

**MASTER
DESIGN FOR DEVELOPMENT**

**Architecture, Urban Planning and
Heritage in the Global South**

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M**



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MILANO 1863



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Workshop MAPP_Maputo

INTERNATIONAL WORKSHOP MAPP_Maputo Malhangalene Architecture Pilot Project

2-22 february 2020

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Local participants

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Objective of the workshop was to identify the functional program needed to encourage slum upgrading, along with the definition of the most appropriated strategy to achieve this goal. The core is to understand how to engage the community to target slum upgrading. Each group identified a different strategy for slum upgrading.

The chosen area for the project is located at the crossing point between the Baixa, the modern city, and various informal settlements, among them the historical Barrio of Mafalala.



SLUMS DEFINITION

UN-Habitat defines a slum as an area that has one or more of the following five characteristics:

- poor structural quality of housing
- overcrowding
- inadequate access to safe water
- inadequate access to sanitation and other infrastructure
- insecure residential status. ¹

The UN-Habitat definition is strongly underpinned by a rights-based approach to the universal fulfilment of the right to adequate housing. To the above definition the Cities Alliance adds that slums do not have basic municipal services (such as water, sanitation, and waste collection), schools and clinics within easy reach, safe areas for children to play and places for the community to meet and socialize. ²

WHAT IS SLUM UPGRADING?

The narrow definition of slum upgrading refers to improvements in housing and/or basic infrastructure in slum areas. In a broader sense, upgrading also includes enhancements in the economic and social processes that can bring about such physical improvements. ³

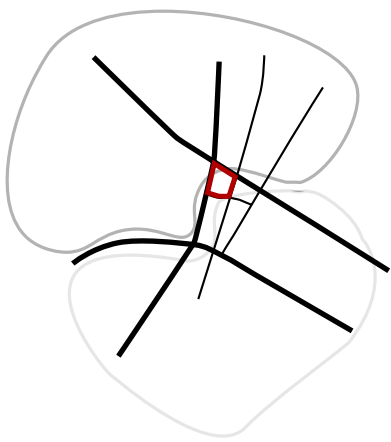
At its most comprehensive it consists of physical, social, economic, organizational and environmental improvements undertaken cooperatively and locally among citizens, community groups, businesses, and national governments and city authorities.

Slum upgrading interventions typically include the following:

- installation or improvement of basic infrastructure
- regularisation of security of tenure
- relocation of and compensation for the residents (both men and women) dislocated by the improvements
- housing improvement
- construction or rehabilitation of community facilities such as nurseries, health posts and community open spaces
- improvement of access to health care, education and social support programmes
- removal or mitigation of environmental hazards
- provision of incentives for community management and maintenance
- enhancement of income-earning opportunities through training and micro-credits
- building of social capital and the institutional framework to sustain improvements; ⁴

1 - UN-Habitat, 2002c
2 - Cities Alliance, 1999
3 - UNHabitat, 2004
4 - Cities Alliance, 1999

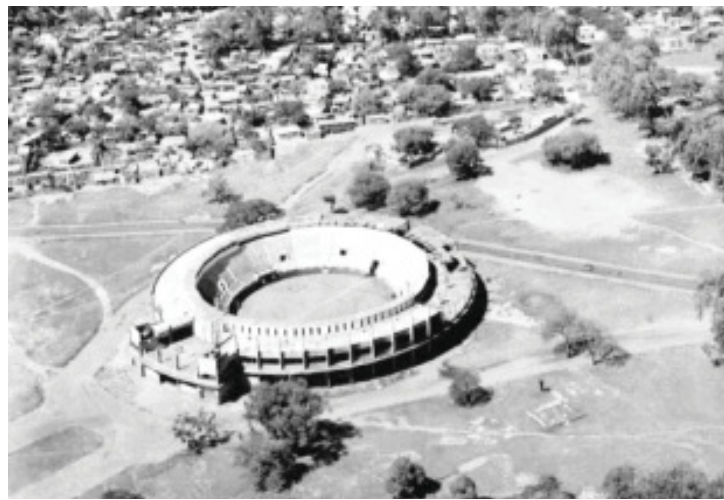




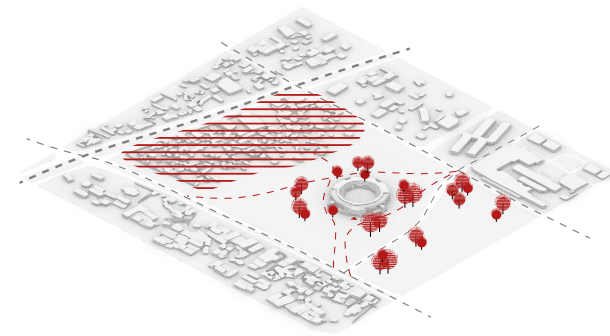
Area of the project



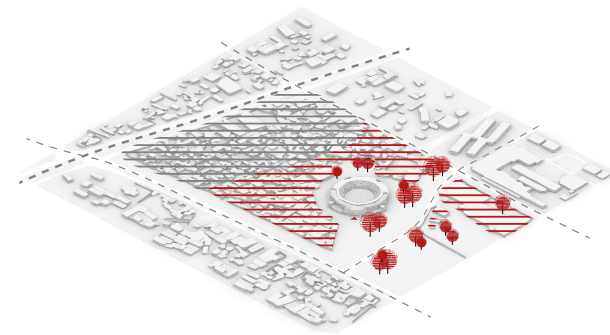




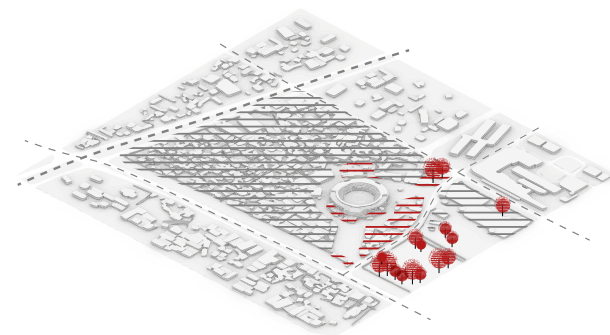
1960



2005



2015



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GROUP 4 - (IN)FORMAL CITY GRID 4

GROUP 5 - SPACEFICATION 5

Team 1

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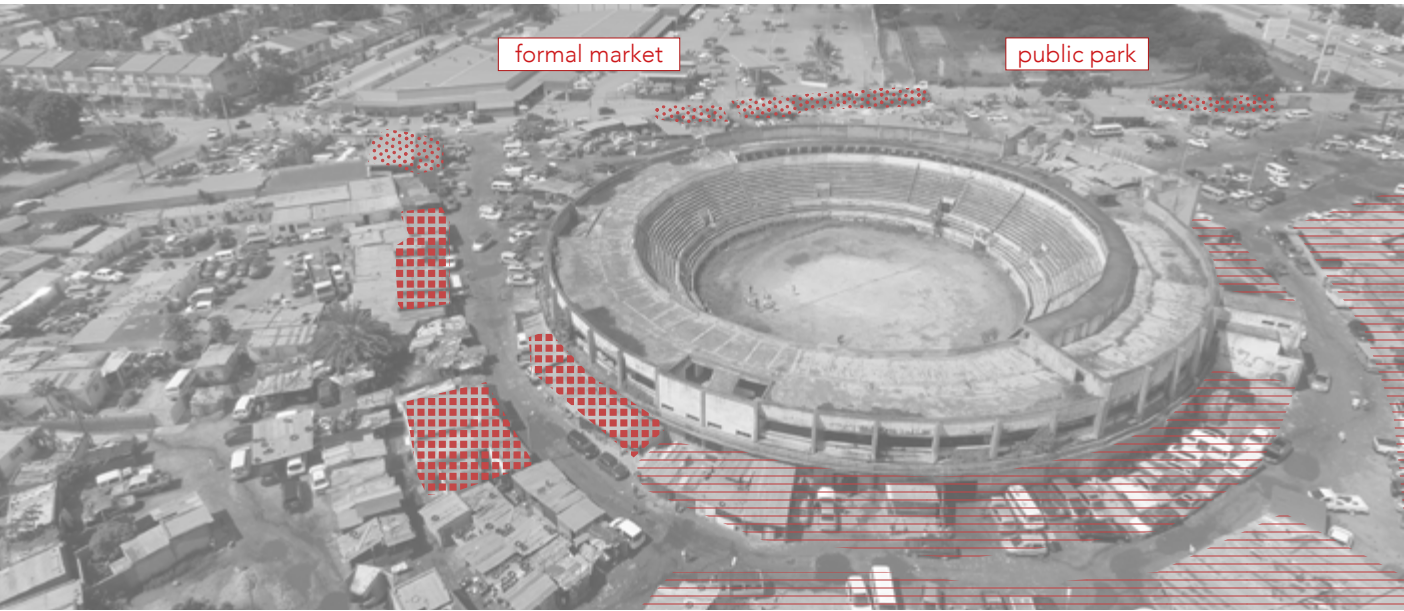
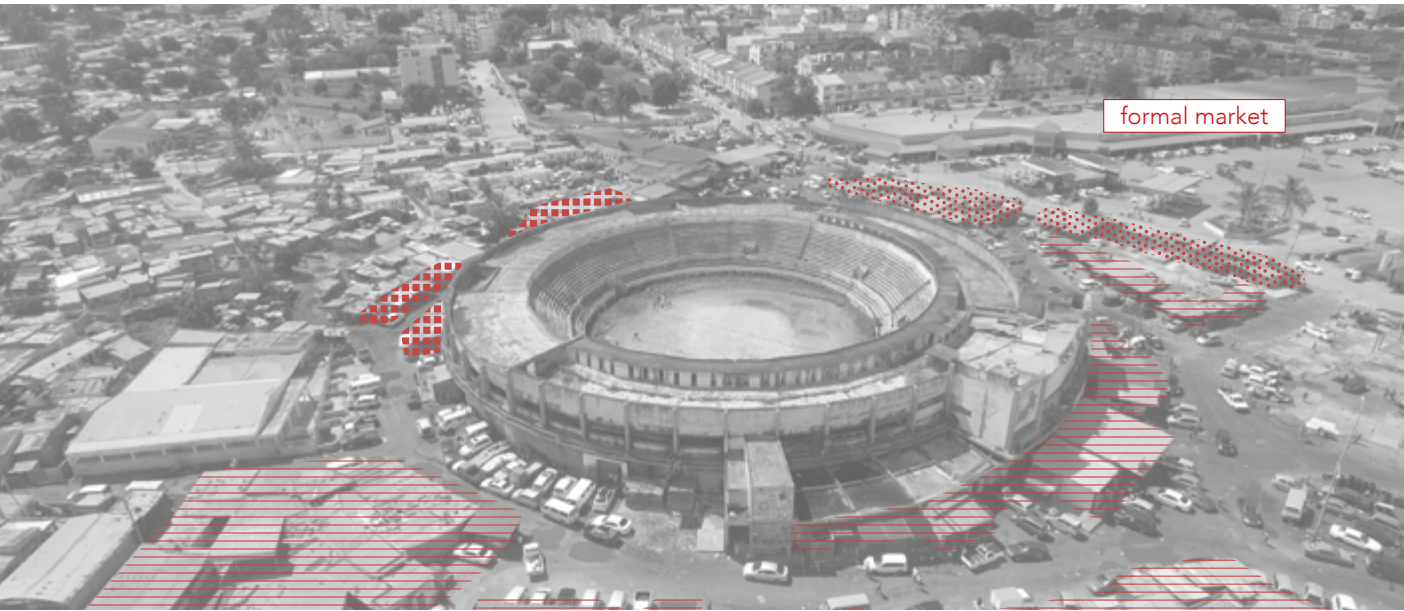
Starting from a series of field visits in the area of Malhangalene as part of a work that deals with rethinking and redeveloping the area, we have identified the theme of social segregation as the main object of interest for our project. This theme is closely linked to that one of spatial segregation. The area is in fact characterized by its being evidently separated from its surroundings, due to the lack of a homogeneous urban plan that makes it permeable and that exploits its potential, still unexplored to date.




From these ideas, we have established the objective of formulating a masterplan that is able to reach a condition of spatial cohesion. In order to achieve this goal, the main aims are to stimulate the permeability of space and maximize its use through a process of cultural re-appropriation of an important monument present on the site, dating back to the colonial period, Praça de Touros, today in conditions of degradation and abandonment. In this regard, it is necessary to change the perception of extraneousness that accompanies this place, opening it to the outside and letting the two worlds absorb and dialogue.

From a practical point of view, it is a matter of redeveloping the building by opening its original access points and allowing the residents of the area to take advantage of the space for carrying out the various activities that characterize the neighbourhood. There are also plans to create a pedestrian path that connects the whole area and allows a homogeneous transition between public and private spaces, informal and formal settlements.

By observing the area, we immediately realize how much the building has been threatened and finally overwhelmed by the urban development that has occurred over the years.

By carefully studying the original structure and its access points in relation to the surrounding points of interest, we have declined the above permeability concept in different ways and with different intensity, depending on the activities to be carried out: limited permeability as regards work activities, with one-way access; high permeability as regards leisure areas, with a smooth transition between exterior and interior; finally absolute permeability in a specially chosen point in order to create an impact entrance that acts as a recognizable element from the distance and invites residents to take advantage of the redeveloped space.

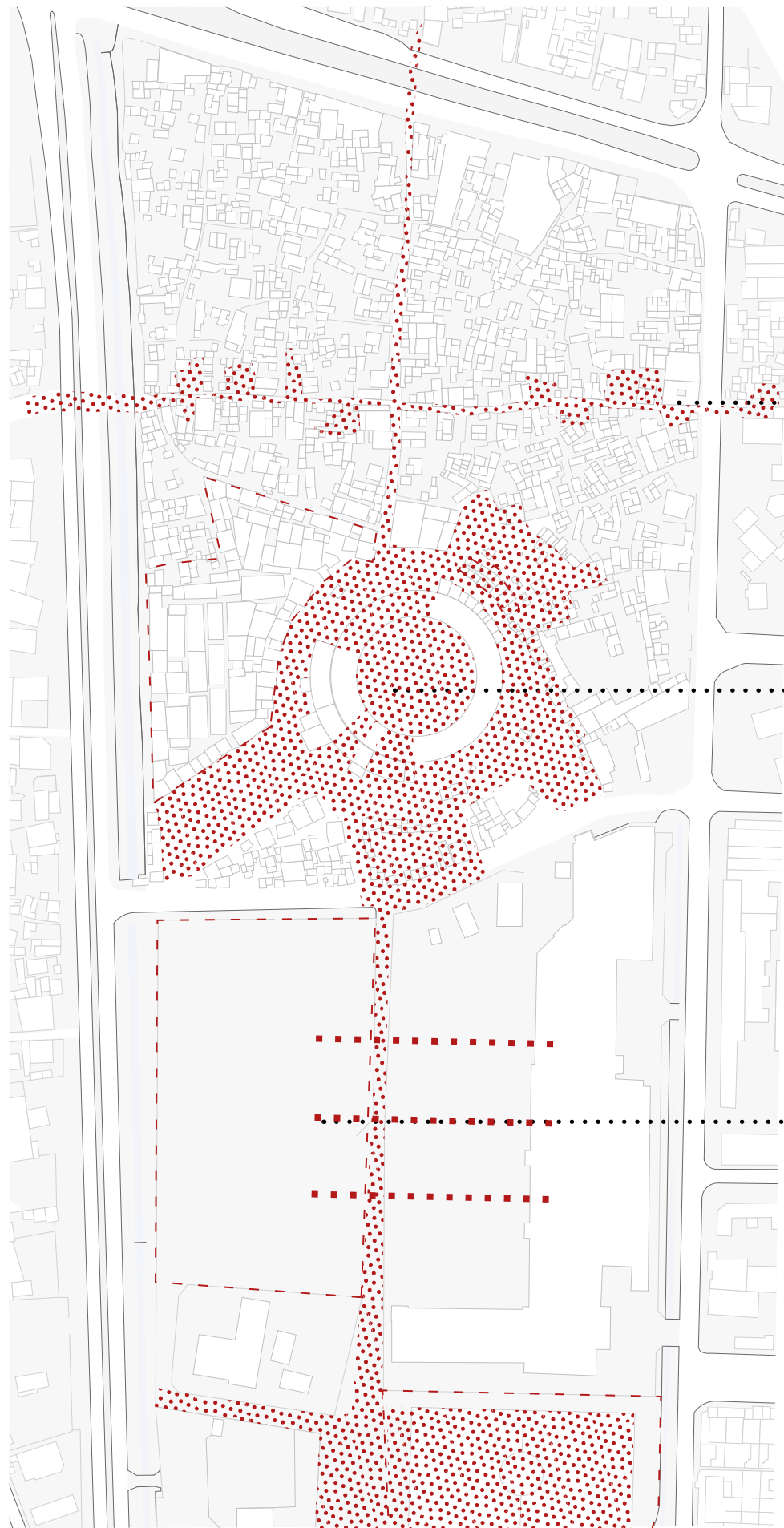


-  restaurants - bar
-  car sellers - mechanics
-  informal food markets

Functional context analysis



State of art pictures_Informal uses



1 PATHS

Create longitudinal and transversal **pedestrian paths** with different layers of green in order to **connect spaces**

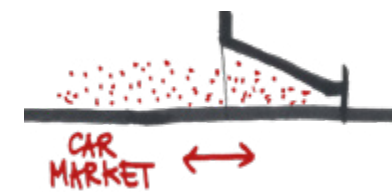
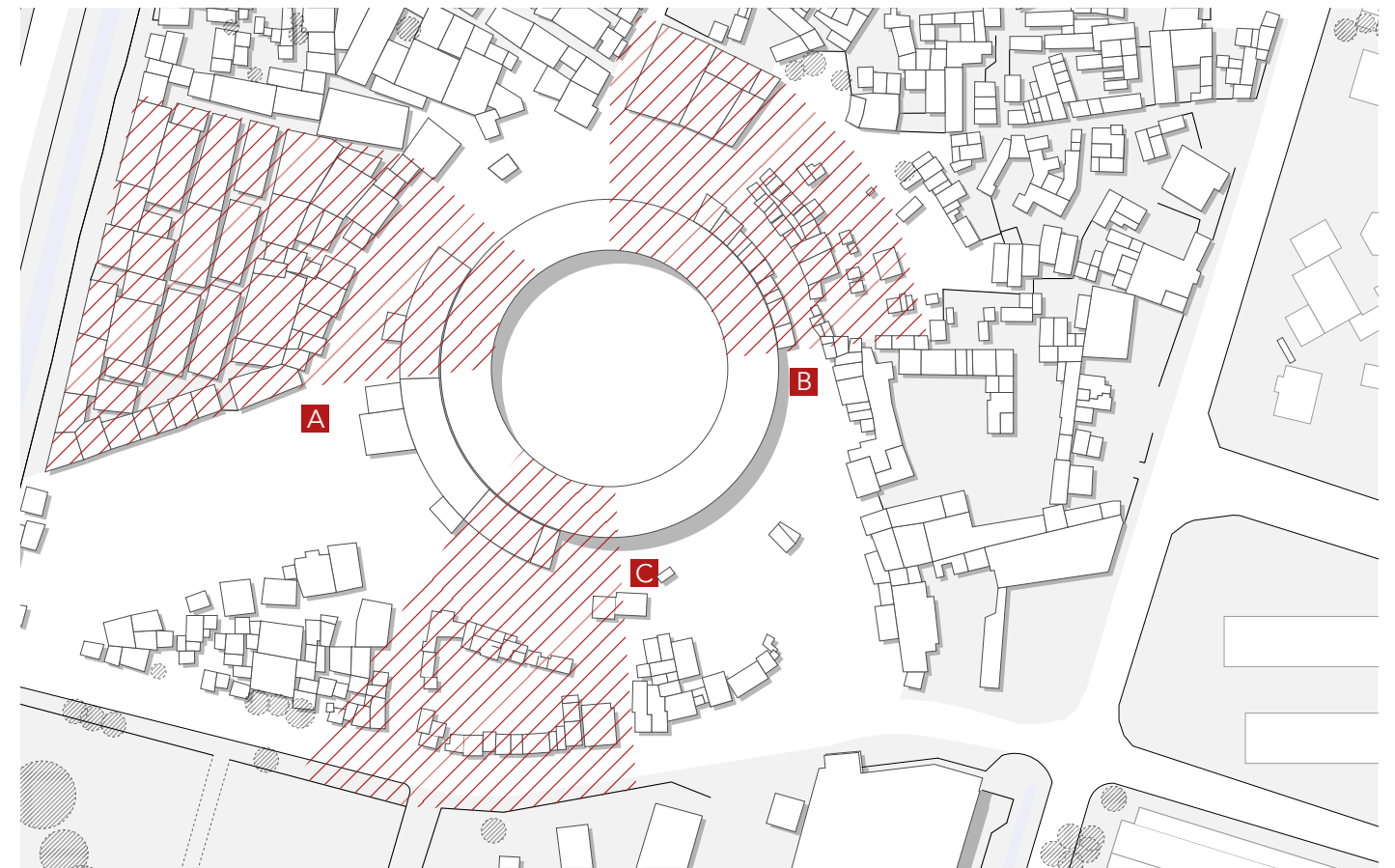
2 THE ARENA

| Turn the arena in a **passage** and a **public space**
| Open **new access points**
| Make the arena **absorb** and **dialogue** with **informal activities**
| Create **infrastructures** to support the existing market (parking, storage, bathrooms, offices)

3 PUBLIC AND PRIVATE

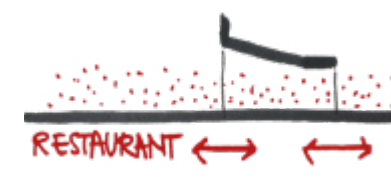
Create new connections between **public** and **private spaces**

STRATEGIC PLAN



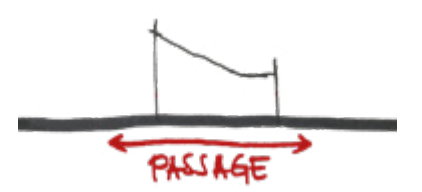
A

Limited permeability as regards car sellers and mechanics, with one-way access. This type of opening defines a functional continuity with the context in a single sense, thus preserving the inside of the arena.



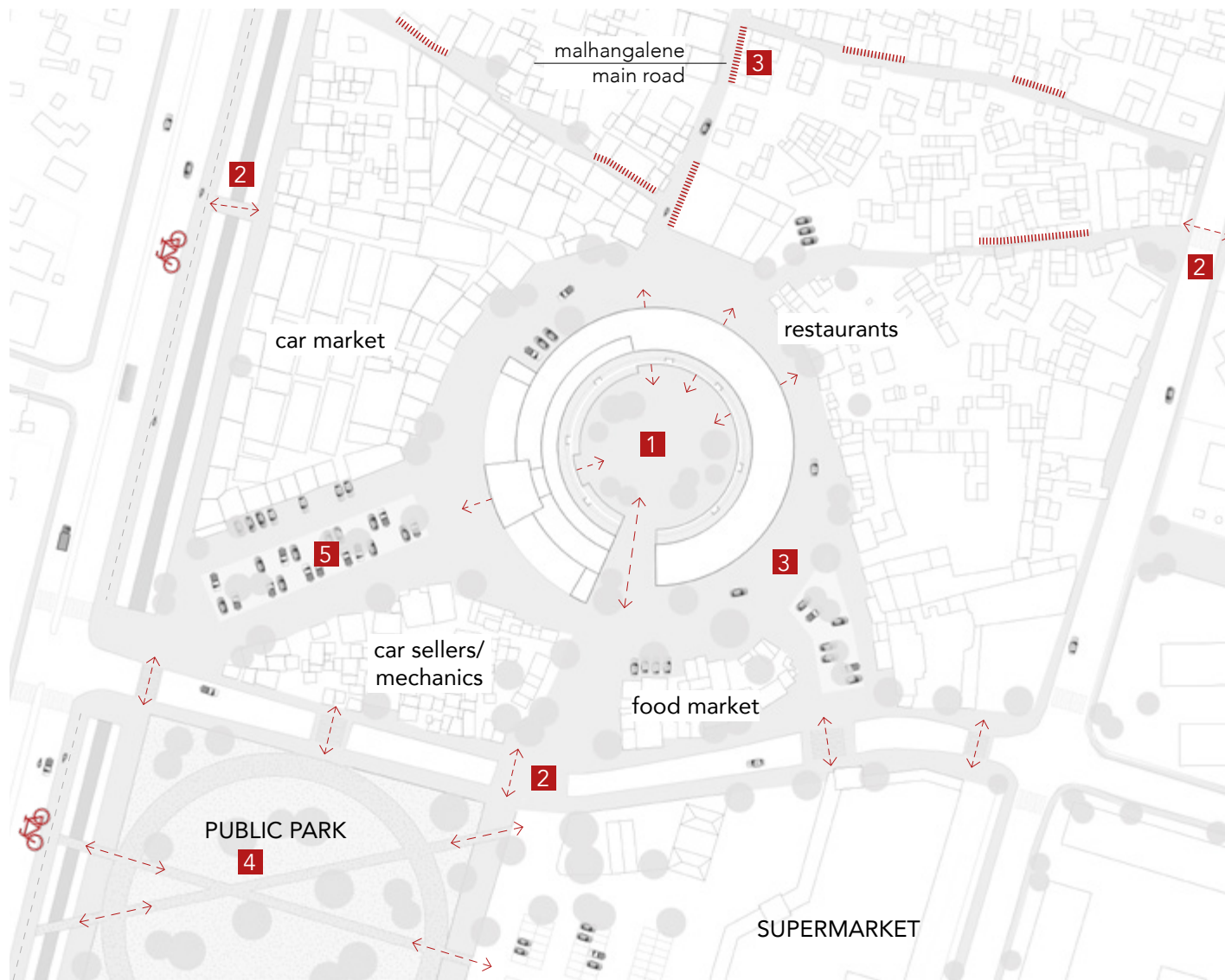
B

High permeability as regards leisure areas, with a smooth transition between exterior and interior. It is a total permeability from the visual perspective; physically, instead, it is limited to the ground floor.



C

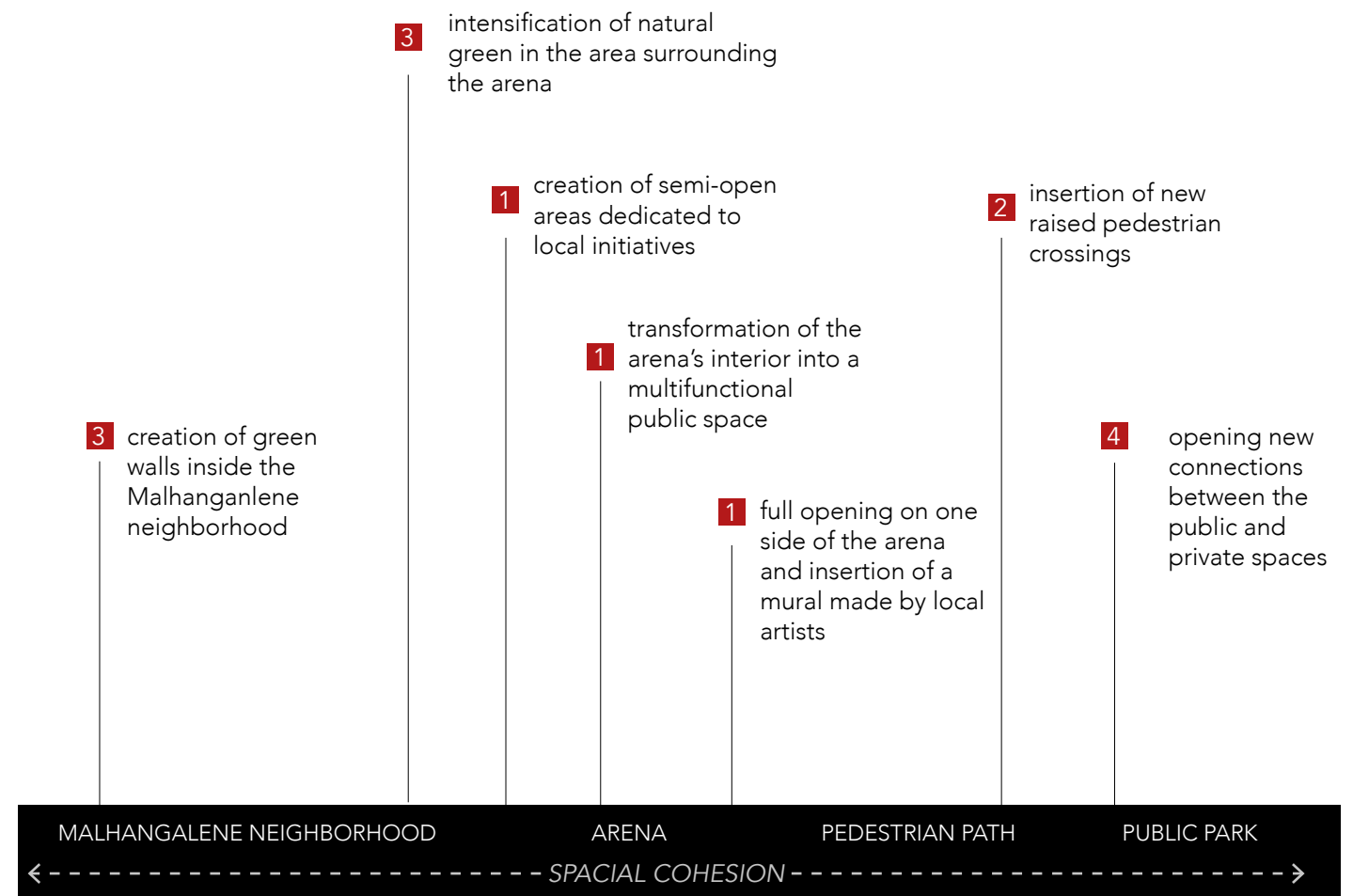
Absolute permeability in a specially chosen point in order to create an impact entrance that acts as a recognizable element from the distance and invites residents to take advantage of the redeveloped space.

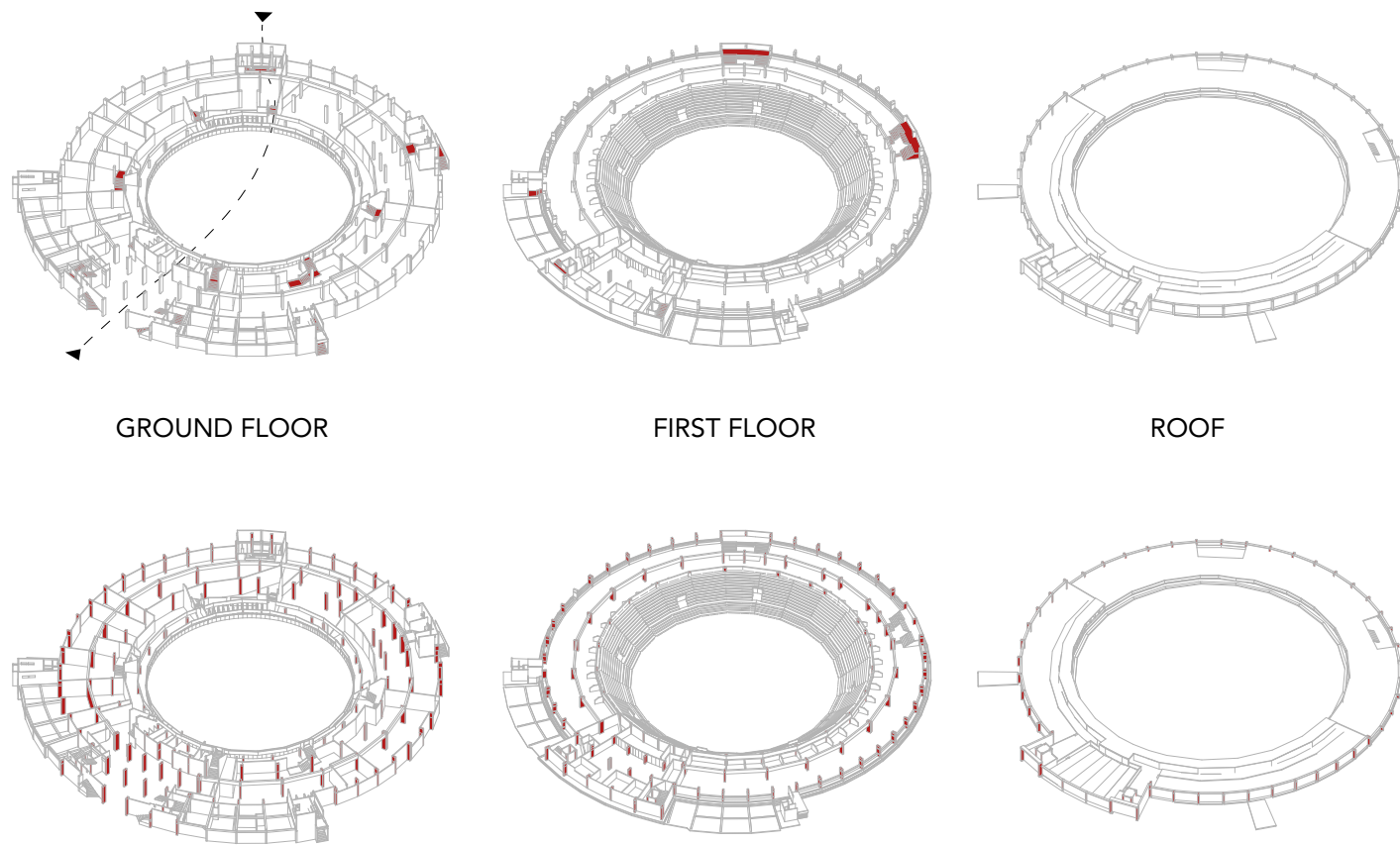


- 1** turn the arena in a public space
- 2** new crosswalks to increase connections
- 3** strengthen urban green
- 4** park remodeling: new openings
- 5** creation of green and permeable parking

- uniform paving
- green walls

MASTERPLAN

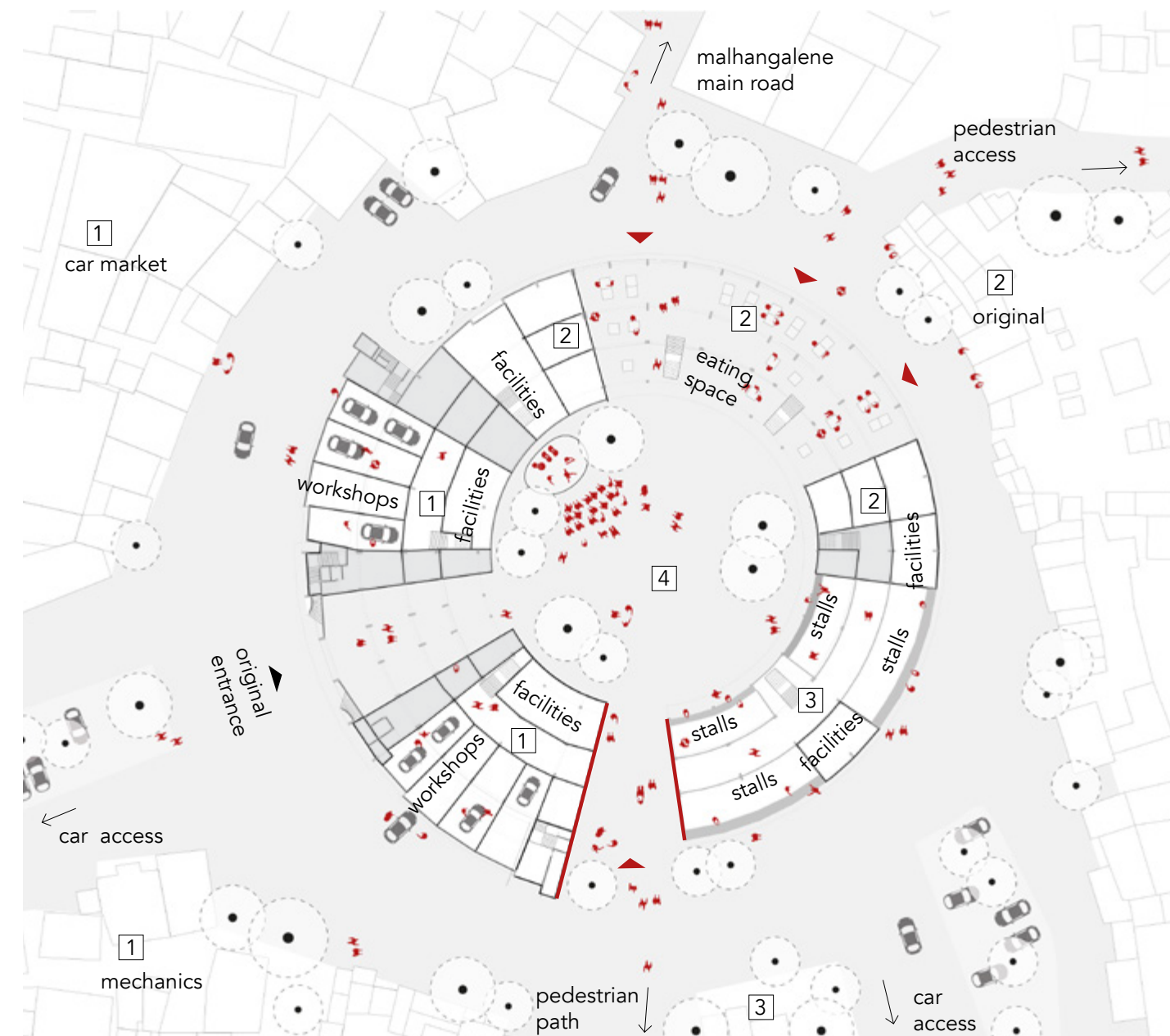




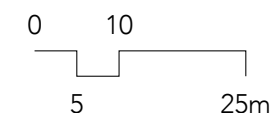
GROUND FLOOR

FIRST FLOOR

ROOF

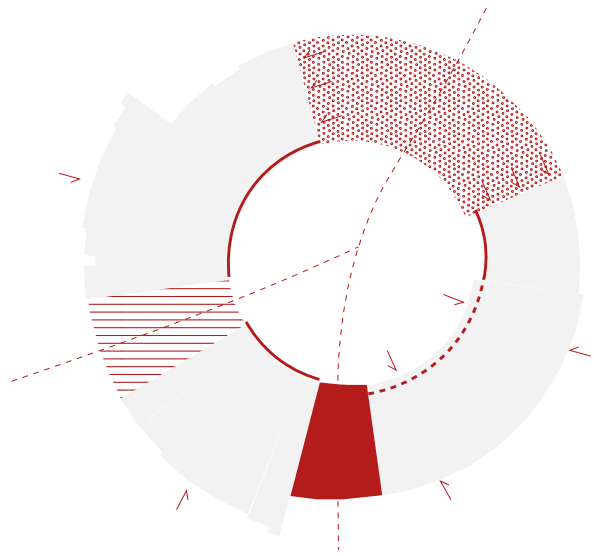


- 1 car sellers/mechanics
- 2 restaurants
- 3 food market
- 4 multifunctional public space
- common areas
- murales



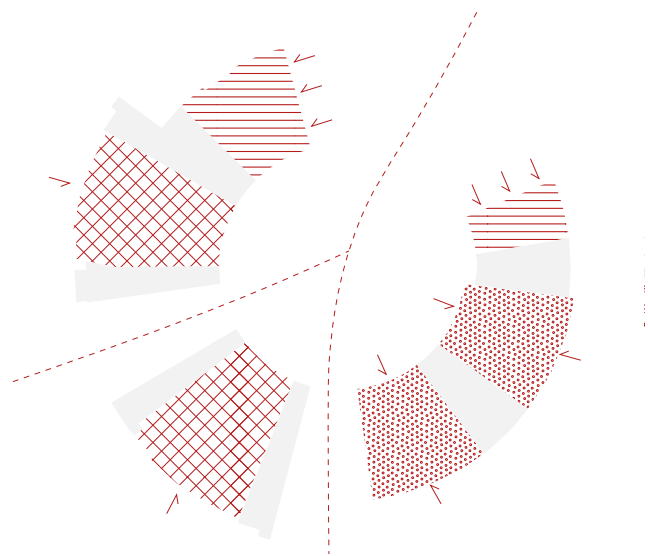
Access and vertical connections/pillars grid

Ground Floor



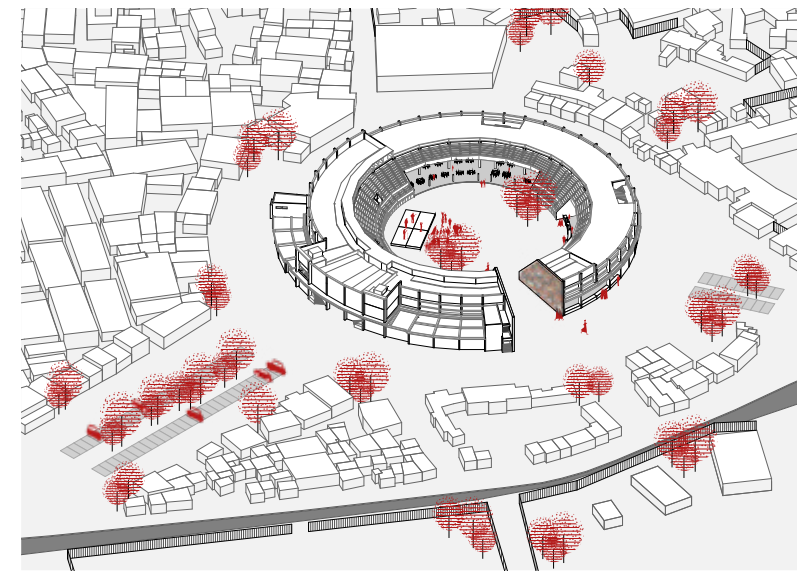
- - paths ▨ porch ✕ existing entrance
 -> access ▨ vertical cut ■ strong ■ semipermeable

Typological analysis_Access and vertical connections/pillars grid



- - paths -> access ■ vertical connection
 ▨ markets ▨ restaurants ✕ car sellers/mechaniscs

Permeability, accessibility and functions

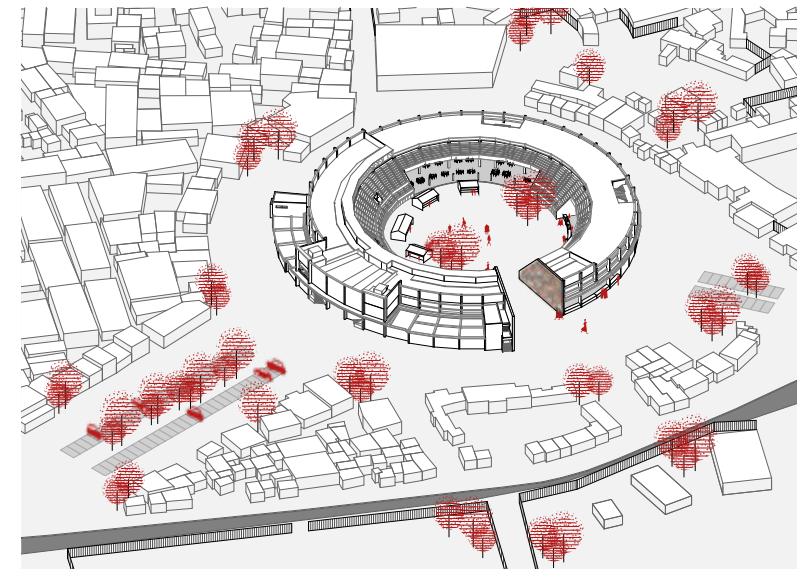


1

EVENT OPEN TO THE COMMUNITY

The arena, with the provision of a stage, becomes a place of aggregative "events". They could be simple children's performances from nearby schools or organization of an open-air cinema.

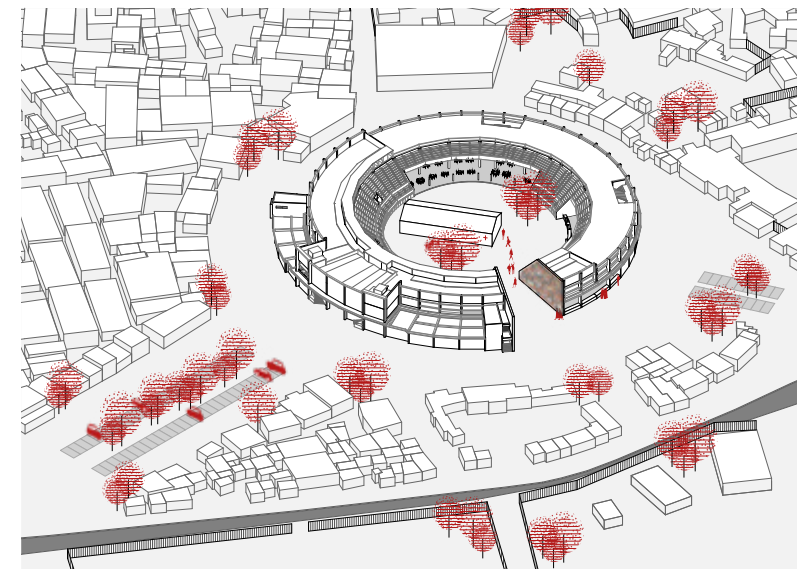
1



2

PERIODIC MARKET

Neighborhood food sellers have the possibility to sell their products within the arena, in a periodic open market, with the dispositions of some temporary stands. These structures are in addition to the fixed one based on the ground floor of the arena.



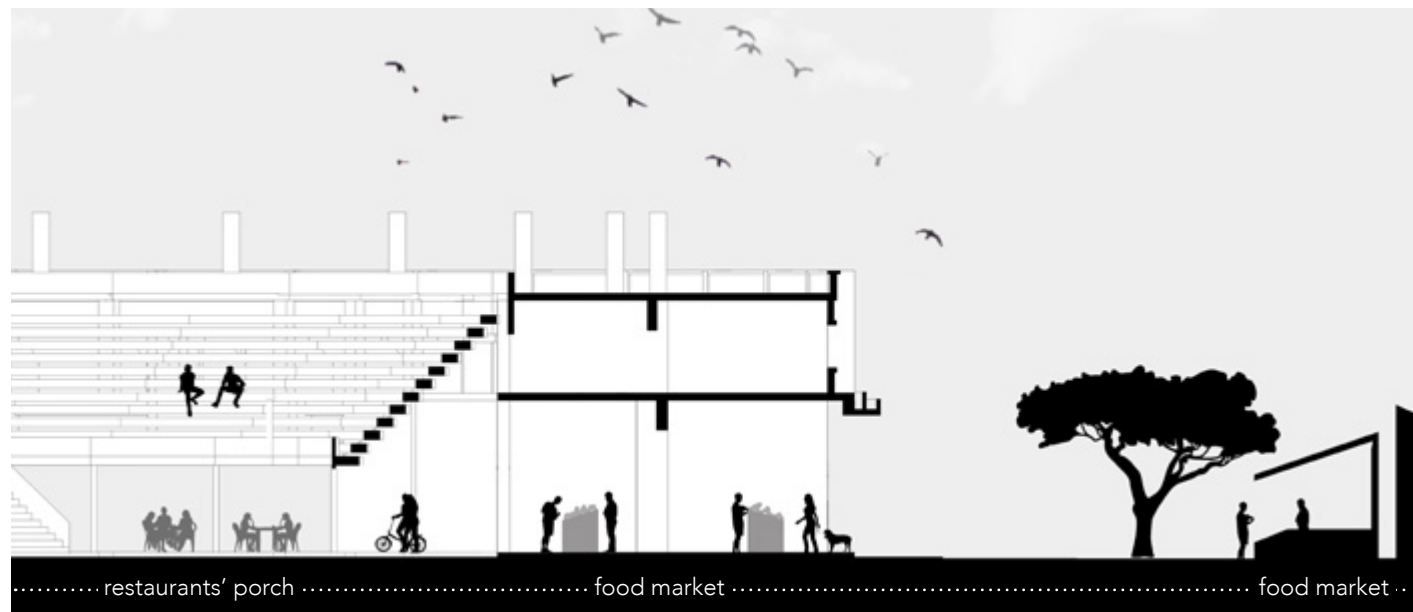
3

MEDICAL FIRST AID AND ASSISTANCE

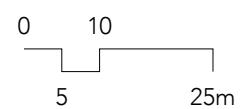
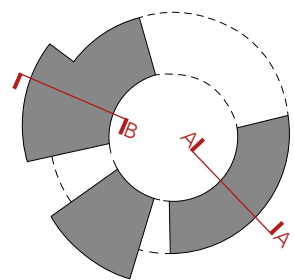
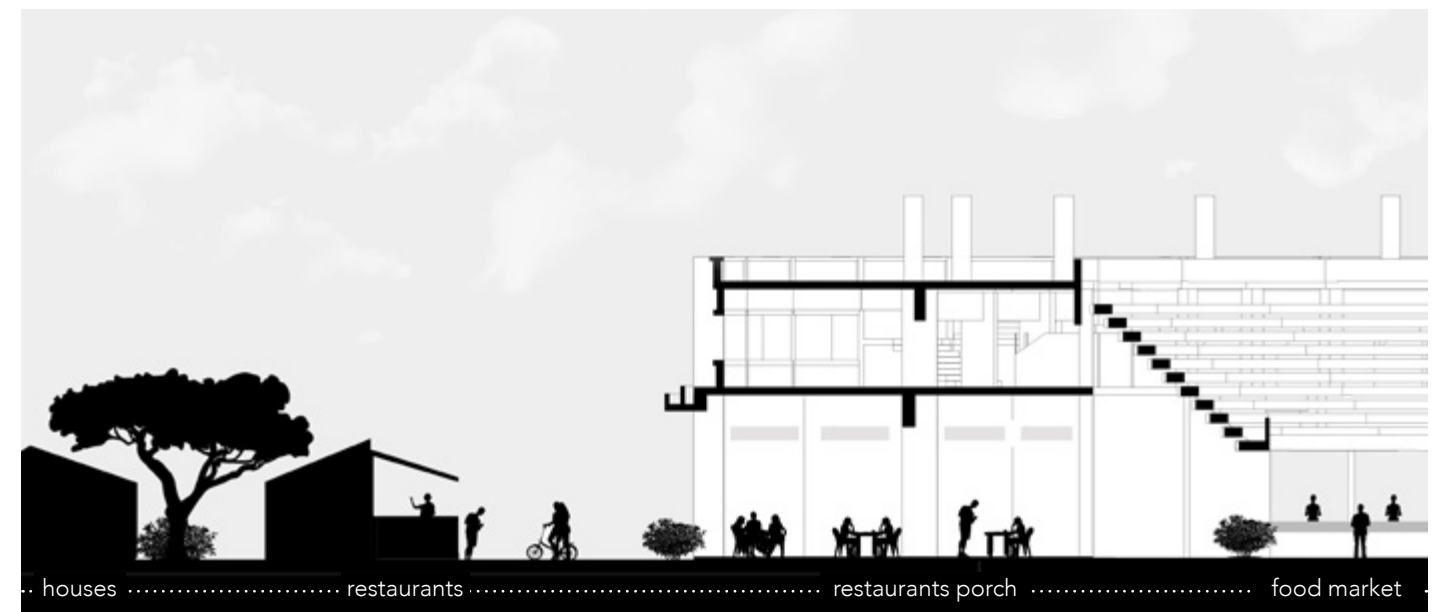
With the provision of temporary tents, the arena could become a center of medical care - run by voluntary organizations - for health emergencies (such as the current one) for neighborhood people.

see the project in Plaza de Toros - Lima

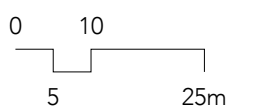
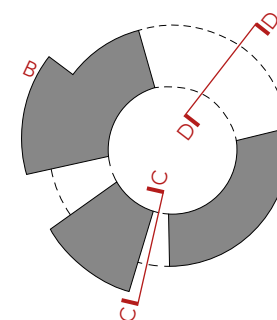
Arena's possible configurations



1



Section A and B



Section C and D



New main entrance



Restaurant porch

Team 2

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Chiara Bonfiglio
Francesco Bottaro
Manfredi Mazziotta
Carla Patnett



Market spaces

Malhangalene renovation through commercial infrastructures empowerment

Malhangalene B is located on the northern boundary of the “old portuguese city” of Maputo, surrounded on the left by the Mafalala district and on the right by a sixties dwelling neighbourhood.

Looking at a metropolitan scale it has a strong strategic attitude for the whole city, both in terms of mobility and economy. These typical features led people from the metropolitan area to gather in this plot creating a prosperous marketplace able to spread into the open spaces and to revitalize the abandoned Praça de Toros.

The aim of the project is to set in place new commercial infrastructures to empower local entrepreneurs and merchants, enforcing the gathering of the micro activities.

The Strategy will define three parallel Work Packages (WP):

1: building of a new marketplace infrastructure.

2: activities of refurbishment and improvement of micro public spaces.

3: writing of refurbishment guidelines based on the renovation of the kiosk pilot projects

The new market facility is the massive WP of the strategy.

The purpose is to set in place an easy to build canopy filled with systems that allow merchants to use it in their personal way, creating possibilities to enforce the micro private economy sector.

The shape of the building itself is designed to give to Maputo a new attractive point that establishes also new spatial relationships among the Parque da Paz, the Praça de Toros and the surrounding neighbourhoods.

Thought with simple constructive elements (squared pillars and sliced vaults), the market can be also an opportunity to involve selected construction workers in vocational training activities.

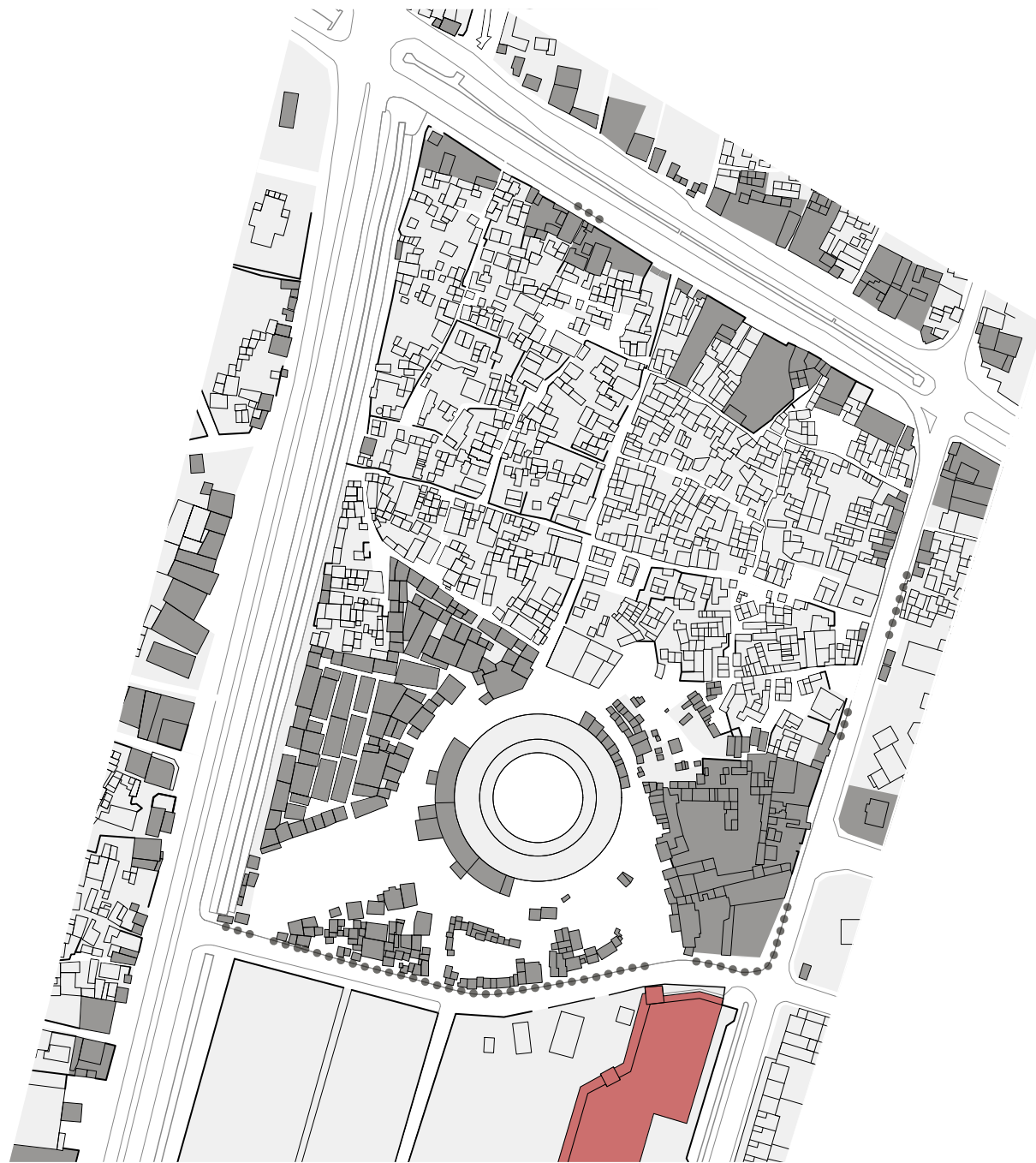
The micro public spaces renewal wants to improve the quality of spaces that are already the theatre of commercial activities. With a new drainage system and by paving the ‘squares’, it is possible to give to the community healthier spots for local activities. This action is also crucial to establish new connections with surrounding neighbourhoods urban tissue, trying to transform the entire Malhangalene area into a new crossing point.

“Kiosk Clinic” will be the WP able to put the last piece in the strategy.

This activity will start studying and listing all the different typologies of kiosks for commercial uses and understanding their weaknesses in terms of livability. After this first step and advising locals on the opportunity to understand how to improve kiosk conditions by their own, several pilot projects could take place.

The final output to reach will be setting new local approved guidelines.

vThis could be the milestone Malhangalene is giving to Maputo community, underlining that the commercial identity based on small entrepreneurs and sellers of the neighbourhood is a focal point at all scales of the city.



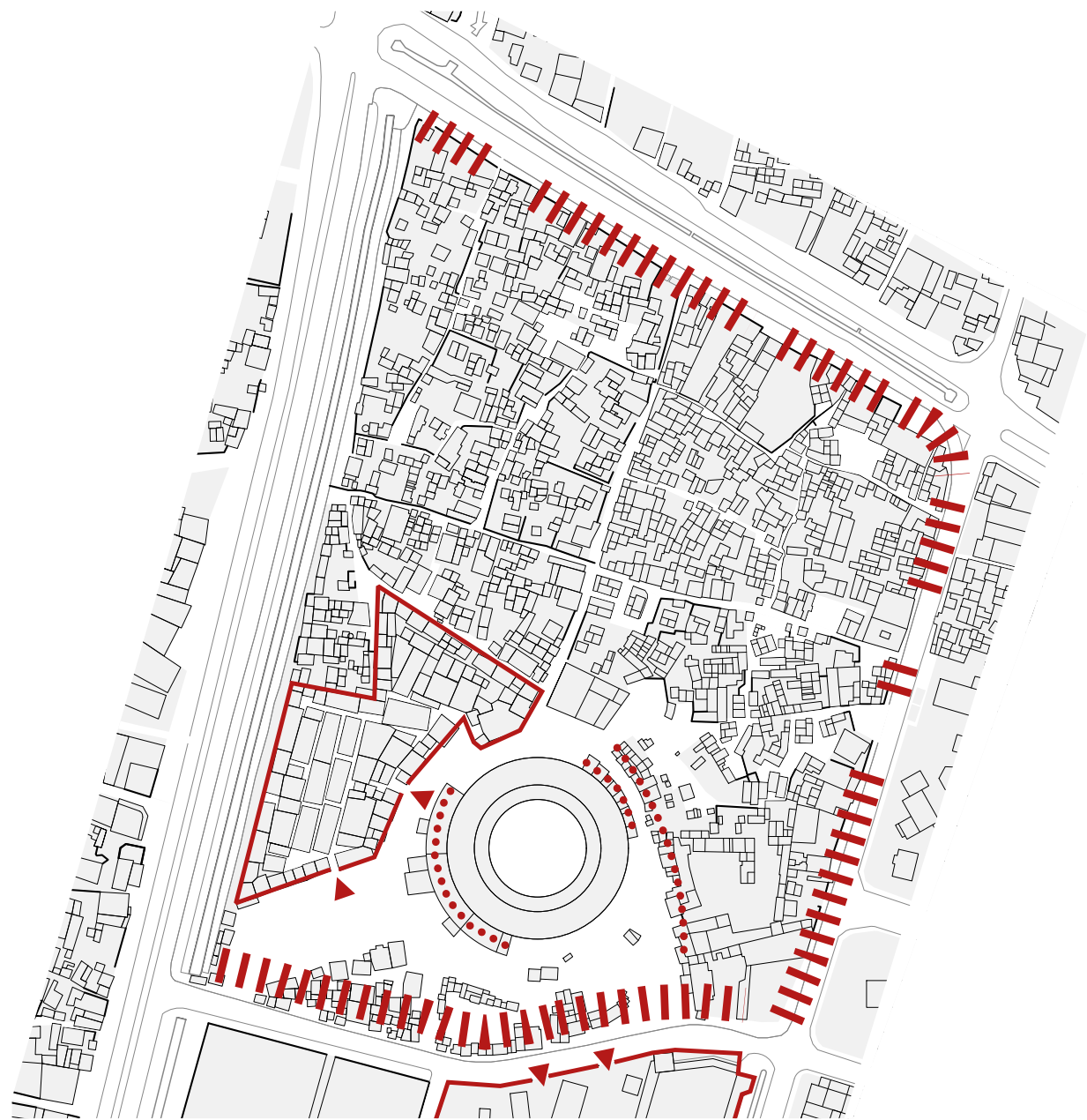
- Informal commerce
- Formal commerce
- Punctual informal commerce

Formal / Informal commerce analysis



- Mini market
- Selling food
- Services
- Nigerian market
- Car market
- Punctual informal market

Informal commerce analysis

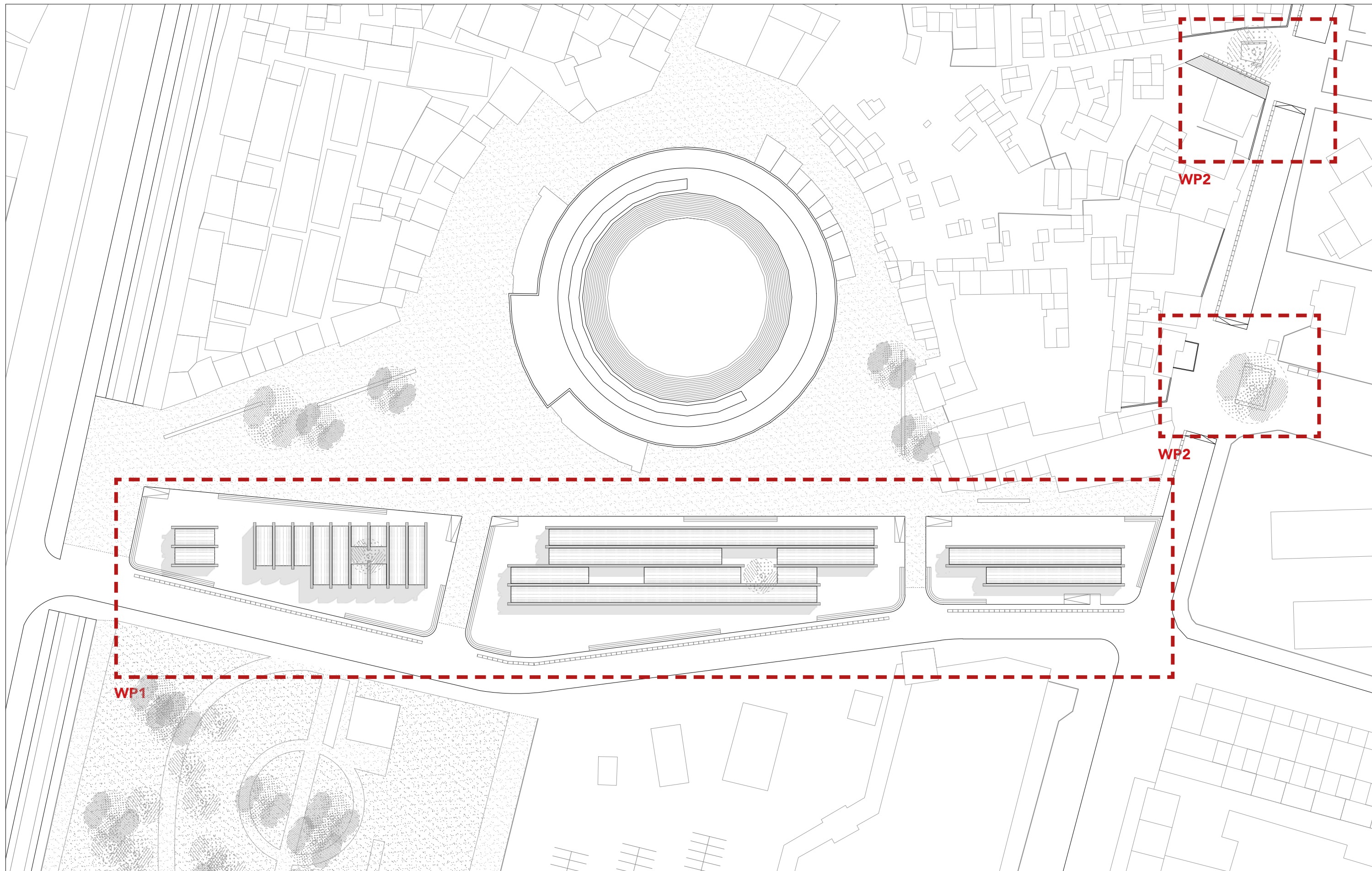


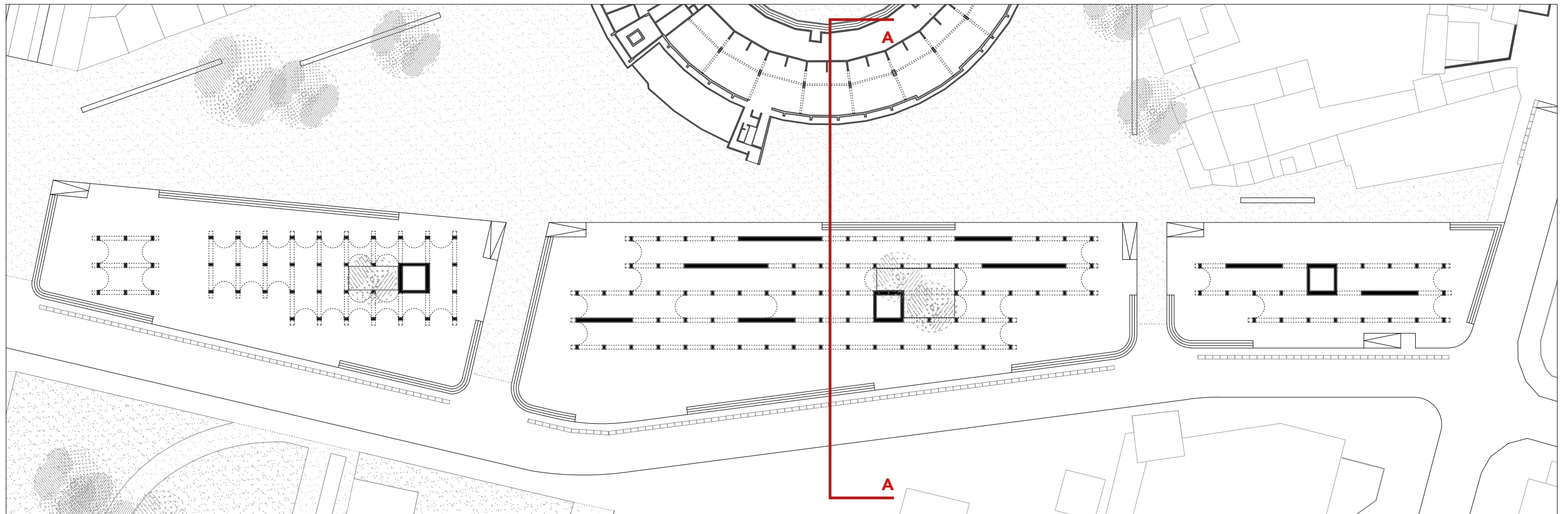
- ||| High accessibility
- Medium accessibility
- No accessibility
- ▶ Entrance

Commercial permeability analysis



Kiosk typologies analysis

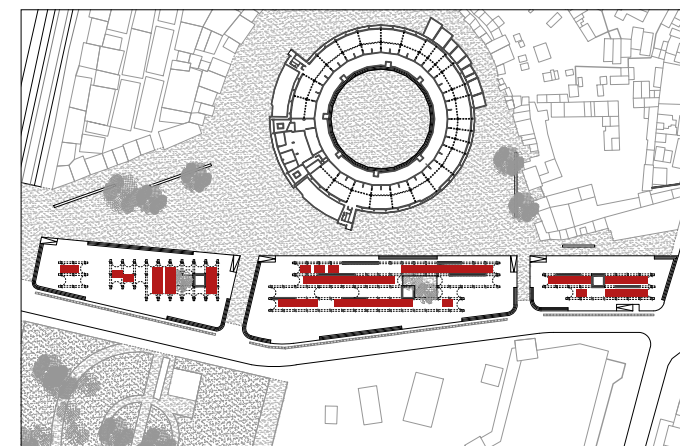




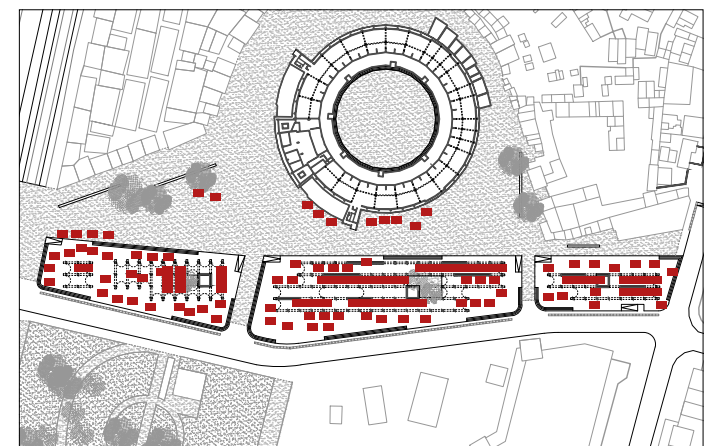
0 20 40

Ground floor plan

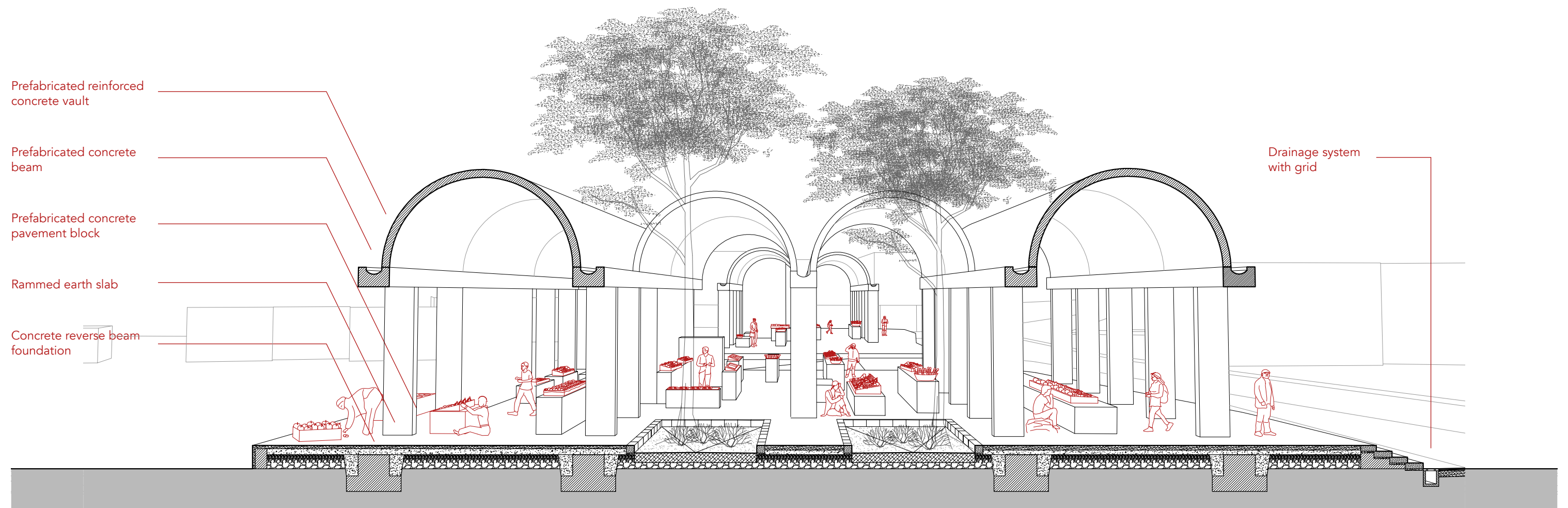
WP 1 - New Marketplace



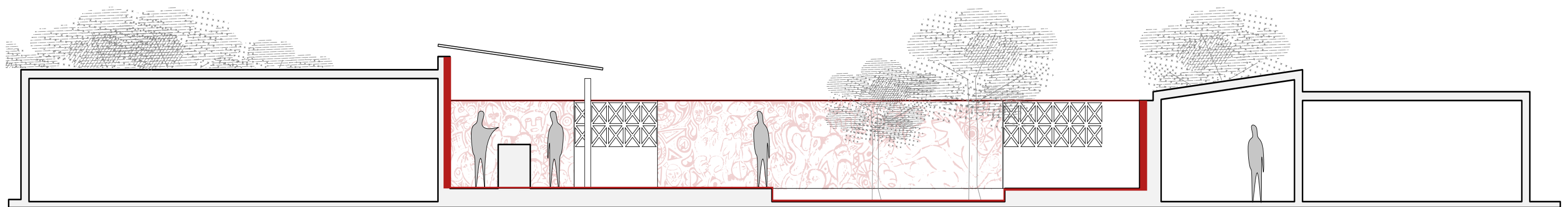
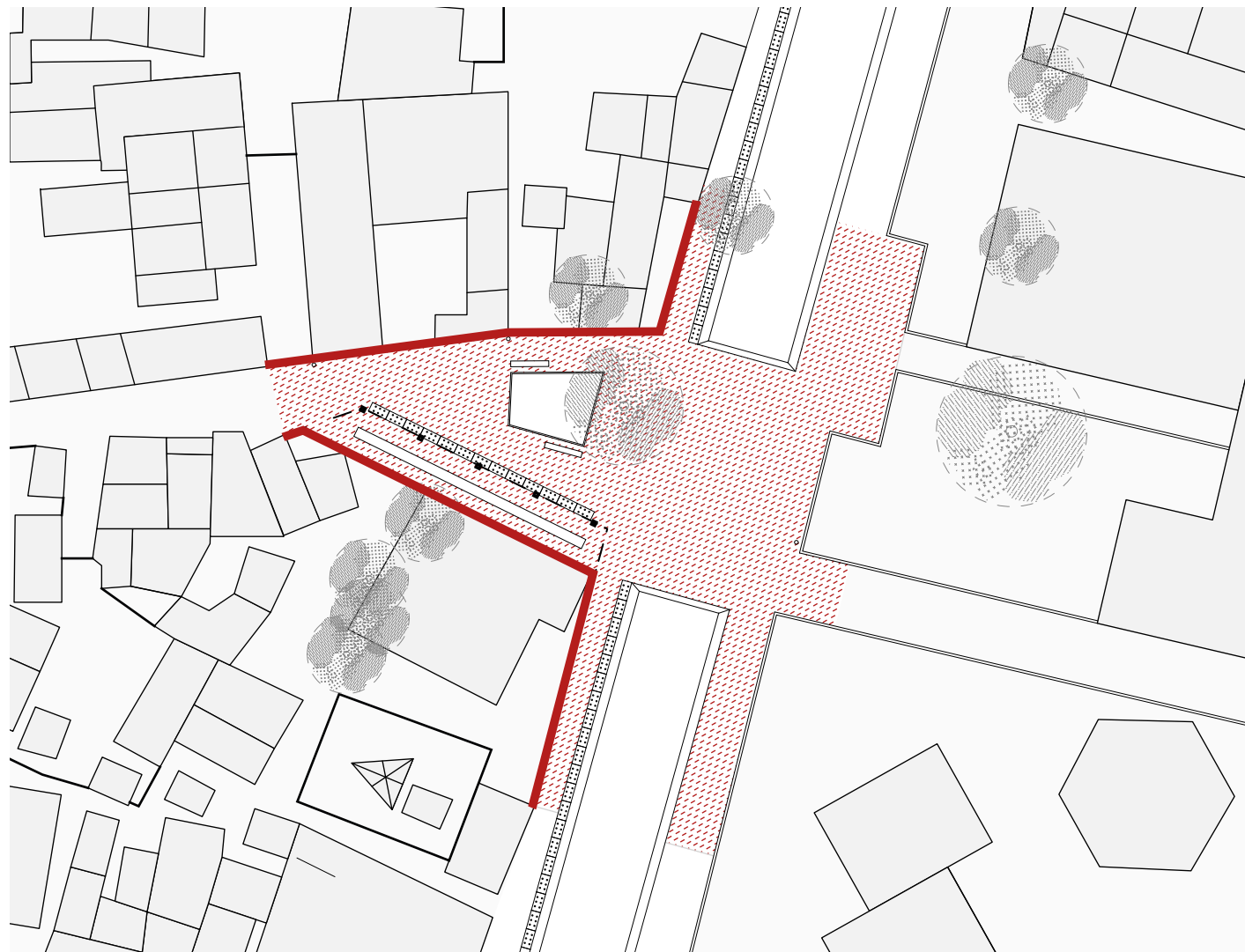
Implementation after 5 years



Implementation after 10 years
























Perspective section_1:100

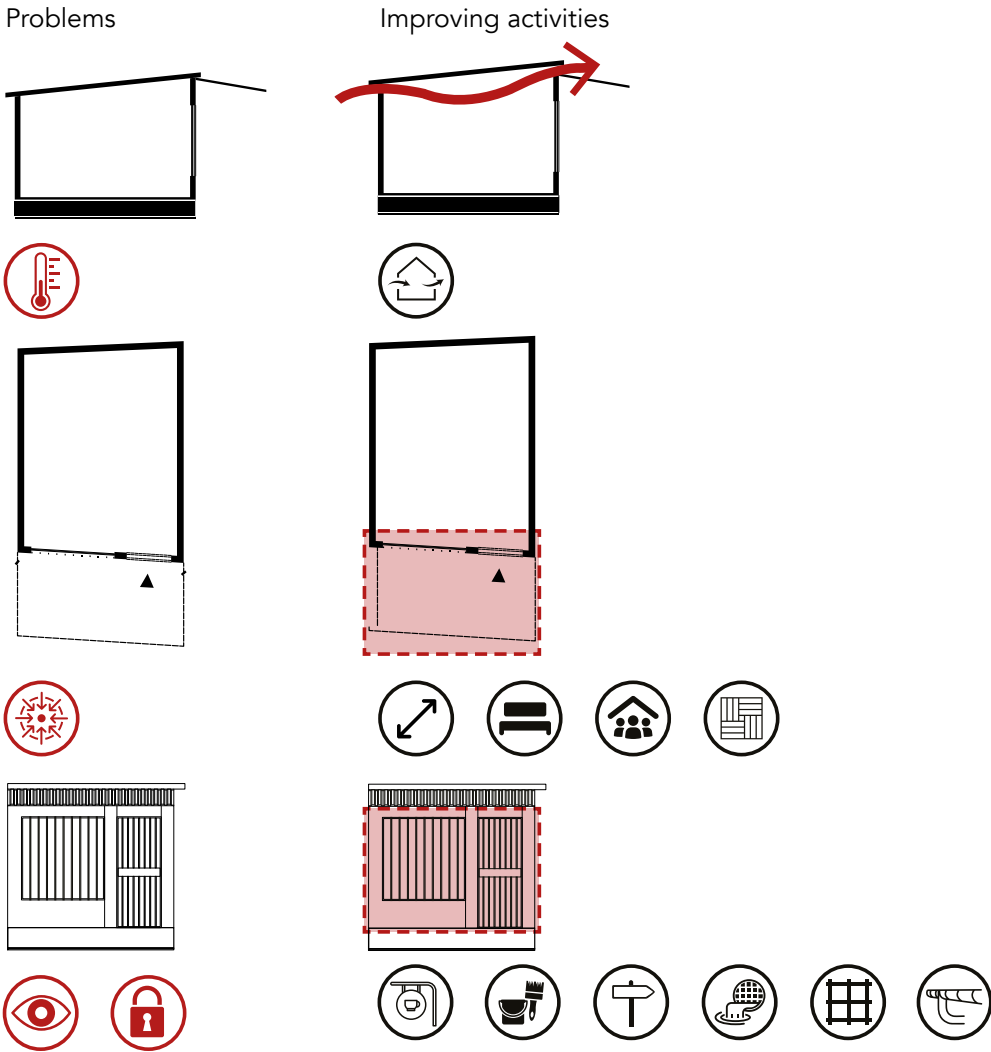


WP 2 - Micro public spaces improvement

New street vendors infrastructure _plan

New street vendors infrastructure _section

Problems	Improving activities	
 Temperature	 Roof ventilation  Roof - new materials	
 Accessibility	 Open space  Facilities	 Paving  Covering
 Visibility	 Advertising  Colours	 External signs  Casing movement
 Safety	 Decorative bars  Basement	 Double door  Drainage  Gutter
 Density	 More density	



The project aims to encourage existing economic activities by advising locals how to improve kiosk conditions by their own.

Thanks to the analysis of the various typologies present in the area it has been possible to identify their main features. Kiosks have been studied in terms of temperature, accessibility, visibility, safety and density, and guidelines have been proposed to improve these existing little shops.

vvThrough small interventions, the project wants to renew the local community, underline its commercial identity, and be the base for new future projects.

WP 3 - Kiosk renovation guidelines



View from Av. Acordos de Lusaka

Team 3

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Marta Marini,
Mattia Bertolini
Matteo Imbriano
Mehreen Mustafà



Streets as Spots for Social Happenings

MAURo's pilot project recognizes within the informal fabrics of Malhangalene a resource that needs to be enhanced and preserved. In this context, streets are spots for social happenings rather than mere vectors of mobility, being at the same time a place of passage, meeting, stop, exchange, waiting and sharing, tools for community development and places of social identification.




The project considers the street as a focal point for community development, defining through them a set of interventions necessary to enhance the usability of spaces, without depriving them of their identity and function. The objective is to intervene in depth, with actions that are intentionally weak but fundamental, giving voice and form to the needs and aspirations of residents, supporting their capacity to modify their own space of living. The proposed intervention modifies the space without distorting it, recognizing its properties and amplifying them.

The attention is placed on a street that contains crucial interventions for development, defining a toolkit of actions replicable throughout the neighborhood. Within the pilot street lay 5 different scenarios which encompass specific sets of interventions of infrastructural, spatial and communal nature, capable of improving mobility and services, while enhancing public spaces and cultural identity.

The first scenario concerns the access, a meeting place between the community and the outside, between formal and informal fabric, a pole of exchange and passage. The second scenario is the public space, which presents itself in different spontaneous forms proposed by the community: a metal sheet, a bench or the shade of a tree. Great attention is paid to the enhancement of existing forms of sharing rather than the implementation of new public areas. The third and fourth scenarios aim to improve narrow streets, which restrict circulation within the neighborhood due to the presence of adjoining houses or the encroachment of public space. Widening the streets allows for the provision of sanitation services and the reorganisation of common areas. The fifth and last scenario aims at improving the general conditions of drainage by limiting floodings, exposition to illness and diseases and encouraging circulation.

The replicability of the proposed interventions allows to act uniformly throughout the neighborhood, preserving the urban fabric and recognizing its cultural heritage while laying the basics for community's development.





-  Main access
-  Secondary access
-  Main fluxus

Accessibility

Scale 1:3500



-  Streets > 2.5 m
-  Streets < 2.5 m

Street typologies

Scale 1:3500



MASTERPLAN

- Paving
- Sewage
- Drainage

INFRASTRUCTURE



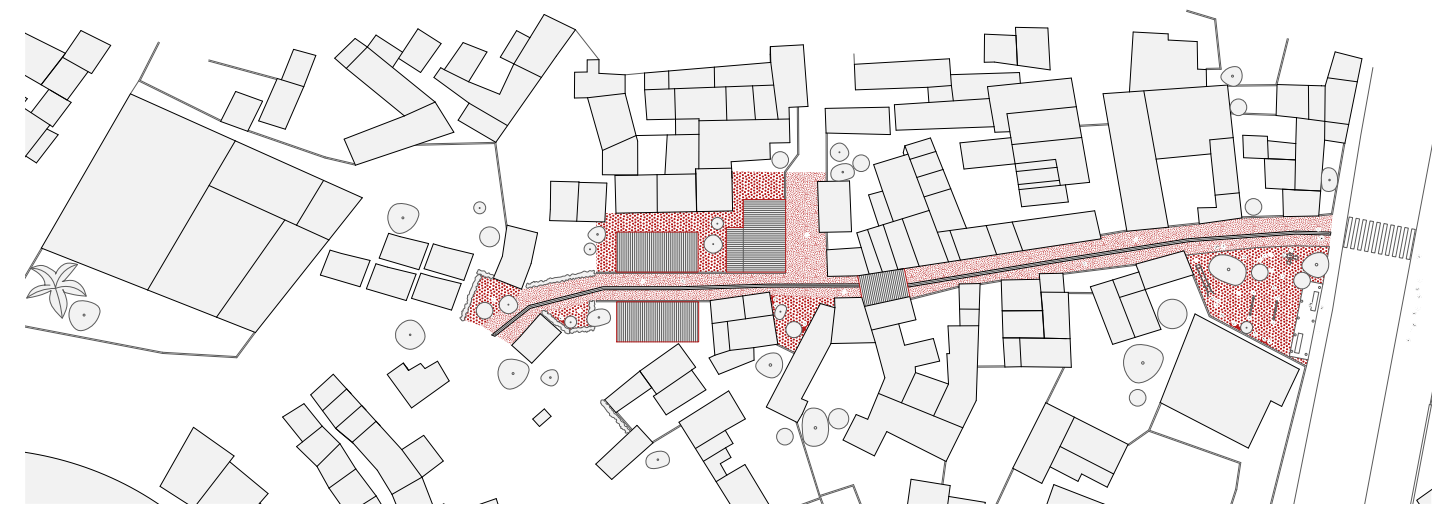
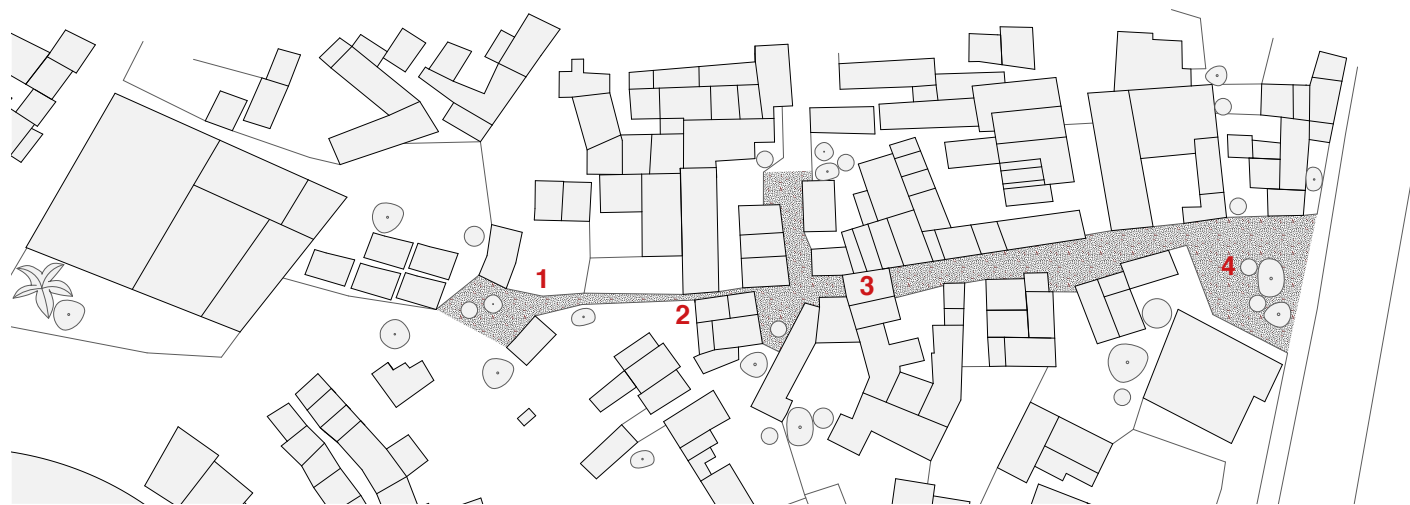
SPACIAL FACILITIES

- Social
- Cultural Identity
- Capacity Building

COMMUNITY

- Mobility
- Open spaces
- Urban Furniture

STRATEGY

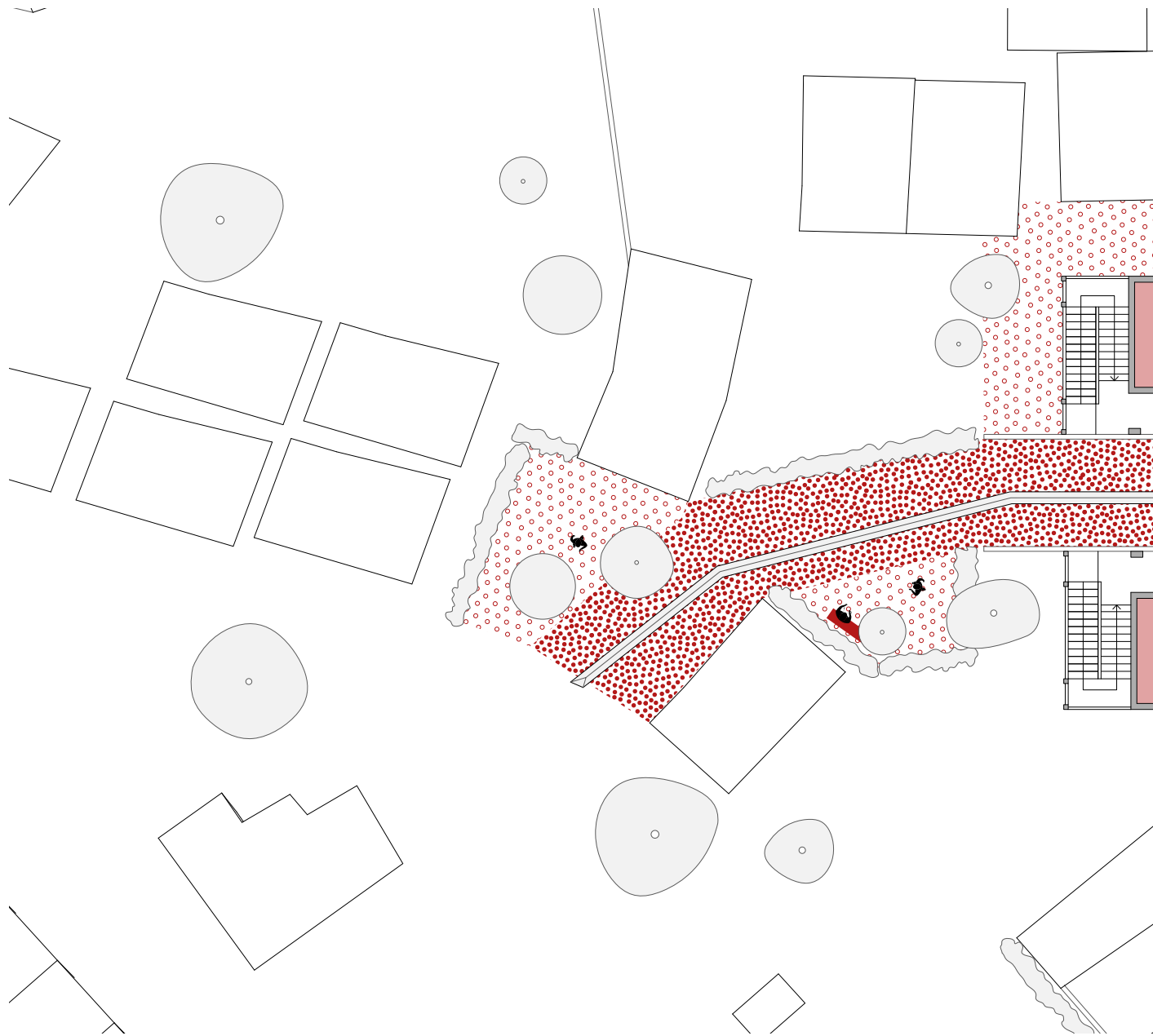


The scenarios are a critical areas collection of the street. All the scenarios are characterized by similar problems due to an absent drainage system, poor pathways and a general lack of maintenance. The encroachment makes difficult to separate private from common property (scenario 1,2). Open spaces lack of urban furniture and sunscreen as roof or tress, that provokes a poor usage of those spaces as social identity assertion (scenario 3,4).






Planimetry _Before and After the intervention

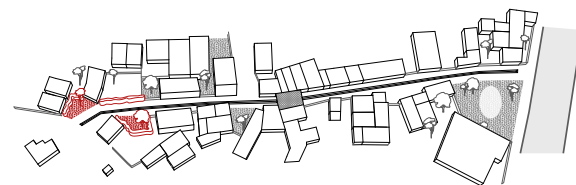
Scale 1:1000

Scale 1:1000



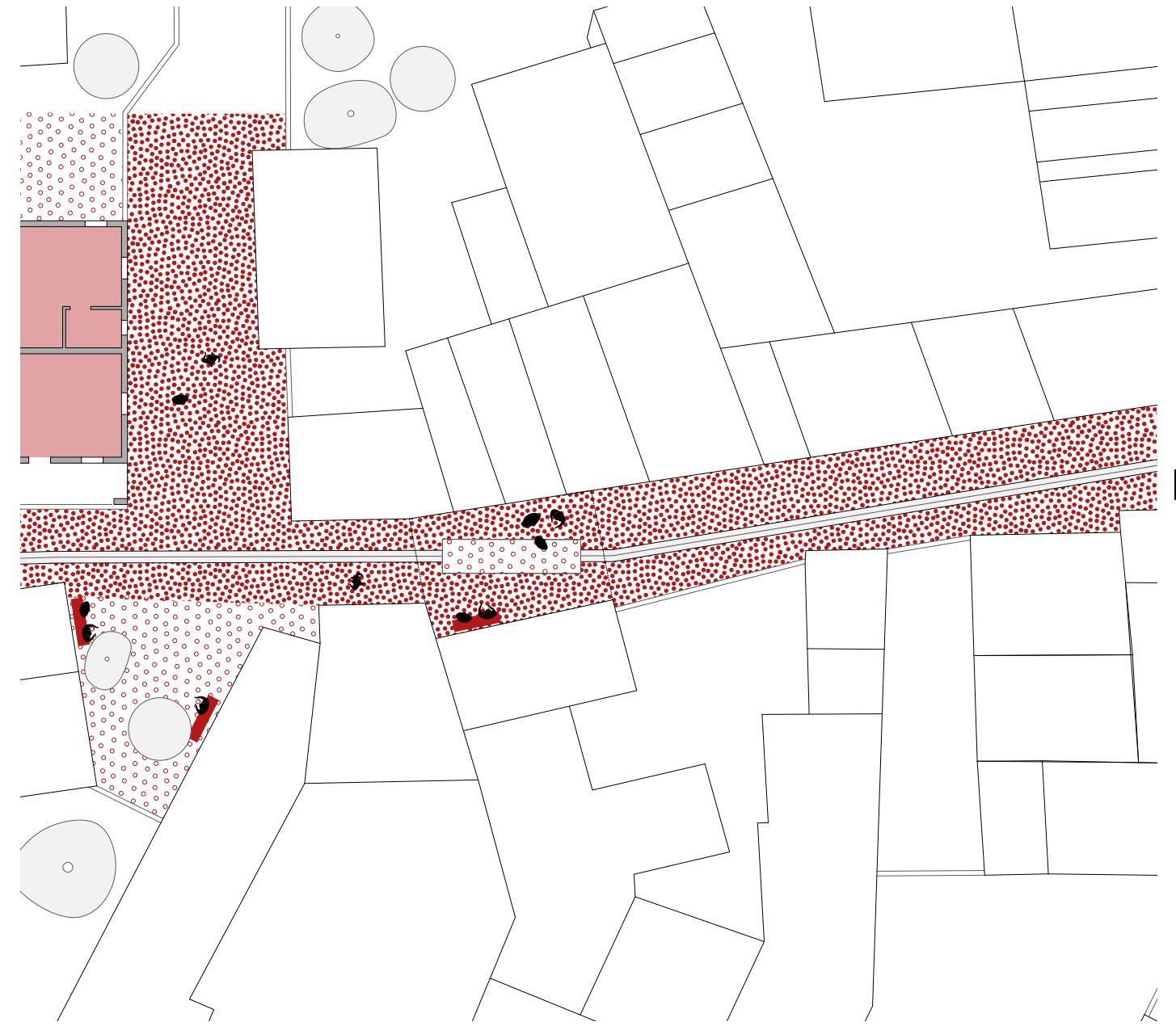
SOLUTIONS PROVIDED

-  Street widening
-  Definition of pathway boundaries
-  Implementation of drainage
-  Sewage management
-  Murales initiative







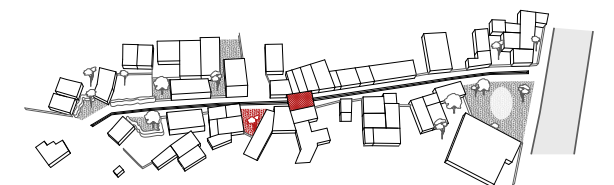
SCENARIO 1 _Encroachment

Scale 1:200



SOLUTIONS PROVIDED

-  Metal cover
-  Provision of urban furniture
-  Murales initiative
-  Improve draining








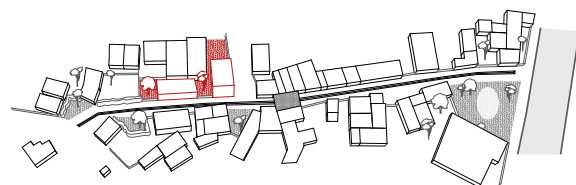
SCENARIO 3_Open space

Scale 1:200



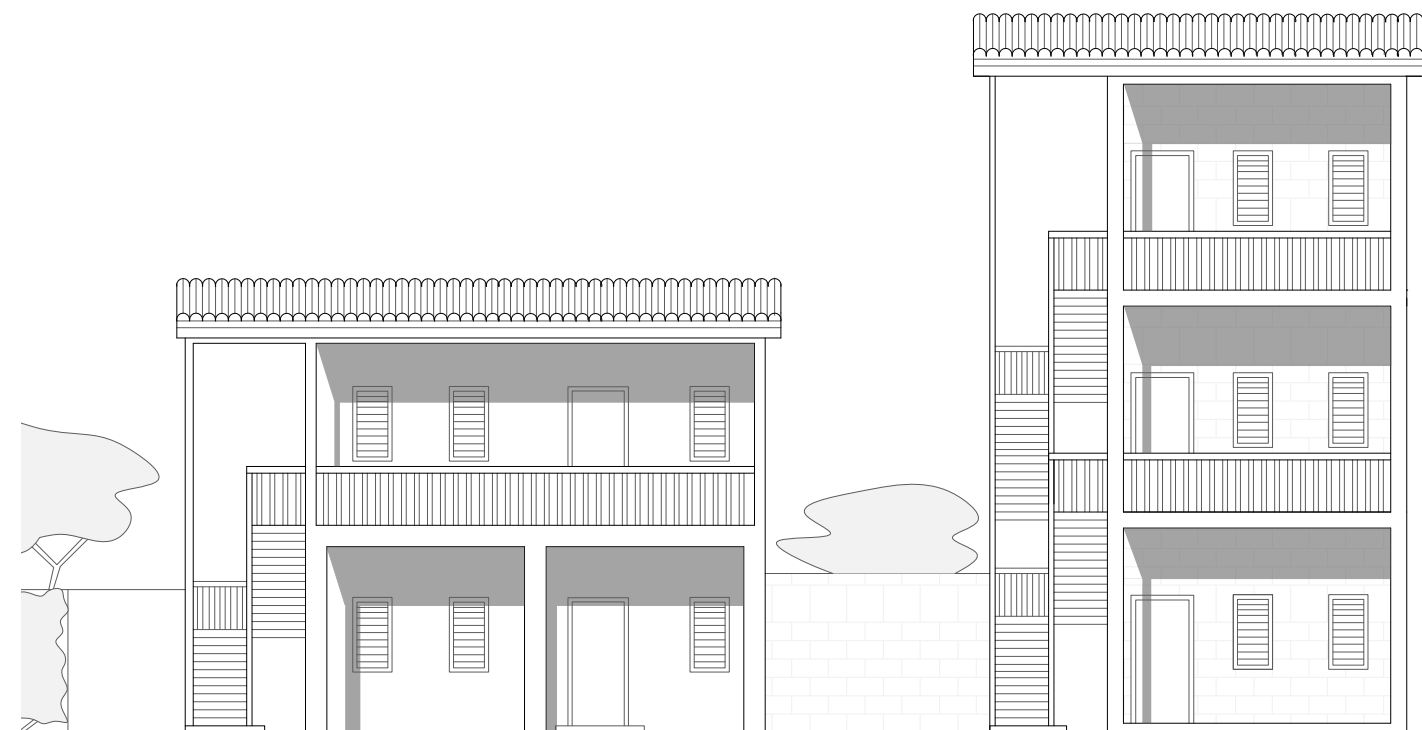
SOLUTIONS PROVIDED

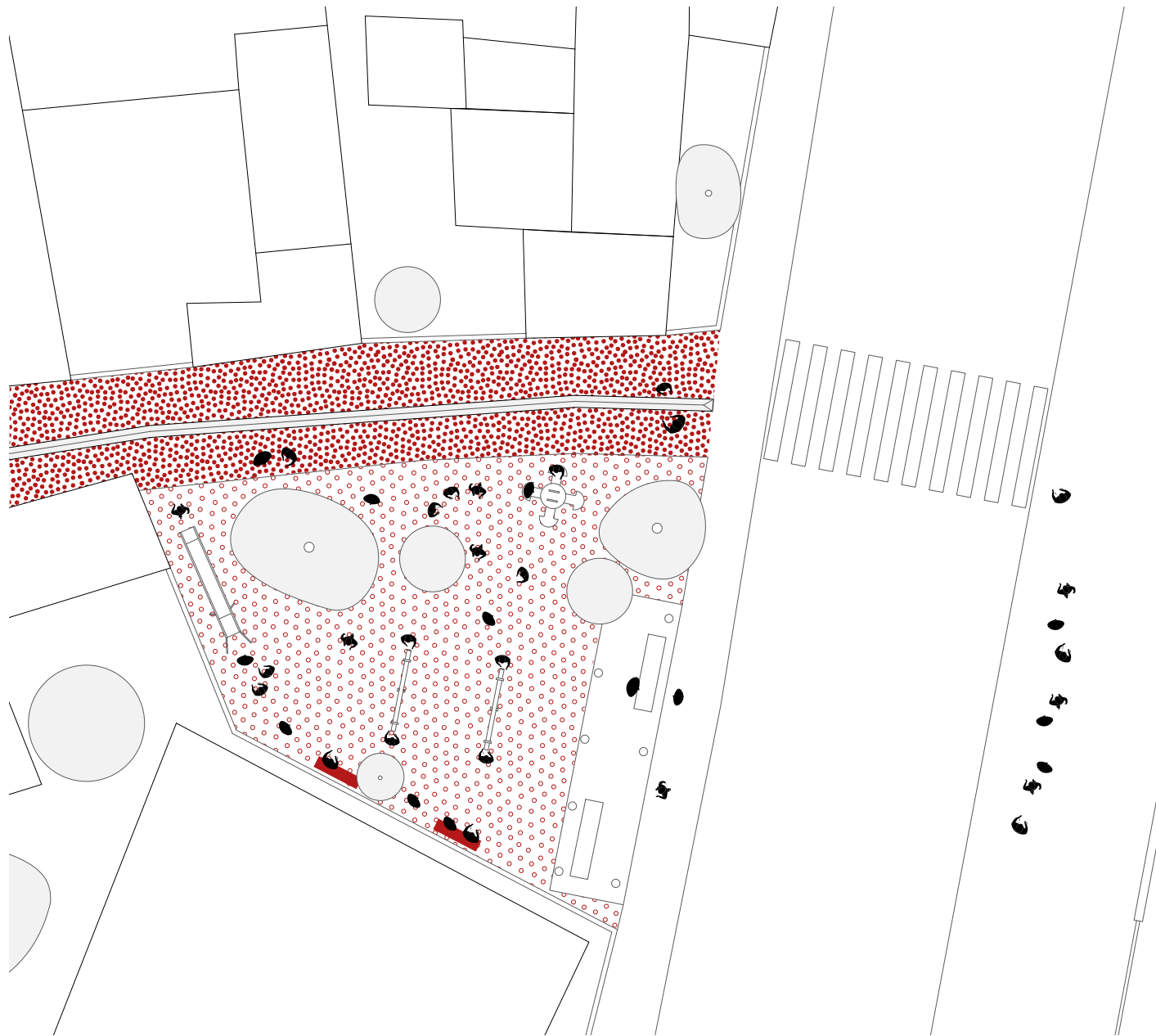
-  Widened streets
-  Improved mobility
-  House redesign
-  Proper drainage
-  Paved road







SCENARIO 2 _Narrow streets

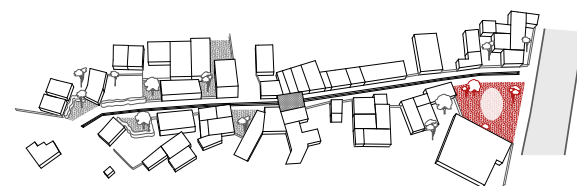
Scale 1:200





SOLUTIONS PROVIDED

-  Strengthen connection with the exterior
-  Refurbish or widen the access area
-  Preserve and enforce commercial activities
-  Connect local drainage to the main network



SCENARIO 4_Access

Scale 1:200

Team 4

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Tomà Canessi
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Pietro Filippi
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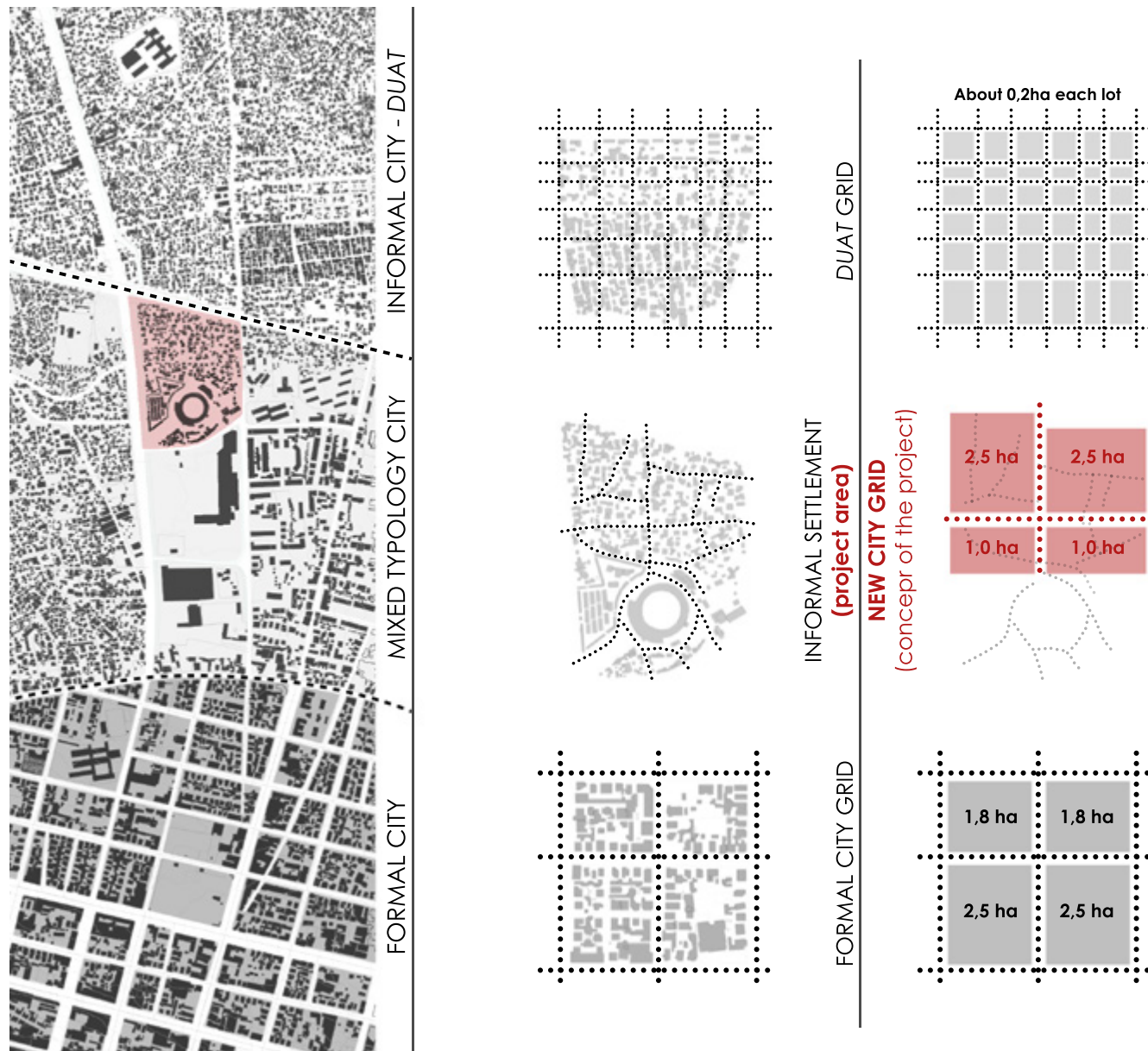
The project lot is in an intermediate position between the “formal” city (South and East), dating back to the colonial period, and the “informal” city (North and West). The area has very marked boundaries and is surrounded by two main arteries connecting Maputo CBD with peripheral areas, nearby cities (Matola), and important services (airport). This makes it a strategic area (due to the presence of shopping malls, formal and informal commercial activities, and a public park) but also an area with difficult accessibility. As a result of its central position, the informal settlement is the most vulnerable part of the lot as it is not legalized and is subjected to pressures from the public and private investors.

Following the will of the municipality to densify the area, and considering the structure of the “consolidated” city, the project aim is to progressively bring the “formal” grid in the informal settlement without disrupting the internal dynamics of the lot and providing the inhabitants with the conditions for obtaining the DUAT (the right to use and benefit of land).

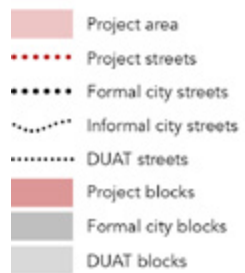
The first step consists in improving the accessibility to the lot through the creation of safer connections with the surrounding streets, the neighbourhoods, and the public transportation system. The attention is then dedicated to bringing the city grid into the lot improving its two main axes. They will be enlarged, paved, and provided with a drainage system. The North-South axis will be made two-way vehicle accessible, while the West-East axis will remain pedestrian and will be shaded by a row of trees.

This will be possible through two different procedures of slum upgrading: the first involves the demolition of the buildings that would obstruct the route of new road too much and the backward reconstruction of 2/3 storey buildings; the second involves a dialogue with the inhabitants to enhance and widen the road through small adjustments of a portion of their courtyards. The densification process allows the creation of public spaces along the roads usable by the population and by small local commercial activities. It was also analysed the possibility of using Praça de Touros for placing photovoltaic panels and a rainwater collector to provide energy and water to the entire neighbourhood in a legal way.

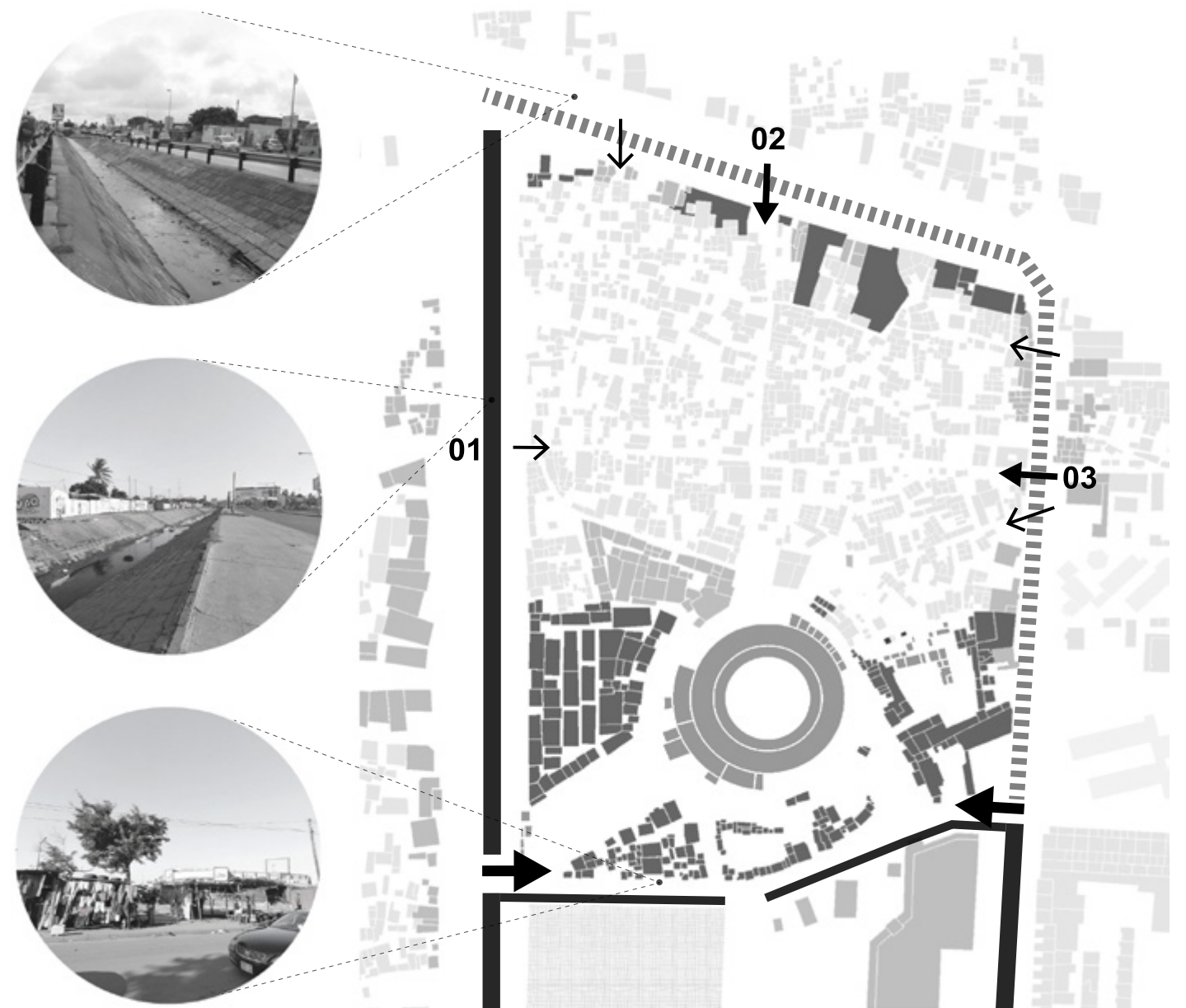
The project is considered as a starting point for the complete upgrading and homogenisation of the lot. It will be possible to proceed with enhancing the road network, increasing the density and the open spaces within the informal area, but also continuing the grid in the south part of the lot.



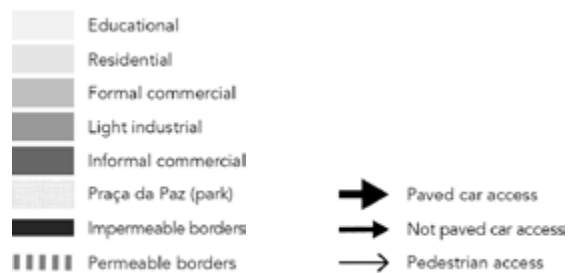
The analyzed area is characterized by three typologies of city: the formal one, with an ordered grid and large blocks; the informal one without territorial planning except for the portions with *DUAT* (with a dense grid and small blocks); and, in the middle, a portion of mixed typology city (informal in the north-west and semi-formal in the south-east) in which the project area is inserted. By overlaying the formal grid on the project area you can see that the latter is perfectly divisible into four lots with the size of those of the formal city.



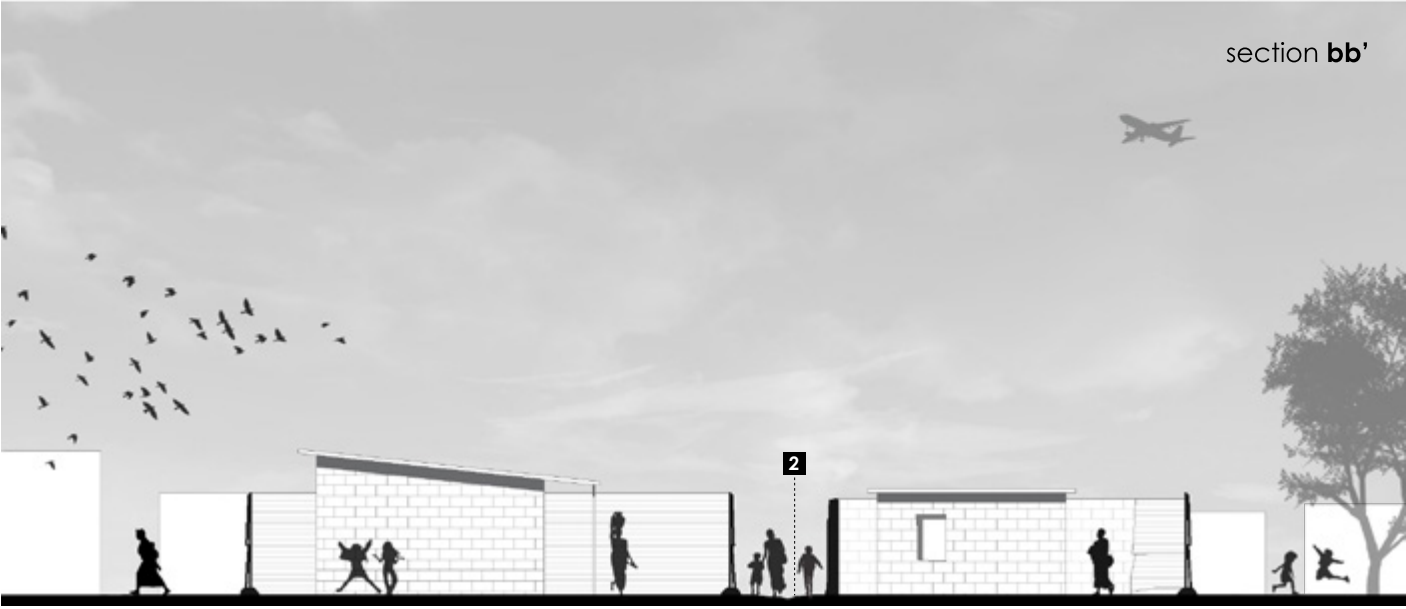
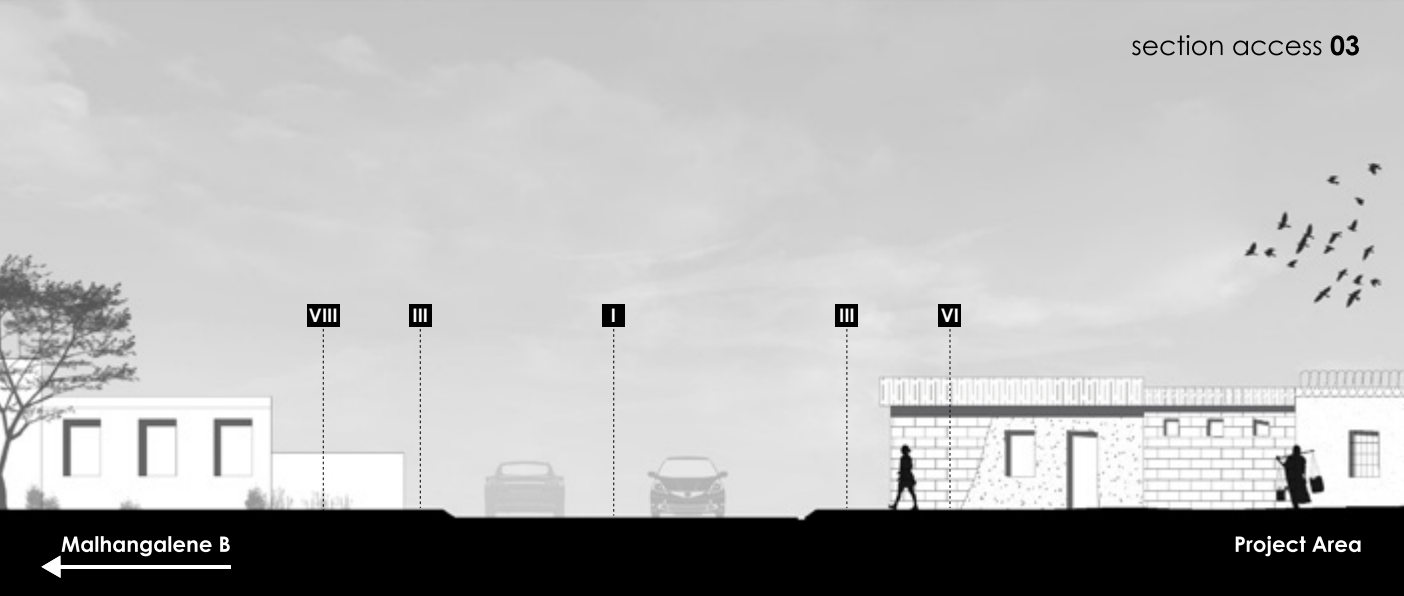
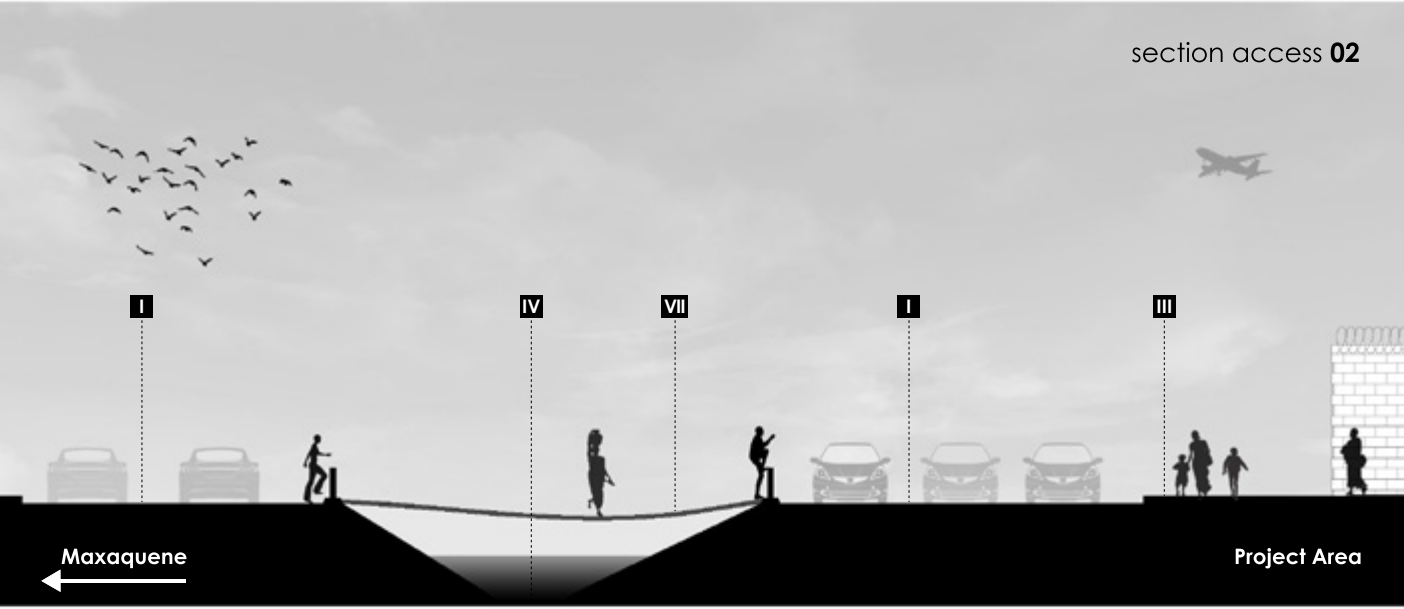
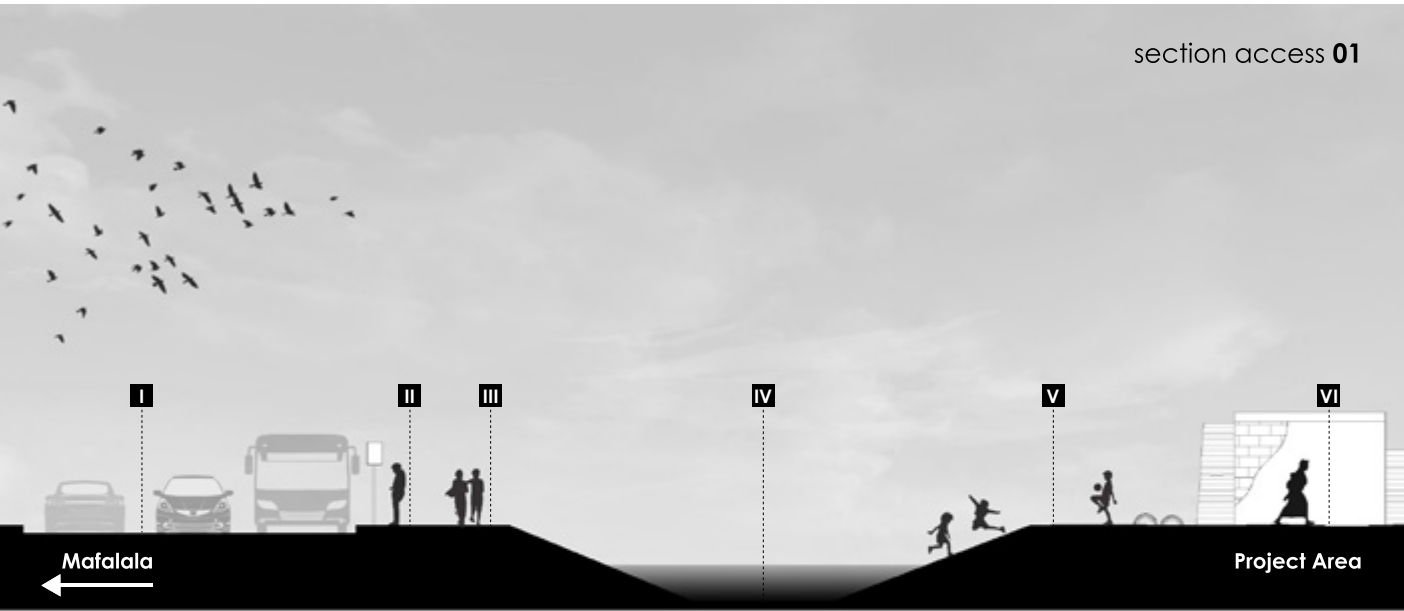
Typological analysis_Formal and informal city grid



A more specific analysis of the project area shows how one of the main problems is the lack of connection with the context, which brings the development of activities and services not within the area, but only on its perimeter. To the South, the formal commercial area, with fences and security guards, is inaccessible to the inhabitants of the informal settlement, while on the other sides of the area the connections are almost non-existent. The few access points, unsafe or difficult to reach, develop at the ends of what are the two main roads of the settlement.



Analysis_Borders, accesses and functions



What should be the main accesses are characterized by the presence of obstacles, and dangerous crossing systems. The two main streets are narrow, not paved, without drainage system, and not safe as they are not illuminated and mixed-used by cars and pedestrians. The lack of services and infrastructure, in these strategic points, reduces the attractiveness of the area and forces it to remain closed in its degradation.

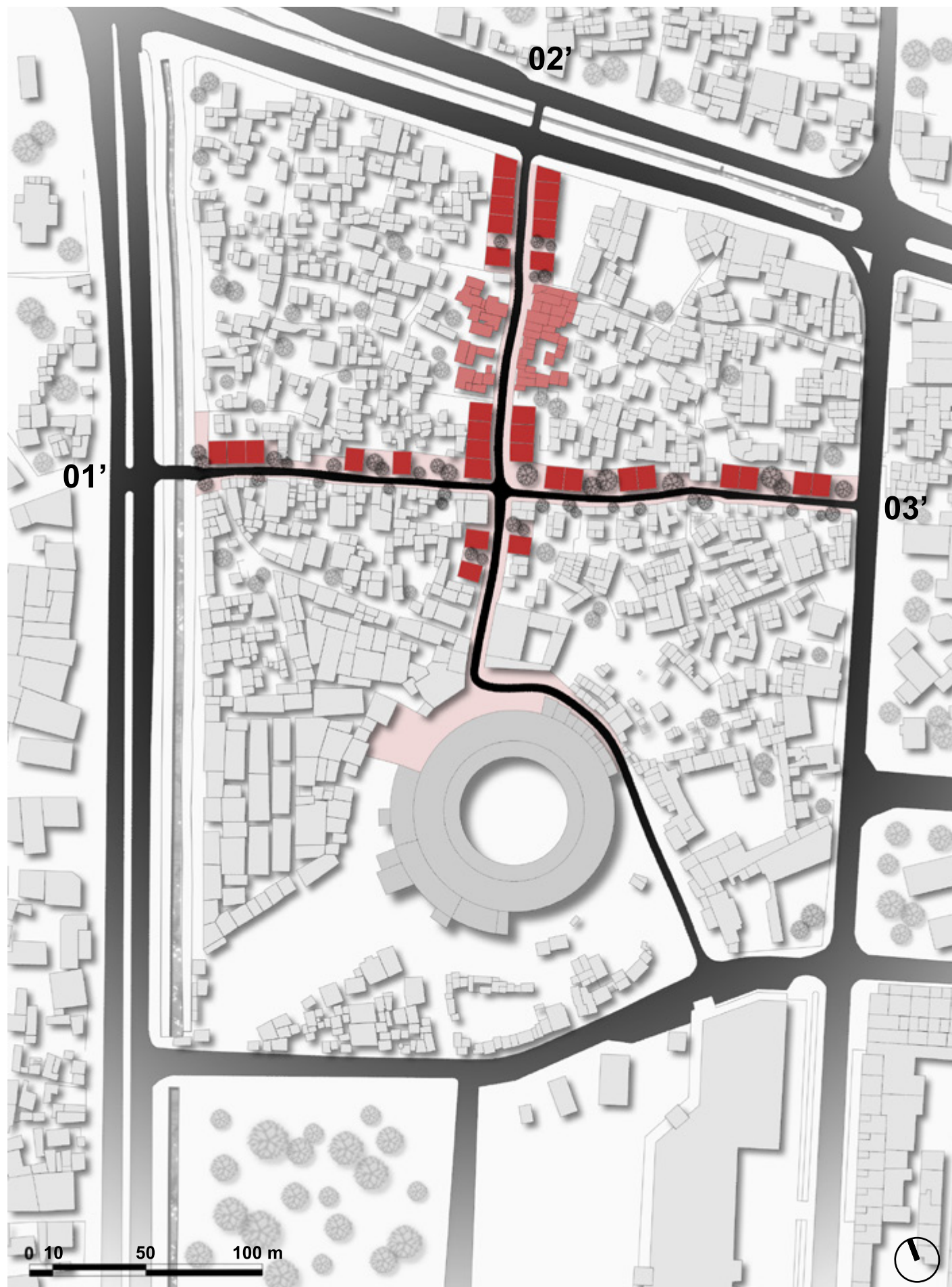
- I** Dangerous pedestrian crossing on main roads
- II** Bus stop
- III** Unsafe sidewalk
- IV** Water canal
- V** Dangerous and degraded area near canal
- VI** Project area's main axis
- VII** Unsafe wooden bridge with physical barriers (guard rail)
- VIII** Degraded area near school

- 1** Unpaved vehicular and pedestrian road, inadequate drainage system and lack of public spaces (4m wide)
- 2** Narrow unpaved pedestrian road, inadequate drainage system and lack of public spaces (2,50m wide)

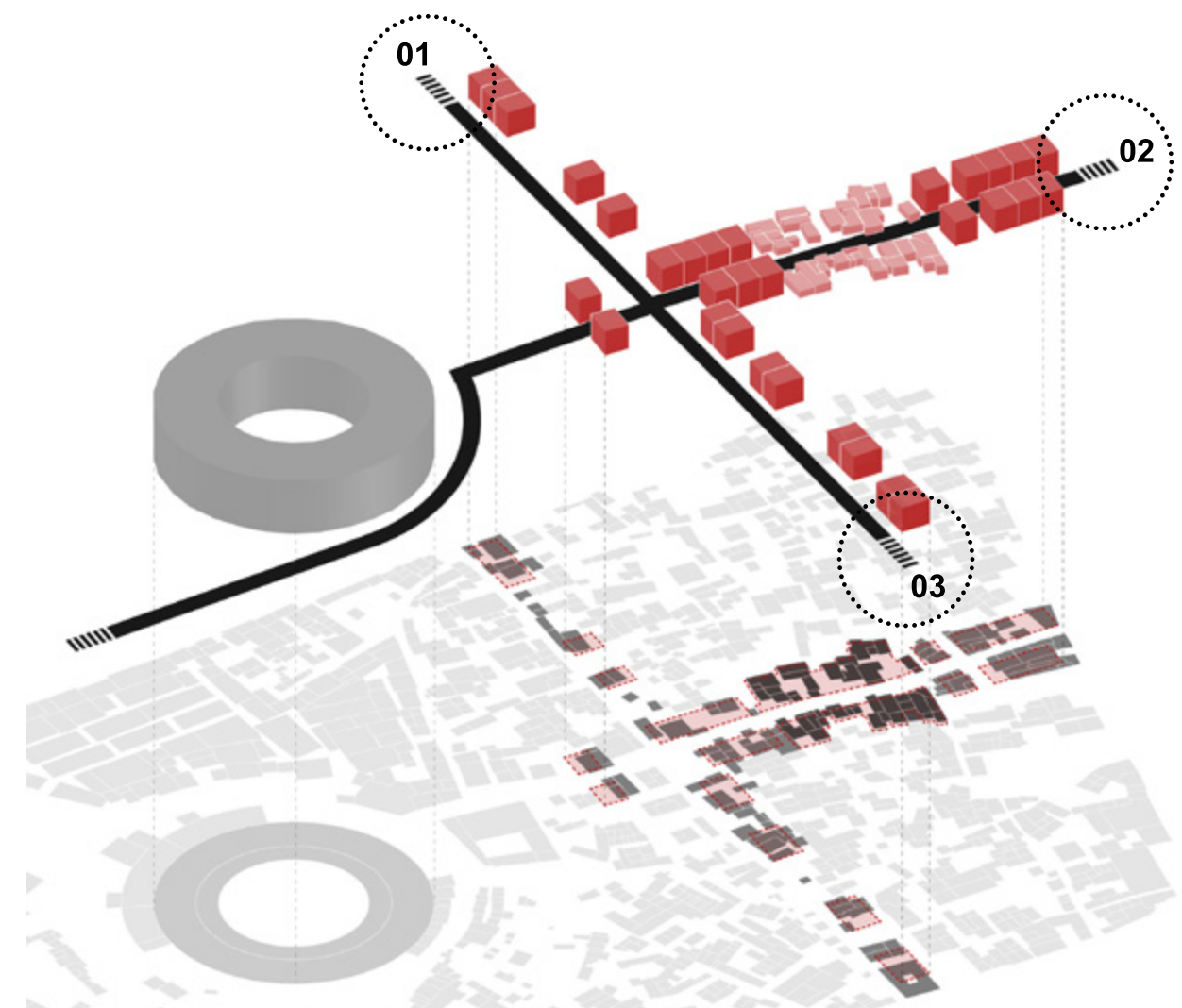
Scale 1:200

0m 2m 5m

Analysis_Sections of the three main accesses and two main axes/streets



MASTERPLAN



The aim of the project is to open the informal settlement to the context, trying to bring the formal city grid into the lot, while respecting its nature and its characteristics. The plan of interventions links together the renovation of the three accesses to the lot, of its two main roads, and of the buildings along them, in order to densify the area and to get new public spaces. Two different processes of slum-upgrading will be undertaken: demolition and reconstruction of 2/3 storey buildings (Casa Minha approach), and small adjustments of existent buildings' portions, in dialogue with the inhabitants, to widen the roads (Chamanculo approach).

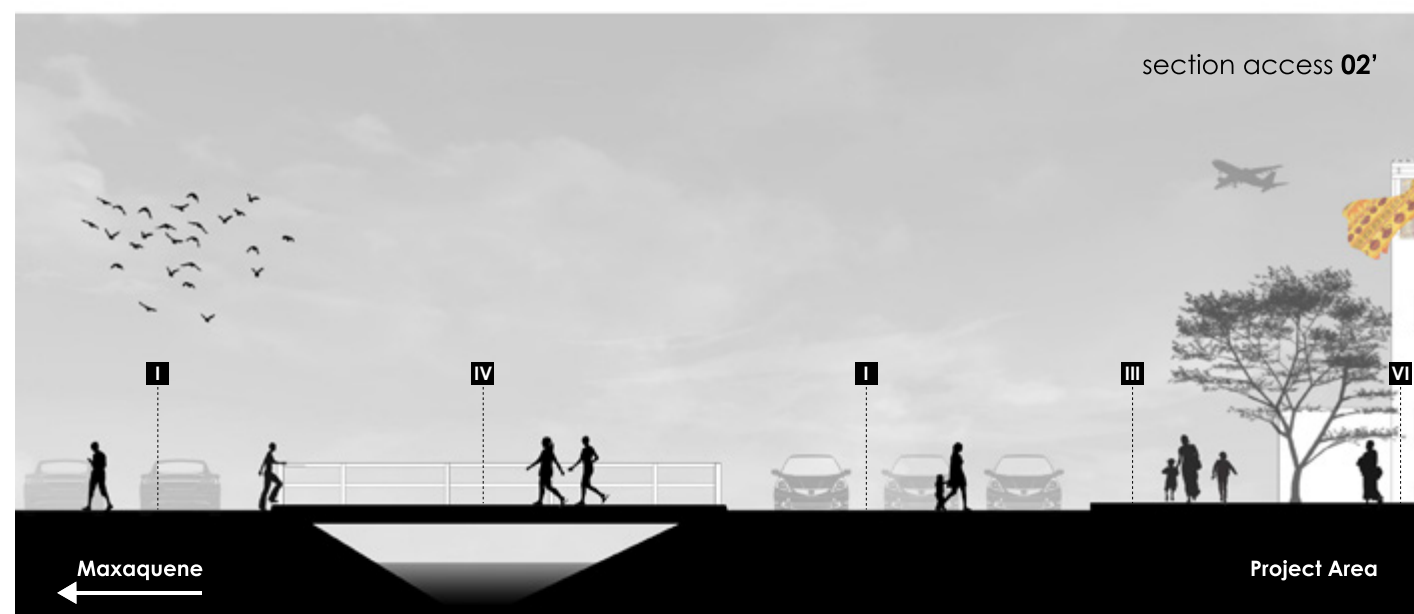
LEGEND Masterplan

- 01'-02'-03' New main accesses
- New road system
- Redeveloped roads
- Informal buildings adapted to the redeveloped street
- Two/three-storey new residential buildings
- Trees' implementation

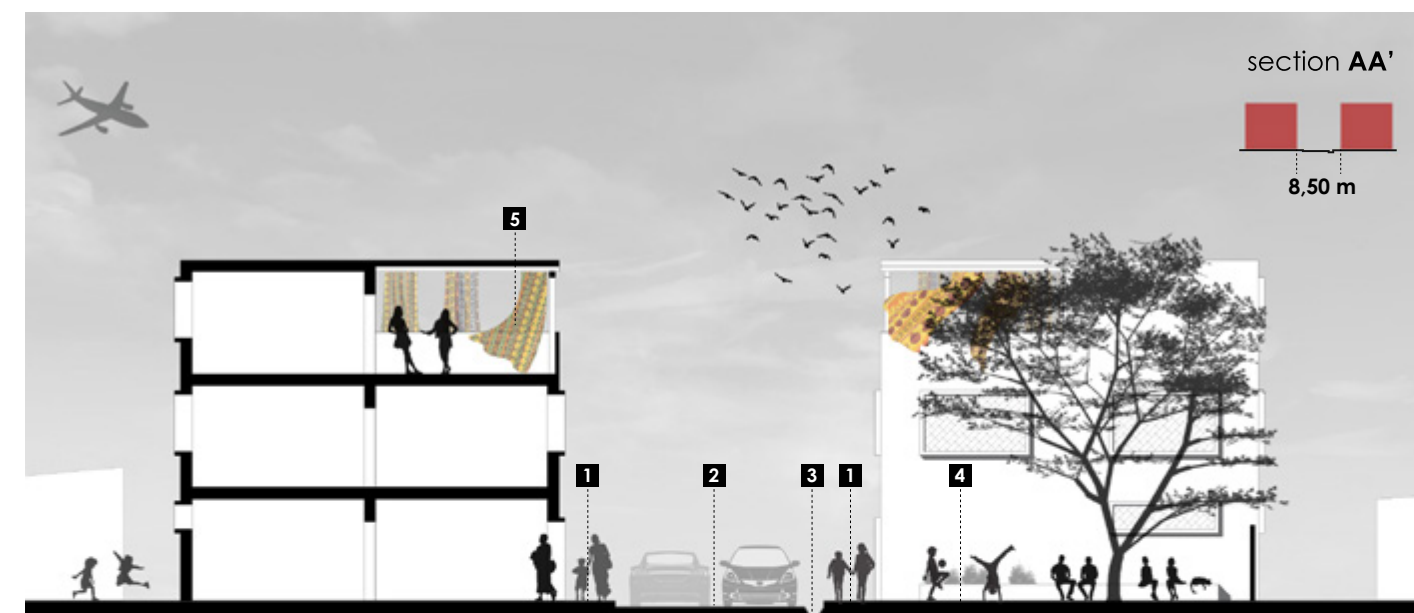
LEGEND Project strategy

- Praça de Touros
- Buildings to demolish
- Buildings to adjust
- New buildings' area
- New main axes
- Better connections/accesses
- New residential buildings
- Adjusted buildings

PROJECT STRATEGY

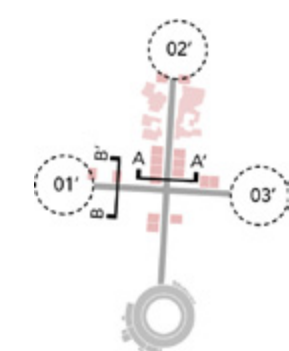


Project_Sections of main access and two main streets



The accessibility to the lot will be improved through the creation of safer connections with the surrounding streets and the public transportation system. The main roads will be widened, paved and equipped with drainage system. The vertical axis will have different spaces for pedestrian and for vehicles, while the horizontal one will be only pedestrian, shaded by a row of trees and flanked by local commercial activities to recreate and not lose the typical aggregation dynamics of informal settlements' roads. Services and facilities will be positioned in strategic points to increase the attractiveness and the quality of life of the area.

- | | |
|---|---|
| I Safe pedestrian crossing on main roads with crosswalk | 1 Sidewalk (1,50m wide) |
| II Equipped bus stop with shelter | 2 Paved driveway (5,50m wide) |
| III Safe sidewalk | 3 Drainage canal |
| IV New bridge connecting the project's main axes to the neighbourhood | 4 Shaded public space |
| V Safe and shady public spaces for children's play and street shopping | 5 New residential buildings shaded with traditional Mozambican fabrics |
| VI Start of the project axes | 6 Paved pedestrian street (3,50m wide) with row of trees |
| | 7 Commercial / aggregation activities |



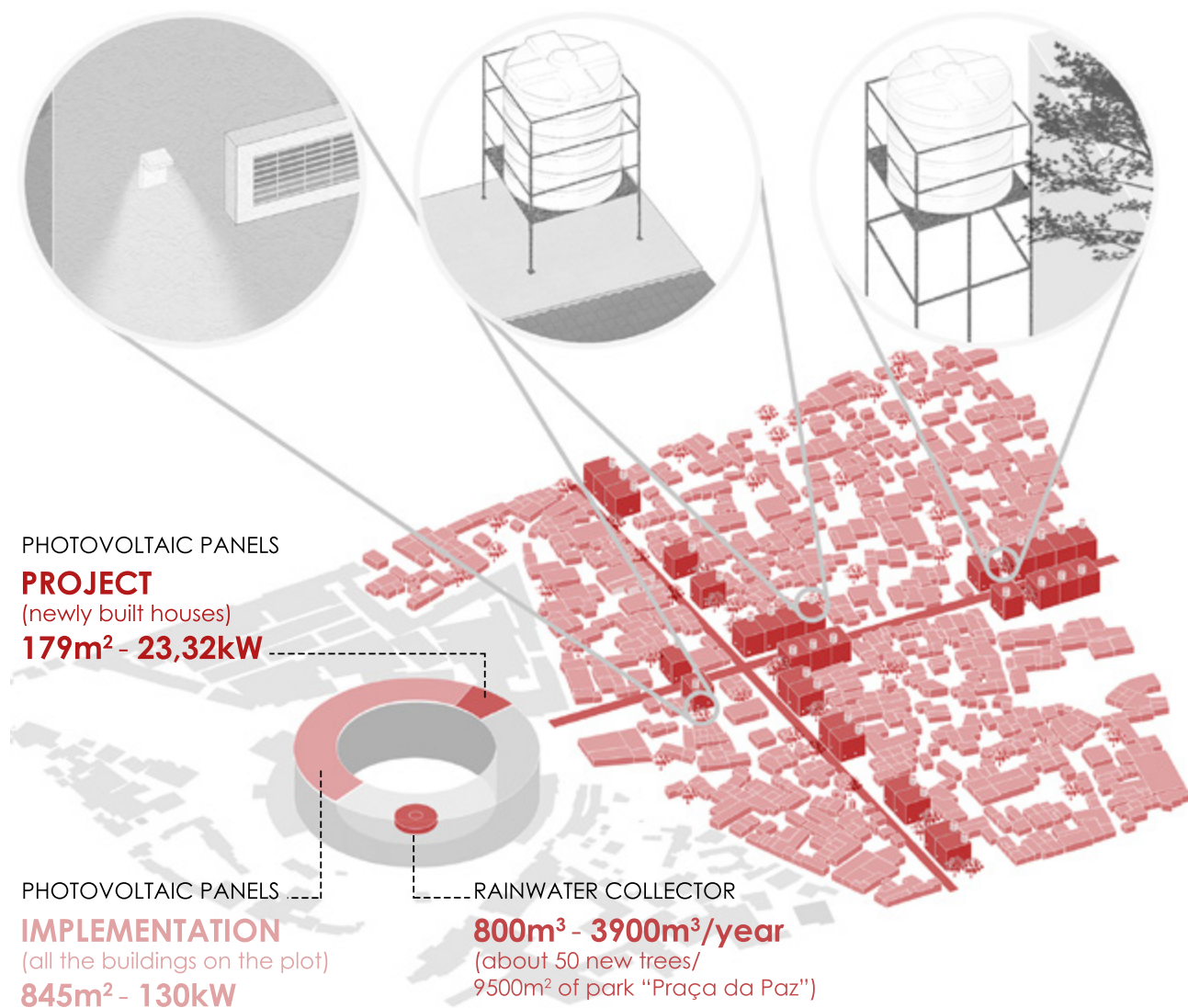
Scale 1:200
0m 2m 5m

OUTDOOR PHOTOVOLTAIC LAMPS

DWELLERS' WATER TANKS

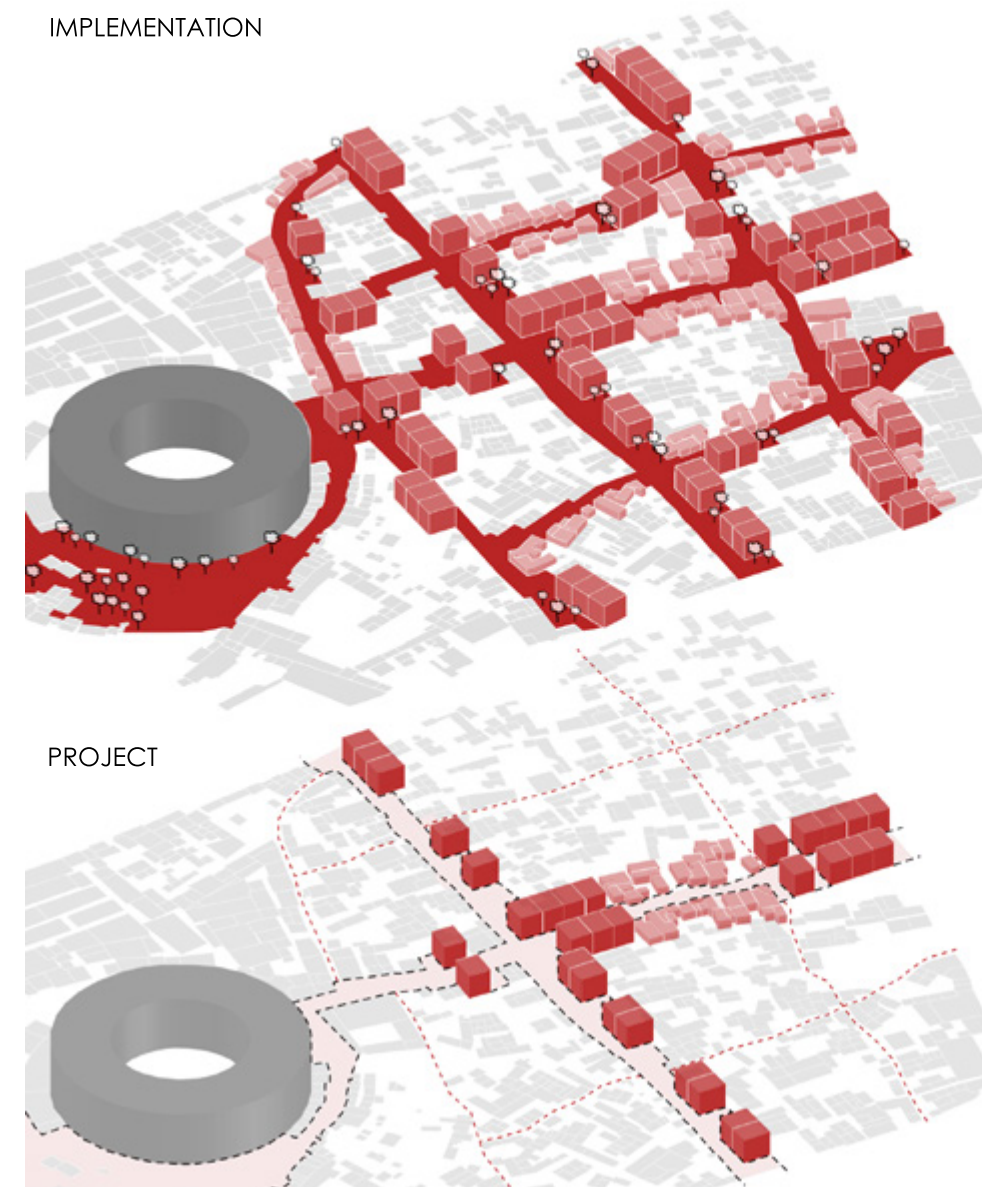
PUBLIC SPACES' RAINWATER TANKS

IMPLEMENTATION



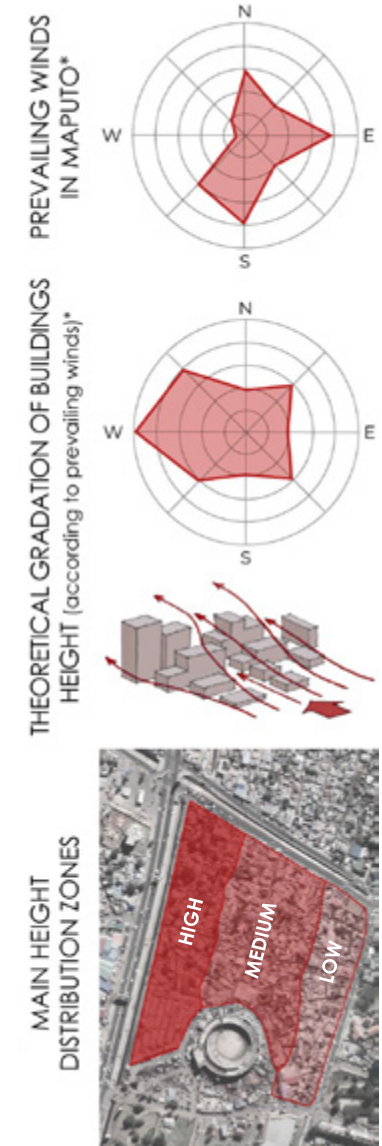
The project also contemplates rainwater collection and a large exploitation of solar energy, both of which expandable as long-term upgrading hypothesis. The streets and the public spaces will be enlightened by photovoltaic lamps to increase the safety and the usage of these spaces during the night; rainwater tanks will be provided on the new buildings for domestic use and in the public areas for water supply points and to irrigate the new trees. On the roof of Praça de Touros 179m² of photovoltaic panels will be added. They will meet the electricity needs of the new buildings and they will be expandable to 845m² to meet the future energy demand of buildings throughout the project lot. The possibility of legally obtaining electricity and water is a fundamental step for obtaining the DUAT.

IMPLEMENTATION SCHEMES_Supply of water and energy

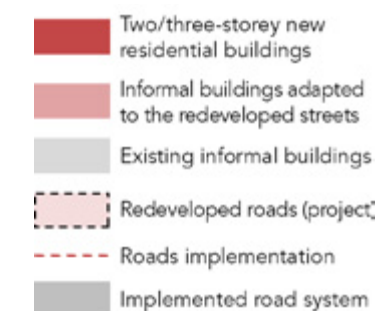


The project concerning the two main axes is only a first step towards the complete redevelopment of the area. Thinking about future development, it will be possible to apply the same design concept on the secondary roads present in the lot. The formal city grid will fit into the area respecting its nature, finally reaching a compromise between formal and informal. In a further development of the area, it will be important to design following bioclimatic guidelines

IMPLEMENTATION SCHEMES_Future scenarios



*UN-Habitat, Energy and resource efficient urban neighbourhood design, principles for tropical countries, Practitioner's Guidebook





Team 5

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SpacefiCation

Public Space through Densification

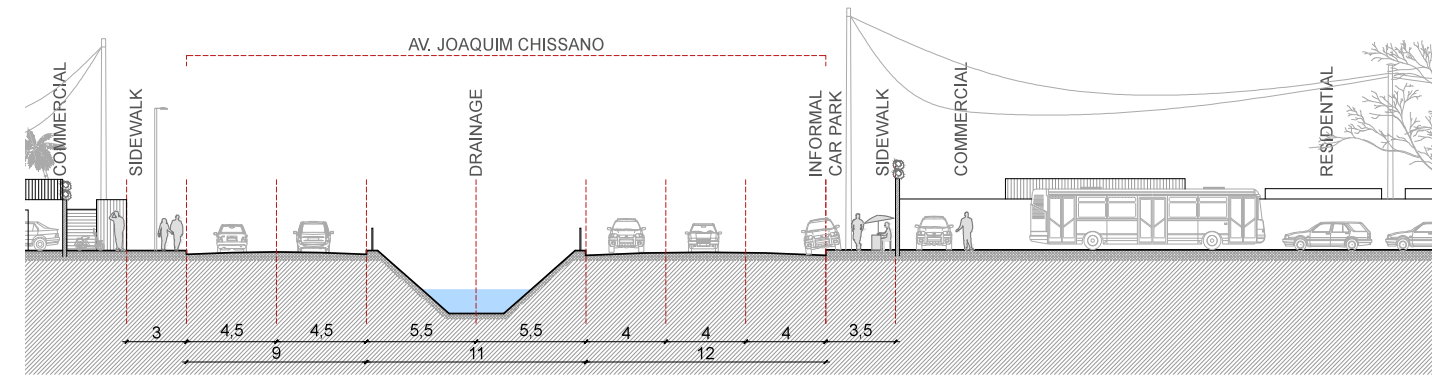
In the city of Maputo, the Capital town of Mozambique, there are lots of spontaneous settlements that round the city center, planned by the portugueses until 1975. One of these is known as Malhangalene, and is one of the most central. This District is especially famous for a quite modern Strip Center and a ruined Praca de Touros; these two buildings face themselves in the central part of the district. North to Praca de Touros, there is the only part of Malhangalene that is still informal.

A very compact neighbourhood, bordered by Praca de Touros on the south side, a medium scale street on the east, and two important roads on north and west sides. These two main roads are characterized by a big open-air drainage, placed along the car ways. On the north side that drainage divide the two directions of traffic flowing, so cars are directly in contact with the border and the sidewalks.

In this north Border, the most permeable to the formal city and the most connected, the Municipality of Maputo would like to start a new urbanization, at the expense of the traditional informal settlement. Ten storey high buildings, quite separated one from the other, commercial shops in the first floors, no public spaces; it's going to be a new Malhangalene, very similar to the formal city center. The shame is to loose the interesting characters of this neighbourhood, not only in that north border, but in all district. After that first urbanization, it would come other and other, and sooner or later all Malhangalene is going to disappear, and all around Praca de Touros would remain a modern, gentrified and aseptic suburb.

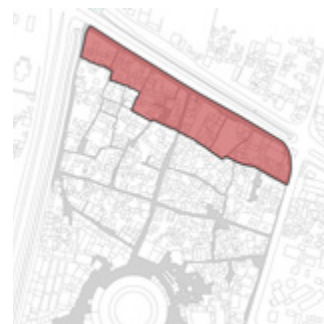
The informal settlement of Malhangalene has some aspects that can be preserved, some intangible heritages that it would be a pity to loose. The structure of this spontaneous urbanism is quite mazy, but is not so irrational; the most important internal streets make a big cross, and divide the neighbourhood in four parts. These parts are crossed by tighter sidewalks, that divide the quarters in several blocks. These blocks are very impermeable, and only contains private spaces; those spaces are both houses and patios, sometimes only private, sometimes shared between families. If you look at this settlement from the top, it would recall you to a hive. Outside of that hive, public spaces are so few, but so precious. You can find them in the enlargement of sidewlaks, in a cross between streets, in front of a comunitary building. Theese characters have to be improved, not destroyed and forgotten.

The idea is to transform slowly the district in order to improve public spaces, housing, and all that intangible cultural heritage that we talk about. The way to do that is a medium-densification of the north border, an improvement of the little existing public spaces, a gentle transformation of the "hives", the internal private blocks. Let's show you how.

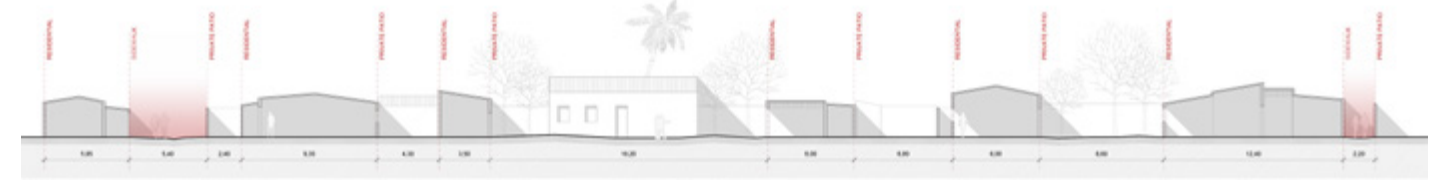
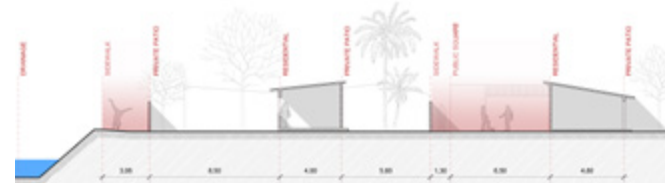


Av.da joaquim chissano is the most important district road, connecting the waterfront with the airport, the city of matola with the center of maputo. It's a crowded road of four track, divided by a big formal drainage.

The sidewalks are directly connected to the car's tracks, therefore this border is always being used for commerce, especially car parts sellers. These shops are installed in little buildings, but occupy a lot of space be-hind them for the storage. The municipality of maputo wants to transform this neighbourhood starting from the north border, attacking the car's parts shops, and convert it in a modernist occidental district, with 10 storey high buildings, and big empty spaces between them. That politics is going to transform completely the image of the district, and it probably starts the destruction of the textures of the neighbourhood, and it's cultural heritage.



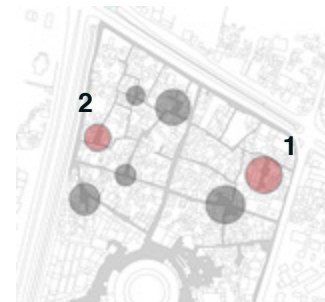
NORTH BORDER



Inside the district there are several public spaces, as we can see in the map (the red ones are the two examined in this work).

This public space sometimes is used to seat and chat, but only where there are some commercial activities. In the other situations is not maintained nor used for practical purposes, is only an empty space between private houses.

This space is one of the most interesting ones, because of the presence of the evangelic church. In front of that building there are a lot of little spaces semi-private, some of them are used as vegetable gardens but the most are unused. This little, very closed and protected space in the consolidated part of the district, shows how less this spaces are used by the community.



EXISTING PUBLIC SPACES

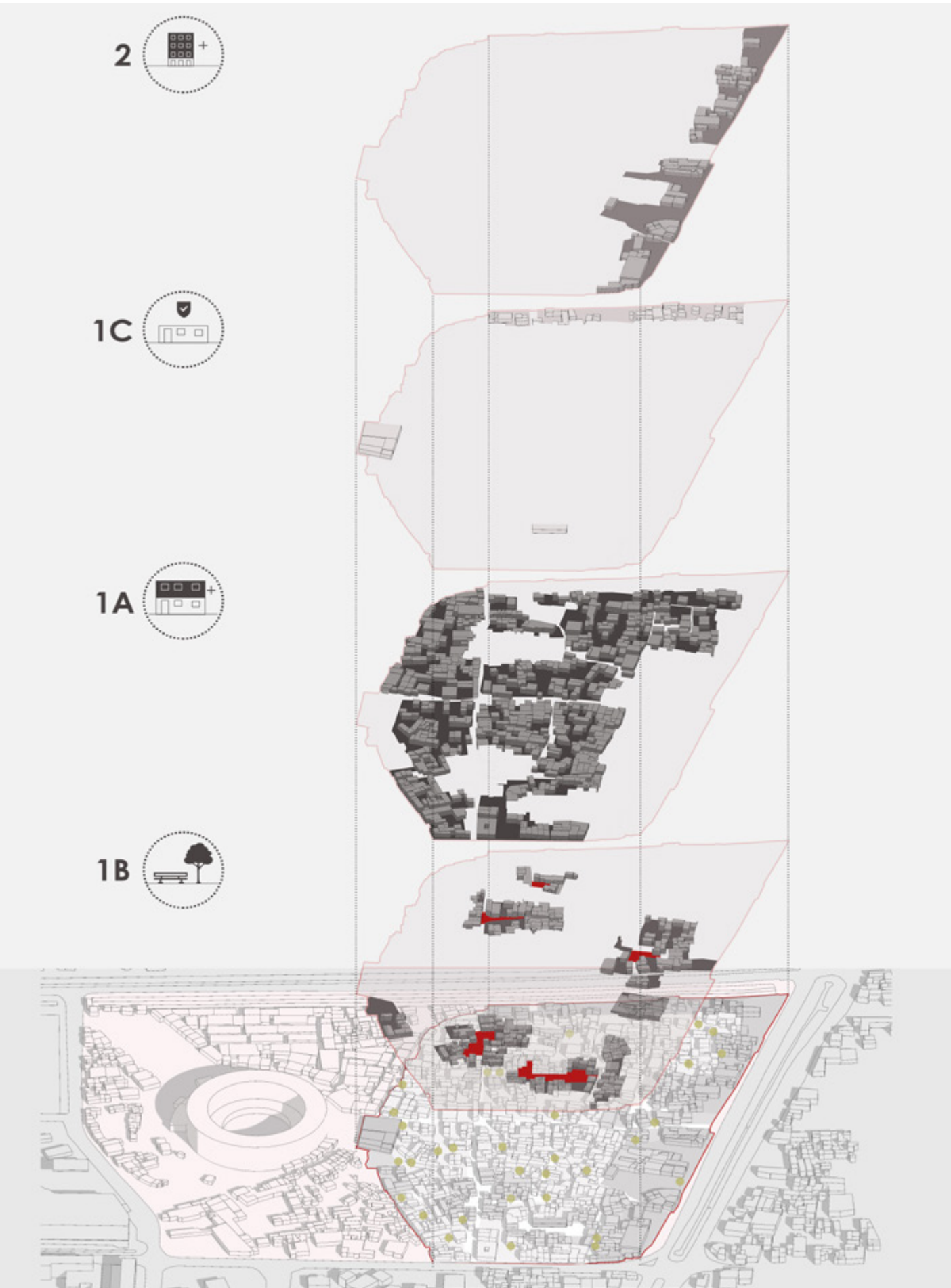
Inside the borders, made up by the streets, there is the big world of the private space. the blocks are impermeable, closed, denses, full of mixed spaces.

in the section is also clear that there is a succession of residential one-storey buildings and private courtyards. those open spaces, private or shared, have different uses; gardens, playground, planting, laundry, workspaces, shops, etc etc.

in these private, open-air spaces there are trees and plants (that are not in the public squares), that could be potential of a “garden neighbourhood”.



DENSE NEIGHBOURHOOD



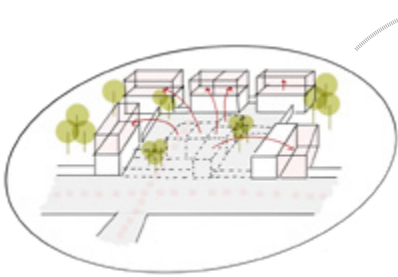
MASTERPLAN

DENSIFY TO FREE PUBLIC SPACE

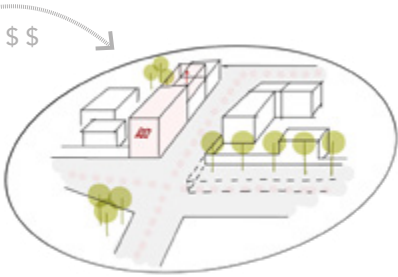
As a tool to reinforce community & improve quality of life

STRATEGY 1

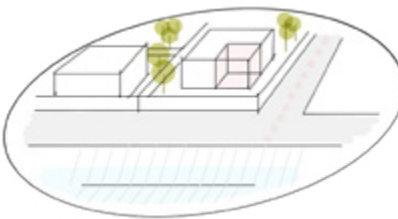
micro-interventions inside the settlement



1A compact neighbourhoods
To manage development to avoid massive densification
densifying creating new public or common spaces
densifying improving housing conditions
open to private investors:
building construction charges
fund interventions on public and common spaces



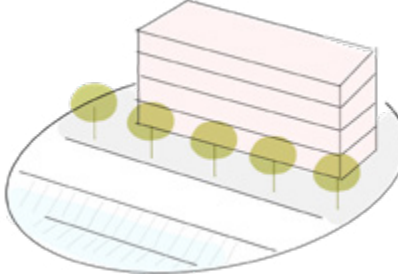
1B existing public spaces
improving quality (drainage, paving, trees, ...)
new shared uses & meanings (co-design)






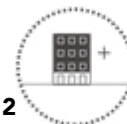
1C consolidated areas
maintain original characteristics
improving quality where needed

STRATEGY 2

north border: new urban front



2 existing commercial plots
densify to free quality public space facing the street
densify to add functions (mix commercial, residential, services)
new front protecting the settlement from indiscriminate densification
new front striking balance with Municipality plans for the area
open to private investors: building construction charges fund interventions on public spaces inside the settlement

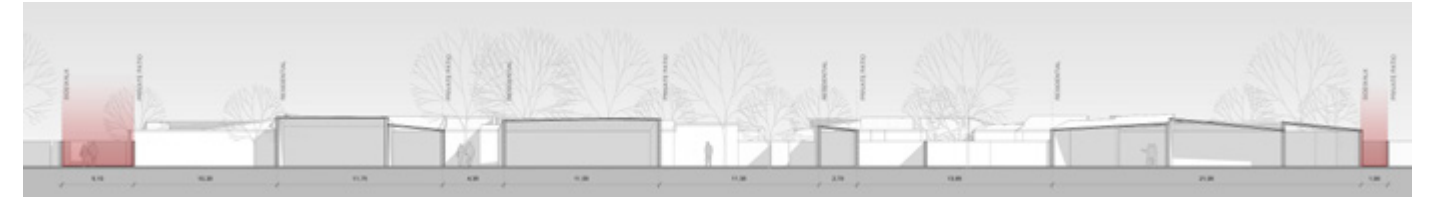
DENSIFICATION GUIDELINES	1B 	1A 	1C 	2 
max covered area	60%	80%	10% extension	70%
max floors n°	3	2	=	5
max plot * area	250 sqm 500 sqm (east border)	200 sqm	/	600 sqm
main st. distance	3 m	/	3 m	8 m
internal st. distance	0 m	0 m	0 m	3 m
function	residential	residential commercial public services	residential	GF -commercial 1 st 2 nd F-offices residential

* = new plots as result of merging existing smaller ones



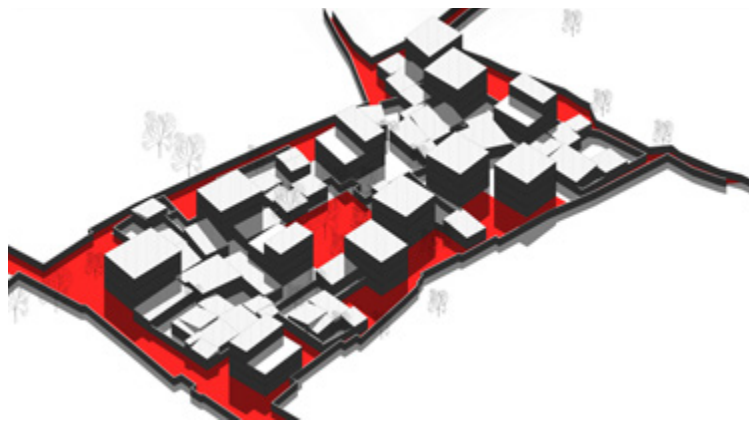
STATE OF ART

- Public space is only in the edge.
- Streets are small and unhealthy.
- There are only one-storey houses.
- The block is inaccessible, closed by walls.
- All of the empty spaces are private.
- Some of these private spaces are gardens.
- There are too many inhabitants for that kind of spontaneous urbanization.



FIRST PHASE OF DENSIFICATION

- Public space is growing up within the border
- Streets are interrupted by public areas.
- There are some new three-storey buildings.
- The block is becoming permeable.
- Some of empty spaces are public.
- All of new public spaces have green areas.
- Density is a balance between old monofamiliar housing and departament blocks.

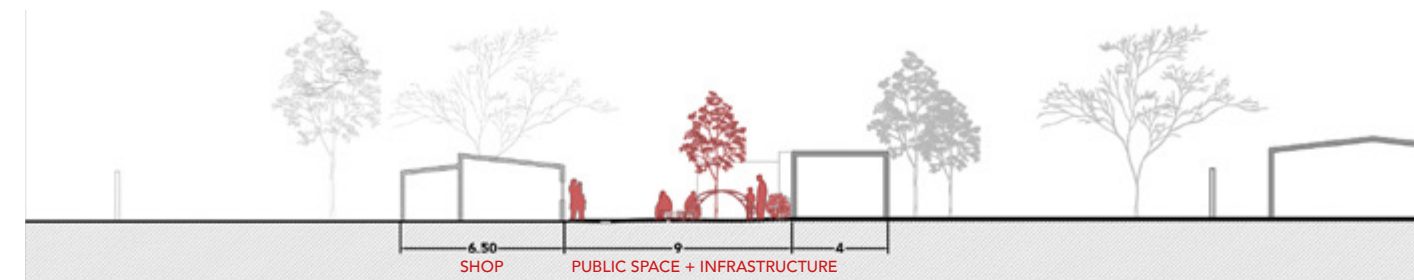


SECOND PHASE OF DENSIFICATION

- Public space is all around the block.
- Streets are larger but they don't lose the original personality.
- There are lots of human-scale departament blocks.
- These blocks are new and healthy.
- There's a new public square in the center of the district.
- There's still the presence and the memory of the previous spontaneous urbanization.

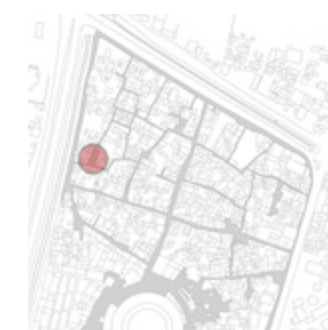


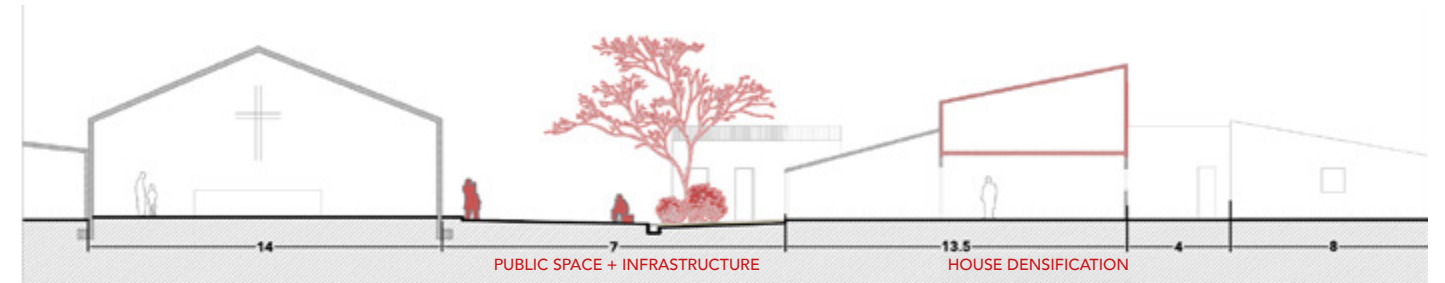
STRATEGY 1A _ Compact Neighbourhood - planned densification



Giving new functions and uses to the existing public space, the aim is to generate in the community a sense of belonging and to trigger the rise of new activities (commercial, public, ...)

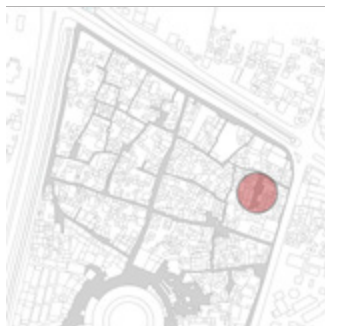
STRATEGY 1B _ Existing public space - revalorization pilot project 1

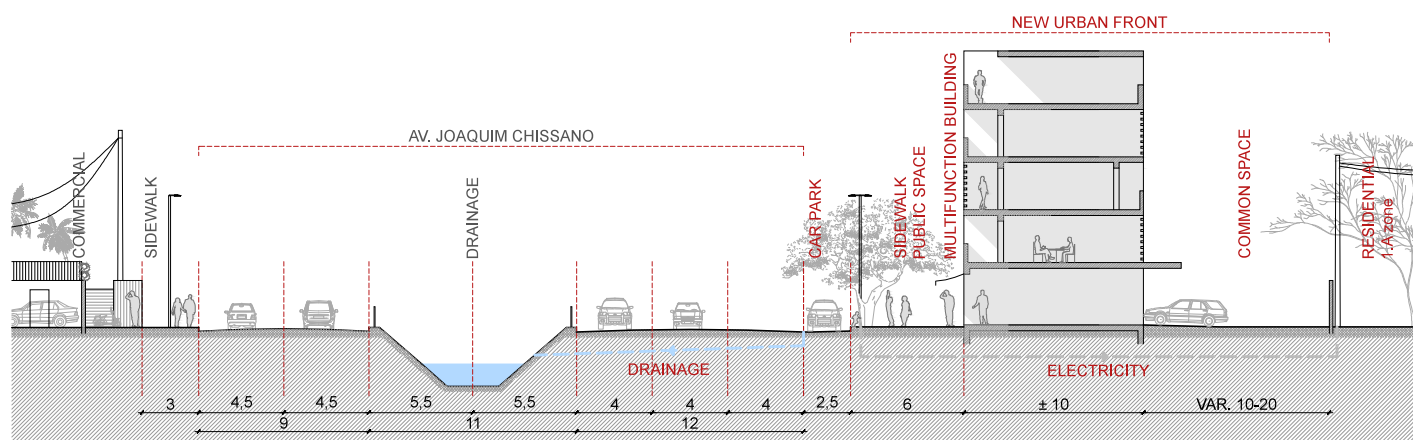




Working in some strategic places with existing important functions - in this pilot project there is a Church- the aim is to enforce the use of the common spaces, also for empowerment and aknowdlegement activities.

STRATEGY 1B _ Existing public space - revalorization pilot project 2





The decision to intervene especially on the north border is due to the presence of commercial activities which are eroding the residential neighbourhood. The idea is to use this big plots to implement a **controlled densification** figuring to have 4/5 storey buildings. Commercial ground floor -where the existing activities could be reallocated- and other floors used for residences and offices could create a mixite' of functions and people.

Densifying give also the possibility to free space along the road for proper car parkings and bigger sidewalks, with trees and more space for the informal and formal activities. This kind of implementation must be ruled by municipality and built by private investors: the private incomes will be redistributed to the community in the form of construction charges, used to fund the interventions on public spaces.



STRATEGY 2 _ north border: new urban front



POSSIBLE SCENARIOS

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Credits

Graphic design: Giuliana Miglierina

