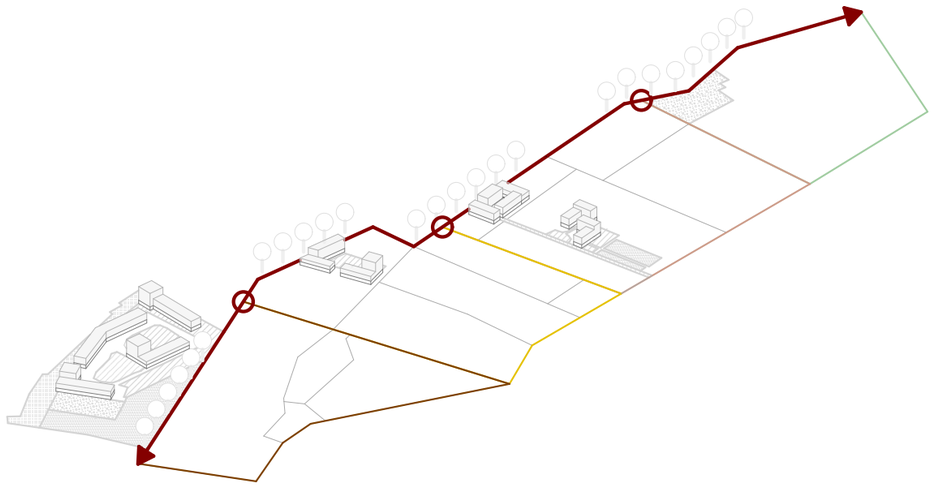


Inte **GRID**

(Integration)(Grid)

bring together to form a new whole

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

INTRODUCTION

The public space has always been a crucial component in the planning of a city. It is a catalyst for residents' social activities, an urban approach to gather and unite different groups of society and in itself a recreation centre for the thing we call community. Because of the named reasons our design proposal, depicted and described in the following booklet, has a deep understanding for the importance of the public space. It becomes the main dimension in our project, evolving in a sequence of design approaches, which all aim to bring together and fill the missing parts of a neighbourhood in the periphery of Milan.

CONTENTS

1

.THE CONTEXT

-Milan
-Where are we?

.ANALYSIS-BOVISA

-Historical Development
-Demographics
-Infrastructural System
-Environmental System
-Built-Up System
-Welfare System

.CONCLUSIONS

-What are our conclusions?

2

.SYNTHESIS

.GOALS & STRATEGIES

-What are the strategies?
-What is the implementation tool?

.METAMORPHOSIS

-Main street
-Secondary street

.REVIVAL

-Green network

.REACTIVATION

-Intersections
-Levels of Intersections

.HIERARCHY

-Built up spaces
-Welfare
-Axonometry

3

.MASTER PLAN PROPOSAL

-Masten plan Detailed
-Community Garden
-The New Market
-The Skate Park
-Social Housing
-Social Housing/Public Park

.STREET INTERVENTIONS

-Shared Street/Woonerf
-Main Street/Bovisasca
-Connector Street
-Revitalization Street

.PROJECT DETAILS

-Green Species
-Area Disribution+ Calculation
-Overview
-Break The Grid-Introduction

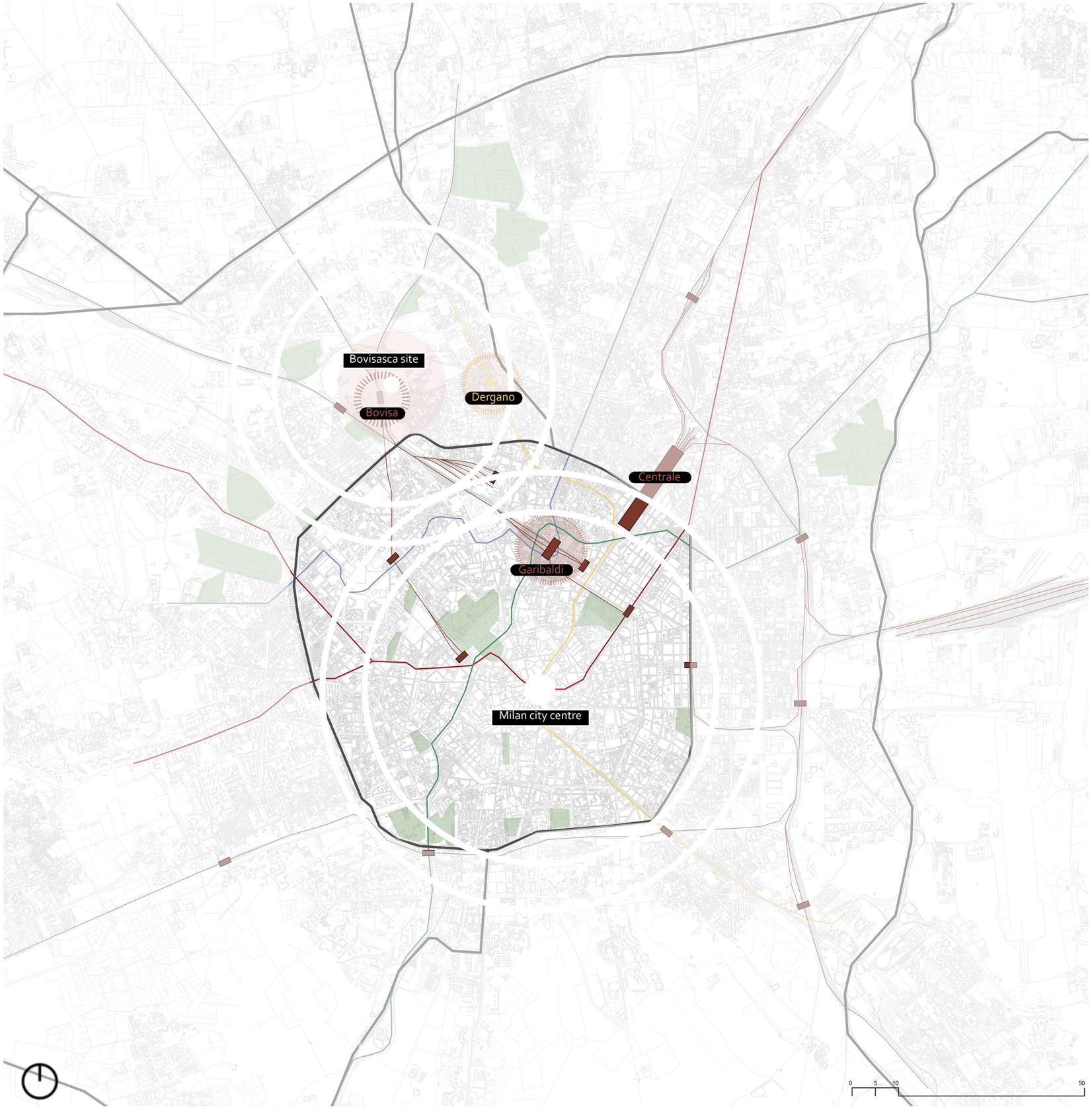
The Context

understanding the site

MILAN

In a city like Milan, which is always in a hurry, which does not give you a break from its busy life, it is even more essential to redefine the use of public space. A space, which as human nature, changes over time, but adapts to the current needs of the different users and moreover of the society as a whole. Milan is often described as an exhausting city as it corresponds to its reputation of a financial and economical centre, huge metropolia, etc. The role of green and public areas in such cities is pivotal - unambiguously linked to the necessities for rest, leisure time, outdoor activities, socialisation and much more. In the big city, where everybody is anonymous and doesn't know his neighbours, the public space is a communication connector that couldn't be missed.

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/



WHERE ARE WE?

The chosen location for the project proposal is the Bovisa district, situated in the North-West of Milan. The main "attractor" for most people, living or visiting the neighbourhood on a daily basis, is the train station, which looks busy in almost every time of the day. It connects the region to the Garibaldi train station, which is the fastest way to reach the city area of Milan. While the area is served apparently well by public transport, there are some difficulties in the experience as a pedestrian. Being a periphery of a big city, Bovisa lacks some fundamental facilities for daily life, which define the quality of living there. The outskirts of Milan are predominantly previous industrial zones, which even today bring the same character and are deficient in infrastructure, necessary for a residential area. The neighbourhood needs to become an exchange point for the neighbours to socialise. In this sense, bringing Bovisa a new communication connector between the residential utilities would also reconnect the district itself with the city of Milan.

LEGEND

- Metroline 1
- Metroline 2
- Metroline 3 / stations in the area
- Metroline 5
- Main train stations
- Main connecting railways
- Main roads
- Biggest parks

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

Analysis-Bovisa

understanding the current situation

1900 | 1910 | 1920 | 1930 | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010 | 2020

1879
opening of Milano Bovisa train station

1905
the construction of the Officine del Gas began - it supplied the entire city through an underground network

1905
opening of "Milano Films" factory

1908
Gas Workshops were opened

1910

WWR I

film production in Bovisa

1916
the 'Bovisa disaster' - an explosion due to transport of fuel killed seven people

the church of Bovisa was built

1928
fountain dedicated to the Fallen of the First World War was built by the sculptor Pogliani

WWR II

1946

1964
the former Bellestrini oil mill was turned into "Cristallerie Livellara" factory (nowadays "Spirit of Milan" is inside)

cessation of the initial funtions of the gasometer
1969

1972

demolishion of the original building of Milano Bovisa station
1988

affirmation of the idea of the new Bovisa campus by the Milan Municipality
1987

1989
international competition for the extension of the Bovisa Campus

1991
inauguration of the new building of Milano Bovisa station

opening of La Masa Campus
1997

2000

1994
opening of Durando Campus

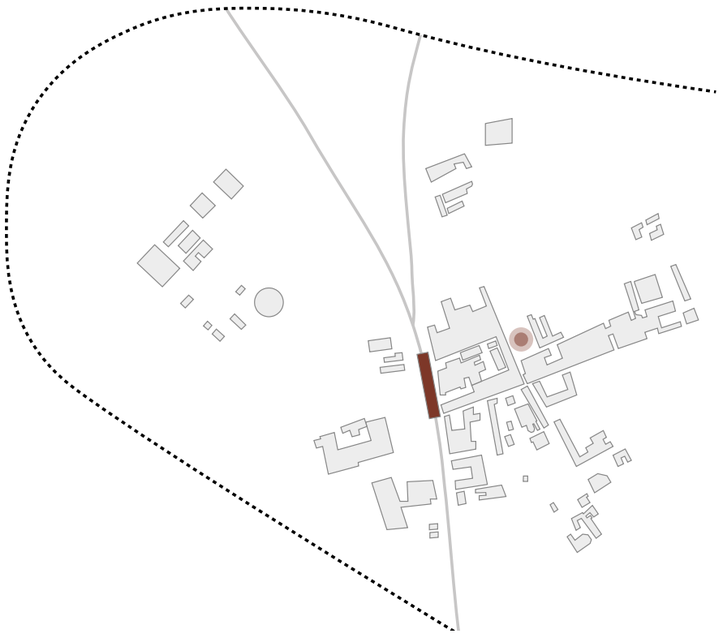
2006
the Triennale BoViSa of modern art was born

2015
redevelopment project about the gasometer

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

HISTORICAL DEVELOPMENT

From a historical point of view, the district developed all around the existence of the Bovisa station, first as a fully industrial area, served by a direct trainline to the city of Milan. With that we could say that the story of Bovisa started in 1879 with the opening of the railways to this periphery. In 1905 another important event took place, defining the district as a film production site - the opening of the "Milano Films" factory. Meanwhile Bovisa evolved as the supplier of gas for the entire city of Milan with 1, 2 and much later 3 gasometers, characterising the urban landscape. After the Second World War there was a rapid growth in the population in the whole metropolitan area, which led to the replacement of the industrial structures with residential blocks. The industry was still advancing in some new factories, such as the production of glass pottery by "Cristallerie Livellara". One very important new step for the vitalisation of the area was taken after the decision to build a new Politecnico Campus near the Bovisa train station. It was divided into two areas of education and science, devoted to different study programs, on both sides of the railways. As a result in the beginning of the 21st century a new attempt for reconnection between the two separated parts of the neighbourhood was established.



1910

1946

1972

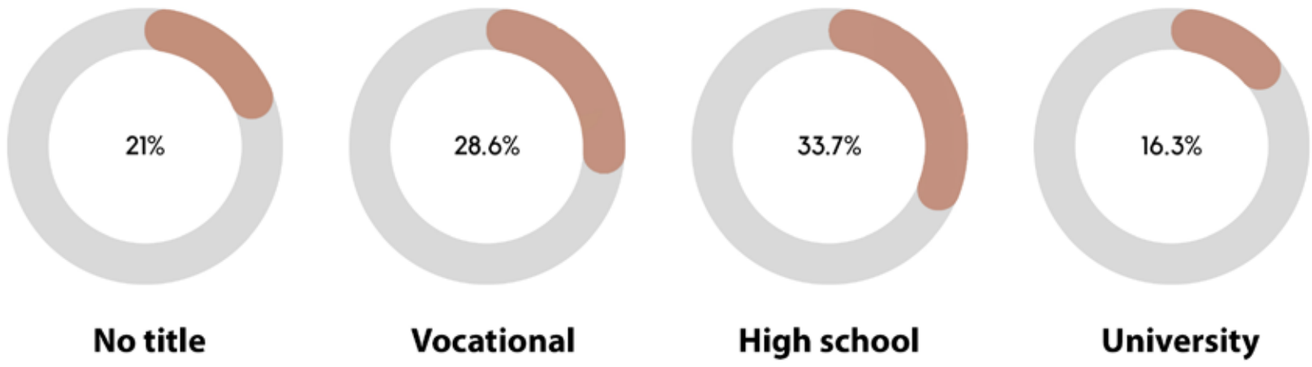
2000

DEMOGRAPHICS

Bovisa is a medium-density, highly urbanized neighborhood (83.4% of the total area) located in the northern precinct of the city. As a post-industrial area, the district is now experiencing an upturn, thanks to many enterprises which have relocated to the neighborhood. Majority of the population comprises of people between the age of 25-55 and 65 plus w most of the people have high school education.

AGE GROUP

EDUCATION



Residential price index

+ 19.78%

The Milan city-wide average is 14.61 € per m².

Rent range for economic housing	Sell range for economic housing
4 - 11 €	1,300 - 3,400 €
monthly cost per m²	monthly cost per m²
Rent range for stately homes	**Sell range for stately homes**
-	-
monthly cost per m²	monthly cost per m²

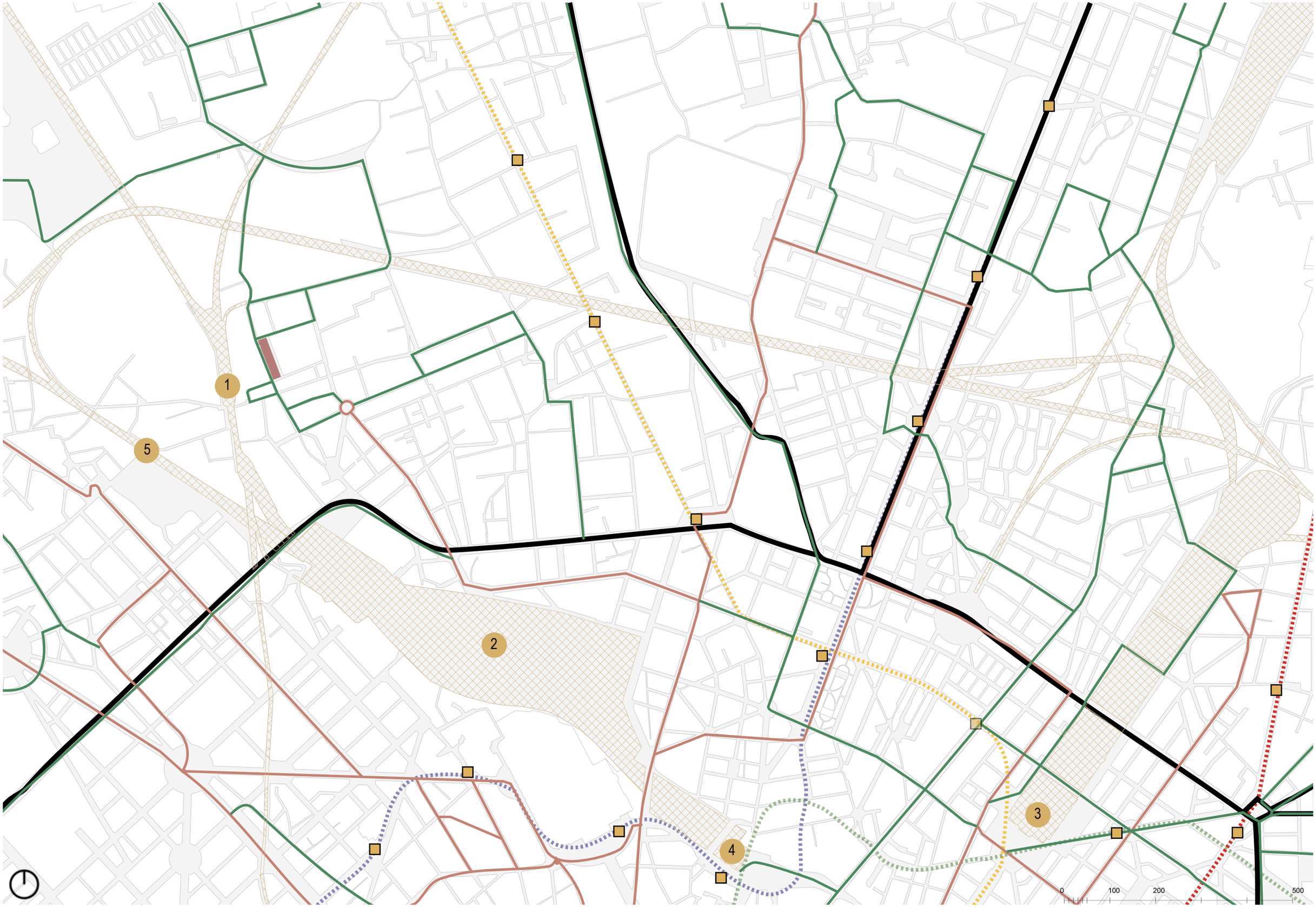
Commercial activity price index

+ 84.19%

The Milan city-wide average is 13.22 € per m².

Rent range for offices	Sell range for offices
5.5 - 13.6 €	1,100 - 2,800 €
monthly cost per m²	monthly cost per m²
Rent range for stores	**Sell range for stores**
2.2 - 5.5 €	400 - 1,000 €
monthly cost per m²	monthly cost per m²

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/



GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

INFRASTRUCTURAL SYSTEM

In result of the data collected on the infrastructural system on Bovisa district we can analyze the mobility flow of the direct context and how the district is well served in relationship with the center of Milan with their public transportation and street connections rather that public and pedestrian connections. Since Milan is a pedestrian friendly city, Bovisa district doesn't follow this same concept in order for the users to have more protagonism in the street, there's no proper walkways or cycle tracksand since the main site is directly connected to the politecnico di Milano Bovisa campus it creates a concern between its paths.

01 //Bovisa Railway Station

02//Pazza Bausan Roundabout Route

03 //Via Imbriani Street

04 //Dergano Metro Station

05 //Viale Bovisasca

06 //Via Luigi Mercantini

// LEGEND

RAILWAYS
- 1 Bovisa FN Station
- 2 Milano Lancetti station
- 3 Milano Centrale Railway Station
- 4 Milano Porta Garibaldi Railway Station
- 5 Milano Villapizzone Railway Station

MAIN ROADS
- Viale Enrico Fermi
- Via Populonia
- Via Gioacchino Murat
- Viale Marche
- Viale Edoardo Jenner
- Viale Luigi Bodio
- Cavalcavia Adriano Bacula

Secondary Streets

District Boundary

Project Site

ATM Metro Lines (Line M5 Bignani / San Siro Stadio)

ATM Metro Lines (Line M1 Rho Fieramilano / Bisceglie/ Sesto Fs)

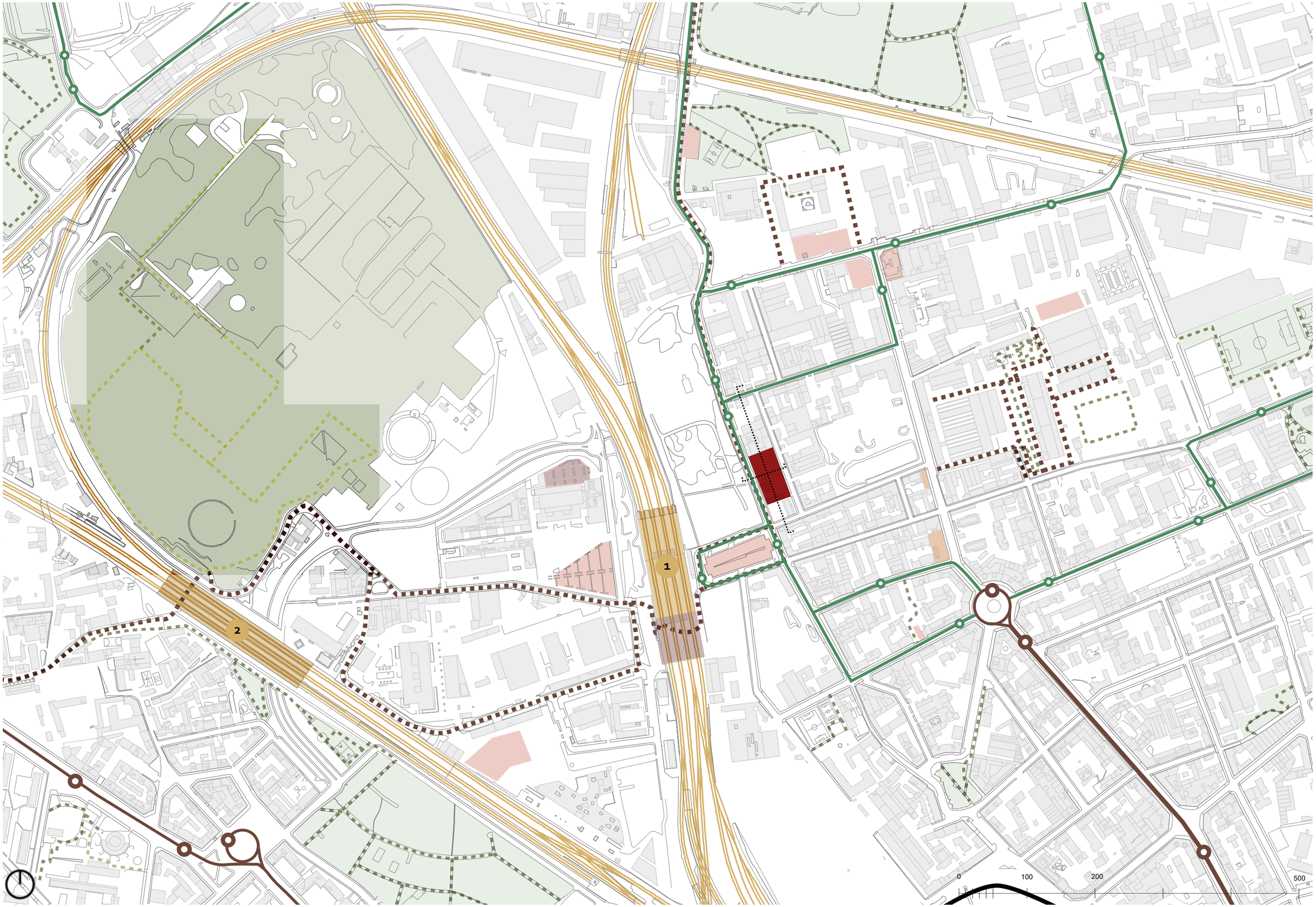
ATM Metro Lines (Line M3 San Donato/ Comasina)

ATM Metro Lines (Line M2 Gessate / Cologno Nord / P.za Abbiategrasso / Assago Forum)

ATM Metro Line Stop Stations

Public Surface Transportations / Tram Routes

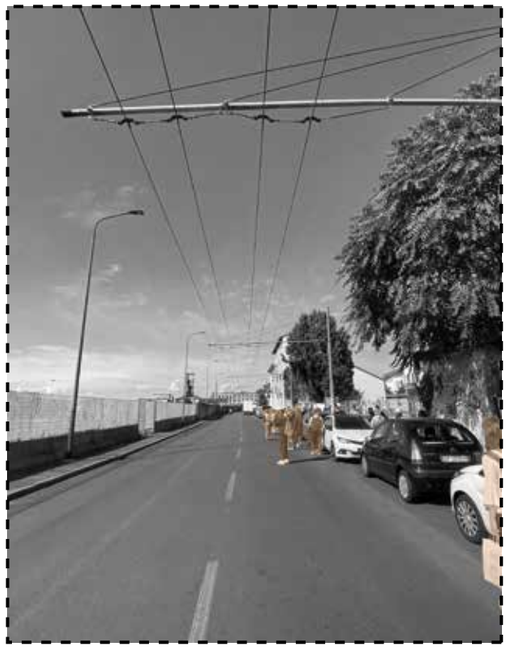
Public Surface Transportations / Bus Routes



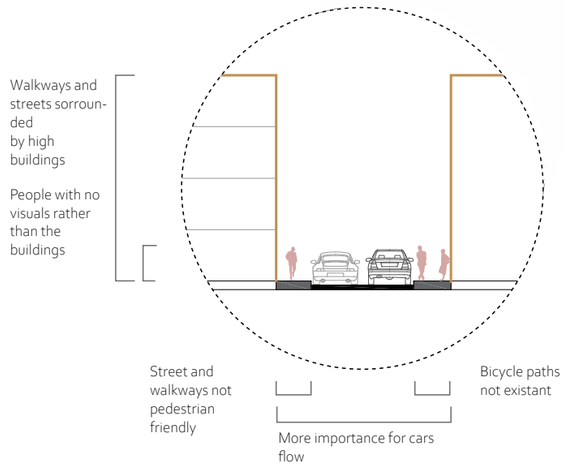
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

IMMEDIATE CONTEXT

Analysing the immediate context interms of theinfrastructure depicts the various public connections interms of road and pedestrian network. Proximity to the railway station is a key to the development.The site sections shows the immediate relation to the surrounding context.



SECTION B

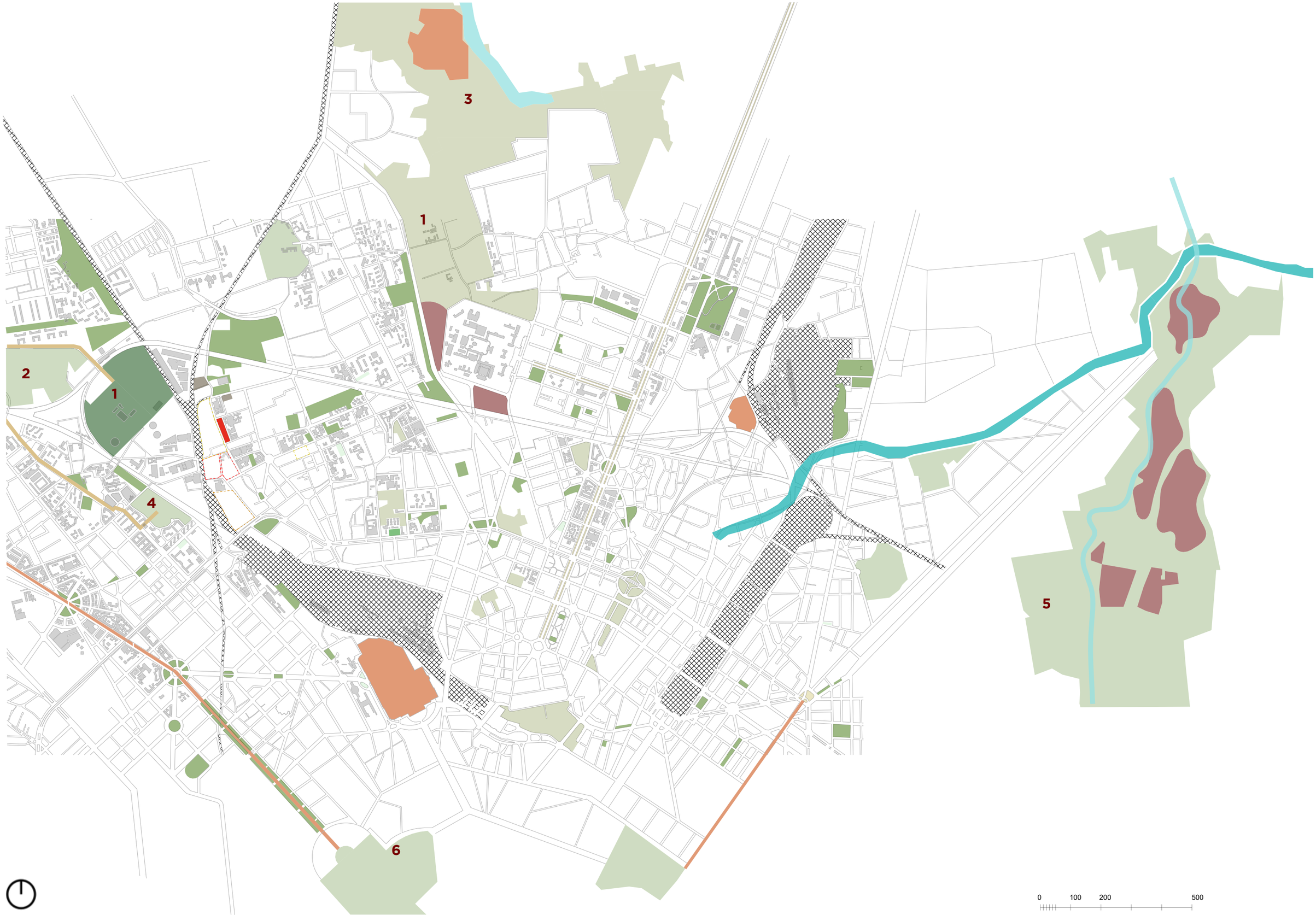


// LEGEND

- RAILWAYS
- Bovisa FN Station
- Public Parking Lots
- Private Parking Lots
- Public Surface Transportation / Bus Routes Lines: 92, 82, 35
- Public Surface Transportation / Tram Route Trams: 2, 12, 19
- Bus Stops
- Tram Stops
- Bosco Della Goccia
- Public Spaces
- Pedestrian Friendly Walkways / N
- Pedestrian Friendly Walkways
- Bicycle Friendly Routes
- Gas Stations
- Project Site
- Section Lines

SECTION A

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/



GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

ENVIRONMENTAL SYSTEM

The environment system around the site consists of large open spaces left for construction purposes and unused land left for regeneration,while analysing in a wider context the ecological corridors and systems could be linked to the site. The major urban parks-Parco sempione, Parco lambro, Parco Nord exist in close relation to the surrounding Bosco della goccia and the unused open spaces. Lack of ecological corridors with segregated pedestrian and cycle is the major concern to be addressed.

Developing the neighbourhood context with much more active ecological spaces and better recreational facilities for the residential population, spaces to be in close proximity to the urban infrastructure proposed.y

01 //Bosco della Goccia

02//Parco Pubblico Franco Verga

03 //Parco Nord

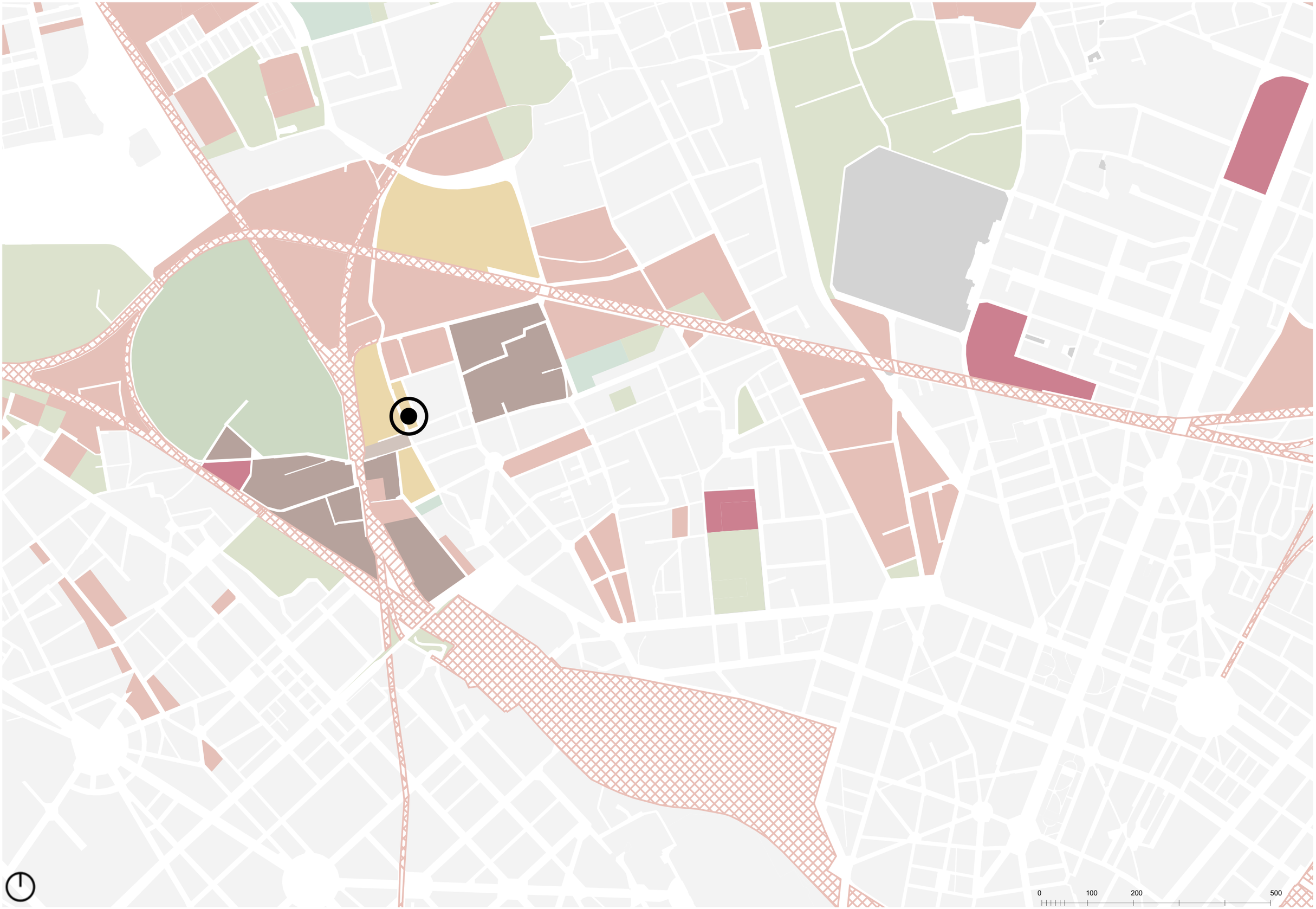
04 //Giovanni Testori Park

05 //Parco Lambro

06 //Parco Sempione

// LEGEND

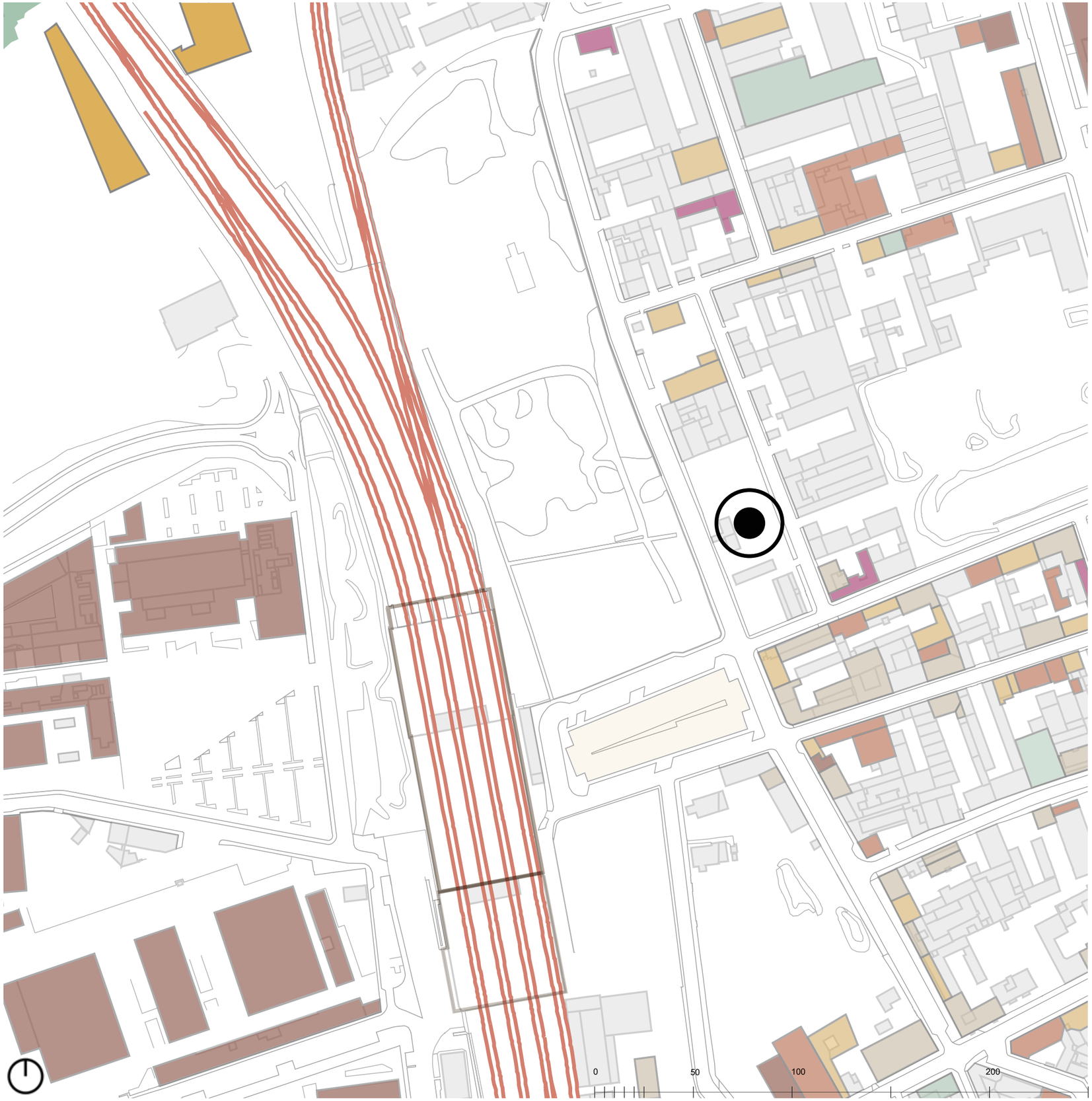
- Site
- National Forest
- Existing Urban Green Area
- Urban Parks
- Regeneration Areas
- North Milan Regional Park
- Local Ecological Corridoors
- Cemetery
- Agriculture-Mild
- Navglio martesana
- Minor Waterways
- Regeneration Areas
- Construction Sites
- Not in use



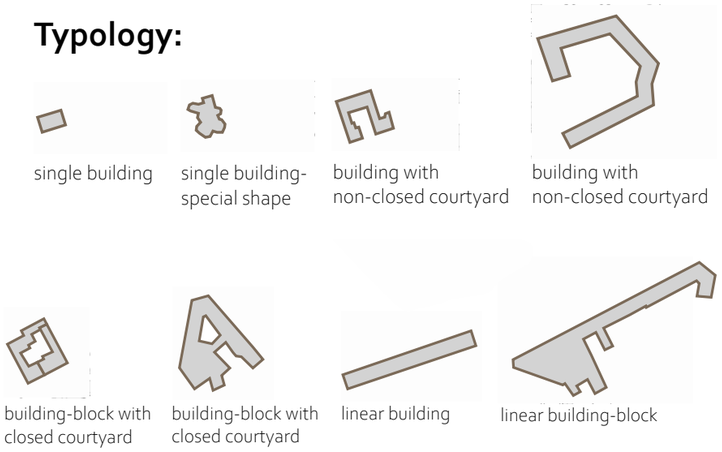
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

BUILT-UP SYSTEM

The built-up environment of the district is very heteregeneous, which hides a big potential of developing an attractive area for different target-groups. However, there are missing the connecting public spots, which can bring people together, as well as some centres of cultural importance, which could write the new history of the place. The rather big educational and industrial structures are contradictive to each other and should communicate with the patchwork of the surrounding with a more precise and thoughtful gesture.



Typology:



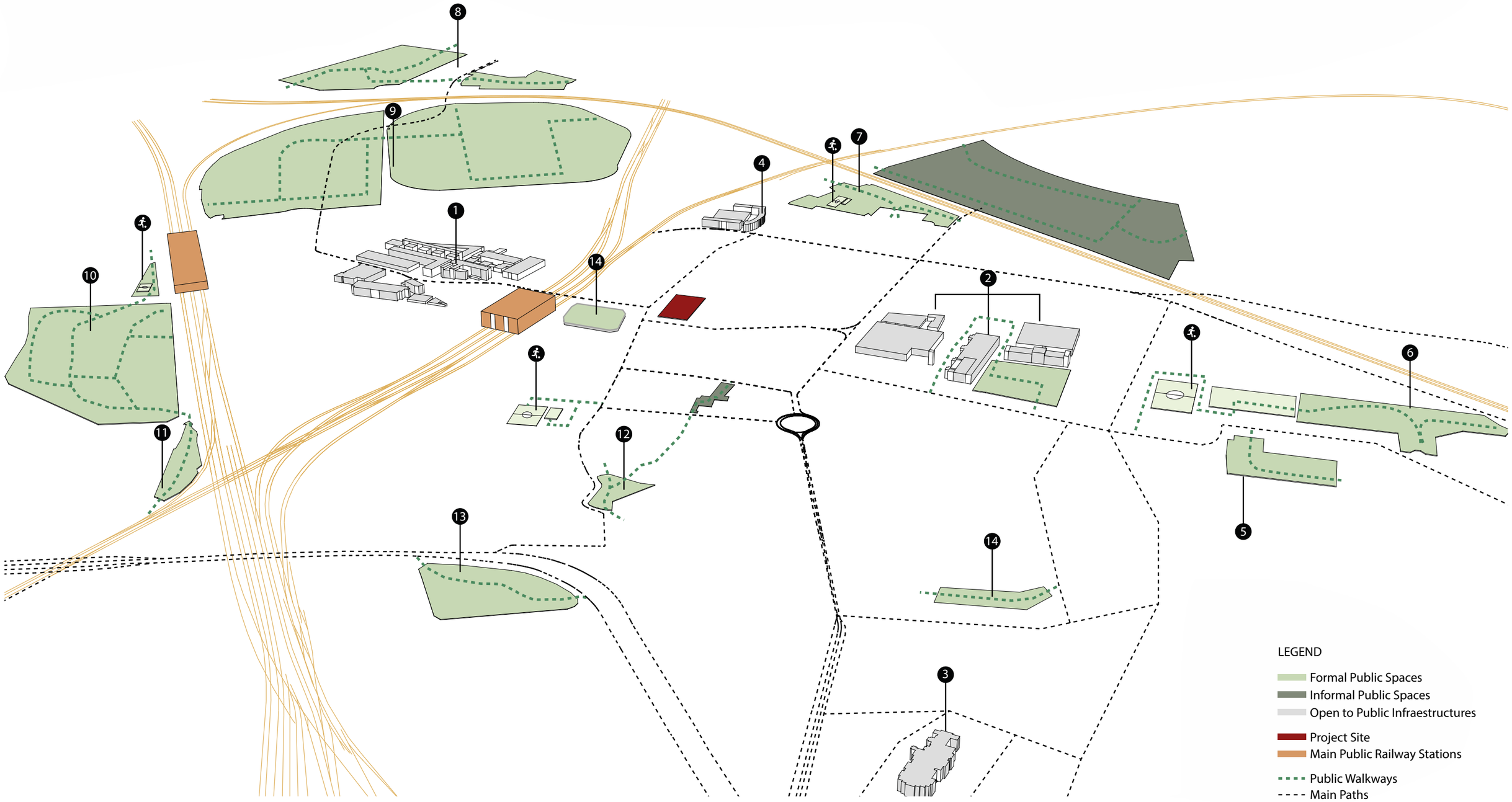
// LEGEND MAP 1

- Site
- Forests
- Parks
- Sport
- Parking Lots
- Empty Lots
- Industry
- Education and Science
- Residential Buildings
- Administrative Buildings
- Healthcare

// LEGEND MAP 2

- Site
- Offices
- Services
- Gastronomy
- Industry
- Shops
- Temporary market
- Education and Science
- Sport
- Religion
- Culture
- Healthcare
- Administrative Buildings

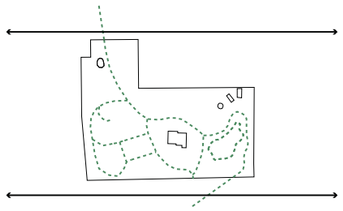
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/



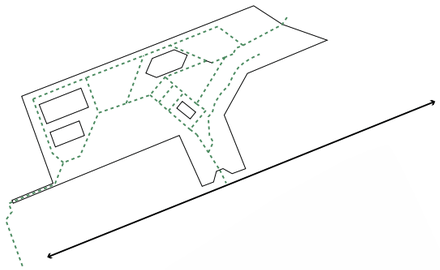
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

WELFARE SYSTEM

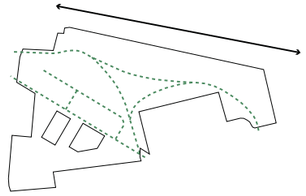
❺ Parco Ex Armonia Films



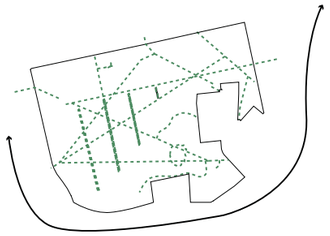
❻ Parco Publico Candiani



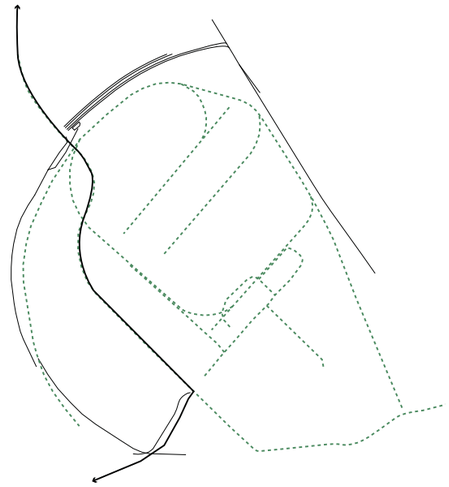
❼ Giardino condiviso Ghe Sem



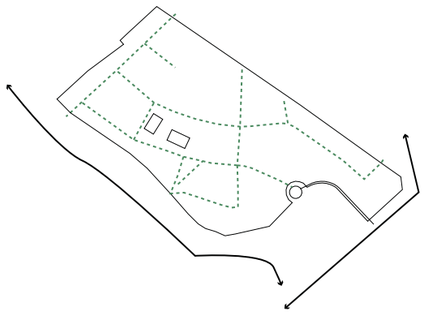
❽ Parco Pubblico Franco Verga



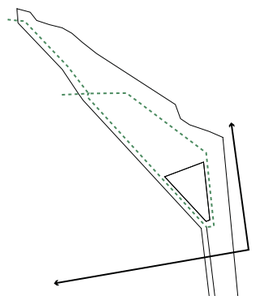
❾ Bosco della Goccia



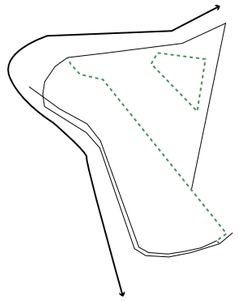
❿ Parco Giovanni Testori



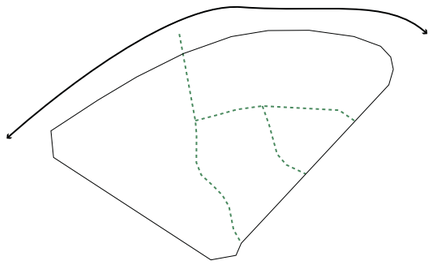
⓫ Parco dei Pioppi



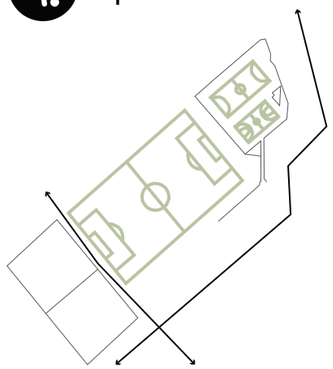
⓬ Piazza Schiavone



⓭ Piazzale Lugano



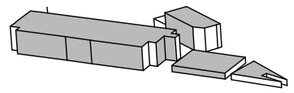
Sport Fields



As for the welfare system of Bovisa district immediate context is well served with green public areas in different areas and forms, although is divided by municipal functions such as; Piazzas, Parco and Giardino with the addition of a sports field and Bosco della Goccia, the main function of social gathering and relax space remains unchanged by the pedestrian using the spaces.

Another addition to welfare system are open to public buildings such as cultural, religious and educational functional buildings that supports mobility between different activities alongside the future intervention in which more recreational spaces will be added in relationship of the existing ones, improving the welfare system and optimize the lifestyle of the district residents.

OPEN TO PUBLIC INFRASTRUCTURE



❶❷ ED / BOVISA CAMPUS

❸ RL / CHURCH OF SAINT JOHN AND PAUL

❹ CI / SPIRIT OF MILAN OPEN PLAZA ACTIVITY

TEMPORARY OPEN TO PUBLIC INFRASTRUCTURE

⓮ PARKING LOT / TEMPORARY SOCIAL GATHERINGS AREA / TEMPORARY MARKET

Conclusions

conclusions from analysis

What are our conclusions?

Infrastructure

Problems / Weaknesses

•Lack of bicycle friendly paths in a 5 km radius
•Lack of renovated pedestrian-friendly walkways

Strengths

•Well served public transportation
•Bus line connected to the site

Environment

Problems / Weaknesses

•Lack of open green areas for the neighbouring residences
•Lack of ecological corridors around the site

Strengths

•Possibility to connect other major ecological landmarks
•Unused open spaces around could be regenerated

History

Problems / Weaknesses

•Strong industrial character of the neighbourhood
•Division in two sides through the railways
•Development of residential areas in distance to the railways

Strenghts

•Historical value of the gasometers and Goccia
•Historical relevance of the railways as a source of development

Built-up space

Problems / Weaknesses

•Lack of green space in-between the building blocks
•Quite big structures (industrial character)
•Missing intersection knots between the different facilities
•Lack of cultural facilities and enough public – orientated spaces

Strengths

•Educational and scientific centre
•Heterogeneity of the area

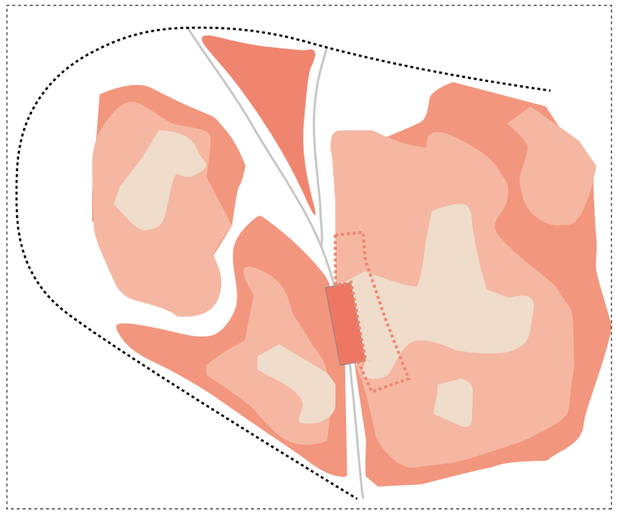
Welfare

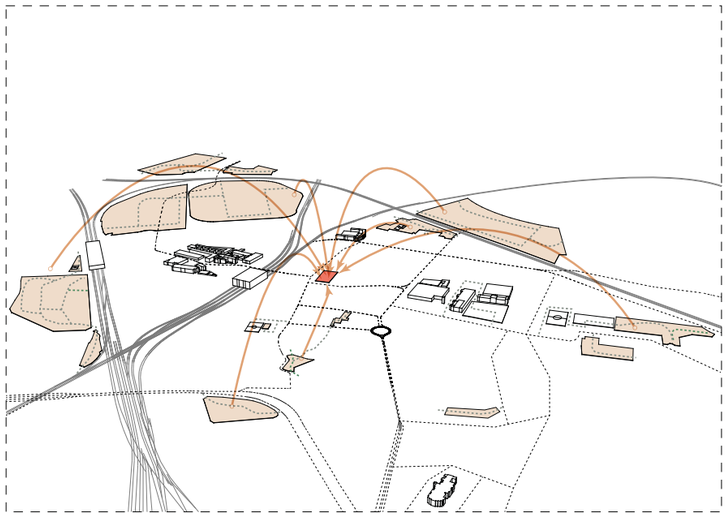
Problems / Weaknesses

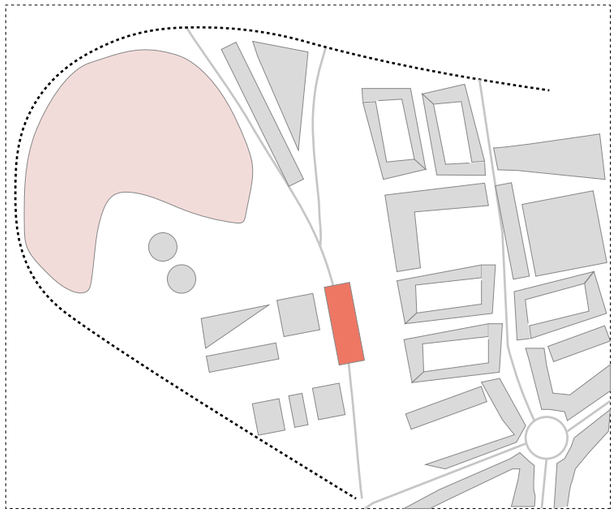
•No direct connection between the public formal spaces to the project site
• Lack of renovated urban infrastructure

Strenghts

• Well served welfare system between open public spaces in the district







GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

Synthesis

from street to public space

What is the synthesis?

// LEGEND

- RAILWAYS
  - 1 Bovisa FN Station
  - 2 Milano Villapizzone Railway Station
- Parks / Piazzas
- Agricultural empty Lot
- Bosco Della Goccia
- Molecola Proposal
- Future Buildings
- Industry
- Education
- Service an Administration
- Commerce
- Cultural
- Empty Lots / Public Space Oportunity
- Pedestrian Flow / High
- Pedestrian Flow / Low
- Existing Green Corridor
- Green Corridor Intervention Proposal between Parks / Revitalize walkways, bycicle paths and streets
- Green Corridor Intervention Link to Molecola Proposal
- Existing Pedestrian Friendly Walkways
- Project Site

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

SYNTHESIS

•High density traffic due to concentration of local services near the Bovisa station should be reduced
•The empty lots should be taken as advantage to unify the intervention in one single system
•Taking in mind future proposals to be integrated in the new development strategy
•The starting and ending points of the intervention are green spaces, connected through a green corridor

// LEGEND

- RAILWAYS
- Bovisa FN Station
- Future Green areas proposals Mol
- Parks / Piazzas
- Agricultural Zone
- Molecola Proposal
- Future Buildings
- Empty Lots (opportunities)
- High density traffic / Hinge
- Walkways
- Street Sections
- Possible Intervention Branches
- Intervention Street
- Education
- Service and Administration
- Cultural
- Commercial
- Grid - Connections

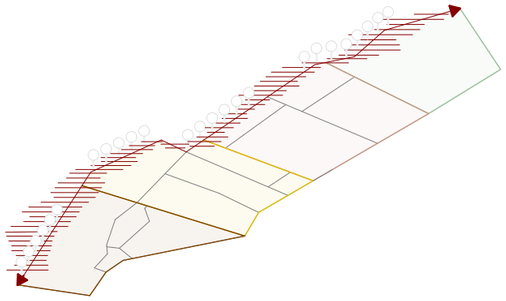
0 100 200 400 1km

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

Goals & Strategies

from street to public space

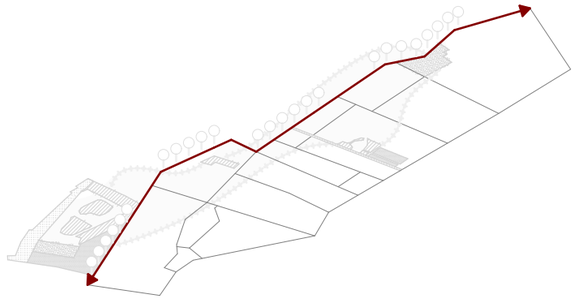
What are the strategies?



METAMORPHOSIS

- From Street to Public Space

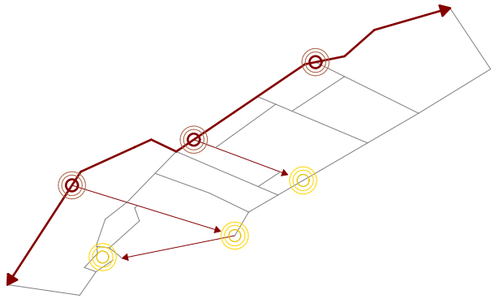
1. Intervening viale Bovisasca through division into sections, forming a new more lively pedestrian-friendly streetscape, which would become a place for gathering in itself.



REVIVAL

-Adaptive Green Network

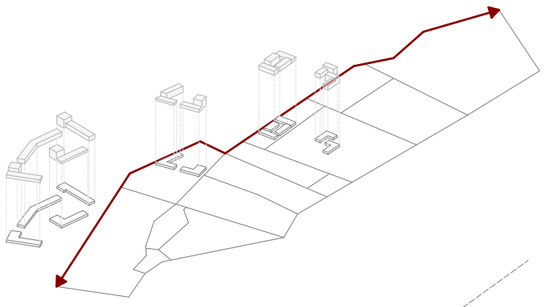
2. Extending the green space through the streets and the plots of intervention, providing a green connectivity of the whole system



REACTIVATION

-Enhanced Intersection

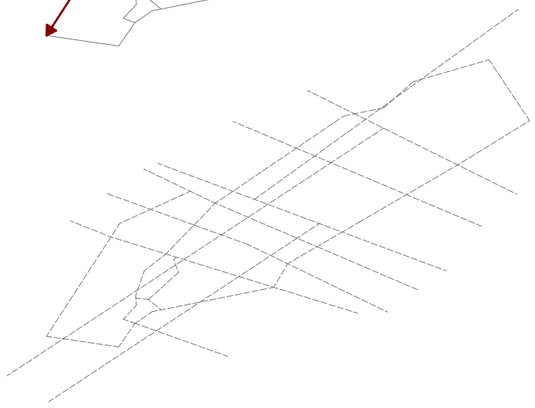
3. Series of new connections in intersection points, which merge the street-sections systematically



HIERARCHY

-Public and Private "Activity Frame"

4. Providing a frame for the design of the built-up system, giving prime concern to the housing situation and incorporating public facilities along with the proposed buildings, accordingly to the needs of the residents of Bovisa



THE GRID

-Imnplementation tool

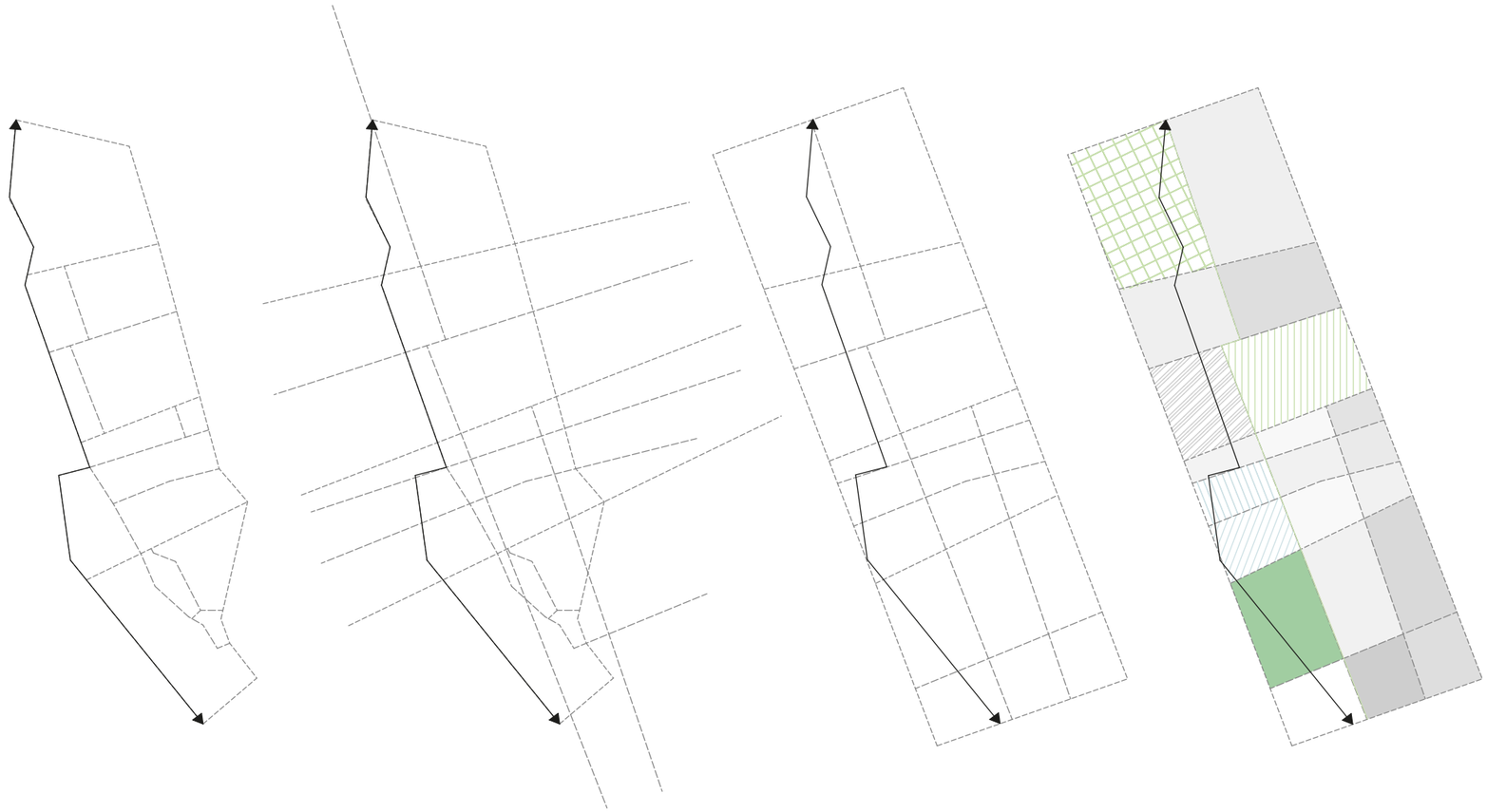
Unification of the new proposal through integration of specific measures and connections, dictated through the implementation tool – the grid

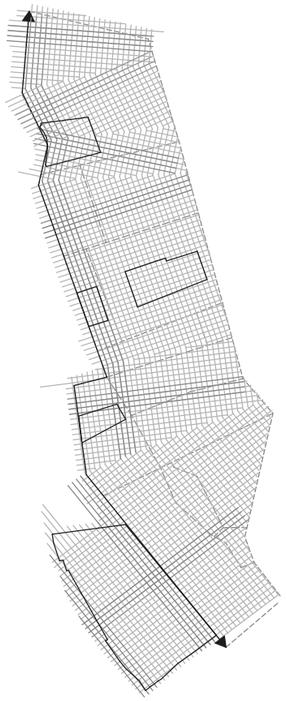
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

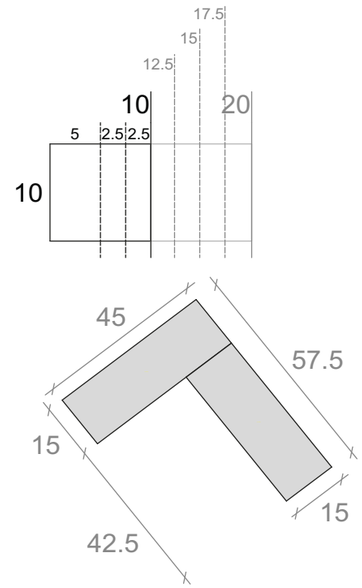
What is the implementation-tool?

THE GRID

•Type of a city plan, in which streets run at right angles to each other - a checkerboard network (also called chess¬board plan)
•Framework of reference lines to which the dimensions of the structural components are fixed
•It facilitates movement through frequent intersections, orthogonal geometry - the main characteristics of the grid-plan
•The grid came as the result of the analysis of the geometry of the street.
•Implementation tool of the project which we developed further.
•Defined spaces with respect to the evolved grid
•New gird of 10 and its multiples- 5, 2.5







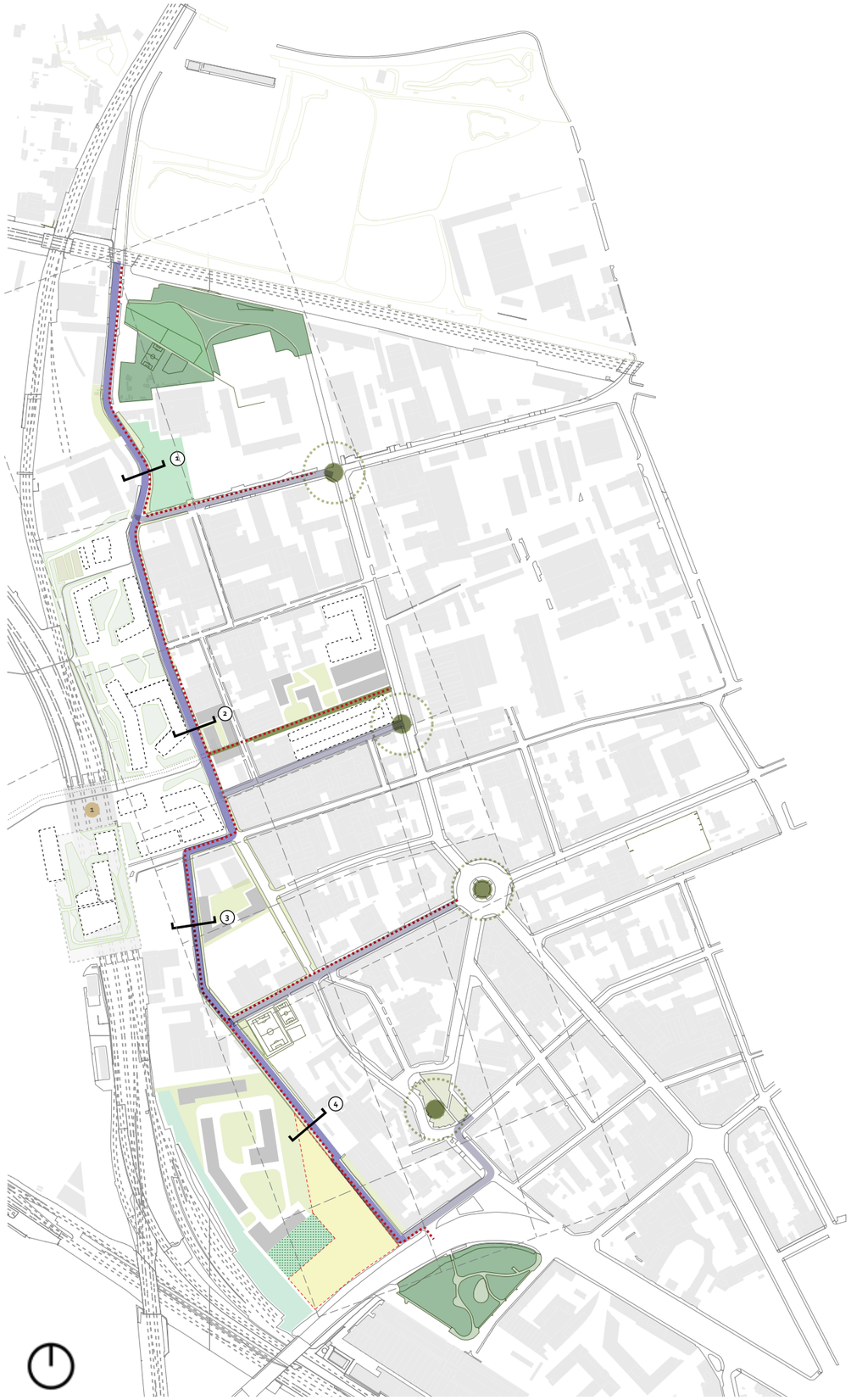
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

Metamorphosis

from street to public space

MAIN STREET

Alongside the intervention we discovered viale Bovisasca as the main street of our project site and is the only one that connects the future building proposals that the district already with the district's main road. Throughout viale Bovisasca a different set of issues appeared that are addressed along the analysis but the main is the connections with different proposal plots and welfare usage areas, in order to optimize this relationship, the viale Bovisasca in union with viale colico that is an low maintained detour street near the railroads used only for the industries nearby, are going to change in measurements and elements in which the pedestrian and the car flow will be at an optimal balance.



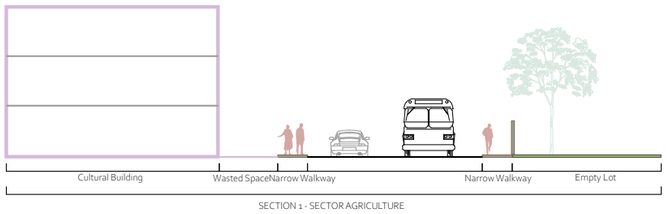
// LEGEND

- RAILWAYS
- Bovisa FN Station
- Future Green areas Proposals MoleCola
- Parks / Piazzas
- Community Garden
- Proposed Community Garden
- Bycicle Paths
- Intervention Street / Main street
- Intervention Street / Branches
- Private Green spaces
- Public Park Proposal
- Buffer area
- Future Proposals
- Proposed Buildings
- Sections
- Hinge / Intersections

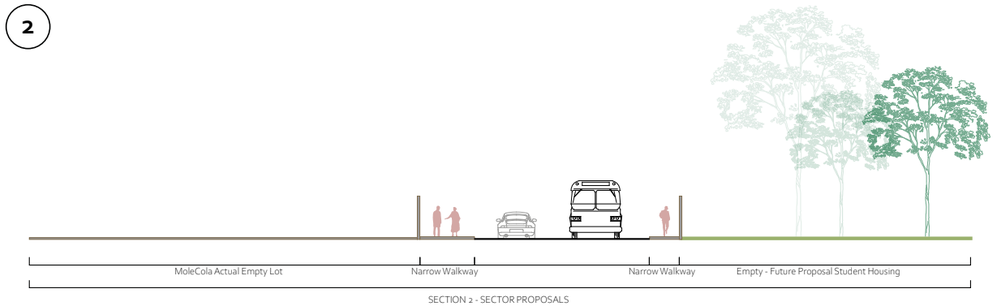
0 100 200 400 1km

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

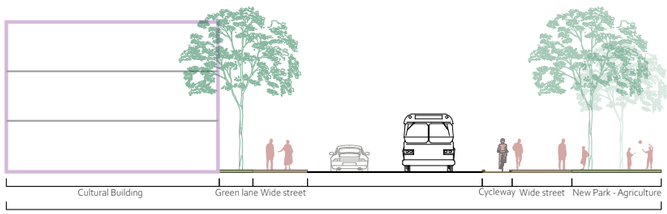
1 // BEFORE



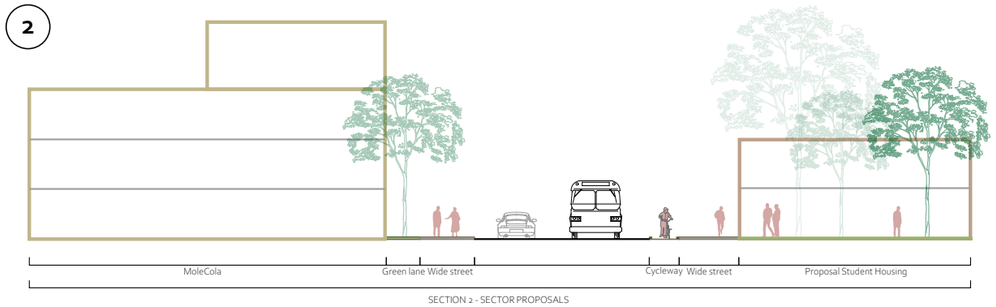
2



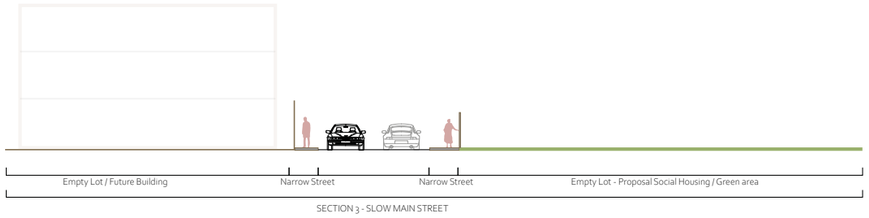
1 // AFTER



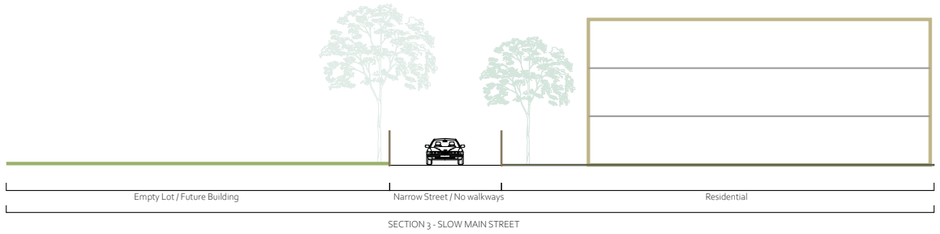
2



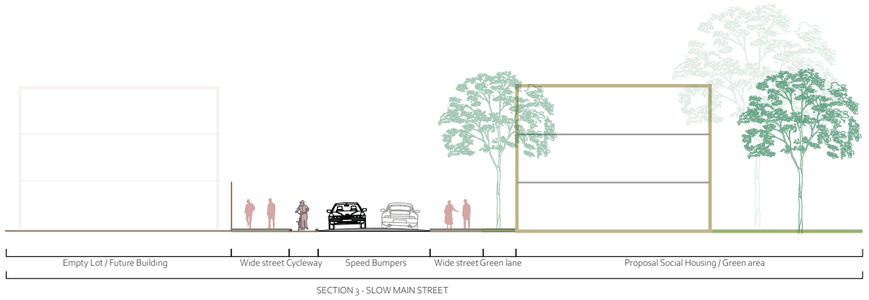
3 // BEFORE



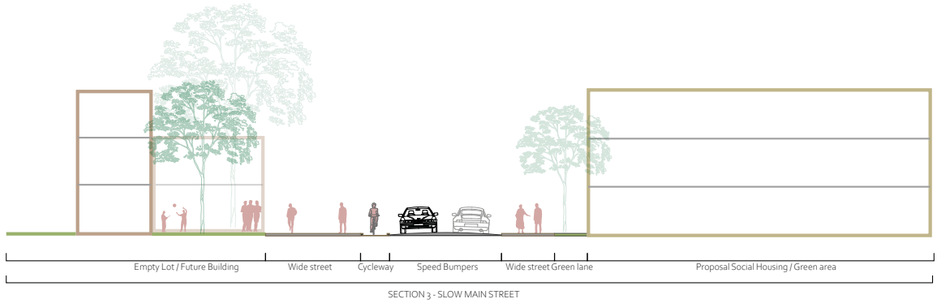
4



3 // AFTER



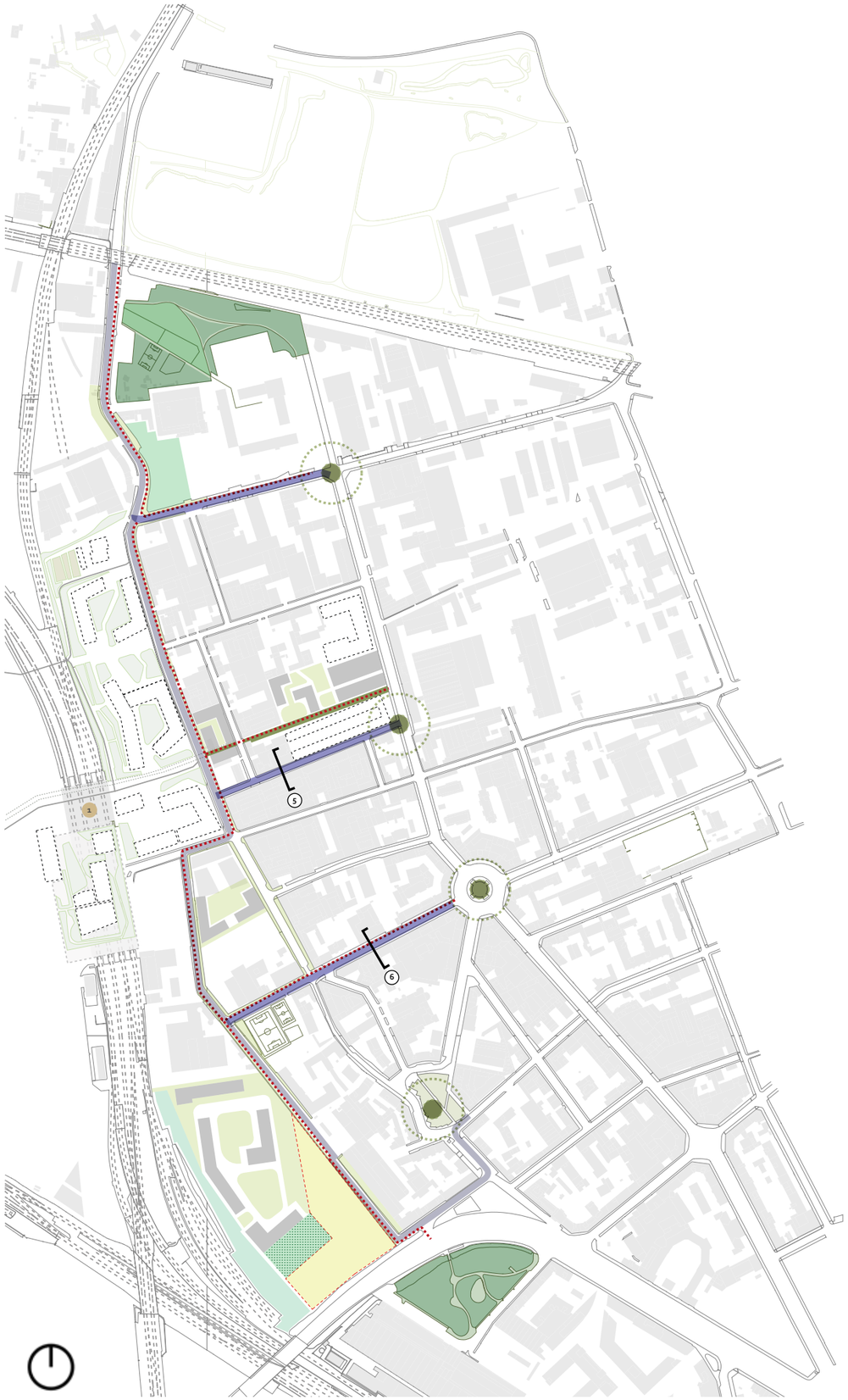
4



GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

SECONDARY STREET

In order to connect the main projects alongside viale Bovisasca and viale colico with the rest of the district, the intervention was expanded with secondary branches creating intersections and connections between the projects and the district main existent hinges that are the roundabout fountain and politecnico di Milano which are the main points were users gather most of the time. These secondary branches were created mostly for people as a woonerf and connector street interventions which are defined by mostly people usage were cars are invited as guests and slow type of traffic is respected between the commercial functions that the streets have.



// LEGEND

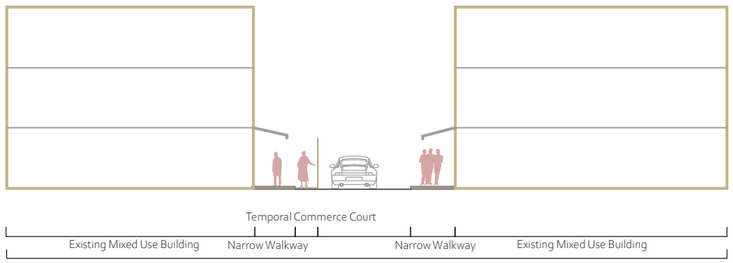
- RAILWAYS
- Bovisa FN Station
- Future Green areas Proposals MoleCola
- Parks / Piazzas
- Community Garden
- Proposed Community Garden
- Bycicle Paths
- Intervention Street / Main street
- Intervention Street / Branches
- Private Green spaces
- Public Park Proposal
- Buffer area
- Future Proposals
- Proposed Buildings
- Sections
- Hinge / Intersections

0 100 200 400 1km

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

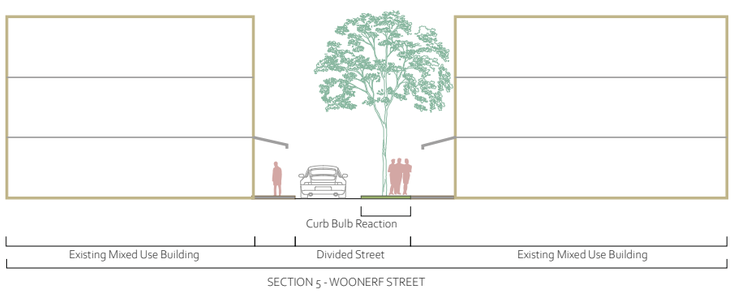
// BEFORE

5

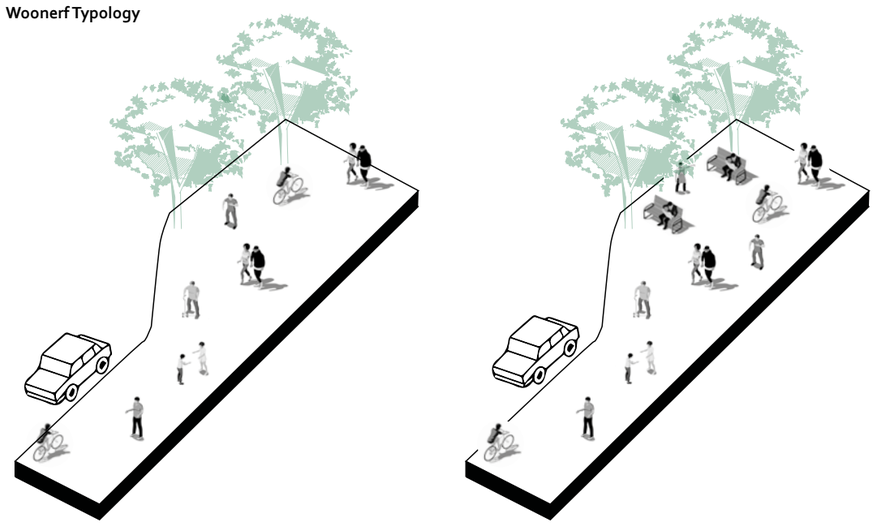


// AFTER

5



Woonerf Typology



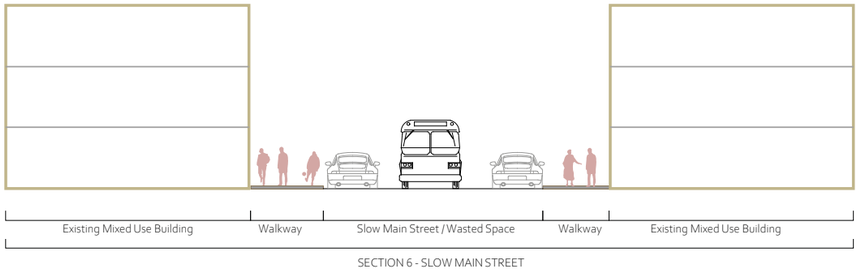
CURB FOR FREE PEDESTRIAN MOVEMENT

CURB FOR SOCIAL GATHERING

From street to public space, multifunctional as the users pass by

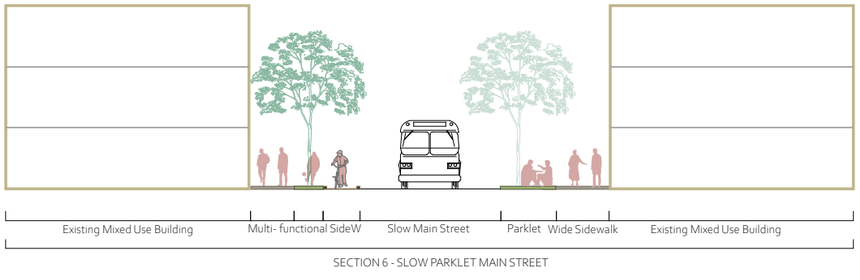
// BEFORE

6

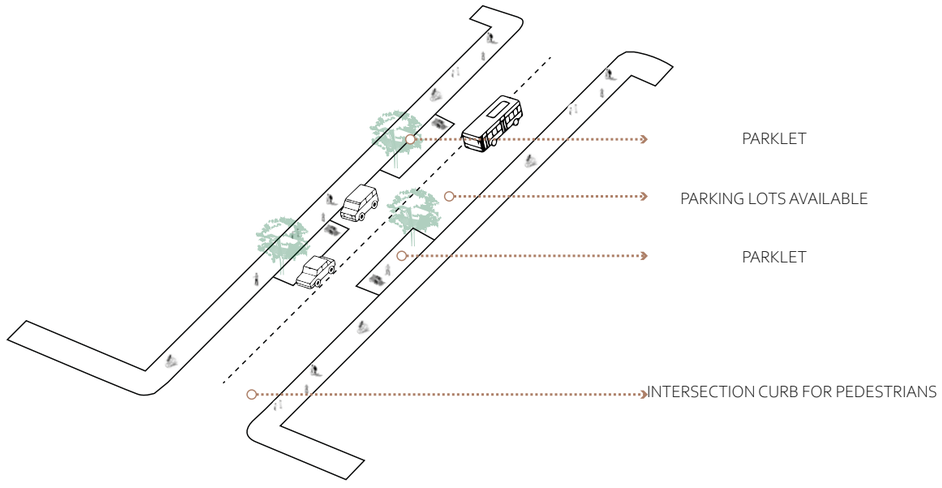


// AFTER

6



Slow Parklet Typology

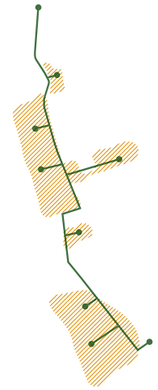


Revival

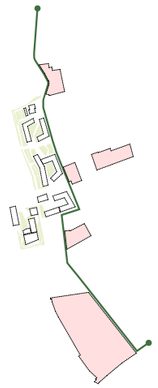
adaptive green network

GREEN NETWORK

1



2



3

4

•Promoting the green connection along the street with multiple access to common public spaces
•Adapting to the need of the people who are currently residing within the context
•Converting vacant plots to better urban places which will be beneficial for the society
•Connectivity with the existing proposals ti create a system of green network
•Green infrastructure network tackle ecosystems fragmentation and services provision.

// LEGEND

- RAILWAYS
- Bovisa FN Station
- Future Green areas Proposals
- Future Proposals
- Proposed buildings
- Street Revitalisation
- Proposed Green Areas
- Ghe sem -Garden
- Community Garden
- Public park
- Private Green areas
- Cycle track
- Existing Green
- Buffer area

0 100 200 400 1km

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

GREEN NETWORK

•Promoting the green connectivity in a large scale
•Improving the green corridoor along the railways
•Connectivity with the existing proposals
•The framework allows to identify key nodes and links to maintain ecological connectivity.
•The framework allows to identify key nodes and links to maintain ecological connectivity
•Spatial configuration and connectivity influence ecosystem services and functions.
•Improving the green corridoor alog the railways
•Connectivity with existing proposals

// LEGEND

- Proposed buildings
- Green connnection
- Proposed green areas
- Community garden
- Community garden proposed
- Public park
- Private green spaces
- Cycle track
- Existing Green
- Buffer area
- Future Green
- Future proposals
- Sacalo farini infrastructure

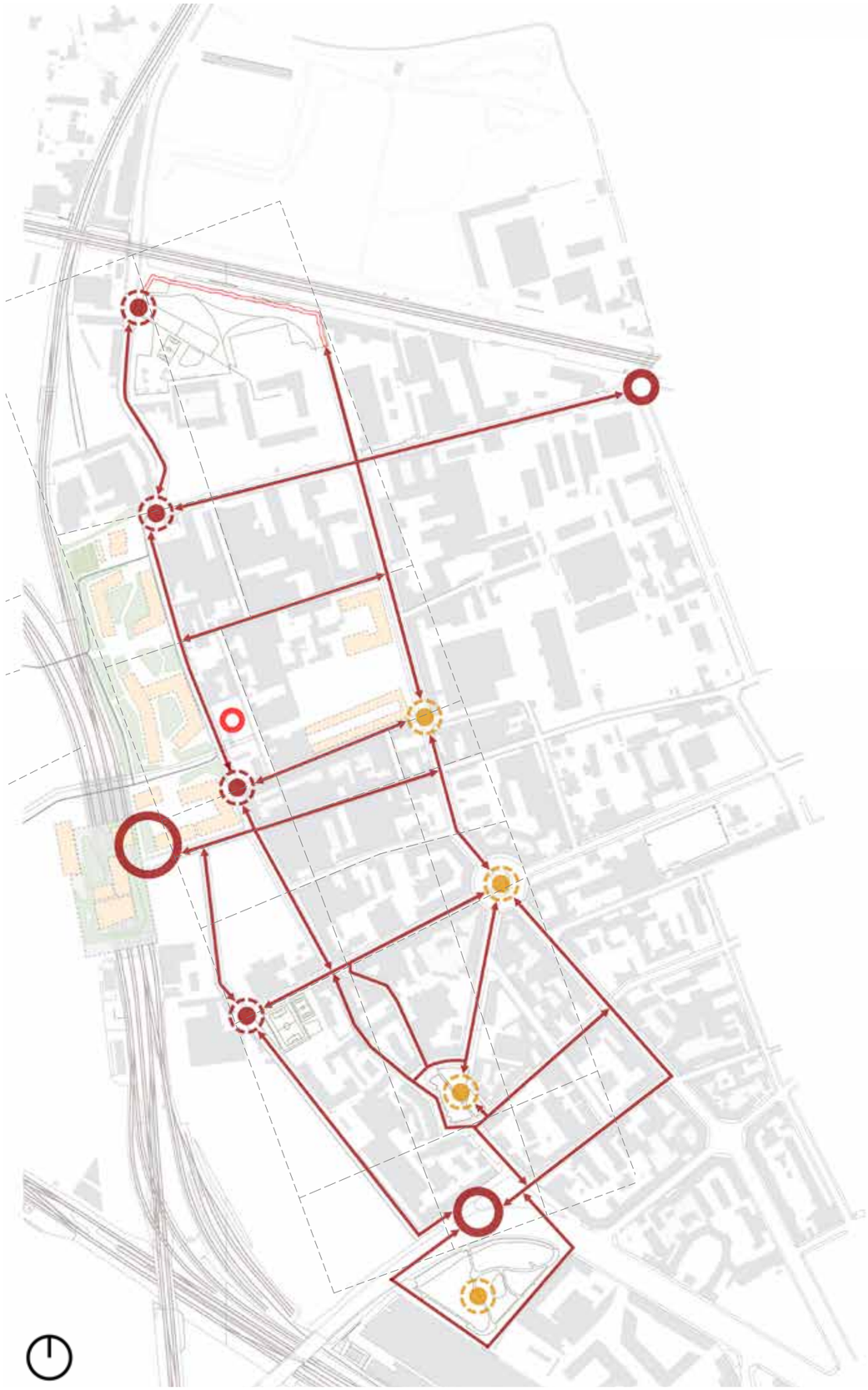
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

Reactivation

enhanced intersections

INTERSECTIONS

•Activating the existing intersections by linking them to the new framework
•Identifying the entry points for the intervention
•Improved connections within the system
•Analysing the spatial configuration and connectivity
•Creating a system of streets with multiple routes and connections serving the same origins and destinations
•Reconfiguring intersections in time (through signalization) provides an alternative to widening intersections to solve delay or congestion. Integrate spatial and temporal intersection design strategies throughout the network



// LEGEND

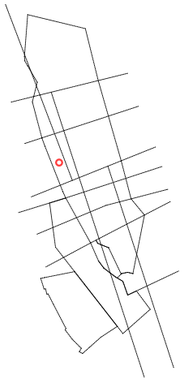
- RAILWAYS
- Bovisa FN Station
- Future Green areas Proposals
- Future Proposals
- Project Site
- Main entry points
- Existing Intersections
- Interactive Intersections
- Connections
- Pedestrian Connection

0 100 200 400 1km

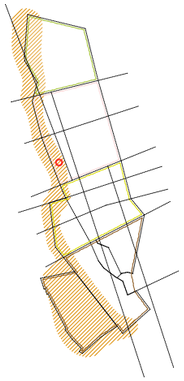
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

LEVELS OF INTERSECTION

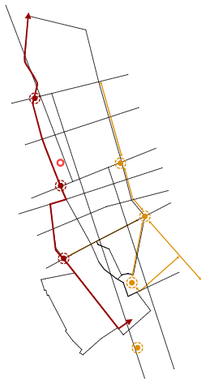
1



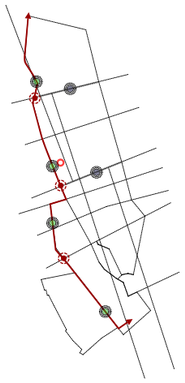
2



3



4



Solutions to be found at the corridor or network level. Trade-offs can often be made between the intersection and the network in terms of traffic volume and capacity. The goal is not strictly to reduce the number of conflicts for a given user at a select location, but to create a space in which users are mutually aware of one another.Noting the relevant points in levels of intersections.

- Integrating the grid
- Division of sections
- Intervention of viale bovisasca-liveable street
- Improves connectivity and promote new connections
- A new streetscape

// LEGEND

- Intervention zone
- Section 1
- Section 2
- Section 3
- Section 4
- Interactive intersection
- Connections
- Major Intersections
- Street Intervention
- The grid
- Connective Intervention
- Secondary strategic points
- Primary strategic points
- Site

0 100 200 400 1km

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

Hierarchy

public and private “Activity Frame”

BUILT-UP ENVIRONMENT

•The new proposed built-up system aims to evolve around the public spaces and integrate them inside the buildings
•The ground floor area is left to public functions, while upper floors are determined to private residential apartments
•The functions must reconnect the district to its original history and contribute to the wellbeing of the society through leisure, cultural and educational activities
•The proposed buildings respect the geometry of the surroundings and come as a result out of it
•The new built-up environment leaves space for circulation through the green spaces in between and reestablish important connections

// LEGEND

- Intervention Street
- Railways
- Urban Fabric
- Planned Buildings
- New Proposals
- Movement through the new built-up space

Functions:

1 new marketplace
food courner
cafeteria
coworking space
retail
study rooms
student housing
student hostel

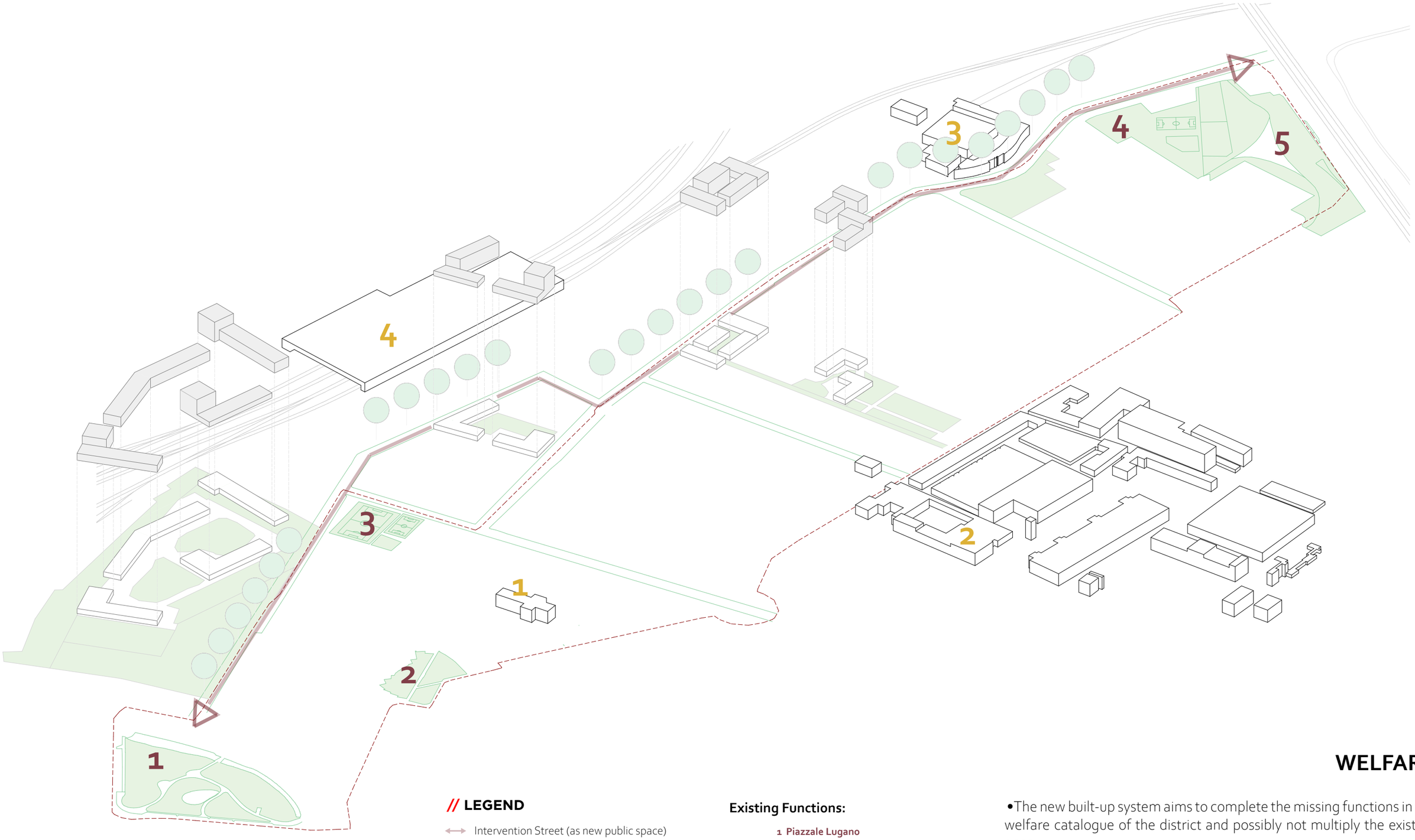
2 ateliers
student housing

3 cinema
cinematographic gallery
cafeteria
offices
social housing

4 industrial photography gallery
offices
pottery workshop
cafeteria
gardening

0 100 200 400 1km

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/



WELFARE

// LEGEND

- Intervention Street (as new public space)
- Railways
- Public
- Private
- Public Green Infrastructure

Existing Functions:

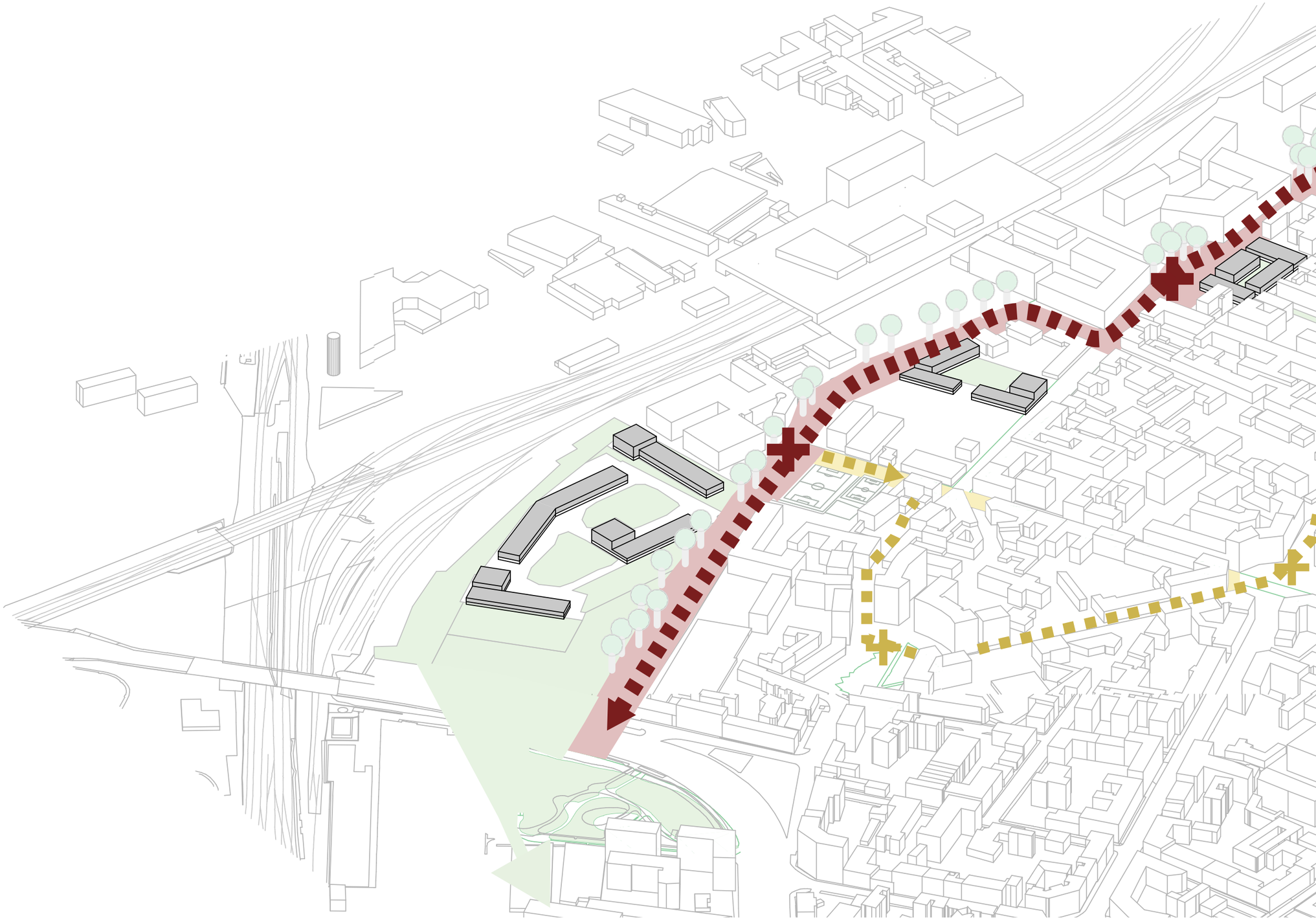
1 Piazzale Lugano
2 Piazza Schiavone
3,4 Sports Field
5 Giardino condiviso Ghe Sem

1 Church of Saint Mary of Good Counsel
2 Bovisa Campus
3 Spirit de Milan
4 Bovisa Station

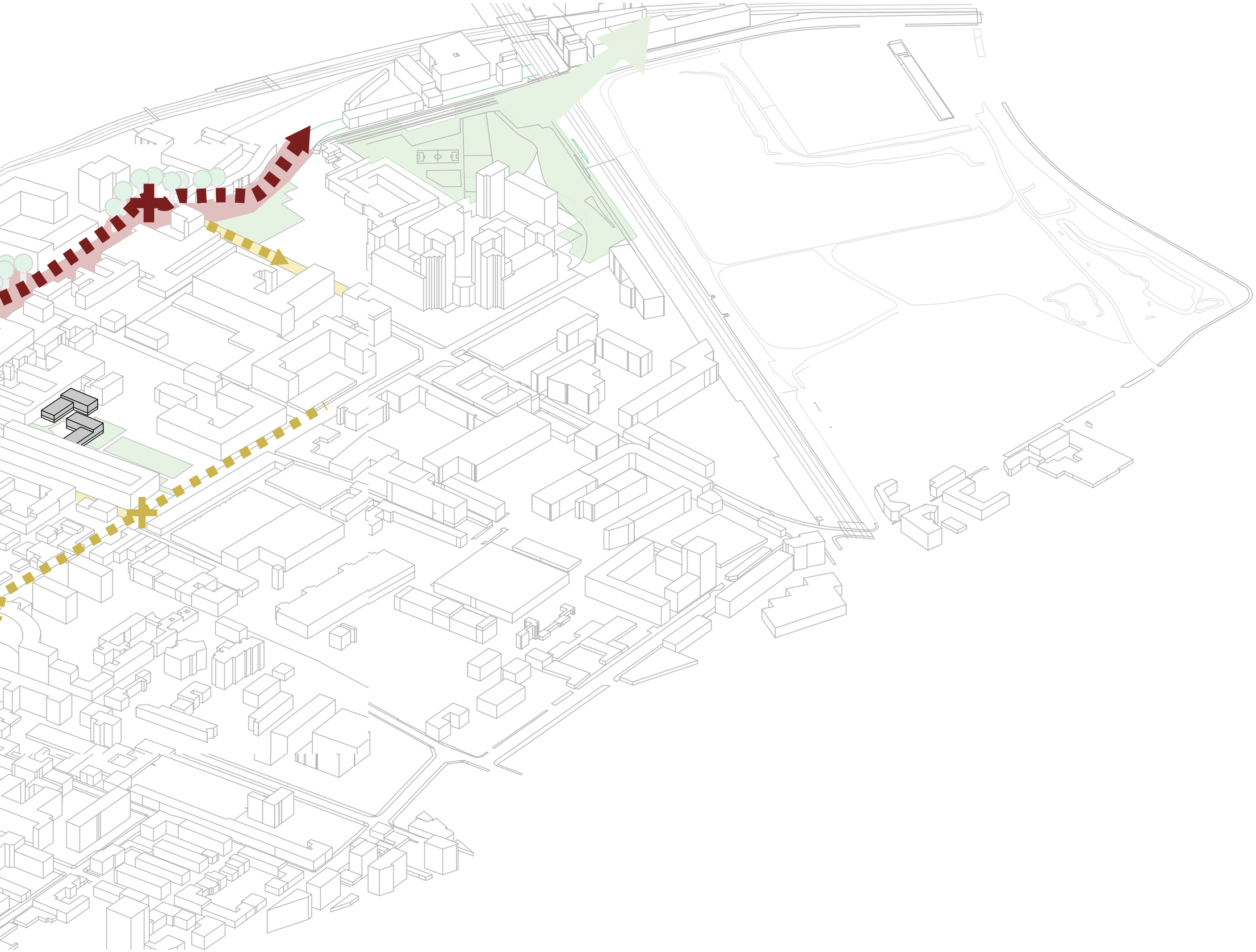
•The new built-up system aims to complete the missing functions in the welfare catalogue of the district and possibly not multiply the existing ones

•The ground floor has an unified height of 5m for all of the proposed buildings to create a common public ground area in the whole intervention

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/



GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/



GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

Master plan-Proposal

Inte-Grid

MASTER PLAN DETAILED

LEGEND

1 **Community Garden**
2 Vía Bovisasca / Main Street
3 Woonerf Streets
4 **The New Market**
5 **The Skate Park**
6 Cycle Track
7 **Social Housing**
8 Connector Street
9 **Social Housing / Public Park**
10 Intervention Street
11 Politecnico di Milano
12 Spirit of Milan
13 MoleCola Future Project

Public Green Area
Resting Space
Playground
Social Gatherings

Agricultural Green Spaces
Community Garden Zone

Private Green Area
Private Social Housing Green Zone
Playgorund
Social Gatherings
Resting Space

Bycicle Lane
Green Street Lane
Future Bovisa Projects
Building Proposals

FUNCTIONS

4 **The New Market**
- Coworking Space
- Retail
- Study Rooms
- Student Housing
- Student Hostel
- New Marketplace
- Cafeteria
- Food Counter

5 **The Skate Park**
- Ateliers
- Student Housing

7 **Social Housing**
- Cinema / Gallery
- Social Housing
- Cafeteria
- Offices

9 **Social Housing / Public Park**
- Industrial Photography Gallery
- Pottery Workshop
- Cafeteria
- Gardening
- Social Housing

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

COMMUNITY GARDEN

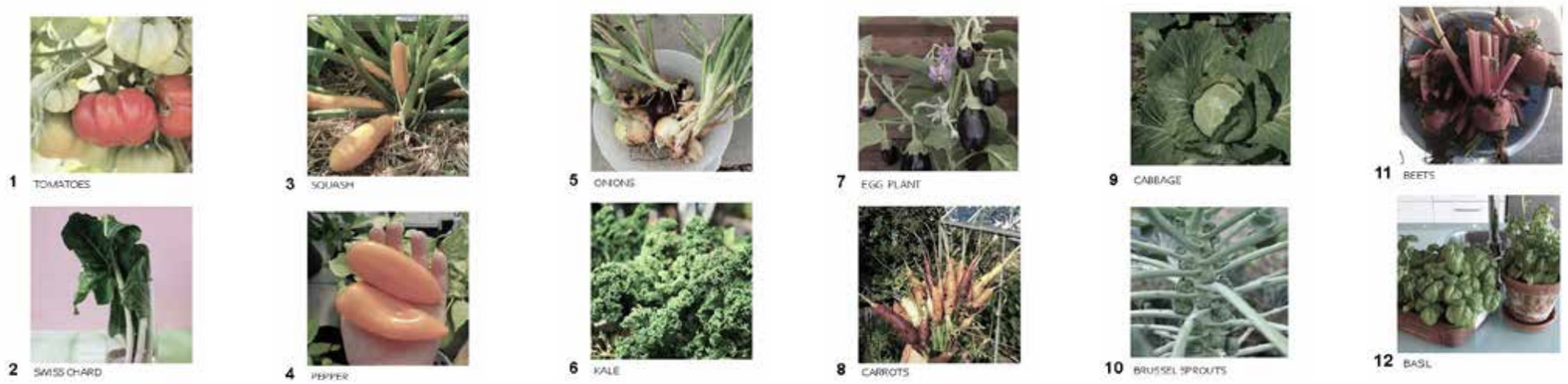
THE SKATE PARK

THE NEW MARKET

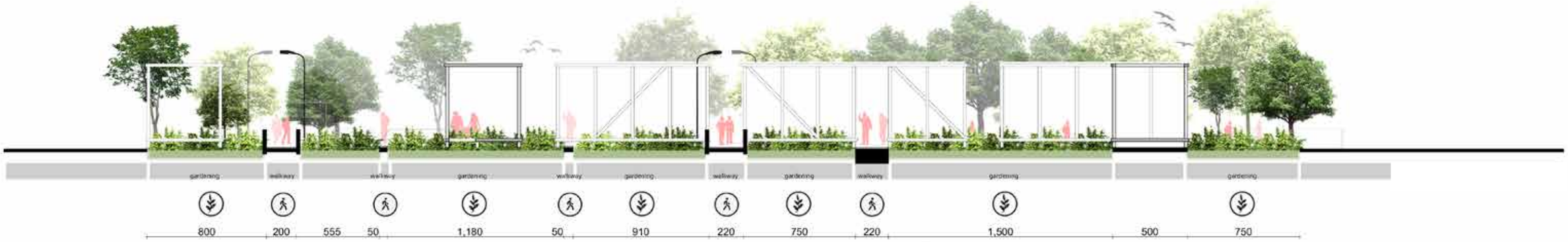
SOCIAL HOUSING

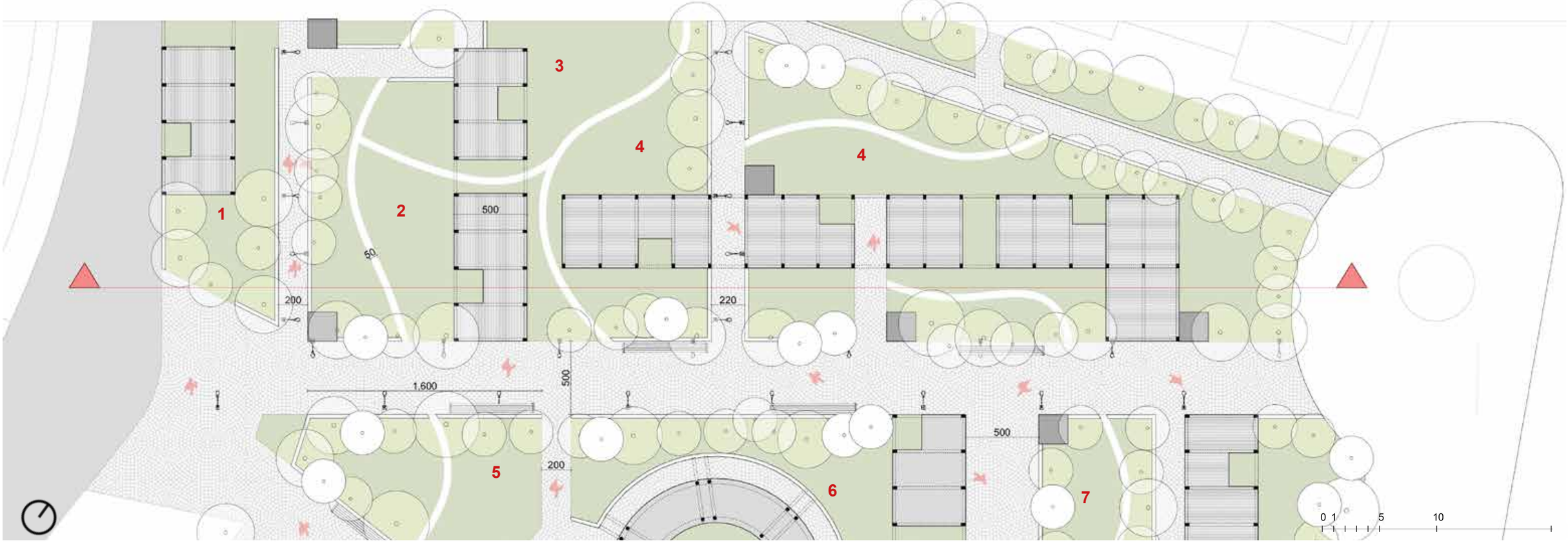
SOCIAL HOUSING/PUBLIC PARK

COMMUNITY GARDEN

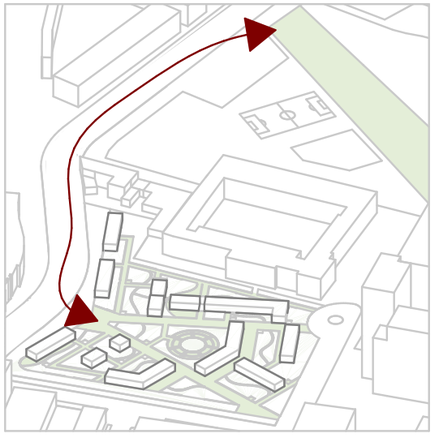


- Extension of the existing urban gardening structure
- opening the space to the building of the Spirit of Milan to create a common piazza
- Community space for the public to produce goods for the daily life
- Division into zones, dedicated for specific crops
- Integrated walkways in between the agriculture plots
- One of the main green spaces component is largely introduced on the site -multi-purpose light structures (boxes), which could be used as additional spaces for growing and storing vegetables, but also for gatherings and leisure activities
- Collectors – spots for storing or selling the goods to interested parties from the public

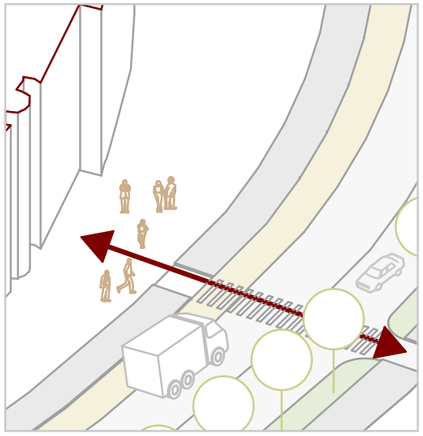




GROUP 07 Asya Petkova /**10903448**/, Sreeram Ramesh Kezhakkuvettil / **10888044**/, Daniel Bunay Camba / **10675537**/

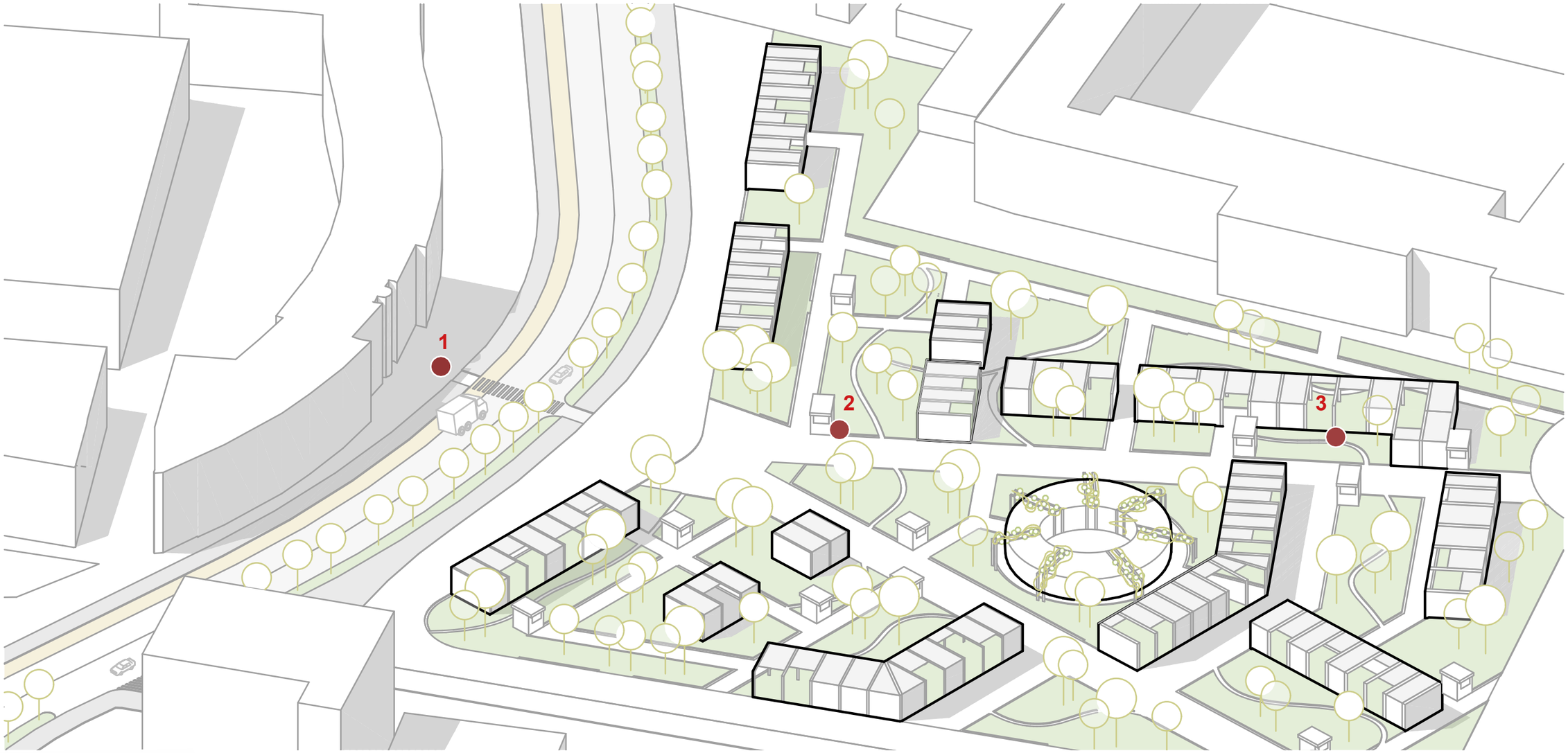


1



2

3



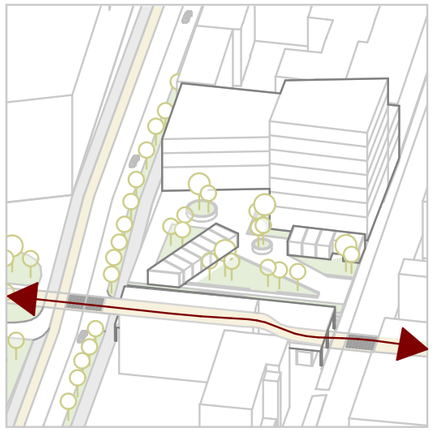
GROUP 07 Asya Petkova /**10903448**/, Sreeram Ramesh Kezhakkuvettil / **10888044**/, Daniel Bunay Camba / **10675537**/

THE NEW MARKET

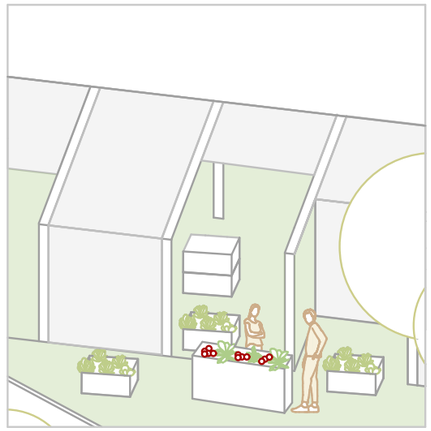
•Proposal for a new space for the temporary market, currently located on a parking lot in front of Bovisa station
•Extending the bicycle path from Molecola through the site in direc¬-tion of the Bovisa Campus
•A bicycle parking is integrated in the market building, right next to the bicycle path
•Due to the vicinity of the Bovisa Campus this plot is mainly devoted to students -student housing facilities are meant for the top floors of the proposed buildings, while having study related spaces in the ground floor
• The new market space could be extended also in the outdoor space due to the multipurpose boxes, which are set in green space in between the buildings
•Another element of the green spaces are the circular planters, used as a seating space for gatherings

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

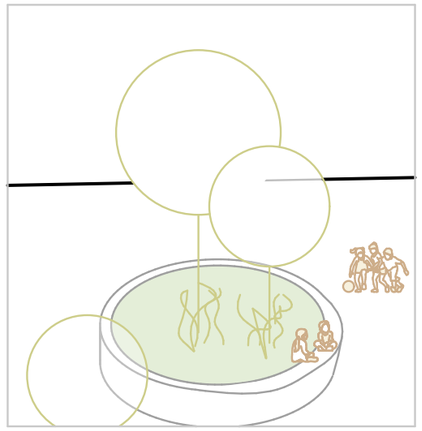
1



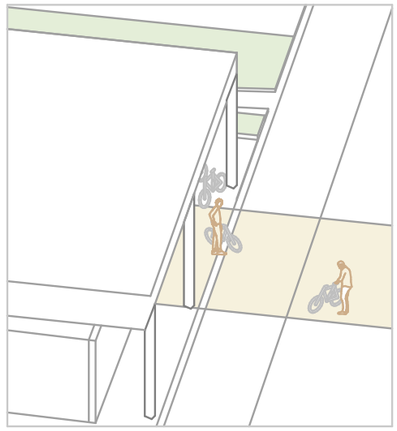
2



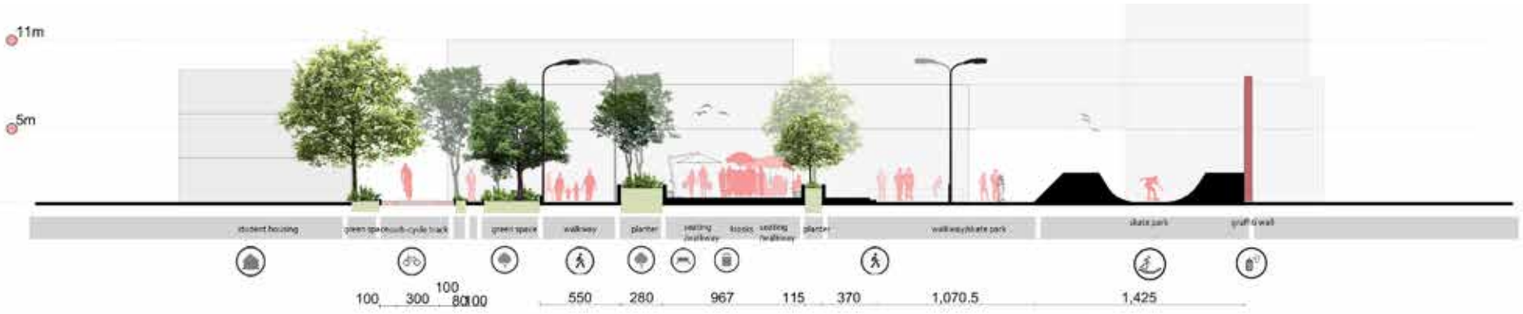
3



4



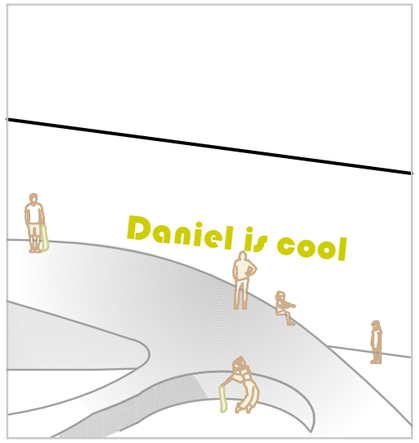
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/



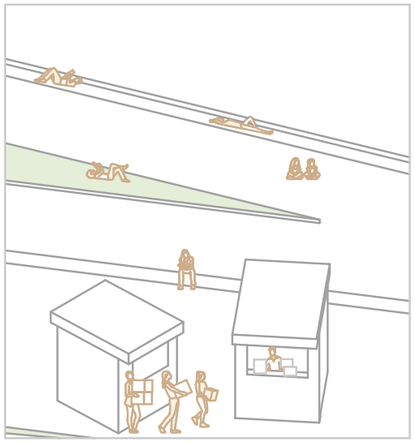
THE SKATE PARK

•Due to the direct vicinity of the Bovisa Campus just on the opposite of the street the green space is mainly devoted to activities for the younger generation of the district, shaping a new gathering space
•Graffiti wall right next to the big skating facility for the most artistic residents
•Little kiosks, left as a creative space for students to organize events or food distribution
•It is through this plot, that the extended bicycle track connects to the university campus
•The proposed buildings facilitate student-housing, combined with a ground floor, incorporating ateliers for the ones, studying design at the Bovisa Campus

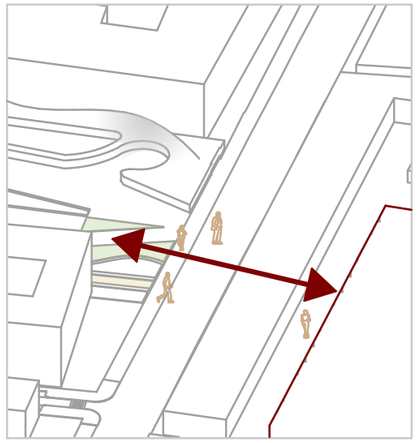
1

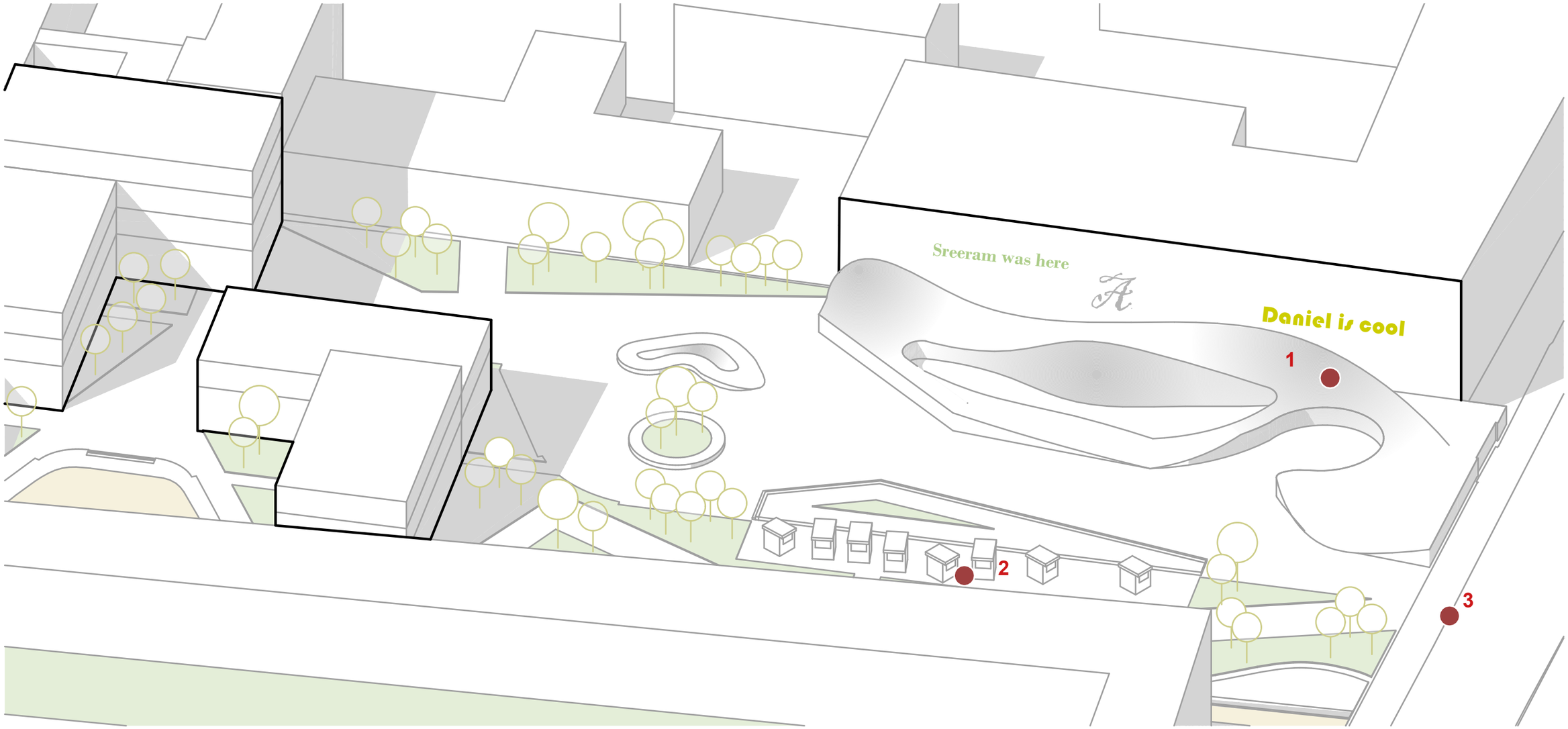


2



3

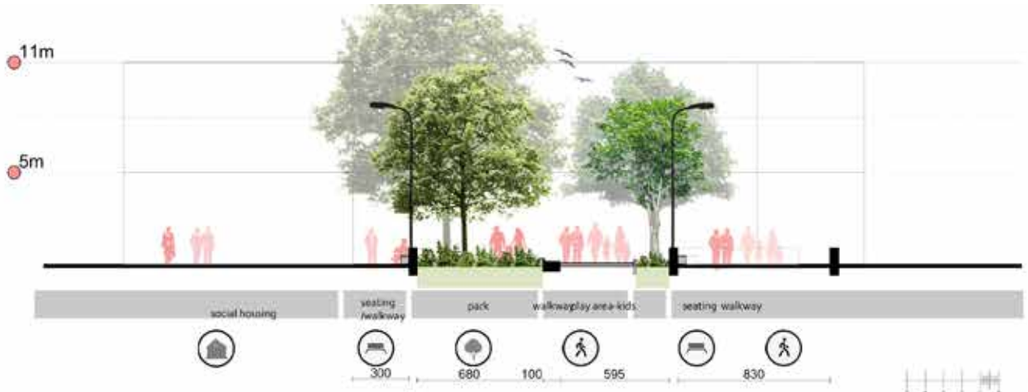




GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

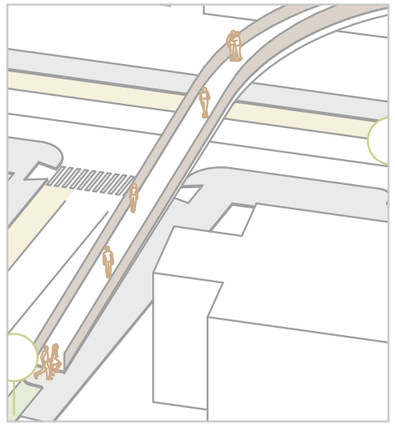
SOCIAL HOUSING

•Proposal for a more quiet area with social housing
•Ground floor functions are specific to the history of Bovisa as one of the first cinema production centres in Italy - cinematography gallery and a cinema theatre
•The green area is devoted mainly to people with families, including functions such as a kids playground, a leisure zone and a small cafeteria with outdoor space
•In vicinity of the plot the direction of the intervention street changes, with it also the matter of the project from more lively to a more quiet area; a pedestri¬an bridge with an organic form on top of the crossroad embodies the symbol of this change.

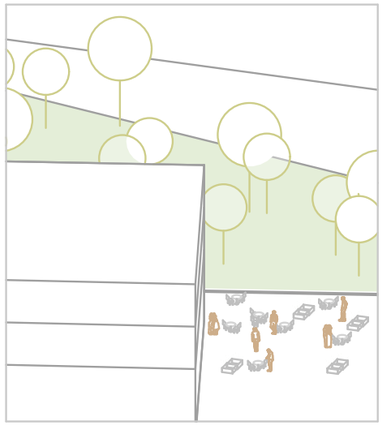


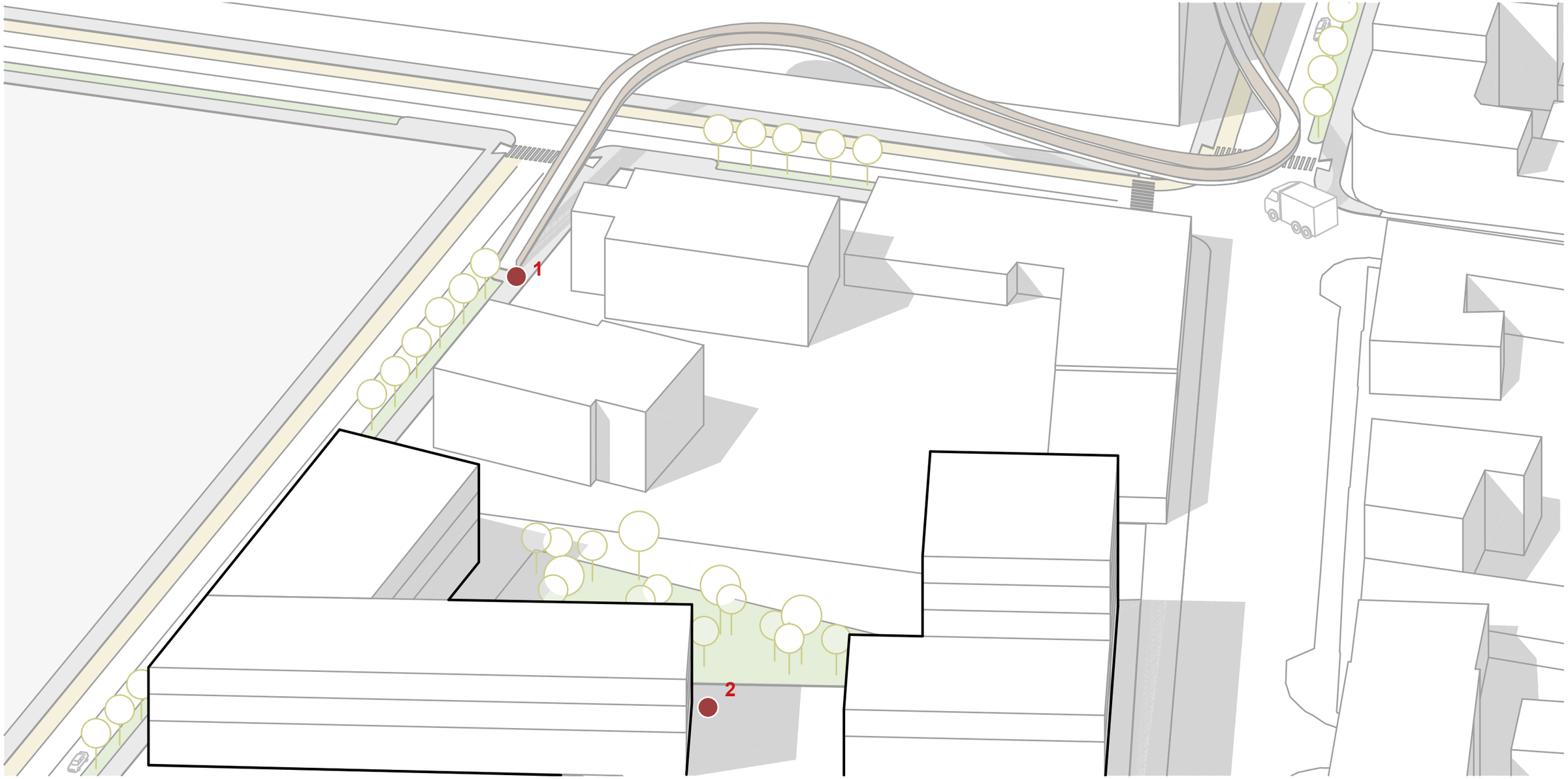
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

1



2





GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

SOCIAL HOUSING/PUBLIC PARK

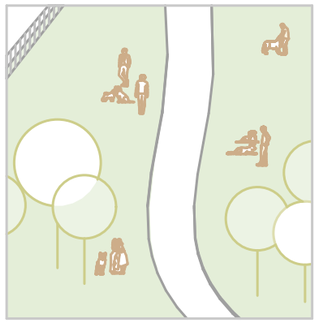
•The biggest plot is mainly devoted to the prime concern of living, combined with some social functions and a big public park
•Only one of the buildings hosts public activities on the ground floor, again connected to the prehistory of the district, such as: a pottery workshop, galleries, dedicated to exhibitions about the industry in Bovisa, gardening facilities, etc.

•The public and private area are separated only by height difference and vegetation – no fences are to be found in between
•The big park is divided into many sections -a private area, public park with community and leisure zone, a dog park and a community centre in the middle of the park for occasional performances outdoors

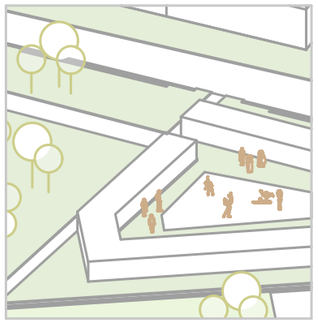
•A park with small hills divides the railway from the residential area and serves as a backbone of the intervention project - providing more comfort to the people, living there; the proposal includes future extension of this park to the North to connect it to the one, introduced by the Molecola project

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

1

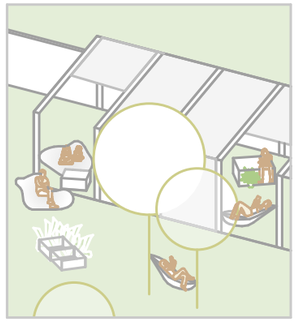


2

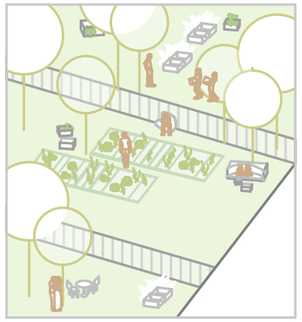


3

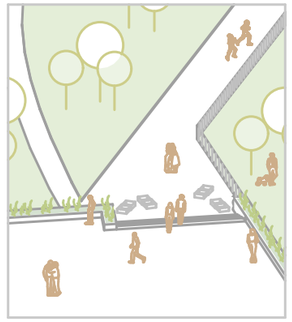
4

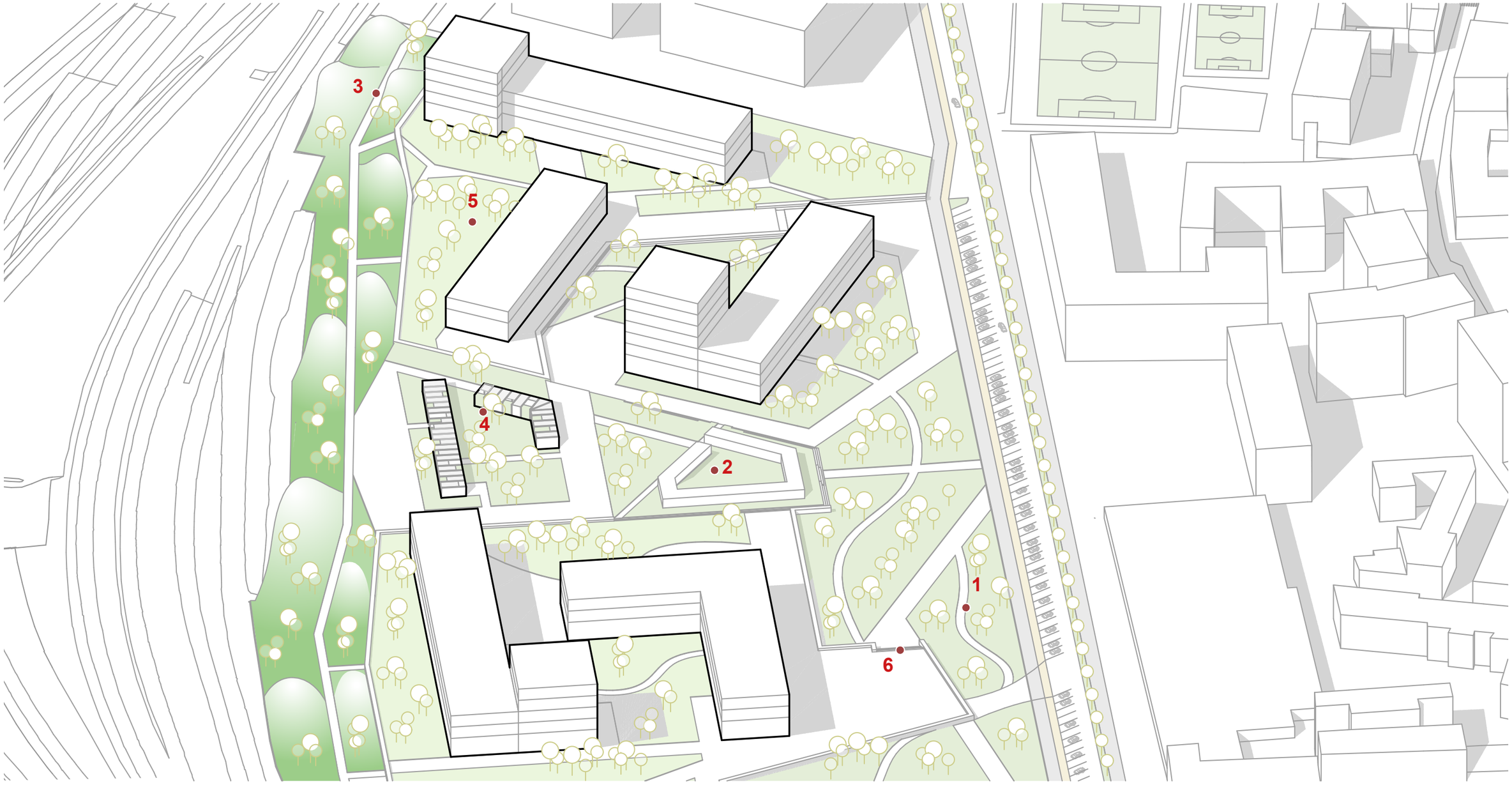


5



6





GROUP 07 Asya Petkova /**10903448**/, Sreeram Ramesh Kezhakkuvettil / **10888044**/, Daniel Bunay Camba / **10675537**/

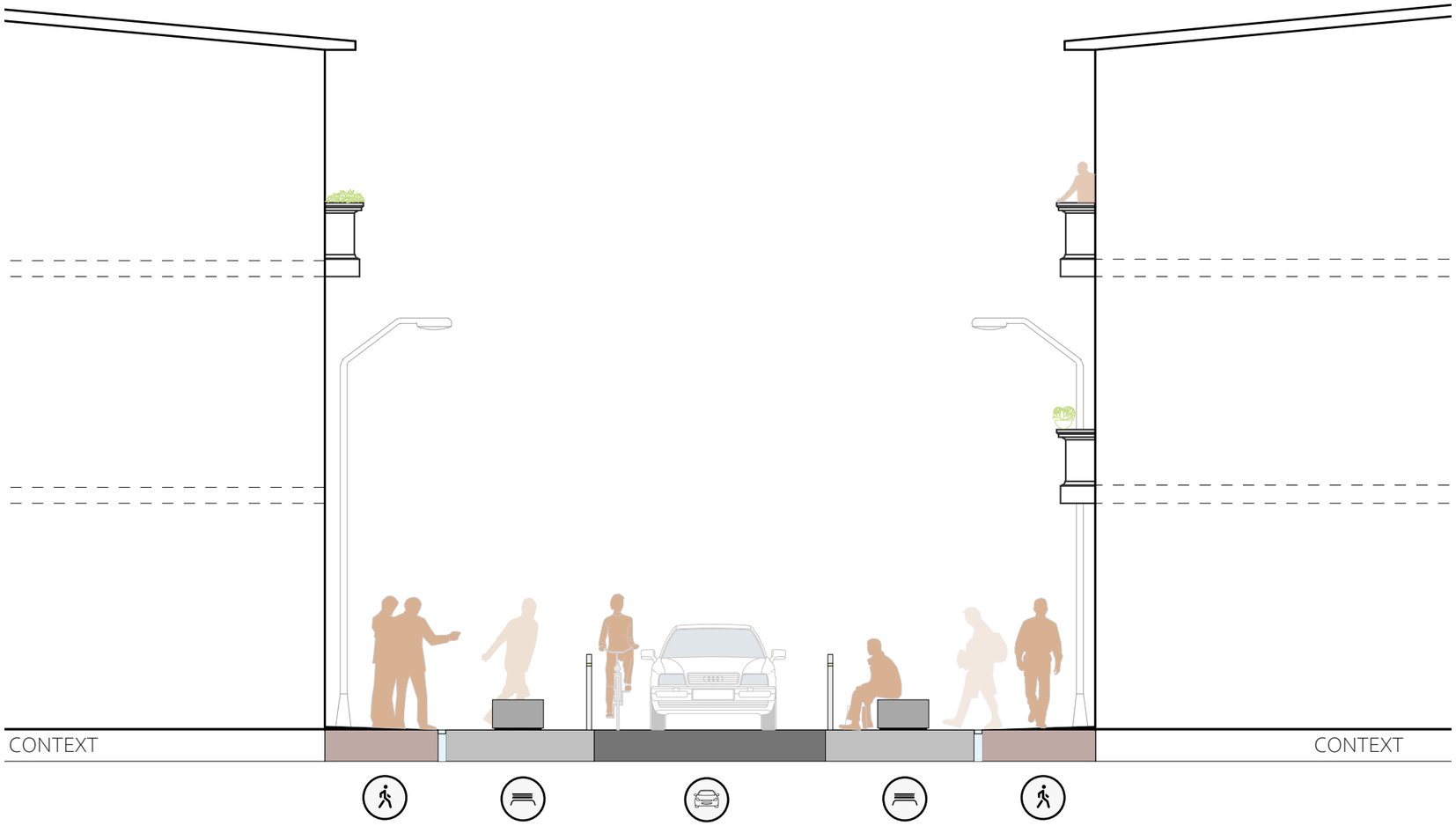
Street Interventions

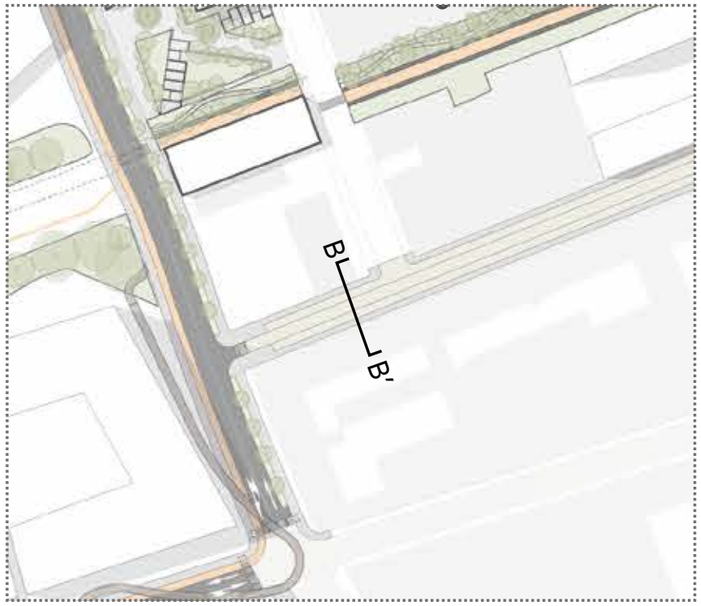
defining new boundaries

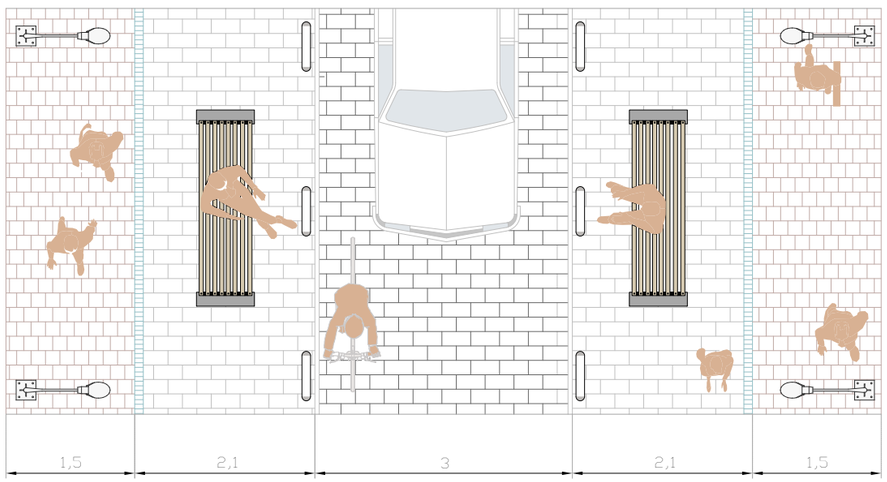
SHARED STREET/WOONERF

.Intervened Streets: Via Rafello Morghen and Via Don Guiseppe Andreolli

A shared street is one that welcomes usage by vehicles, bicycles, and pedestrians without separating the users. A street is changed into a space that is largely for pedestrians with bikes and cars allowed as "guests" by eliminating the curb and installing new surface treatments like pavers and also physical elements for pedestrians use. This type of street follows the international measurements of street intervention on which the protagonist is the people so there's no separation between sidewalks and street and share the same level.







Pedestrian sidewalk inclination to a linear sewer

Urban elements and space for parking

Shared street between pedestrians, bycicles and cars

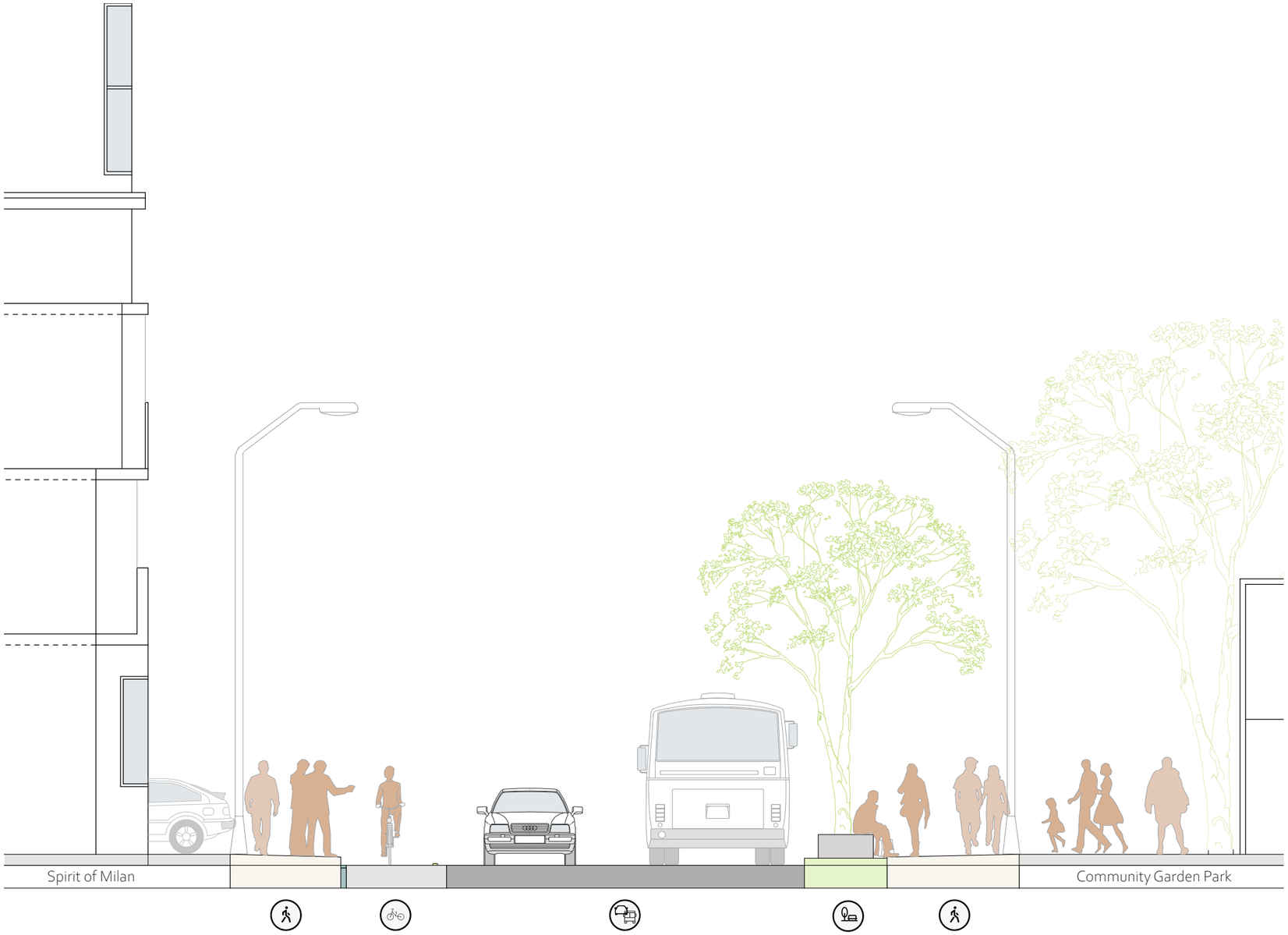
BEFORE

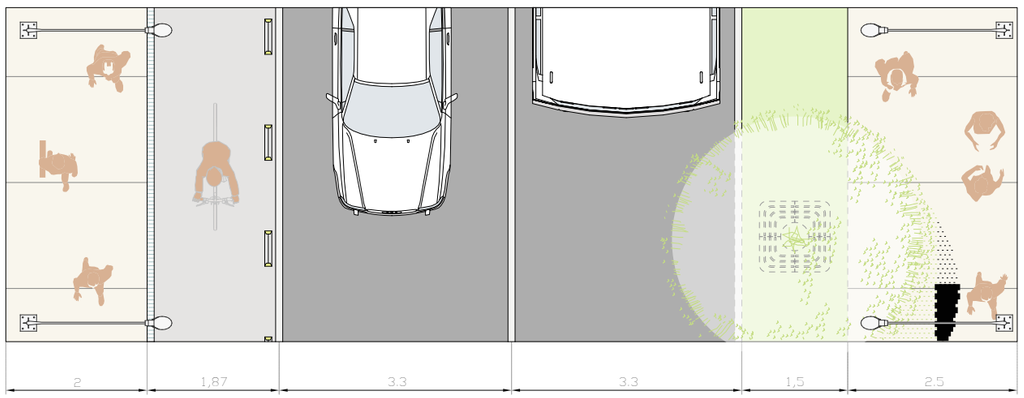
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

MAIN STREET /BOVISASCA

Intervened Street: Viale Bovisasca

Enhancement of via Bovisasca by reordering its street elements such as the vehicle lanes, sidewalks and the addition of a one-way cycle track going throughout all the Viale. With these elements taking place and according to the international measurements for street interventions the street was optimized allowing the same flow but with much more narrow vehicle lanes in order to accept any type of transportation, much wider sidewalks to promote circulation along all the proposals and the addition of the cycle track giving the users the sensation of equilibrium in mobility and flow by seeing a more active main street.





Pedestrian sidewalk inclination to a linear sewer Concrete Material

1.90 m Cycle track protected with Pavement borders

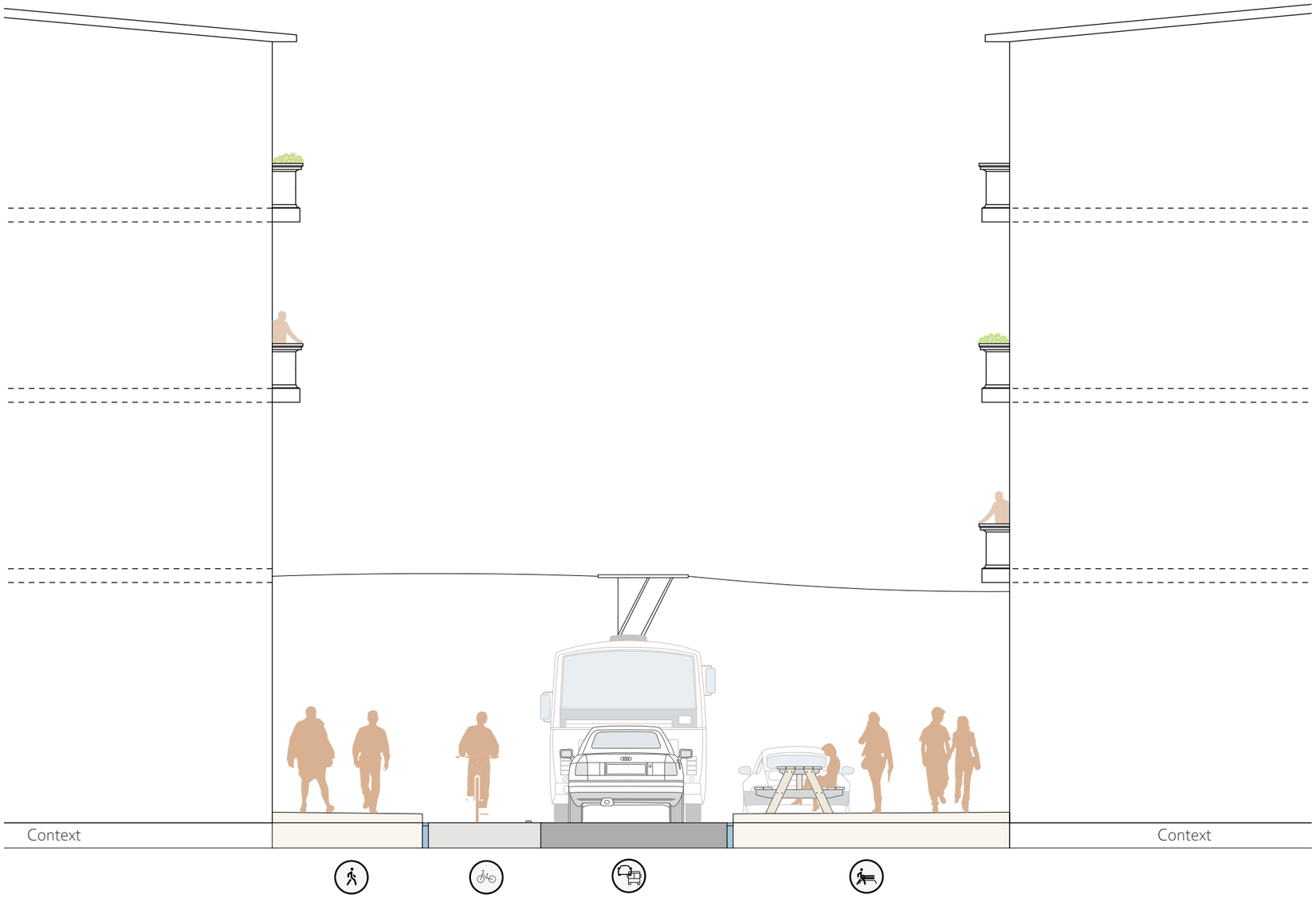
Double-way Main street 3.30 m lanes for mixed use (bus and cars)

Green lane with High vegetation and physical resting elements for users

BEFORE

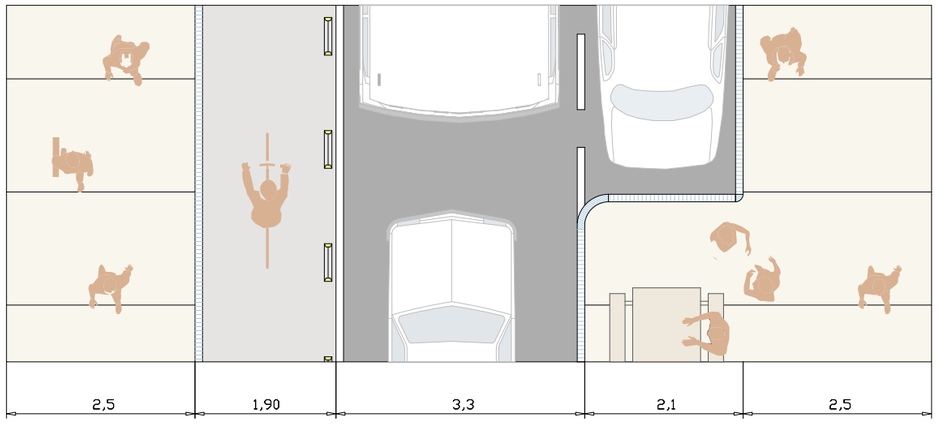
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

CONNECTOR STREET



Intervened Street: Viale Luigi Mercantini

The proposed vision maintains the current traffic circulation while selectively removing some parking spaces for parklets, curb extensions, bark parking and green infrastructure. This type of street joins the people and vehicle lane by extending the sidewalk in form of curbs giving the user spaces for their own relaxation and social gathering, although it can be use for commercial purposes in order for some markets to take advantage of this spaces to promote and make a very good environment by converting this commercial street more active and inviting pedestrians to visit Bovisa's main hinges.



Pedestrian sidewalk inclination to a linear sewer / Concrete Material

1.90 m Cycle track protected with Pavement borders

Double-way Main street 3.30 m lanes for mixed use (bus and cars)

Pedestrian sidewalk inclination to a linear sewer/Concrete Material - Curb Bulb Commercial or recreational space

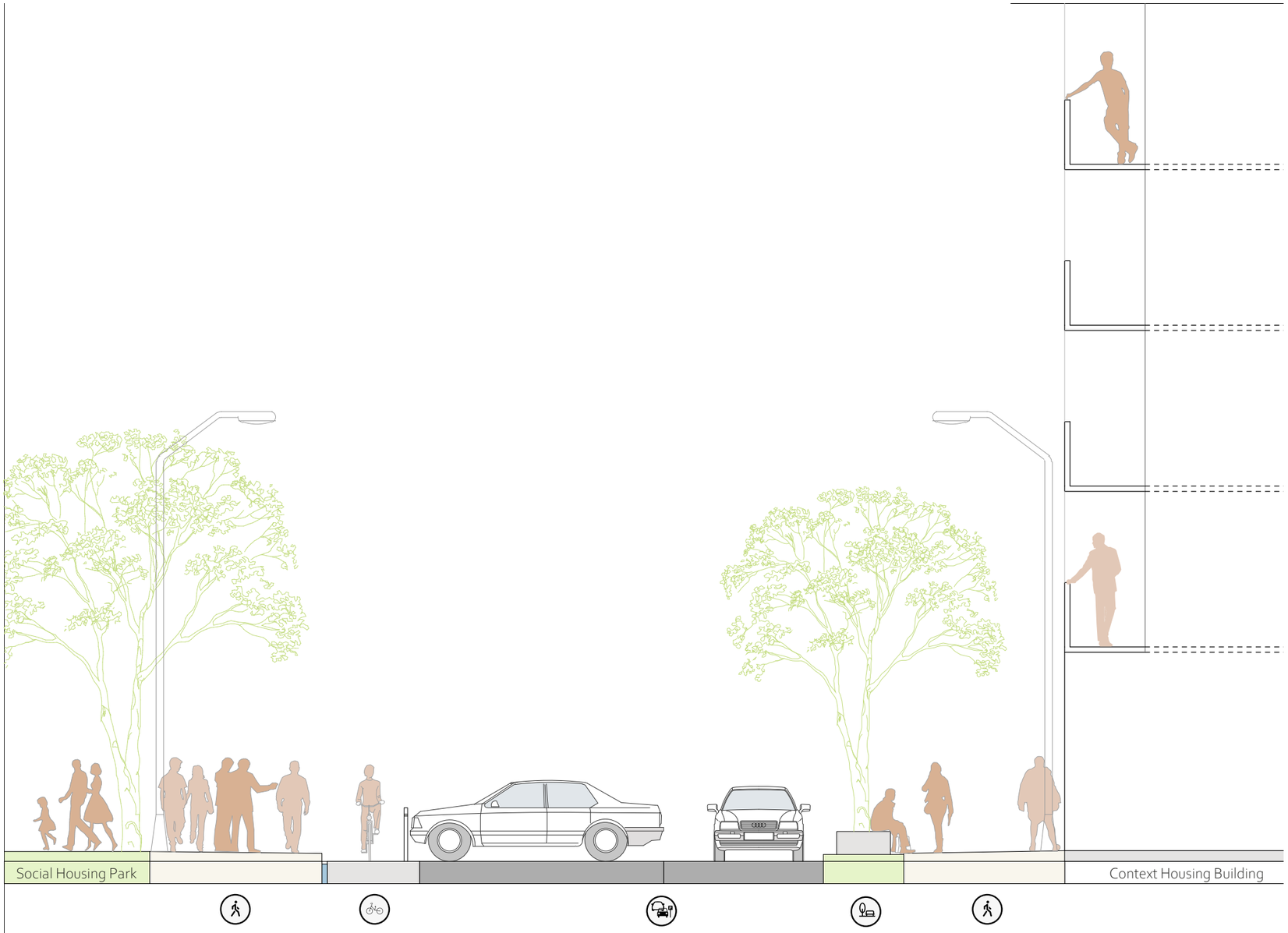
BEFORE

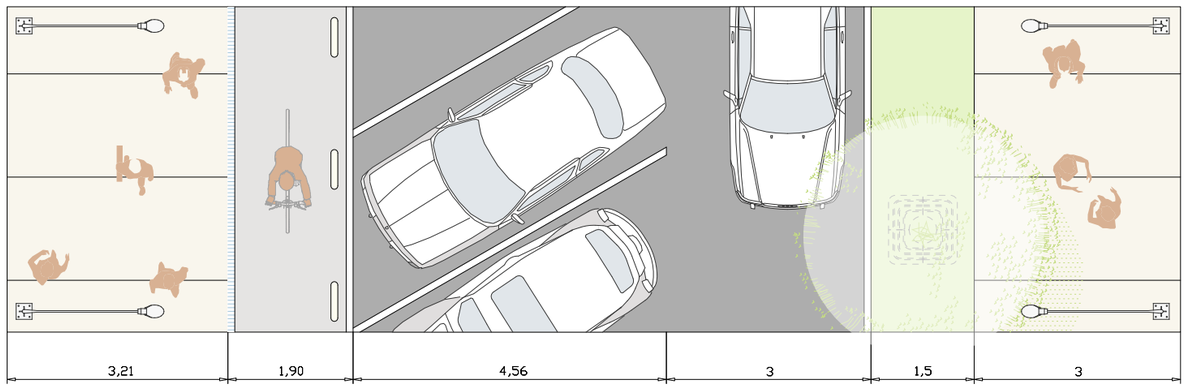
GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

REVITALIZATION STREET

Intervened Street: Viale Colico

Restoration of a low maintained street used for industrial employees as a detour street as connection to the main road in which actually half of it doesn't have walkways or either road signals, speed limit or parking signals. According to the national measurements of street intervention for a one-way road it can be considered as a main road type an maintain the same function of detour without changing the direction but optimize it with wider sidewalks, the addition of the continuing cycle track and parking lots for the public park proposed.





Pedestrian sidewalk inclination to a linear sewer Concrete Material

1.90 m Cycle track protected with Pavement borders

One way Slow street with a shutter parking lot for the social housing project

Green lane with High vegetation and physical resting elements for users

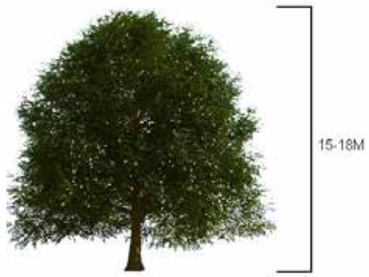
BEFORE

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

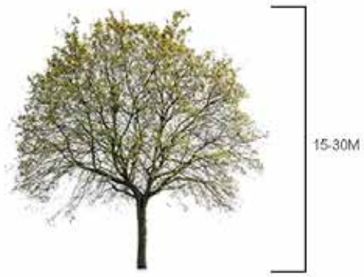
Project Details

GREEN SPECIES

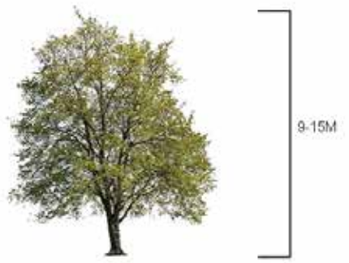
- Provide species with respect to the use of the space
- Use of Local varieties wich work well with the context
- Promote a combination of species in the parks and public areas
- Improving connectivity through corridors and restoration is essential to improve the ecological integrity and functioning
- Multi-functionality and connectivity of green infrastructure with key consideration to spatial planning



1 CHESTNUT OAK



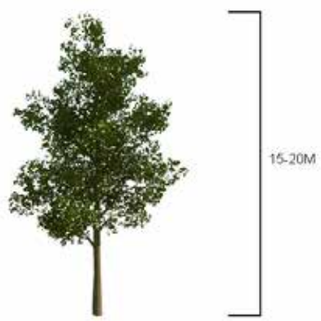
4 ELM TREE



2 HACKBERRY

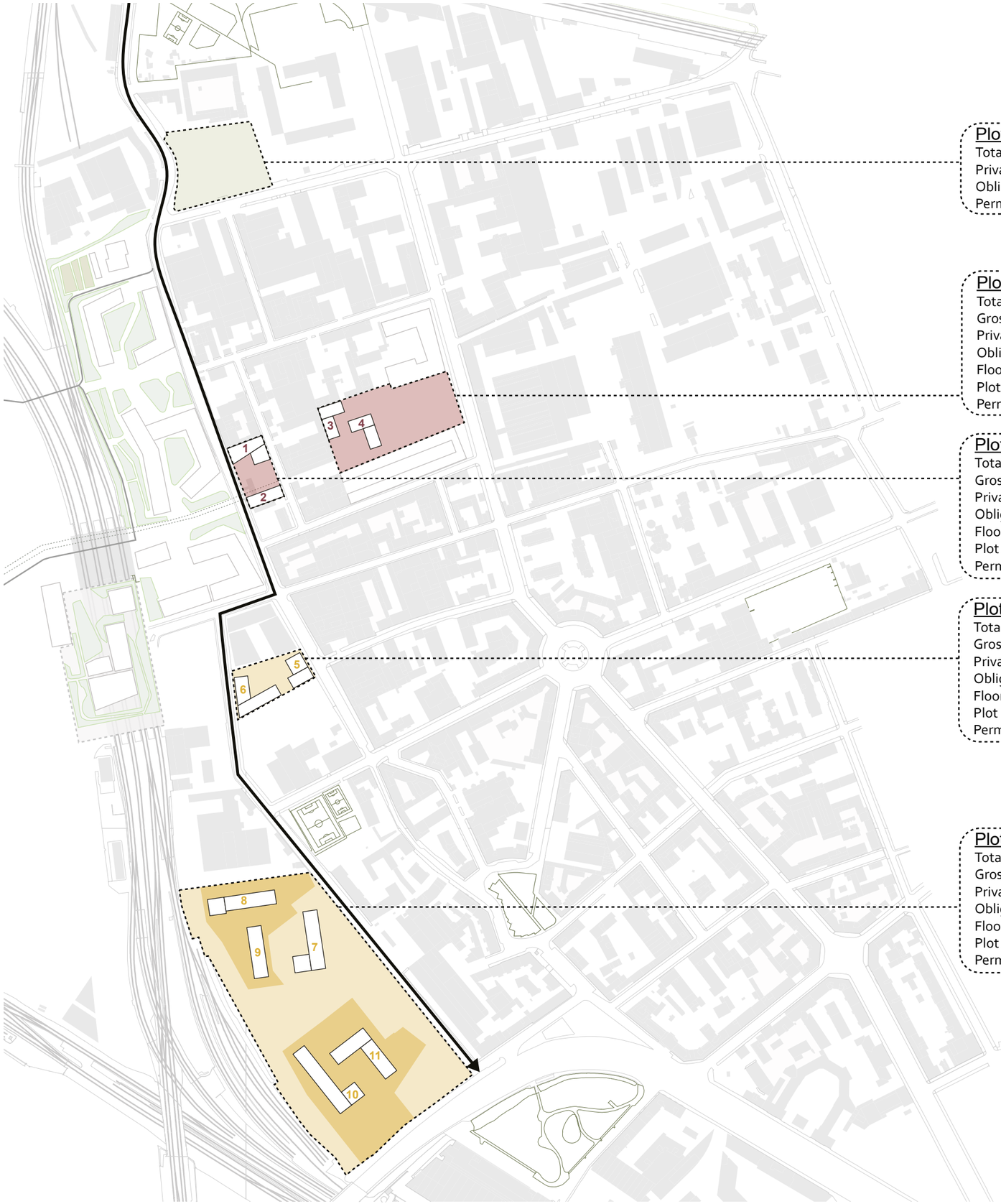
5 SOUTHERN MANGOLINA

3 POPLAR TREES



6 DECIDUOUS PLANES

AREA DISTRIBUTION+ CALCULATION



Plot 01
Total area: 7843 sqm
Private Plot Area: 0 sqm
Obligations: 7843 sqm
Permeable Plot Surface: 100%

Plot 02
Total area: 9938 sqm
Gross Floor Area: 2405 sqm
Private Plot Area: 0 sqm
Obligations: 9938 sqm
Floor Area Ratio: 0.24
Plot Density: 2
Permeable Plot Surface: 88%

Plot 03
Total area: 2651 sqm
Gross Floor Area: 2674 sqm
Private Plot Area: 0 sqm
Obligations: 2651 sqm
Floor Area Ratio: 1.01
Plot Density: 2.1
Permeable Plot Surface: 52%

Plot 04
Total area: 3502 sqm
Gross Floor Area: 3487 sqm
Private Plot Area: 0 sqm
Obligations: 3502 sqm
Floor Area Ratio: 0.99
Plot Density: 2.19
Permeable Plot Surface: 55%

Plot 05
Total area: 49182 sqm
Gross Floor Area: 16232 sqm
Private Plot Area: 22003 sqm
Obligations: 27179 sqm
Floor Area Ratio: 0.33
Plot Density: 2.7
Permeable Plot Surface: 67%

InteGRID
Buildings' indexes

Total area = 73116 sqm

Subtotal areas:
- Plot 01 = 7843 sqm
- Plot 02 = 2651 sqm
- Plot 03 = 9938 sqm
- Plot 04 = 3502 sqm
- Plot 05 = 49182 sqm

Floor Area Ratio (FAR) MAX = 0.339 (MAX = 0.35)

Total Gross Floor Area = 24798 sqm (MAX=25591)

Building coverage (%) = 14%

Obligations (MIN 50% total area) = 70%
of which Green Areas = 56% (of the total area/ 80% of Obligations)

Functions:

1 coworking space
retail
study rooms
student housing
student hostel

2 new marketplace
cafeteria
food corner

3/4 ateliers
student housing

5 cinema
cinematographic gallery
social housing
cafeteria
offices

6 cafeteria
offices
social housing

7 industrial photography gallery
pottery workshop
cafeteria
gardening
social housing

8/9/10/11 social housing

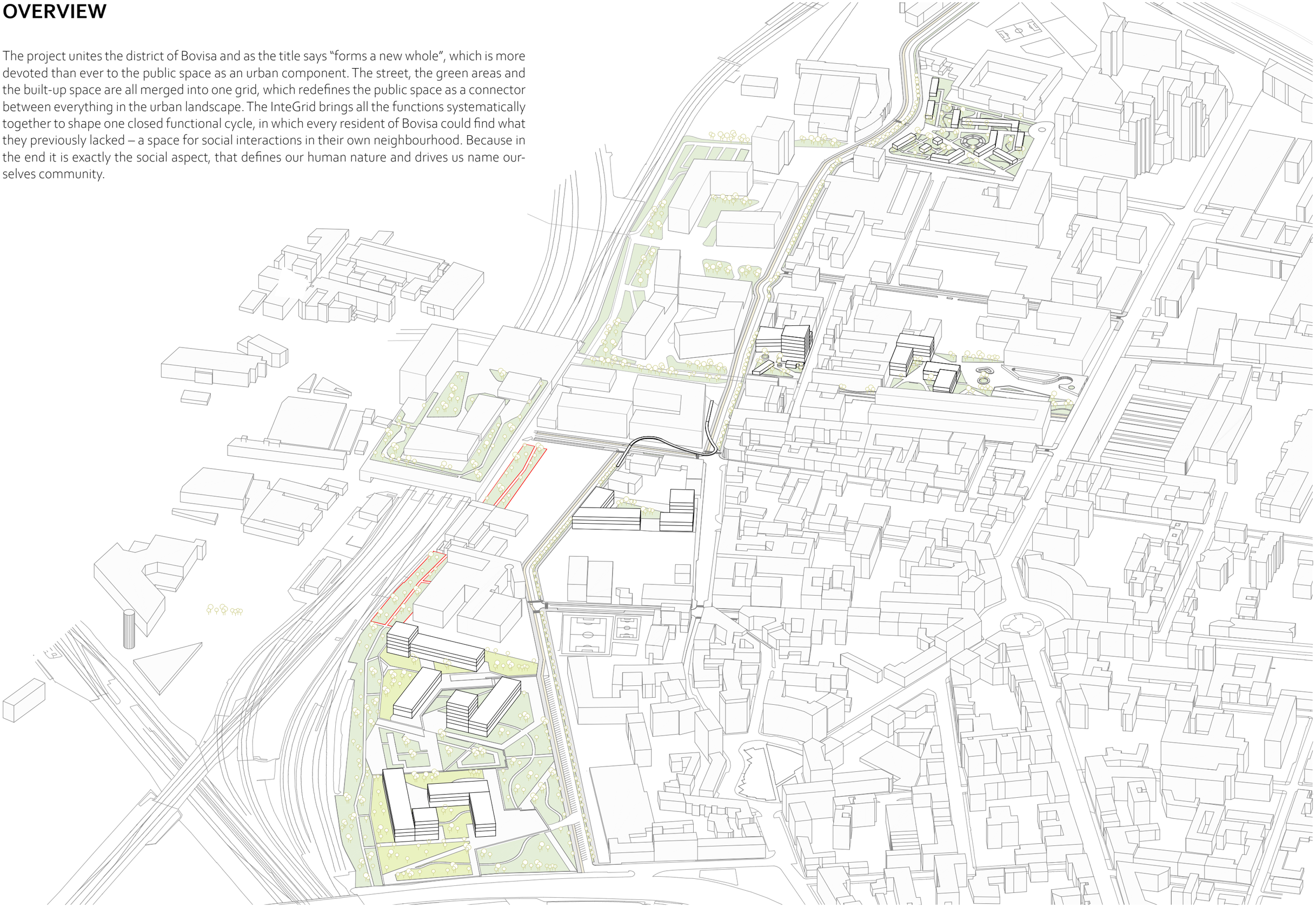
LEGEND

- Intervention Street
- Railways
- Urban Fabric
- Planned Buildings
- Planned Green Areas
- New Proposals
- Public Functions+ Community Garden Area (no housing)
- Public Functions (ground floor) + Student Housing Area
- Public Functions (ground floor)+ Social Housing Area
- Private Social Housing Area

GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

OVERVIEW

The project unites the district of Bovisa and as the title says "forms a new whole", which is more devoted than ever to the public space as an urban component. The street, the green areas and the built-up space are all merged into one grid, which redefines the public space as a connector between everything in the urban landscape. The InteGrid brings all the functions systematically together to shape one closed functional cycle, in which every resident of Bovisa could find what they previously lacked – a space for social interactions in their own neighbourhood. Because in the end it is exactly the social aspect, that defines our human nature and drives us name ourselves community.



GROUP 07 Asya Petkova /10903448/, Sreeram Ramesh Kezhakkuvettil / 10888044/, Daniel Bunay Camba / 10675537/

BREAK THE GRID-INTRODUCTION

- Regular grid of streets is broken in one point
- Change of direction of the main street of intervention
- Unusual intervention to emphasize this breaking point

CONCLUSION

The project unites the district of Bovisa and as the title says "forms a new whole", which is more devoted than ever to the public space as an urban component. The street, the green areas and the built-up space are all merged into one grid, which redefines the public space as a connector between everything in the urban landscape. The InteGrid brings all the functions systematically together to shape one closed functional cycle, in which every resident of Bovisa could find what they previously lacked – a space for social interactions in their own neighbourhood. Because in the end it is exactly the social aspect, that defines our human nature and drives us name ourselves community.