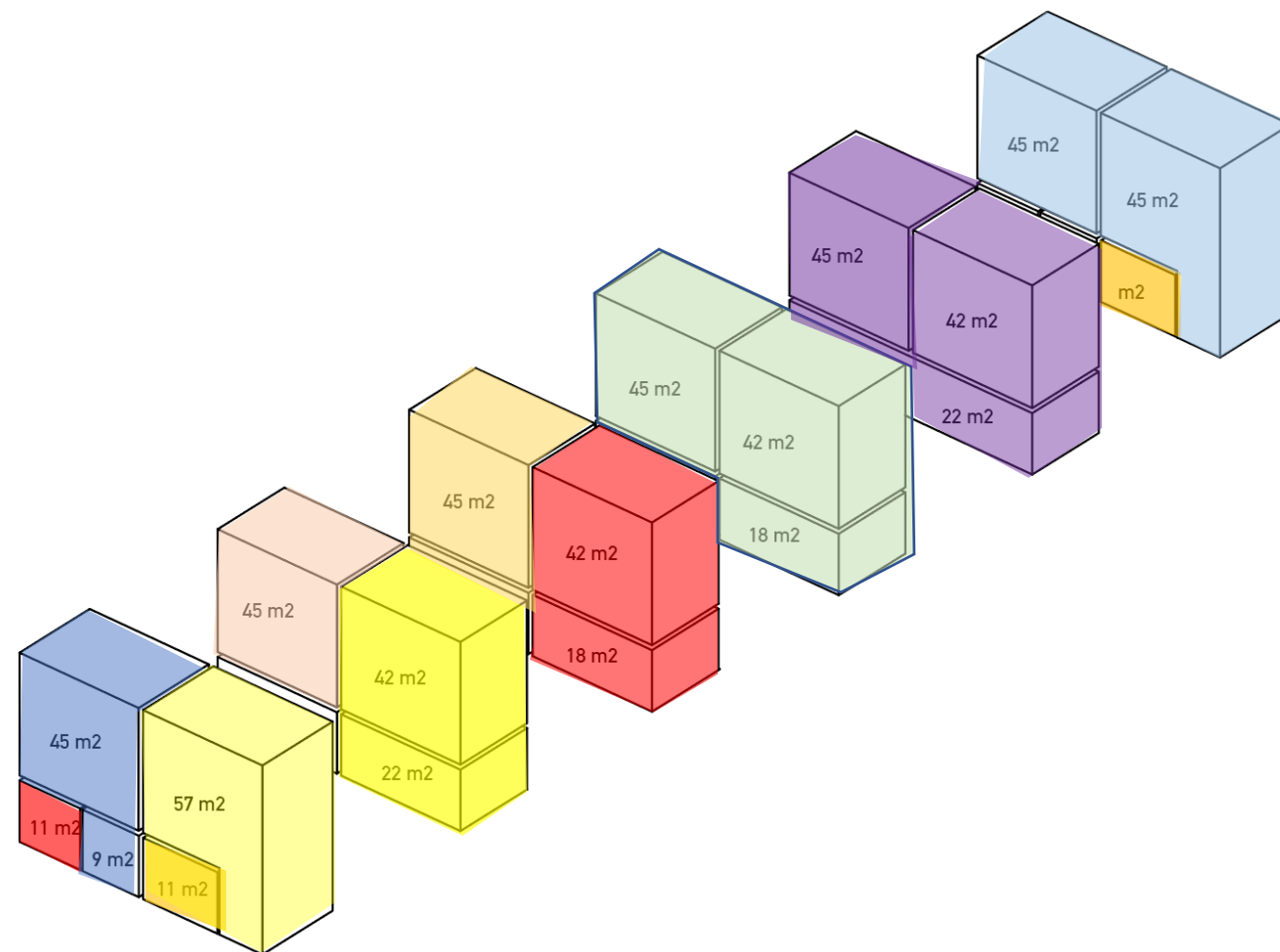


# MPAZI II REHOUSING : ORGANIZATION



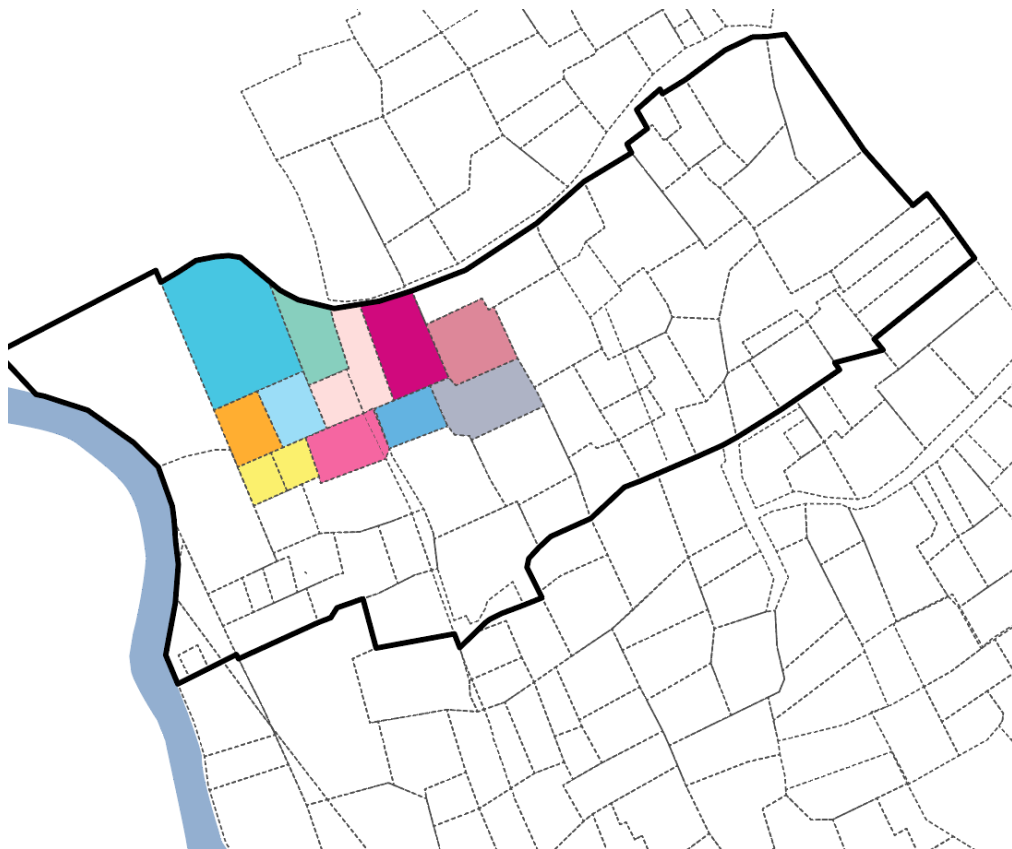


## Scenario 2

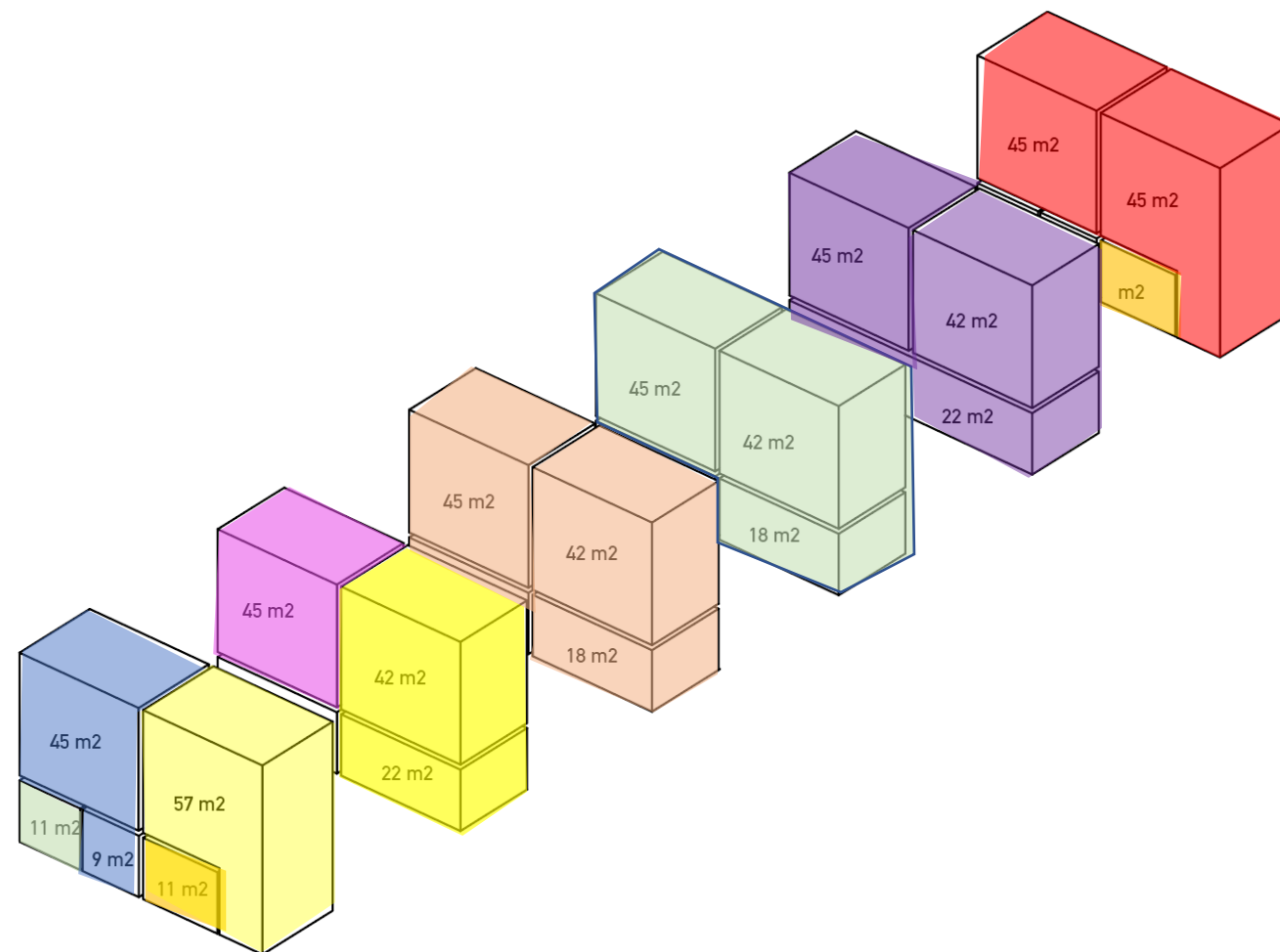


# MPAZI II REHOUSING : ORGANIZATION





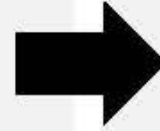
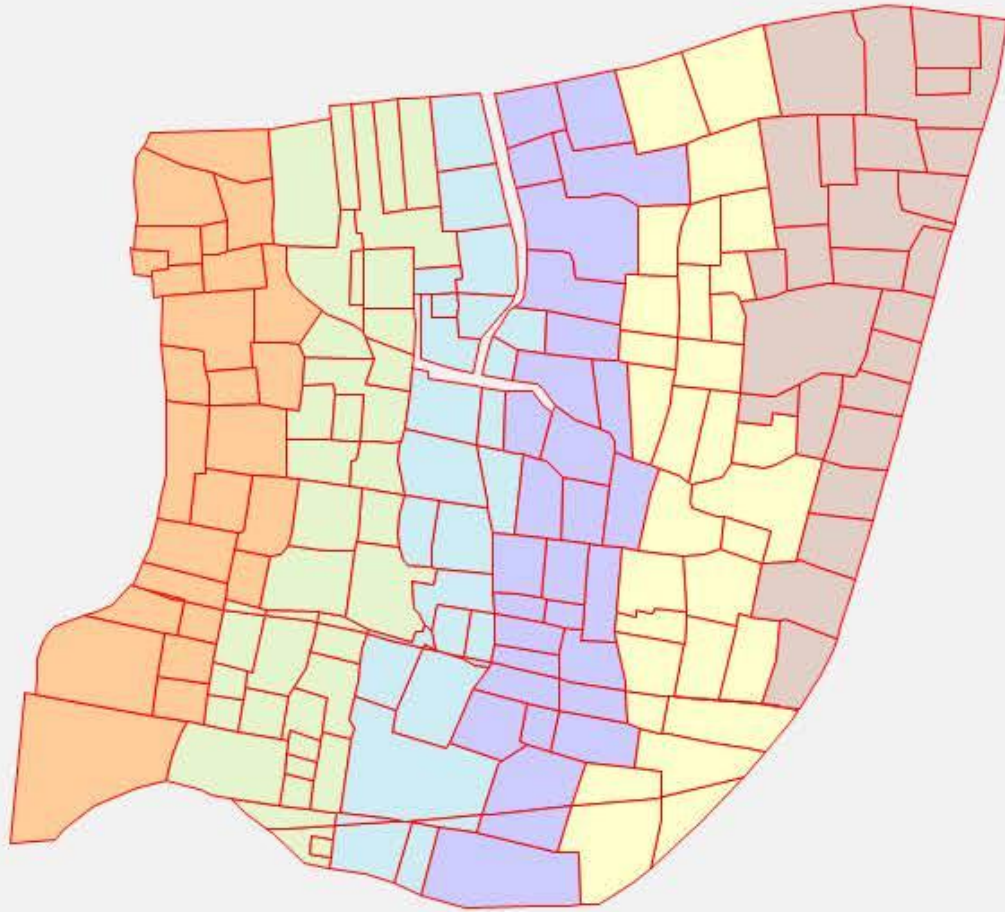
## Scenario 3



# MPAZI II REHOUSING : ORGANIZATION



## COOPERATIVES BEFORE THE REPLOTING

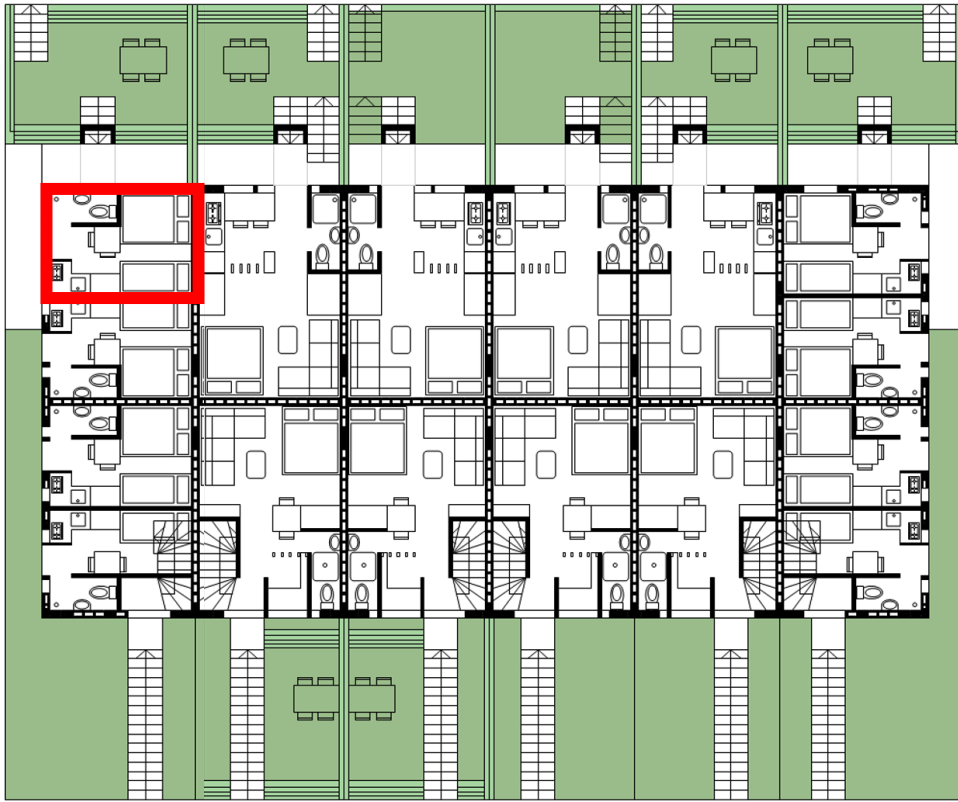


## COOPERATIVES AFTER REPLOTING



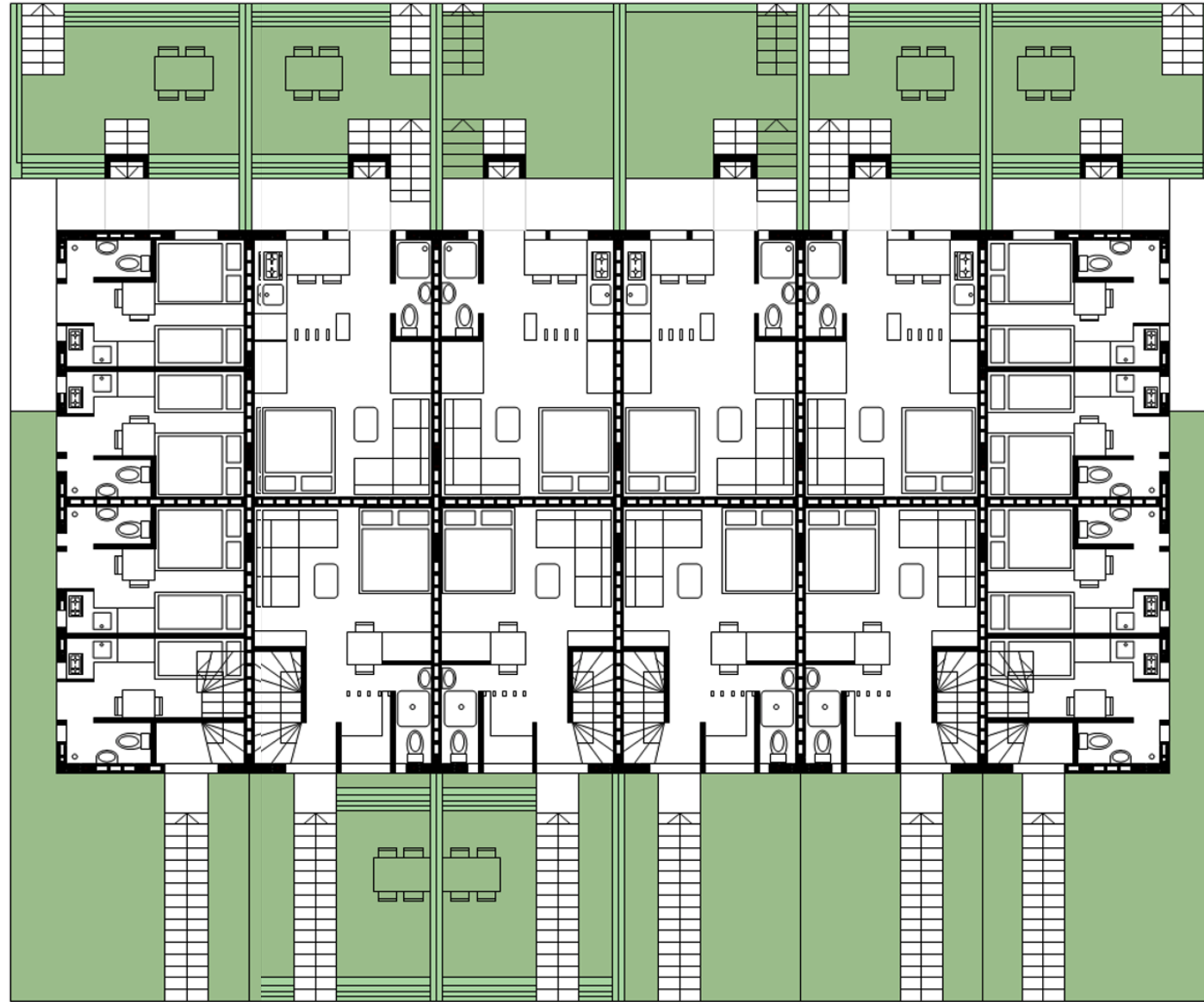
# REPLOTTING COOPERATIVE BY COOPERATIVE





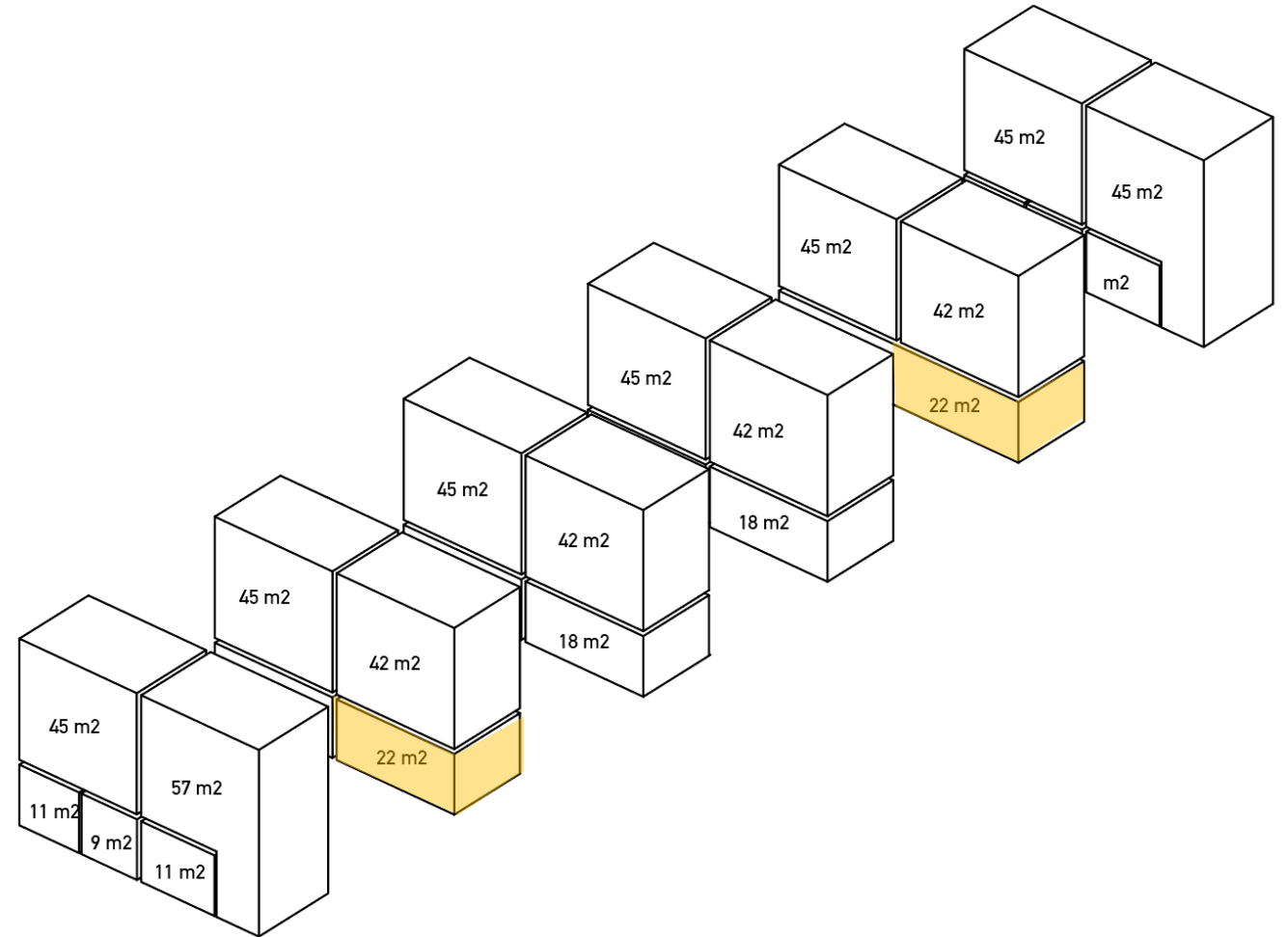
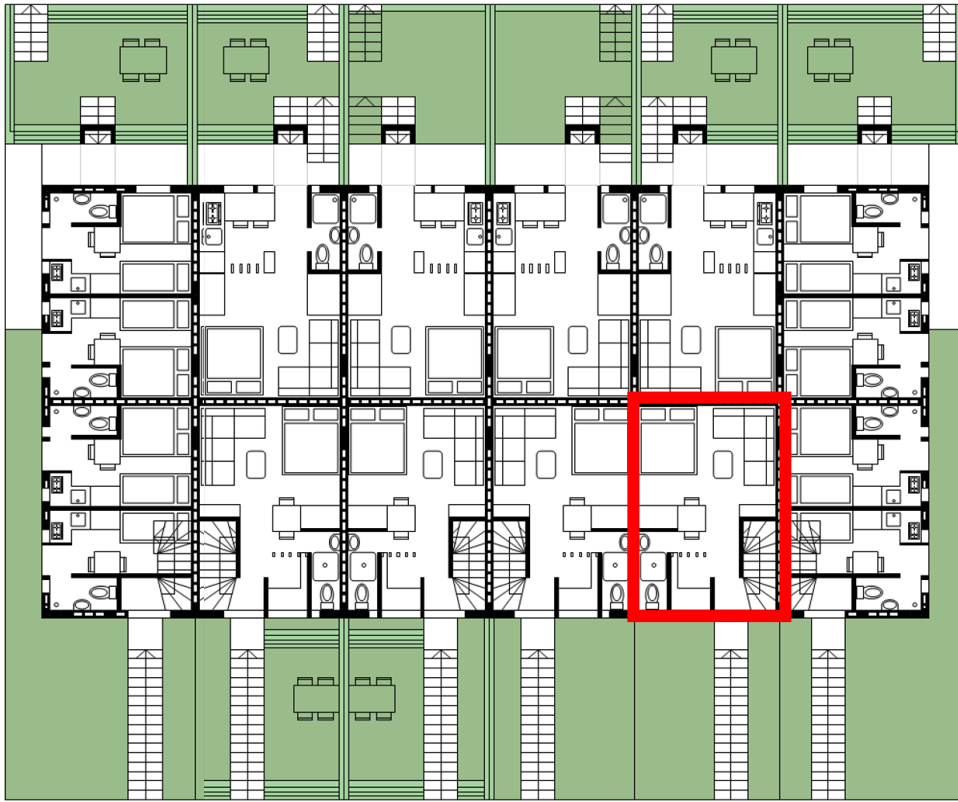
# MPAZI II REHOUSING : MICRO STUDIO





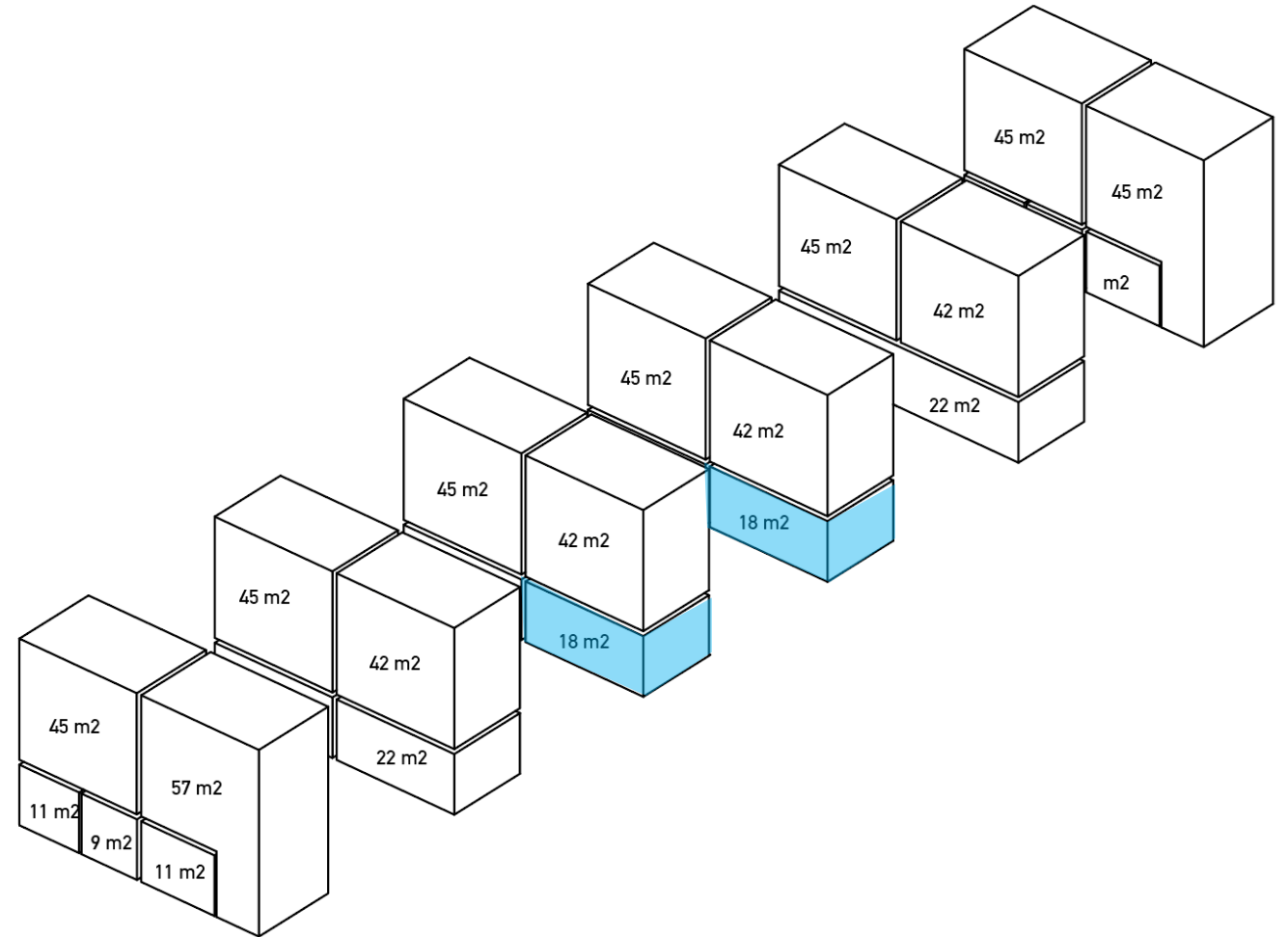
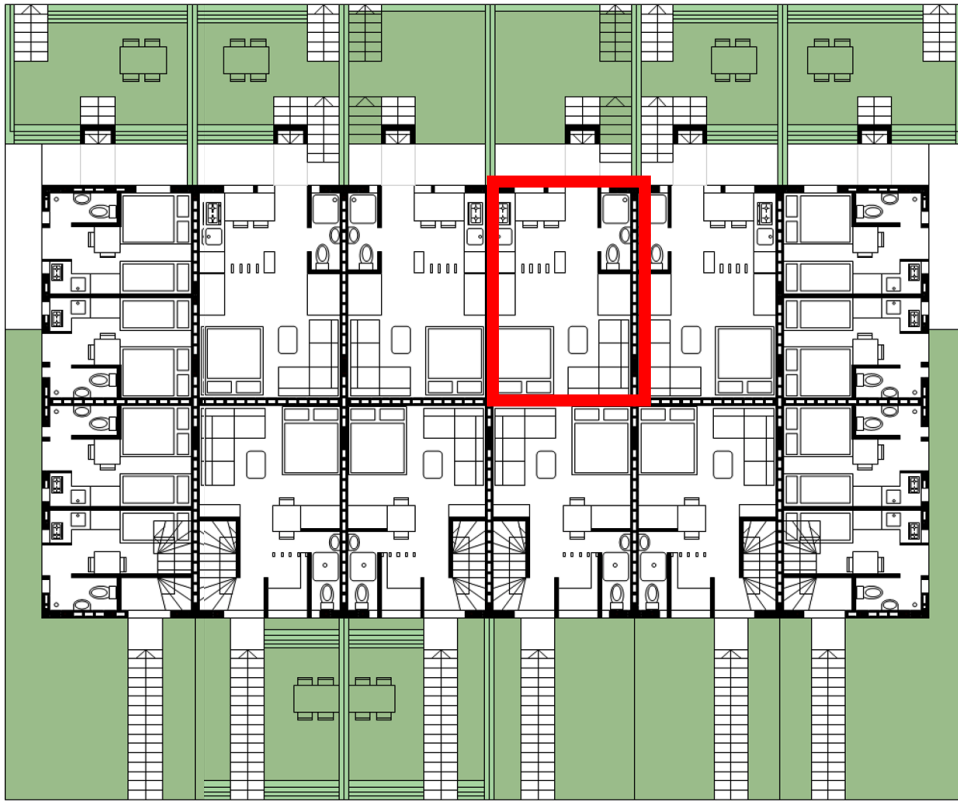
# MPAZI II REHOUSING : GROUND FLOOR





# I ROOM APARTMENT SOLUTION

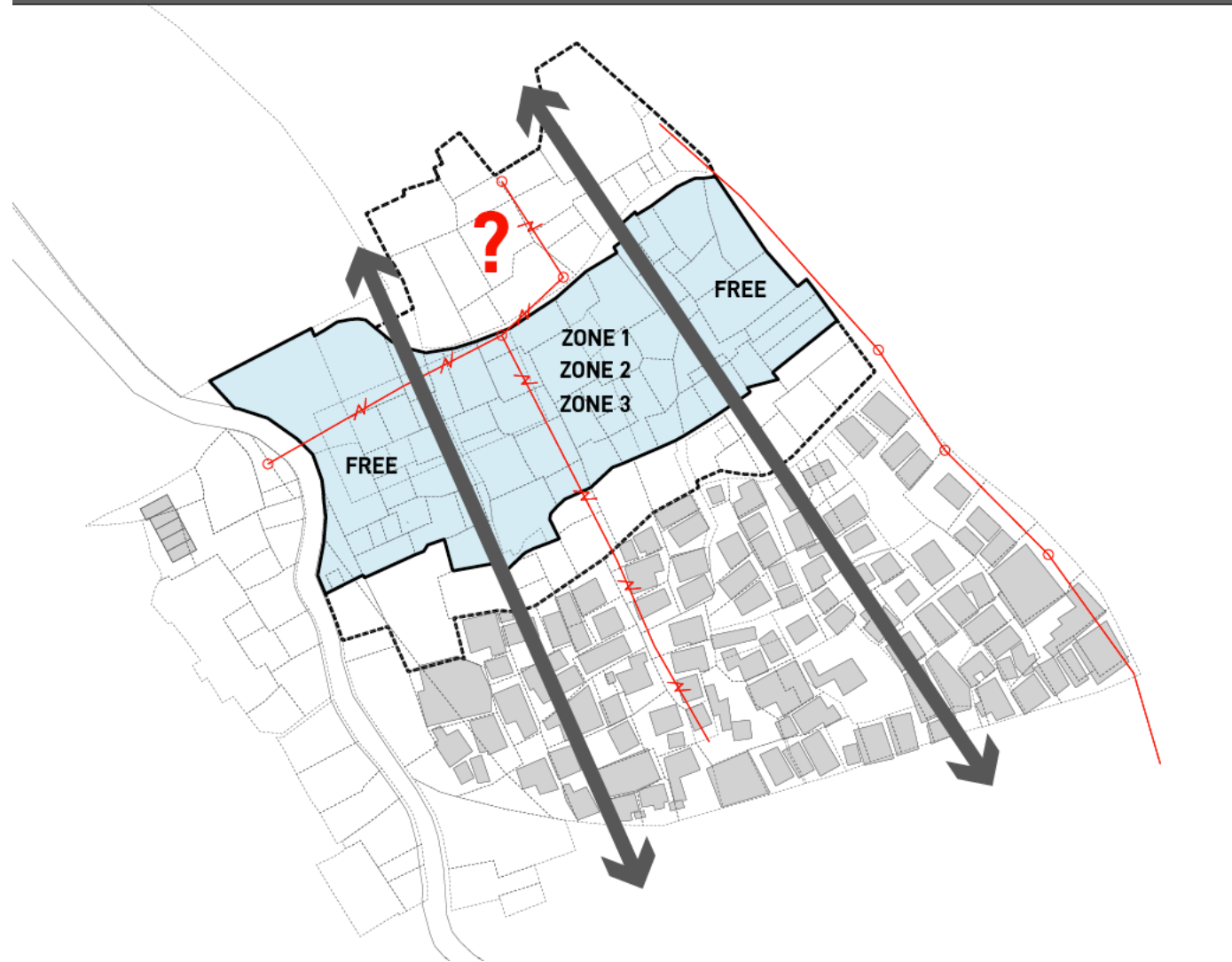




# I ROOM APARTMENT SOLUTION

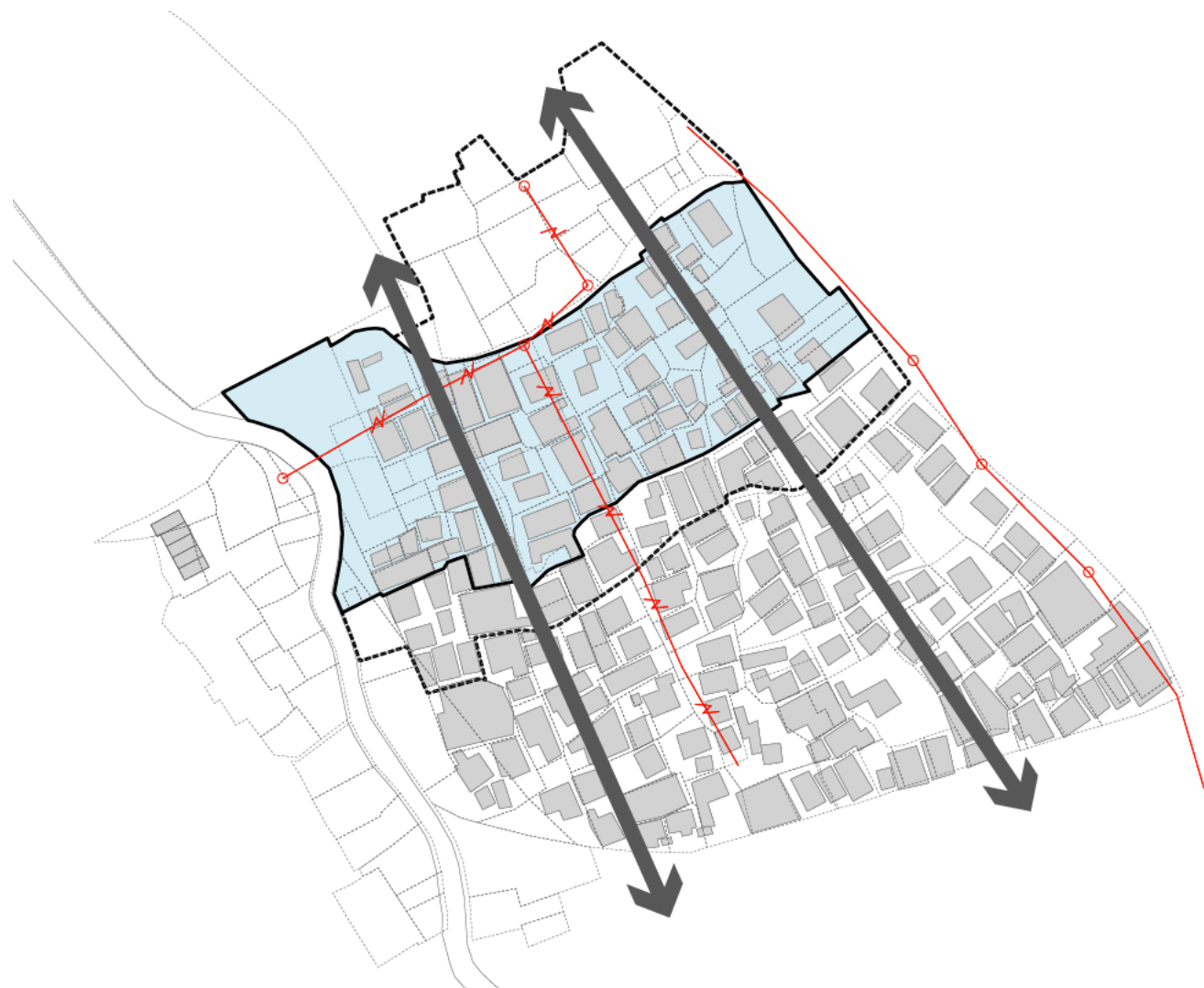


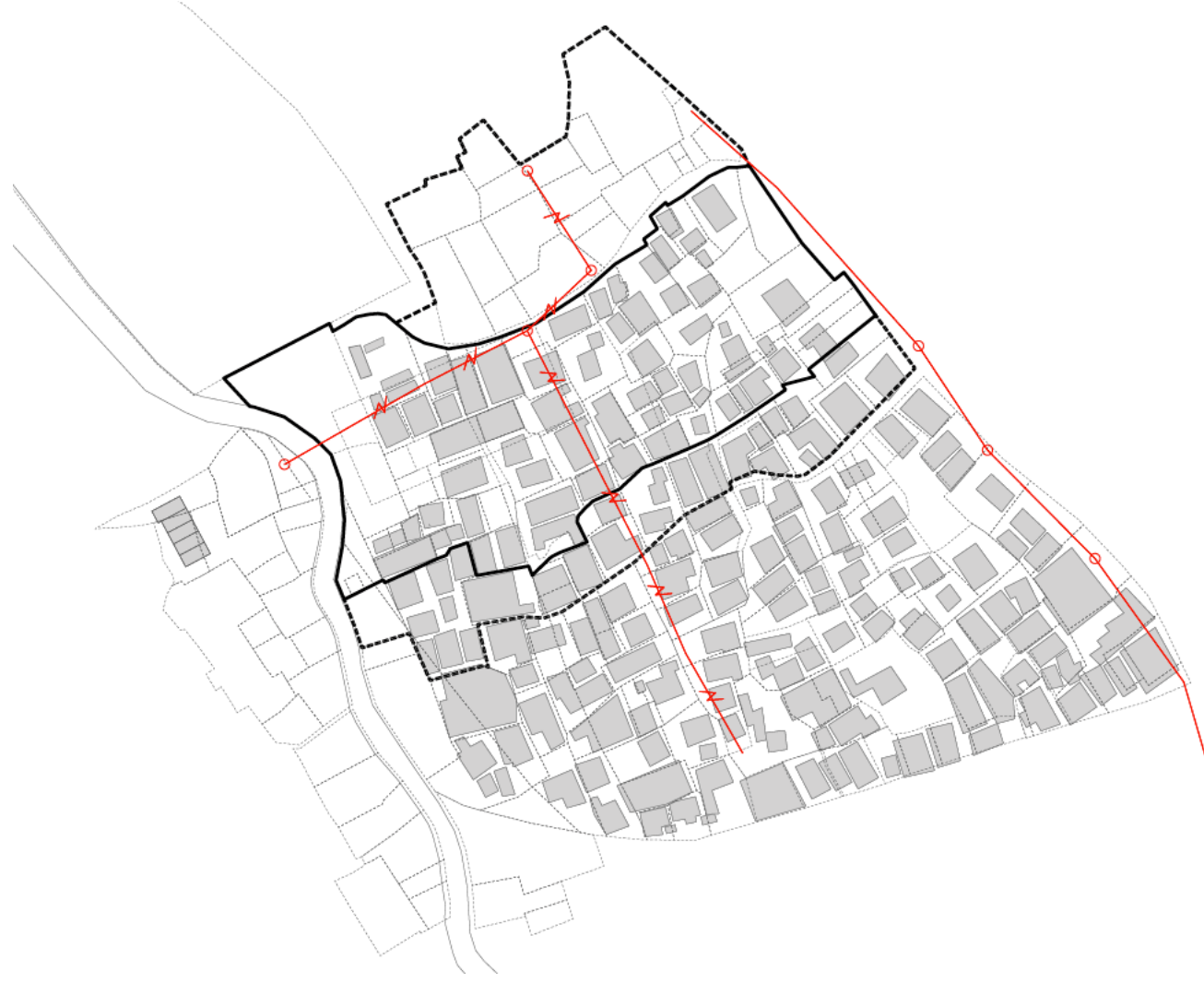






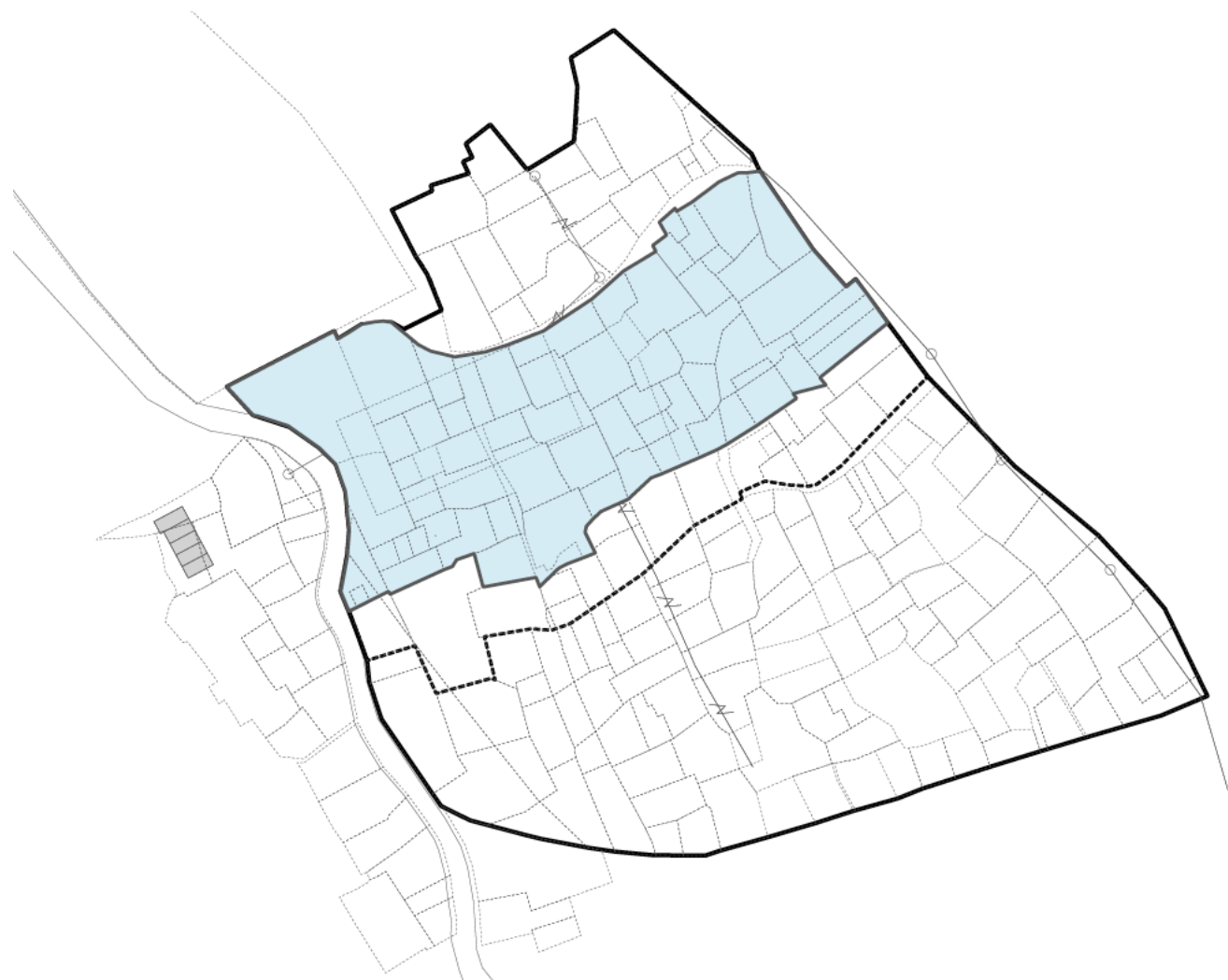




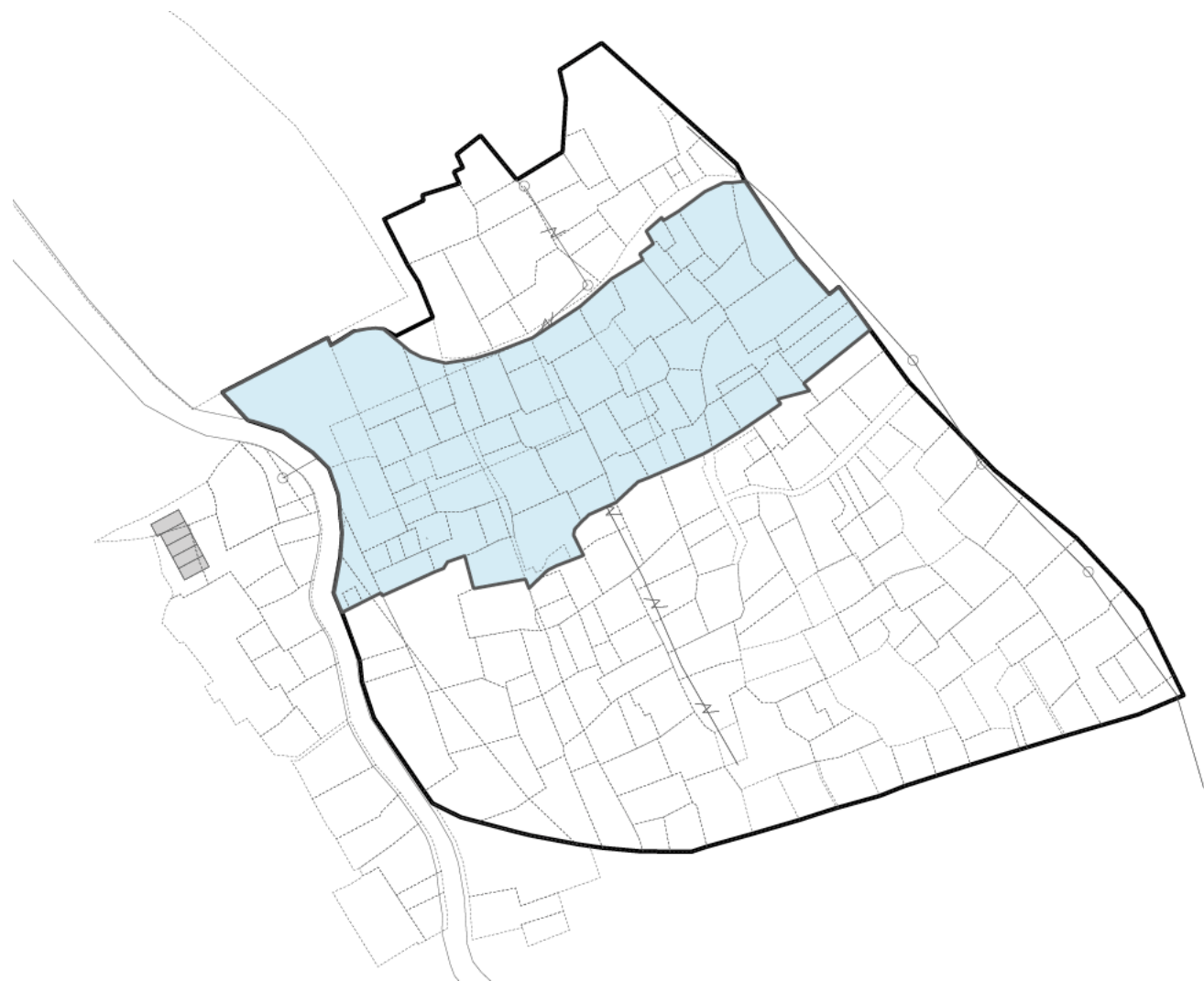














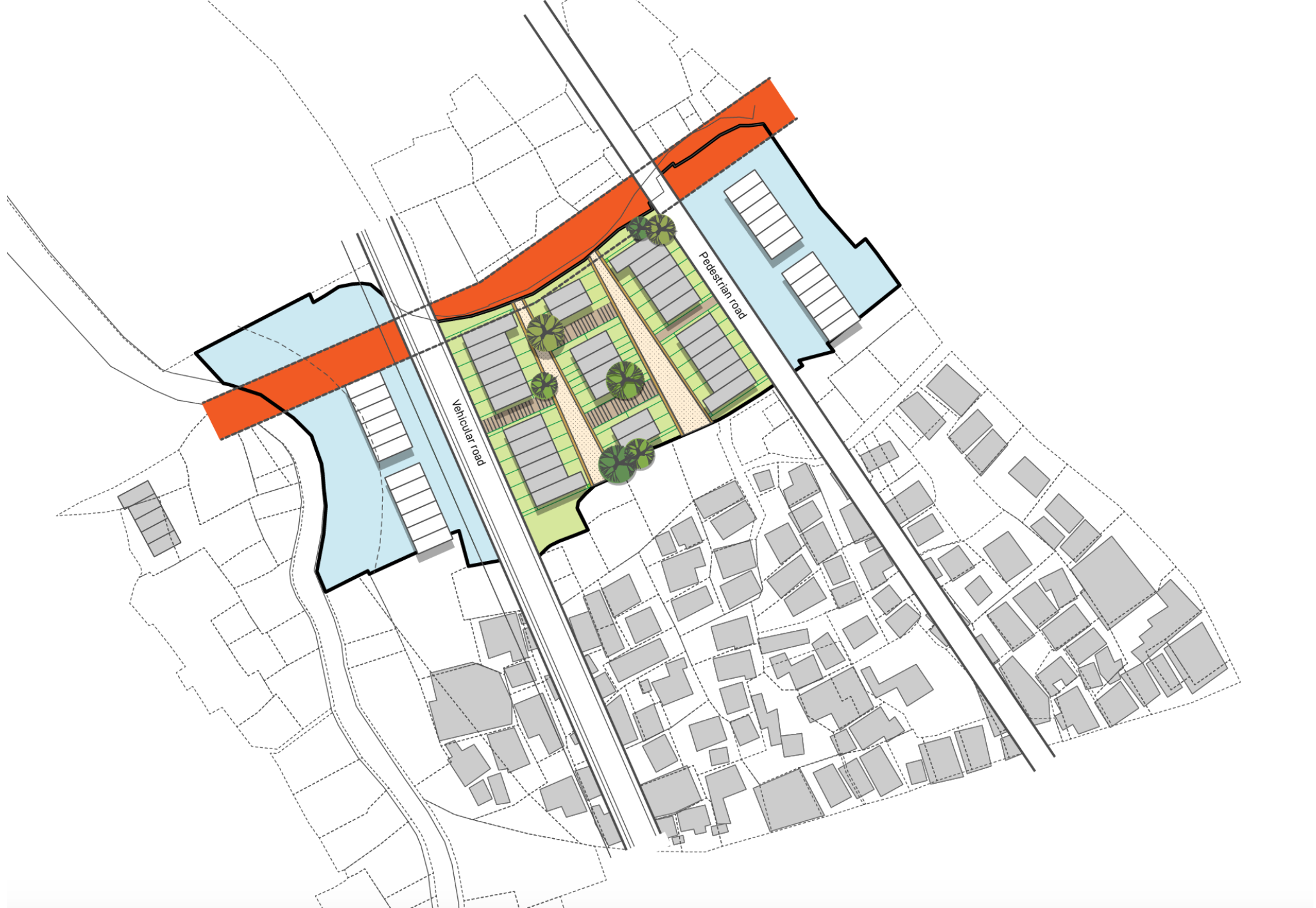
















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**C**limate Responsive **CO**nstruction