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**Politecnico
di Torino**

**URBAN LANDSCAPE FOR RIVERSIDE PARK AREA
THE CASE OF PARCO PIETRO COLLETTA IN TORINO**

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ABSTRACT

Turin, a heritage city intersected by the Po River, carries the distinctive values of its historical and majestic riverside landscapes, which are gradually evolving with modern development trends. Having lived, loved, and wandered along the banks of the Po, I have come to appreciate the unique natural values this place offers, especially at the confluence of the Po and Dora rivers: Parco Colletta. However, due to historical, economic, and environmental changes, many of Turin's riverside heritage landscapes are being undergraded and gradually lost.

With a desire to contribute to the restoration and development of the city's scenic values, this project aims to research, evaluate the current state, and propose a design for a distinctive park area in the northeastern part of Turin. The design will follow sustainable, modern architectural principles to restore its inherent values while serving the local population and creating a new attraction for the city.

Simultaneously, based on experiences from interacting with visually impaired individuals, part of the design research also aims to create a safe, friendly space that offers a healing aspect. This will help visually impaired people encounter a green space, diverse in sensory experiences, and provide a reliable destination when needed.

The project uses analytical planning knowledge from macro to micro scales, comparative analysis, spatial landscape analysis, and identifies heritage values that need preservation to shape a sustainable design plan that connects various areas. Finally, it provides an overall site plan for a riverside landscape area at Parco Colletta, while also linking with adjacent scenic and heritage areas.

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CHAPTER 1: INTRODUCTION

1.1 GOALS AND DESIGN OBJECTIVES

Along with the innovation and infrastructure upgrades of Turin under the Torino Cambia program, the city is undergoing a significant transformation. This change encompasses not just the city center but also the suburban areas. The integration with new transport systems and facilities extends to the parks along the Po River, especially in the confluence area. This presents an opportunity to support and connect the inner and outer parts of the city, creating a sustainable development corridor.

The project aims to preserve and redesign the overall layout of the park areas at the confluence of the Po, Dora, and Stura di Lanzo rivers, with a particular focus on Parco Pietro Colletta. The goal is to create a tightly connected transportation network not only within the design area but also with Turin's overall development corridor, including bicycle and pedestrian routes and Metro line 2. Concurrently, the project will assess, renovate, and upgrade Parco Colletta into a sustainable Eco Park that aligns with modern architectural trends while preserving the green spaces and riverside scenery.

Parco Colletta, already an existing park with sports facilities, will be designed to diversify and expand various dry and wet sports areas to cater to all demographics. The project will provide many engaging outdoor activity spaces, notably a water park. Additionally, to ensure economic viability and attract visitors, the park will include service areas such as restaurants, bars, and shopping zones. This will not only create a sustainable revenue source but also bring new vitality to the area. The project aims to cater to diverse groups, including prioritizing designs that serve visually impaired individuals within the context of a water and ecological park, promising a unique and sensory-rich experience.

Beyond Parco Colletta, the confluence area includes Ex-Tabacchi, Parco Della Confluenze, and Parco Del Mesino on the west bank of the river. These areas are historically significant, featuring remnants of Viboccone Castle, the siege of Turin, and old industrial zones that once played vital roles in the city's economy. Connecting these areas through a corridor that enhances both transportation and historical experience via a bicycle system would be fascinating.

The design will emphasize sustainability, aesthetics, and propose methods for rainwater collection and reuse for the project's amenities. The design standards and approaches have been informed by real-world experiences from site visits to Lyon and Siderno to ensure the practicality of the proposals.

The design methodology includes analysis from macro to micro levels, alongside evaluations, comparisons, real-world surveys, and interviews.

The desired outcome of the design process is to create a vibrant, new ecological space that meets recreational and sports needs not only for local residents but also to attract visitors from central Turin and tourists. Additionally, it aims to support visually impaired individuals in experiencing spiritual life and community integration. The project proposal also hopes that sustainable design standards will include criteria for the visually impaired.

1.2 STRUCTURE

MACRO SCALE

- .MAPPING
- .TURIN GENERAL ANALYSIS
- .TORINO CAMBIA

MICRO SCALE

- .CONTEXT OF THE DESIGN SITE WITH TURIN
- .THE DESIGN SITE ANALYZE
- .PARCO COLLETTA ANALYZE
- .EVOLUTION OF THE DESIGN
- .MOBILITY DESIGN
- .MASTER PLAN DESIGN
- .FOCUS ON DETAIL

1.3 THE OUTCOME

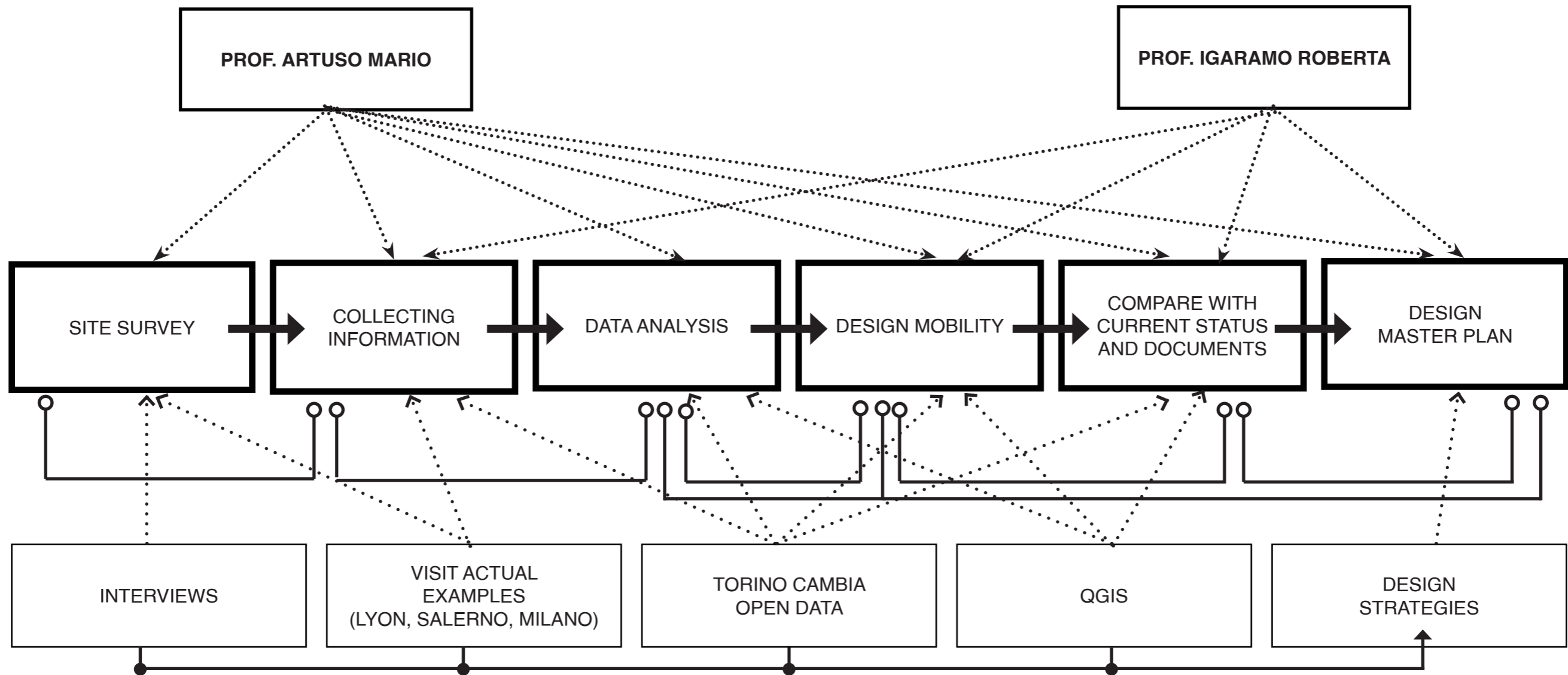
THE ANALYZE

- .CONNECTION BETWEEN THE ZONE AND THE DEVELOPE OF TURIN
- .OVERVIEW OF THE LAND FROM PAST TO FUTURE
- .FUNCTION AND MOBILITY
- .URBAN DESIGN STRATEGIES

THE DESIGN

- .MAKING MOBILITY BETWEEN THE SITE AND SURROUNDING AREAS.
- .CREATING NEW FUNCTIONS TO SERVE RESIDENTS AND ESTABLISH A NEW PLAY ZONE FOR TURIN.
- .INCLUSIVE DESIGN FOR SIGHTED AND VISUALLY IMPAIRED.

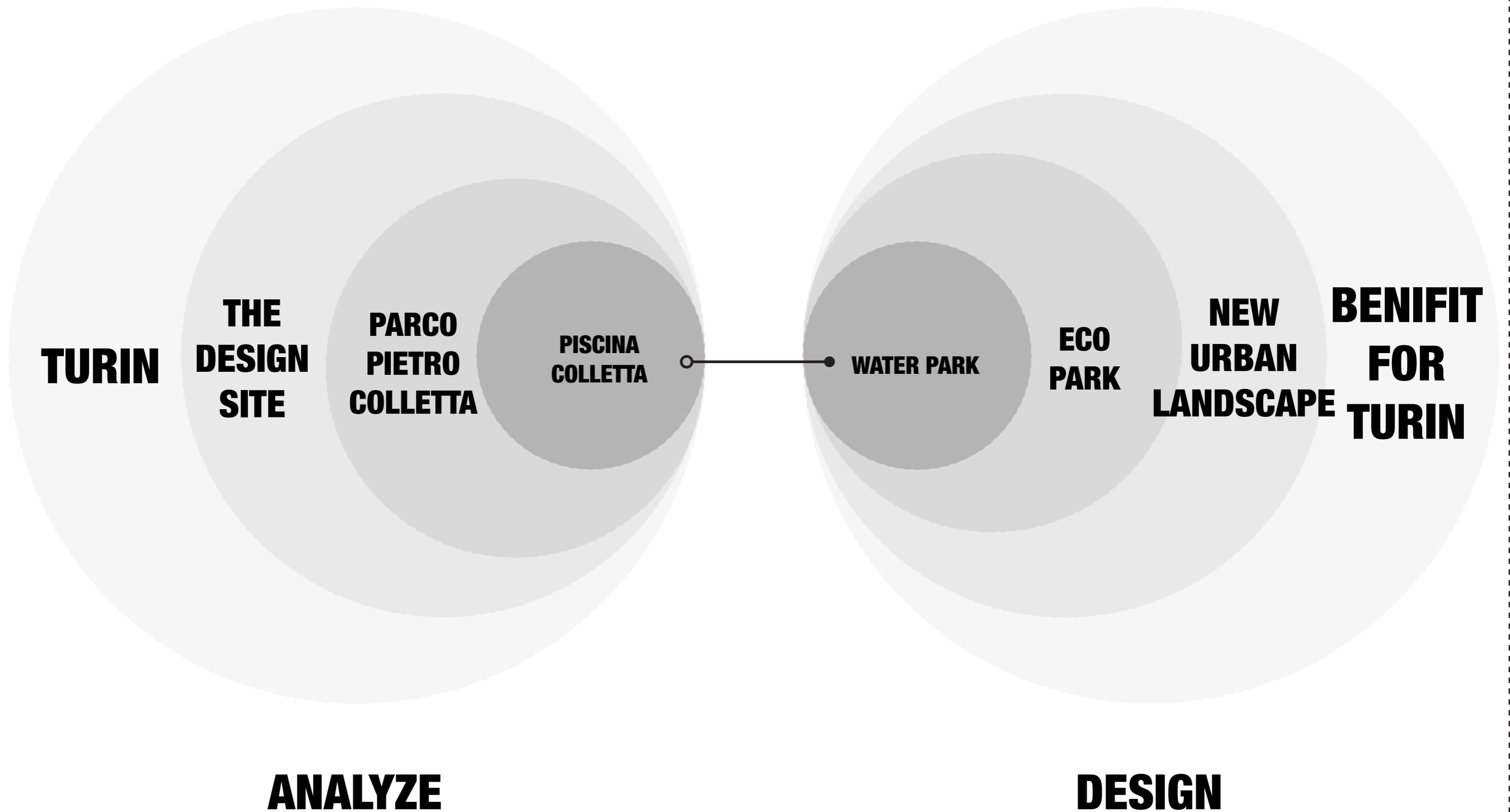
1.4 RESEARCH METHODOLOGY



The workflow of the design, depicted in the diagram here, reflects these thorough adjustments. The design has been extensively revised and expanded through rigorous comparison with the current site conditions. Throughout the design process, my supervisor and I meticulously reviewed and compared each stage against current data from the site, ensuring alignment and enhancing the overall accuracy and comprehensiveness of the final design.

- Supervisor check➔
- Self check ———○
- Tools➔

1.5 THE LOGISTICS OF THE PROJECT

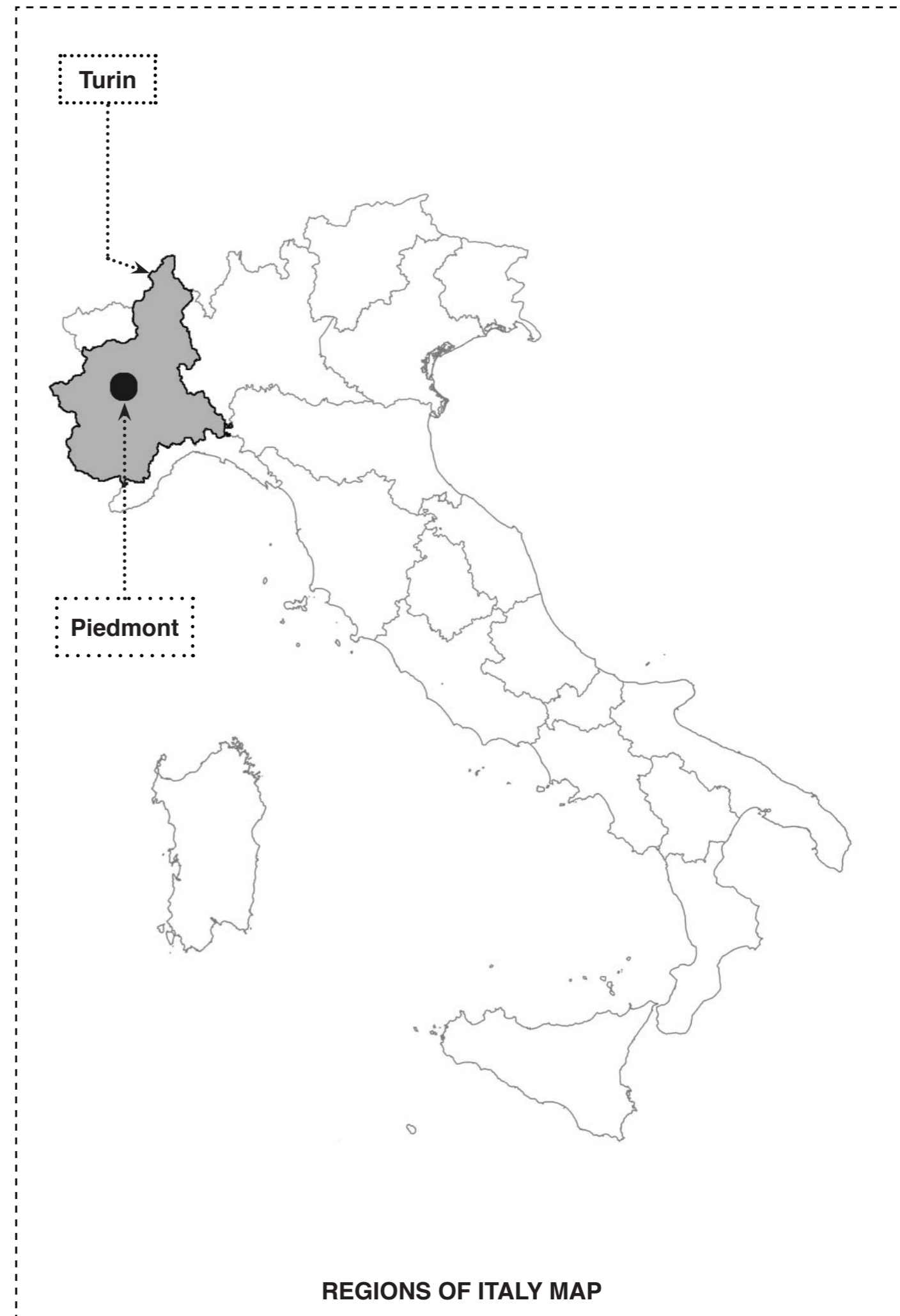


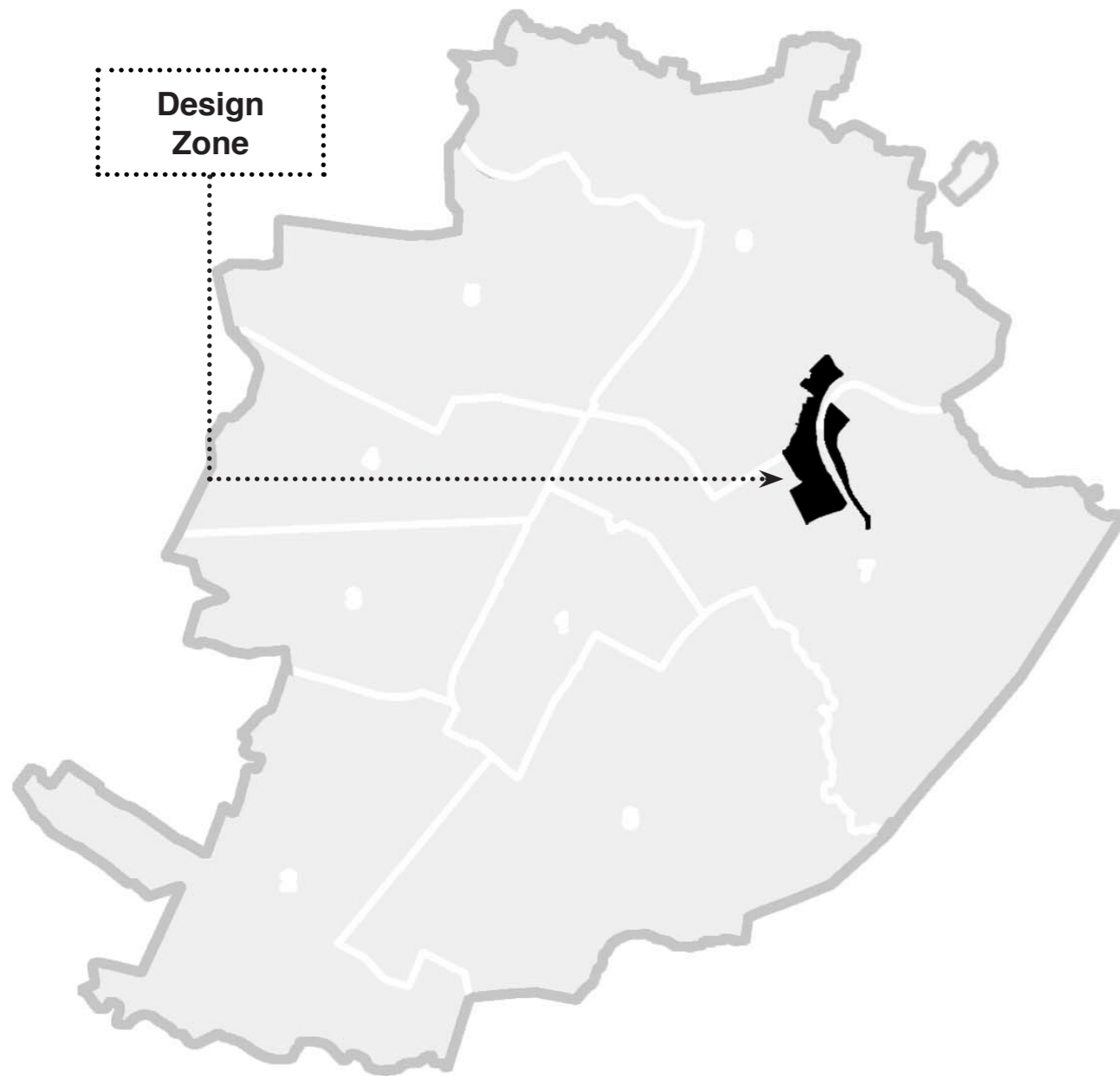


CHAPTER 2

TURIN

THE MAIN URBAN
OVERVIEW





TURIN METROPOLITAN AREA

2.1 TURIN

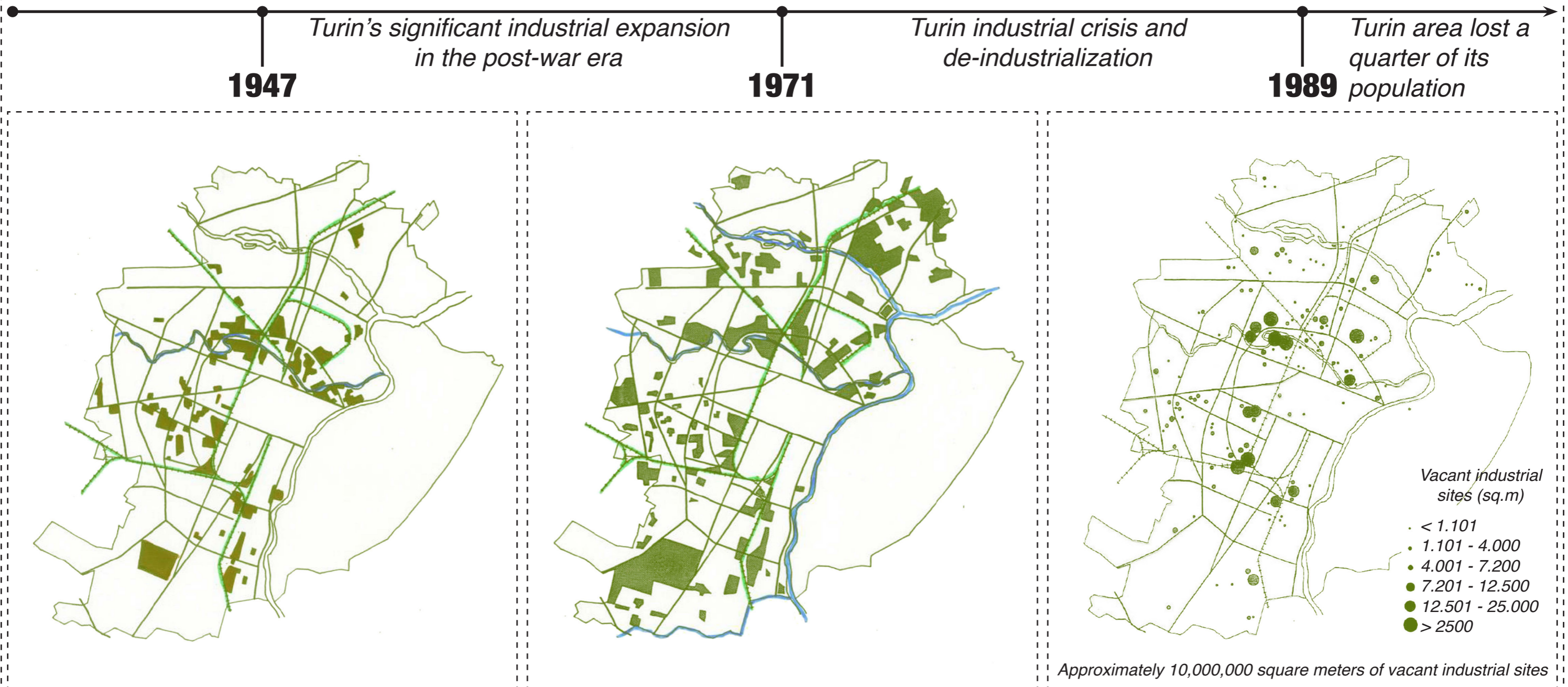
GENERAL INFORMATION

Turin, is a dynamic city located in the Piedmont region of northern Italy. With a rich history that dates back to Roman times, Turin is characterized by its elegant architecture and vibrant cultural scene. It was the first capital of a united Italy in the 19th century and has since developed into a major urban center. The city is known for its grand boulevards, numerous museums, and significant contributions to Italian art, culture, and industry.

POST-INDUSTRIAL AND ITS FUTURE

In the late 20th century, Turin transitioned from traditional manufacturing, especially automobiles, due to globalization and economic changes. The city has since diversified, focusing on technology, innovation, and culture, becoming a hub for tech startups, research centers, and creative industries. Turin has also **prioritized green initiatives**, turning former industrial sites into parks. Looking ahead, the city aims to strengthen its role in **the European tech landscape**, promote **sustainable urban development**, and continue its cultural renaissance.

2.2 URBAN DEVELOPMENT OF TURIN IN THE POST-WAR INDUSTRIAL ERA



The post-war era marked a period of significant transformation for Turin, driven by massive industrial development that attracted unprecedented migration for factory jobs. The 1960s were the pinnacle of this industrial boom, with FIAT employing a staggering 158,000 workers by 1968-69. However, the 1973 oil crisis marked the beginning of a challenging phase for the city. The subsequent decades, from the 1970s to the 1980s, saw Turin undergo a process of metropolitanization, national reorganization, and integration into the broader European and global economies.

Despite these efforts, the period between 1980 and 1996 witnessed a dramatic decline in the automotive industry, resulting in the loss of over 100,000 jobs and a reduction of about a quarter of Turin's population. This era encapsulates a dynamic yet tumultuous chapter in Turin's history, highlighting both the heights of industrial success and the profound impacts of economic downturns.

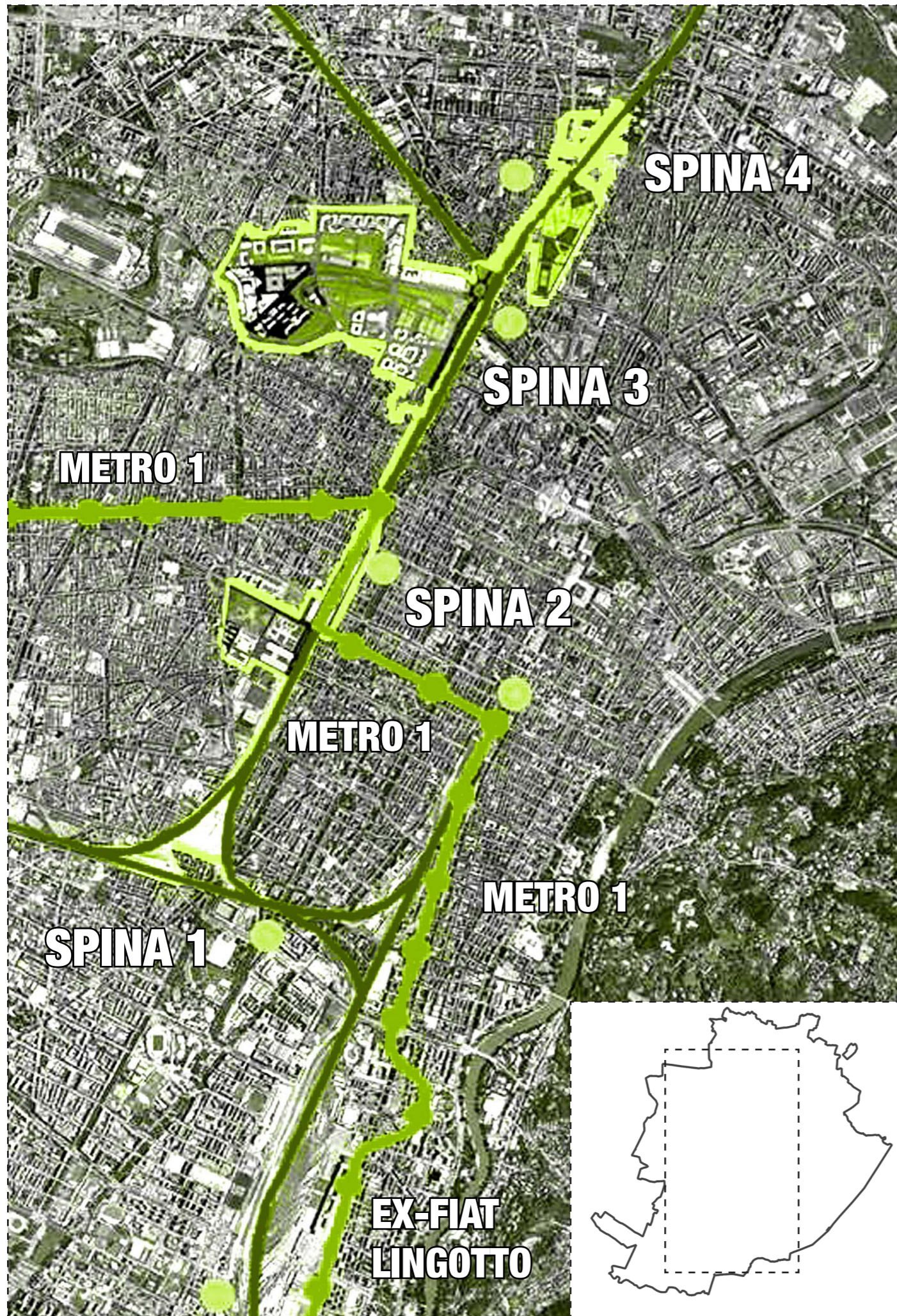
2.3 TURIN MASTER PLAN 1995

In the turbulent 1990s, Turin navigated through both crisis and opportunity with strategic urban planning initiatives. Locally, economic hardships and a national political overhaul catalyzed reforms, granting cities greater fiscal autonomy and introducing direct mayoral elections.

A pivotal moment arrived with the implementation of the 1995 Turin General Masterplan, which aimed to rejuvenate the city comprehensively. Key actions included burying major rail lines that had long divided urban areas, reclaiming abandoned properties along designated axes, and revitalizing public spaces, particularly in the city center. The plan also focused on breathing new life into peripheral neighborhoods through extensive revitalization efforts and bolstering public transportation with the introduction of new rail stations and a metro system.

Guided by principles to expand the service sector, enhance real estate values, and facilitate conversion and redevelopment, the Masterplan targeted critical zones such as the Po River waterfront, the "**Central Back Bone**," and four identified spines, as well as the Corso Marche area. These initiatives collectively aimed to reshape Turin, laying the groundwork for economic growth and urban renewal amid challenging circumstances.

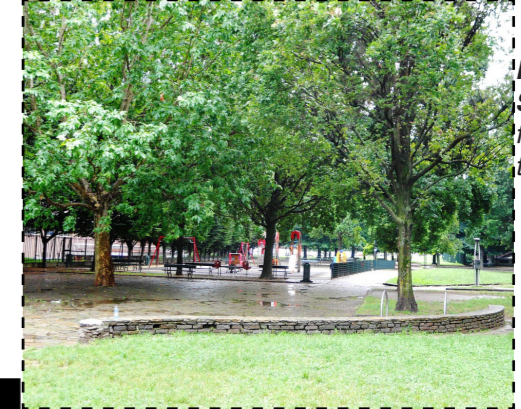




2.4 THE CENTRAL BACKBONE + METRO LINE 1

SPINA 4

Parco Spina 4 features new residences, commercial spaces, and expansive green areas, marking a significant urban revitalization effort.



Parco Sempione final point of the spina

SPINA 3

Parco Dora the largest green lungs of the city



Dora Shopping Center

SPINA 2

New Porta Susa Station and Intesa San Paolo Headquarters



METRO 1
Essential subway linking key urban districts

SPINA 1

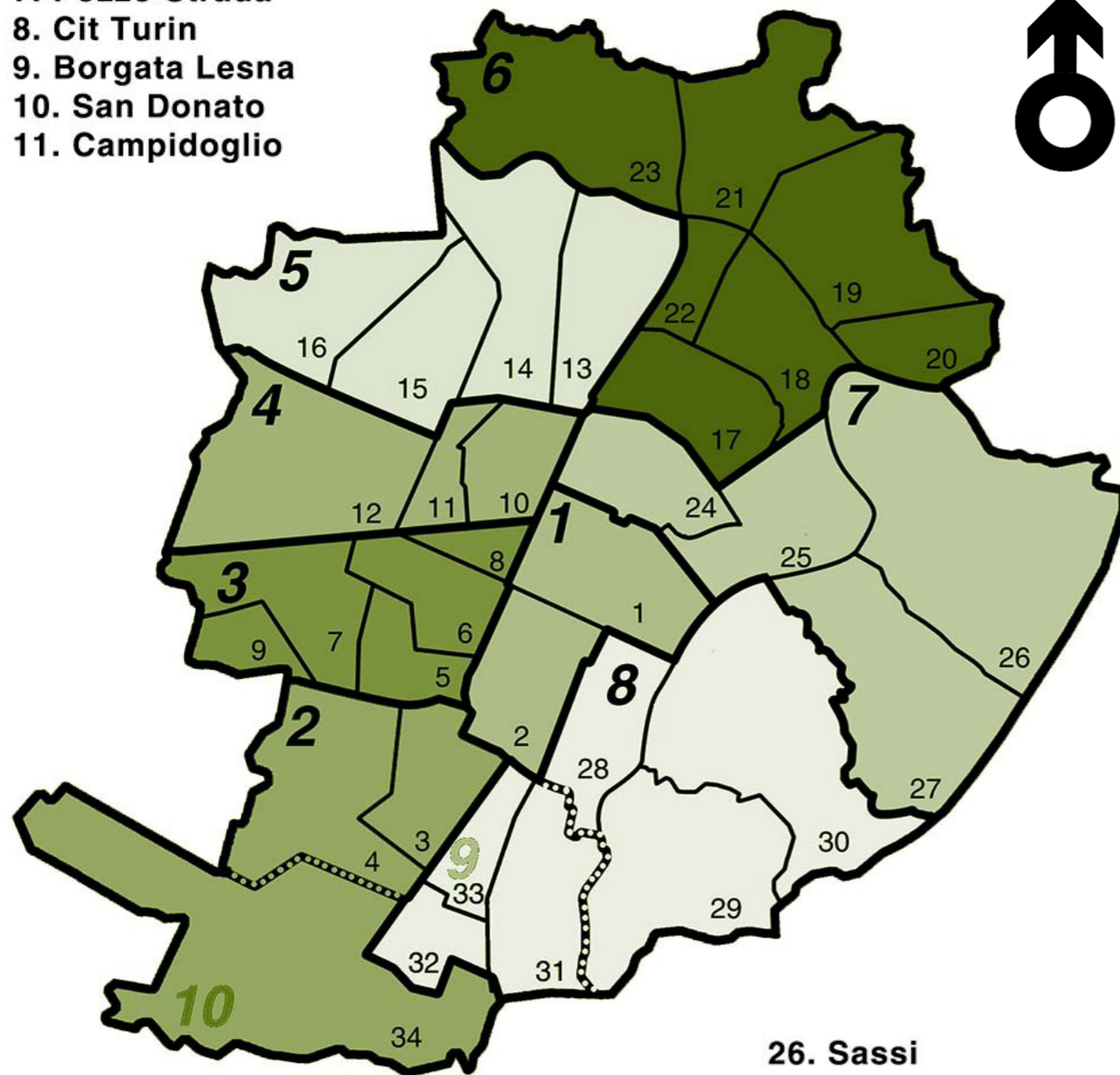
Mario Merz's Igloo Turin's new symbol: the most magnificent artworks along the avenue



Distinctive architecture of the Central Spine in the Politecnico di Torino area

1. Centro
2. Crocetta
3. Santa Rita
4. Mirafiori Nord
5. Borgo San Pao
6. Cenisia
7. Pozzo Strada
8. Cit Turin
9. Borgata Lesna
10. San Donato
11. Campidoglio

20. Bertolla
21. Falchera
22. Rebaudengo
23. Villaretto
24. Aurora
25. Vanchiglia



26. Sassi
27. Madonna del Pi
28. San Salvario
29. Cavoretto
30. Borgo Po
31. Nizza Millefonti
32. Lingotto
33. Filadelfia
34. Mirafiori Sud

12. Parella
13. Borgo Vittoria
14. Madonna di Campagna
15. Lucento
16. Vallette
17. Barriera di Milano
18. Regio Parco
19. Barca

2.5 TURIN NEIGHBORHOOD

SOME TYPICAL AREAS OF TURIN

Centro Storico:

At the heart of Turin, Centro Storico charms with elegant squares, grand palaces like Piazza Castello and the Royal Palace, and bustling shopping streets such as Via Roma. It's a vibrant hub for tourism, commerce, and cultural activities, boasting cafes, restaurants, and boutiques.

San Salvario:

South of the city center, San Salvario thrives with its multicultural vibe and lively nightlife scene, featuring bars, clubs, and diverse restaurants. Parco del Valentino along the Po River offers green spaces and historical landmarks.

Crocetta:

Crocetta, an upscale residential area, showcases Liberty-style architecture, refined cafes, and the lively Crocetta Market offering fresh produce and artisanal goods.

Lingotto:

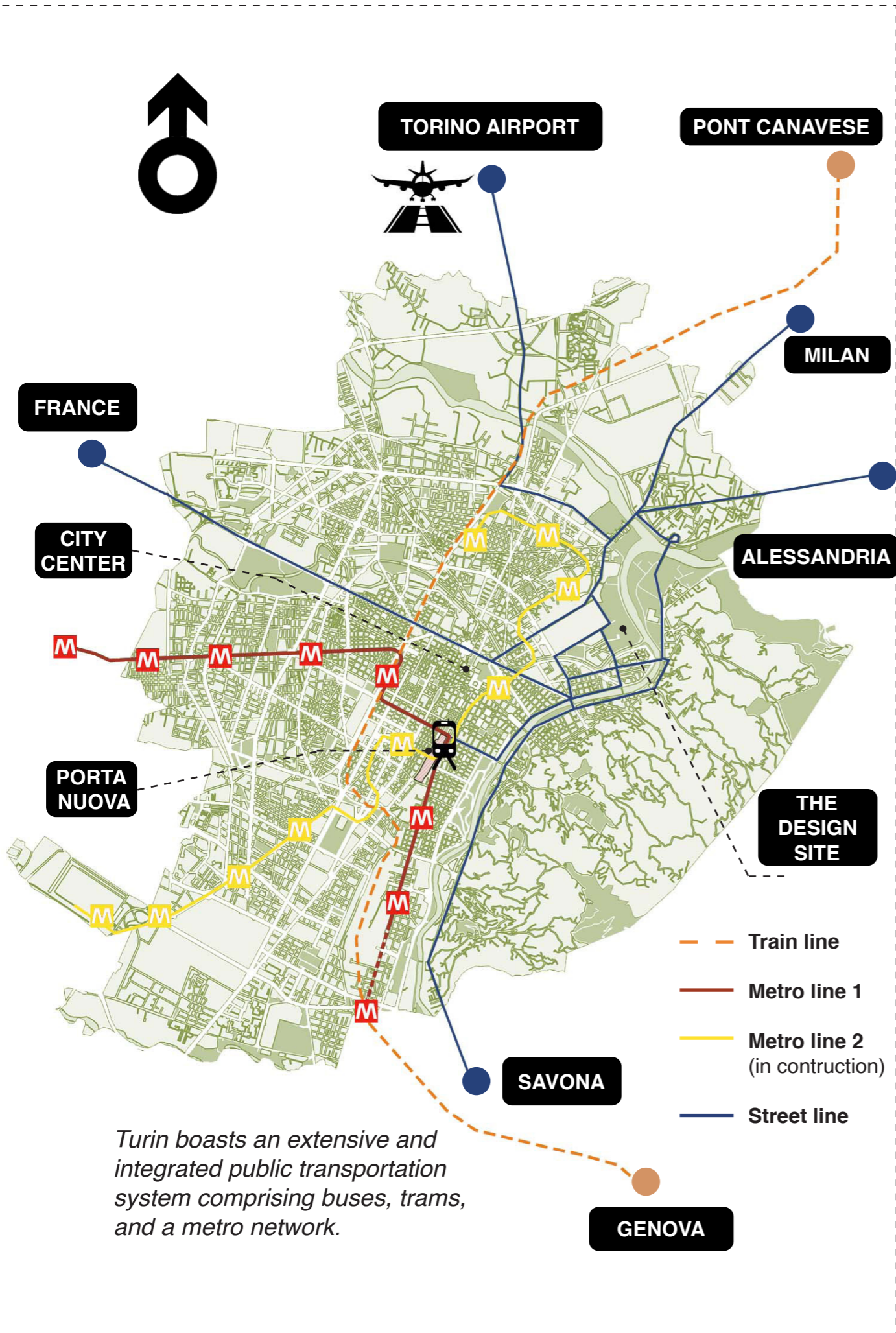
Lingotto in southern Turin symbolizes the city's industrial past, now home to a multifunctional complex with a shopping mall, conference center, and the Pinacoteca Giovanni e Marella Agnelli art gallery. Eataly celebrates Italian gastronomy here.

Aurora:

North of the center, Aurora is known for its avant-garde art scene and cultural projects. The Nuvola Lavazza complex features a museum, offices, and a gourmet restaurant, reflecting Turin's contemporary urban development.

Vanchiglia:

East of the city center, Vanchiglia is a bohemian quarter popular with artists, students, and young professionals. It's characterized by vibrant cafes, atmospheric bars, and eclectic art studios, thriving near the University of Turin.



2.6 TURIN MOBILITY

Indicator	Data	Units	Year of Data Provided	
Proportion of population living within 300 metres of an hourly (or more frequent) public transport service	95	%	2019	
For all journeys under 5 km, proportion of these journeys undertaken by:	Car	30,0%	2013	
	Public Transport	15,1%		
	i) Car;	Cycling		3,6%
	ii) Public transport;	Foot		51,1%
	iii) Bicycle;	Multimodal		n.d.
	iv) Foot;	Other		n.d.
Proportion of buses operating in the city that are:	v) Multimodal (active/shared mobility + public transport);		2019	
	vi) Other.			
	Low emission	33		
Low emission (at least Euro VI); and	Alternately fuelled (electric, Alternately fuelled)	38	%	

Buses and Trams:

Operated by GTT (Gruppo Torinese Trasporti), buses and trams cover Turin and its outskirts. They are frequent, reliable, and affordable, linking residential areas, business hubs, and cultural sites.

Metro (Line 1):

Turin's driverless Metro Line 1 runs from Lingotto in the south to Collegno in the west via the city center. It offers fast, efficient travel, especially during peak times.

Cycling Infrastructure:

Turin promotes cycling with dedicated lanes and paths, supported by the [TO]Bike bike-sharing program, which offers convenient rentals across the city.

Pedestrian-Friendly Zones:

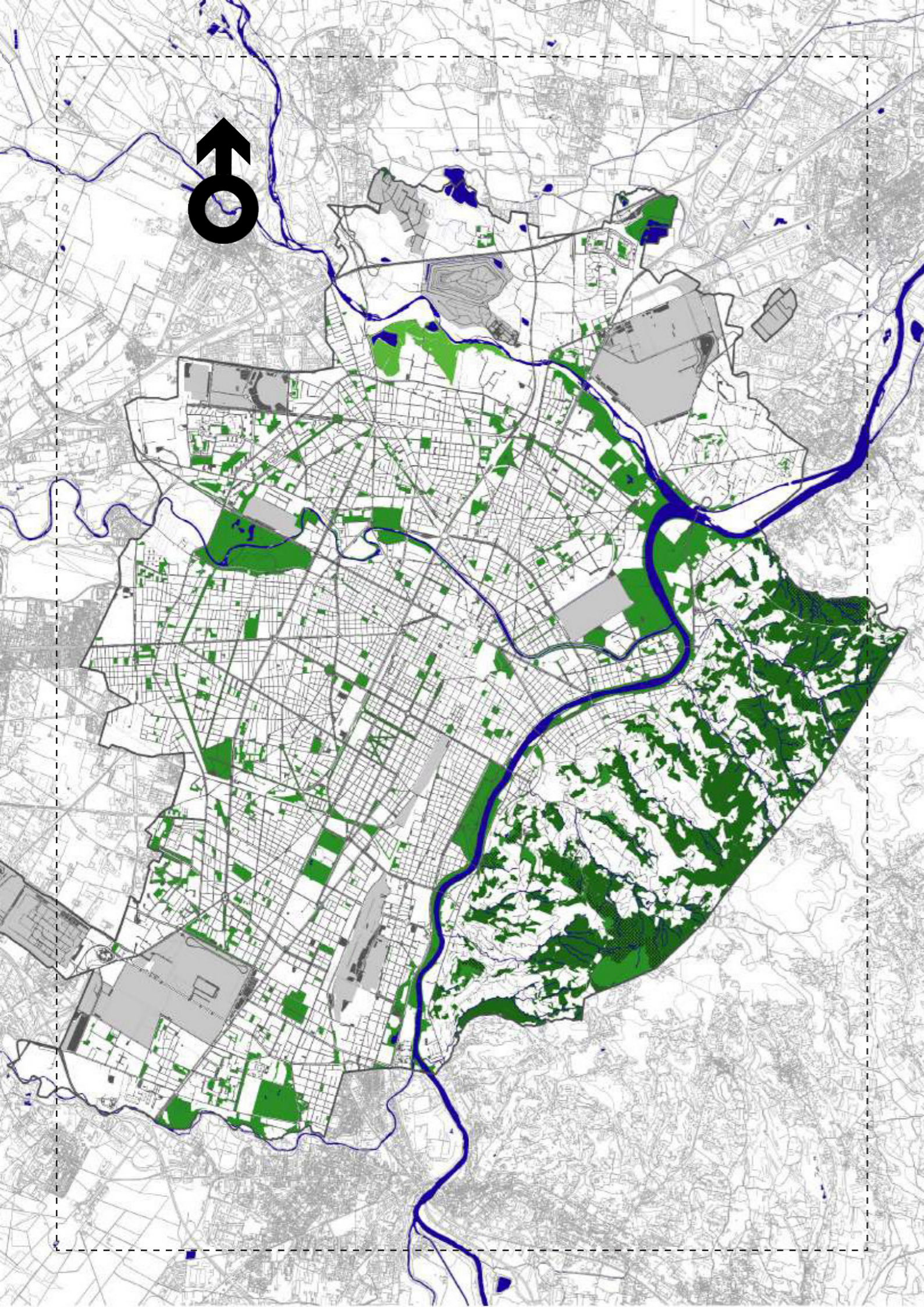
Historic areas like Via Garibaldi and Via Roma are car-free, enhancing the walking experience with amenities like benches and green spaces.

Car Sharing and Electric Vehicles:

Services like Car2Go and Enjoy provide flexible car sharing options. Turin also supports electric vehicles with numerous charging stations, encouraging eco-friendly transport solutions.

Rail and Long-Distance Travel:

Turin's Porta Nuova and Porta Susa stations offer high-speed trains connecting major Italian cities and international destinations, making it a key hub for long-distance travel.



2.7 TURIN FOREST AND RIVER

Riverfront Landscapes

Turin, embraced by the Po River, Italy's longest, boasts the captivating "Murazzi del Po" riverfront. This lively area, adorned with historic edifices, cozy cafes, and bustling bars, is a beloved gathering spot for locals and tourists alike. Here, one can unwind with picturesque views and engage in activities such as boating, rowing, jogging, and cycling along the tranquil riverbanks. It's a perfect blend of social ambiance and natural beauty, offering a refreshing escape from the city bustle.

Green Spaces and Parks

*Turin's urban landscape is graced with several expansive parks and green spaces that play pivotal roles in the city's fabric. Parco del Valentino, established in the mid-19th century, stands out with its sprawling gardens, elegant fountains, and the charming Borgo Medievale. Equally essential are Parco della Pellerina and **Parco della Colletta**, cherished for their vast areas ideal for **picnics, sports, and family outings**. Beyond recreation, these green lungs enhance air quality, mitigate urban heat, and support biodiversity, contributing significantly to Turin's ecological balance.*

Environmental and Social Benefits

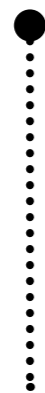
Turin's commitment to its riverfront and green spaces yields rich environmental benefits. The trees and plants along the river and within parks act as natural air purifiers, mitigating pollutants and fostering biodiversity. These areas also serve as venues for cultural events, outdoor festivals, and communal gatherings, nurturing a sense of community and enhancing residents' quality of life. The aesthetic charm of Turin's natural landscapes not only promotes mental well-being but also ensures a sustainable and vibrant future for the city.

2.8 TURIN STRATEGIC PLAN

2000

STRATEGIC PLAN 1 – PROMOTION OF THE CITY

1. Established significant new cultural institutions and developed extensive cultural programming.
2. Re-branded and marketed the city on an international scale.
3. Targeted major global events, including the Olympics.
4. Linked directly to the city's physical transformation.



(STRATEGIC PLAN 3 CITY OF OPPORTUNITY IN 2015)
CHANGED TO AN ACTION PLAN FOR A SUSTAINABLE AND RESILIENT TURIN IN 2030

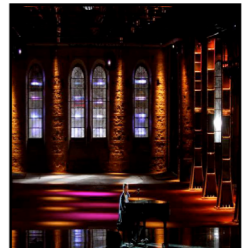
Roman Door of The City



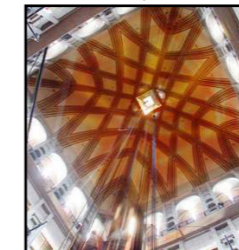
Piazza San Carlo From Parking to Public Place



Reuse of Built Assets



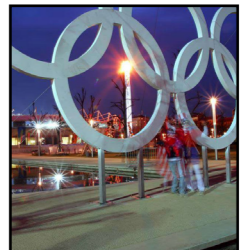
National Automobile Museum



National Cinema Museum



Global events



Olympic 2006

2006

STRATEGIC PLAN 2– KNOWLEDGE ECONOMY

1. Achieved 30% GDP from manufacturing activities.
2. Ranked as the top Italian region for private investment in R&D.
3. Leading Italian region in innovation expenditure within manufacturing.
4. Leading Italian region for high-tech patents.
5. Allocated €60 million for establishing 12 innovation hubs.
6. Secured €500 million from ERDF to bolster innovation initiatives.

2008

FINANCIAL CRISIS

1. Revitalizing the city's economy through local government reform and the Metropolitan City administration.
2. Prioritizing low-cost projects to upgrade the economy's 'software' amid limited capital resources.

2.9 TURIN SUSTAINABILITY



Turin 2030 | The Vision

Turin's vision for 2030 is rooted in a commitment to enhancing the **quality of life** for its residents through comprehensive administrative actions. Emphasizing community needs, the city aims to prioritize the well-being and satisfaction of its citizens in all decision-making processes.

Central to this vision is the promotion of greater equilibrium among social, economic, and environmental policies. By fostering a harmonious balance, Turin seeks not only to achieve prosperity but also to ensure sustainability for future generations. This holistic approach acknowledges the interconnectedness of these domains and strives for inclusive growth that benefits all sectors of society.

Furthermore, Turin is preparing for structural changes within its community by integrating resilience into its planning strategies. This proactive stance enables the city to adapt and thrive in the face of evolving challenges and opportunities. By building resilience, Turin aims to enhance its capacity to respond effectively to unforeseen circumstances while maintaining its trajectory towards a sustainable future.

In essence, Turin envisions itself as a model of sustainability and resilience by 2030—a city where the well-being of its residents is paramount, where policies are balanced to promote equitable growth, and where proactive measures ensure preparedness for the future.

TURIN 2030 | CORE VALUES

PARTICIPATORY

Actively engaged residents and neighborhoods



DYNAMIC

Rich with culture, innovation, opportunities and talent



LIVEABLE

Connected, clean, healthy and green



JUST

Respectful of each person's rights



Policies, plan and implementation

Sustainability and Health

Torino 2030 emphasizes creating a **sustainable and healthy environment** through inclusive policies. The city is committed to combating educational poverty and marginalization in urban areas, striving for equal access to education and services as key objectives of the City Council.

Equity and Inclusion


Turin has responded to the educational needs of marginalized groups by implementing initiatives that address educational poverty and marginalization in urban areas. The goal is to ensure equal access to education and services for all residents of Turin.

Decent Work and Entrepreneurship

In preparation for the digital future, Turin is equipping its citizens with the necessary skills and competencies for innovation and entrepreneurship. The municipality believes in continuously refining, evolving, and adapting skills to meet techno-

EU Sustainability Indicators

- Land Use and Green Space
- Nature and biodiversity
- Waste
- Transportation
- Energy
- Air Quality
- Noise Pollution
- Water
- Climate Change Mitigation
- Climate Change Adaptation



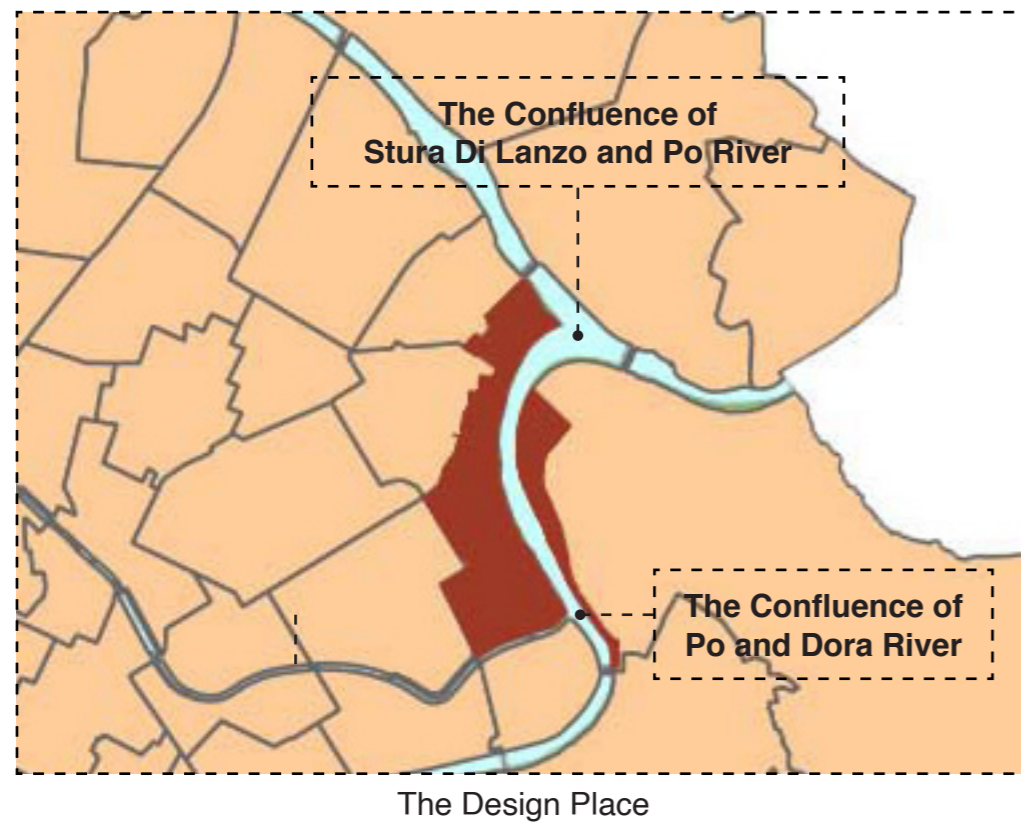
CHAPTER 3
TURIN
AND
THE RIVERSIDE PARKS

3.1 RIVER AND LAND

Turin, located on the western bank of the Po River and intersected by the Dora and Stura Di Lanzo rivers, depends significantly on these waterways for its geographical and cultural identity. The area near the Po River is particularly valued for its scenic beauty, recreational opportunities, and desirable residential locations. This region enhances Turin's overall appeal and quality of life, providing parks, walking paths, and cultural venues along the riverbanks that cater to both residents and visitors. Despite the city's expansive urban and suburban developments covering a larger area compared to the relatively narrow corridor occupied by the river and its immediate surroundings, the Po River and its adjacent lands remain essential to Turin's character and vitality. This highlights the contrast between extensive urban land use and the smaller yet indispensable footprint of the river within the city.

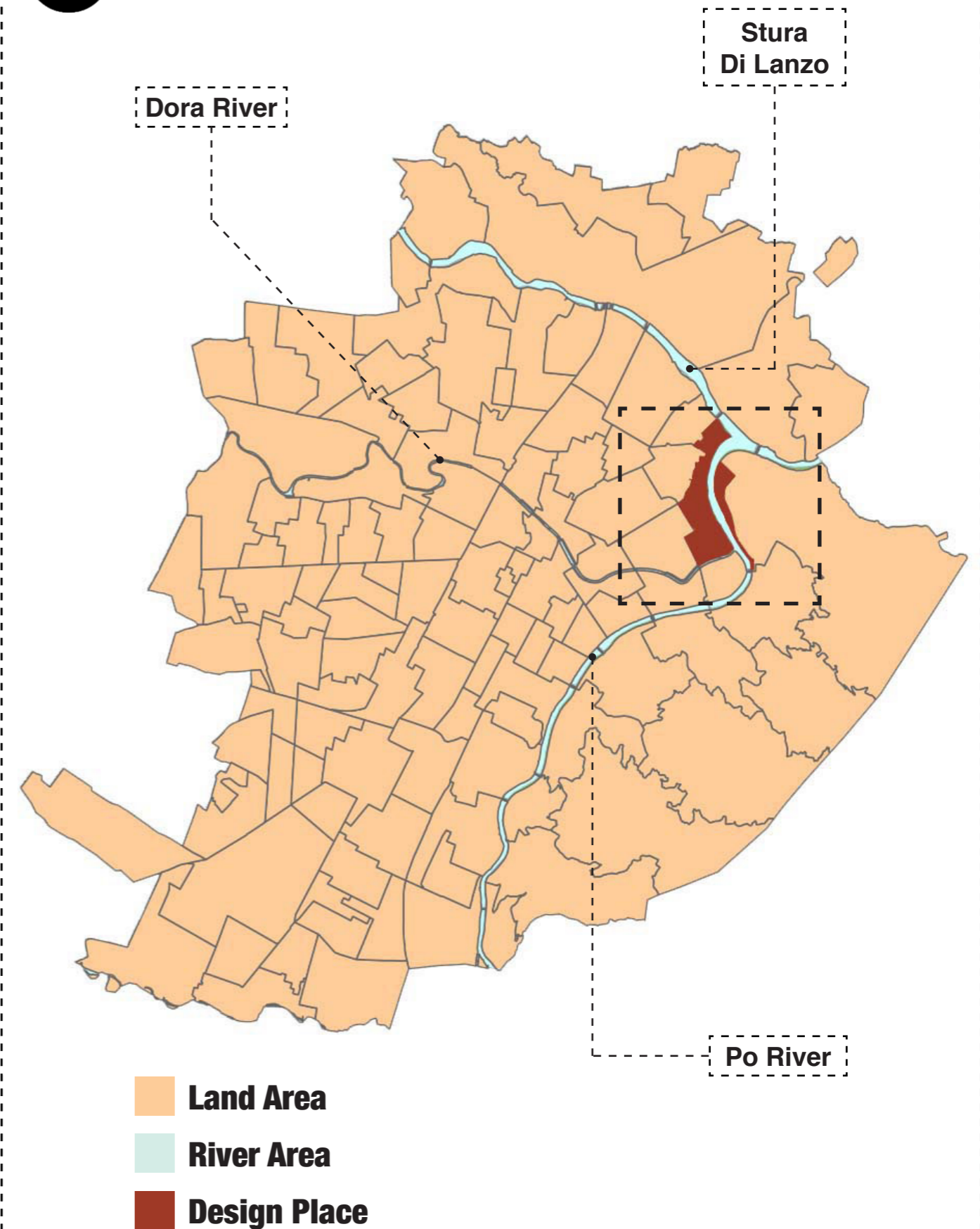
CONTEXT OF THE DESIGN SITE

Although rivers occupy a relatively small proportion of Turin's total area, the areas near these rivers boast exceptionally beautiful ecological landscapes. The selected site occupies a **unique position**, situated **between two significant confluences**: the confluence of the Po and Dora rivers, and the confluence of the Po and Stura di Lanzo rivers.



TURIN LAND MAP

SCALE 1:100.000

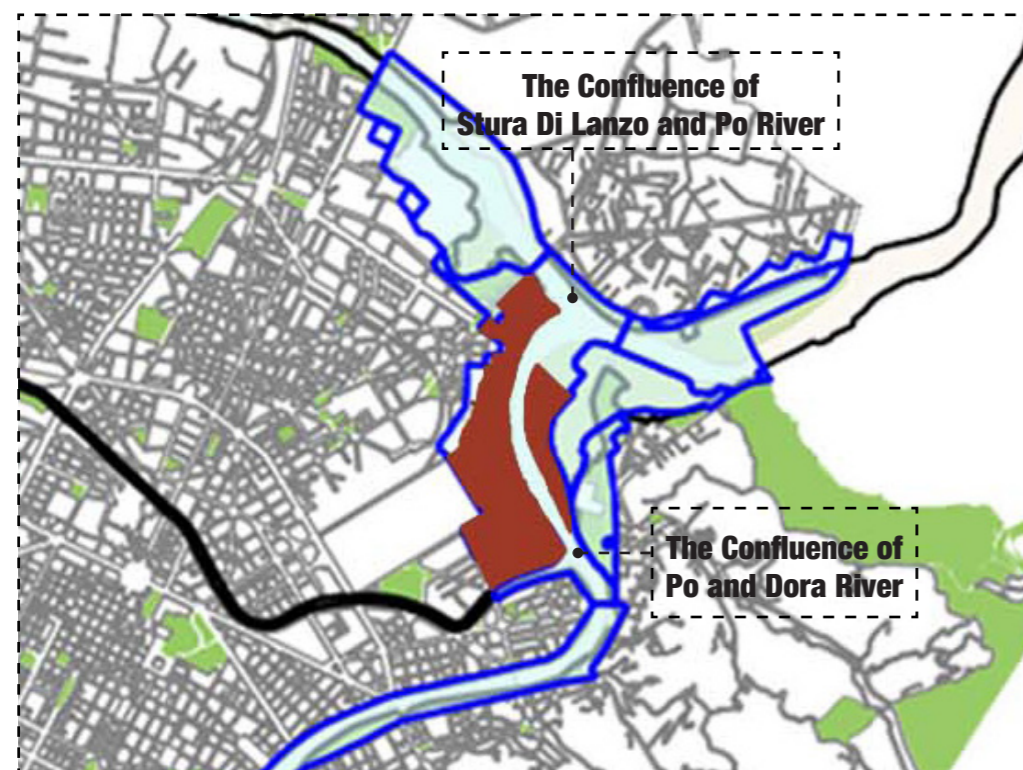


3.2 RIVER AND HYDROGEOLOGICAL PLANNING

The Po River occupies a highly significant hydrological position in northern Italy, particularly in Turin. It plays a vital role in the city's landscape and ecological health. However, fluctuating weather patterns and erosion from periodic heavy rainfall necessitate a well-planned protection strategy. The Turin basin authority has adopted the PAI strategy for hydrological planning. This strategy aims to mitigate flood-related risks and optimize the use of land and water resources. These efforts contribute significantly to enhancing ecological **sustainability in the Po River basin's future.**

CONTEXT OF THE DESIGN SITE

The surveyed land area is encircled by three rivers, including two confluences, making it susceptible to erosion and subsidence. Over time, the Dora and Po river branches have undergone erosion and alterations in their flow patterns, shaping their current landscape. This area is fortunate to be included in both the "Operational Territorial Plan of the Po River" and "PAI" initiatives, featuring robust embankment systems that stabilize the terrain and prevent further degradation.



The Design Place



TURIN HYDROGEOLOGICAL SYSTEM MAP SCALE 1:100.000



-  Operational Territorial Plan of the Po River
-  Hydrogeological planning - basin authority (PAI)
-  Design Place

3.3 GREEN AREA

Turin boasts extensive urban green infrastructure across its 130 km² territory:

Territorial Extension: Covering 130 km², Turin integrates significant green spaces.

Green Coverage: Approximately 35.6% of Turin's municipal surface consists of green areas, totaling about 47 km². **Per Capita Green Space:** Residents benefit from 52.56 m² of greenery per person, supporting a high quality of life.

Distribution of Green Areas: Green spaces comprise 23.5%, agricultural areas 4.7%, and forested areas 7.4%, contributing to biodiversity and recreational opportunities.

Turin's commitment to urban green infrastructure enhances sustainability, biodiversity, and the well-being of its residents, making it a model for green city planning

CONTEXT OF THE DESIGN SITE

The design area is situated within the green corridor along the Po River, entirely encompassed by Turin's scenic heritage zone at the confluence. The three parks within this area remain relatively untouched and are connected to the preserved forest in Madonna del Pilone, forming a sustainable ecological landscape. This location offers significant potential for developing into a **vibrant ecological zone**.



The Design Place



TURIN GREEN AREA MAP

SCALE 1:100.000



- Design Place
- Green Area
- Landscape assets

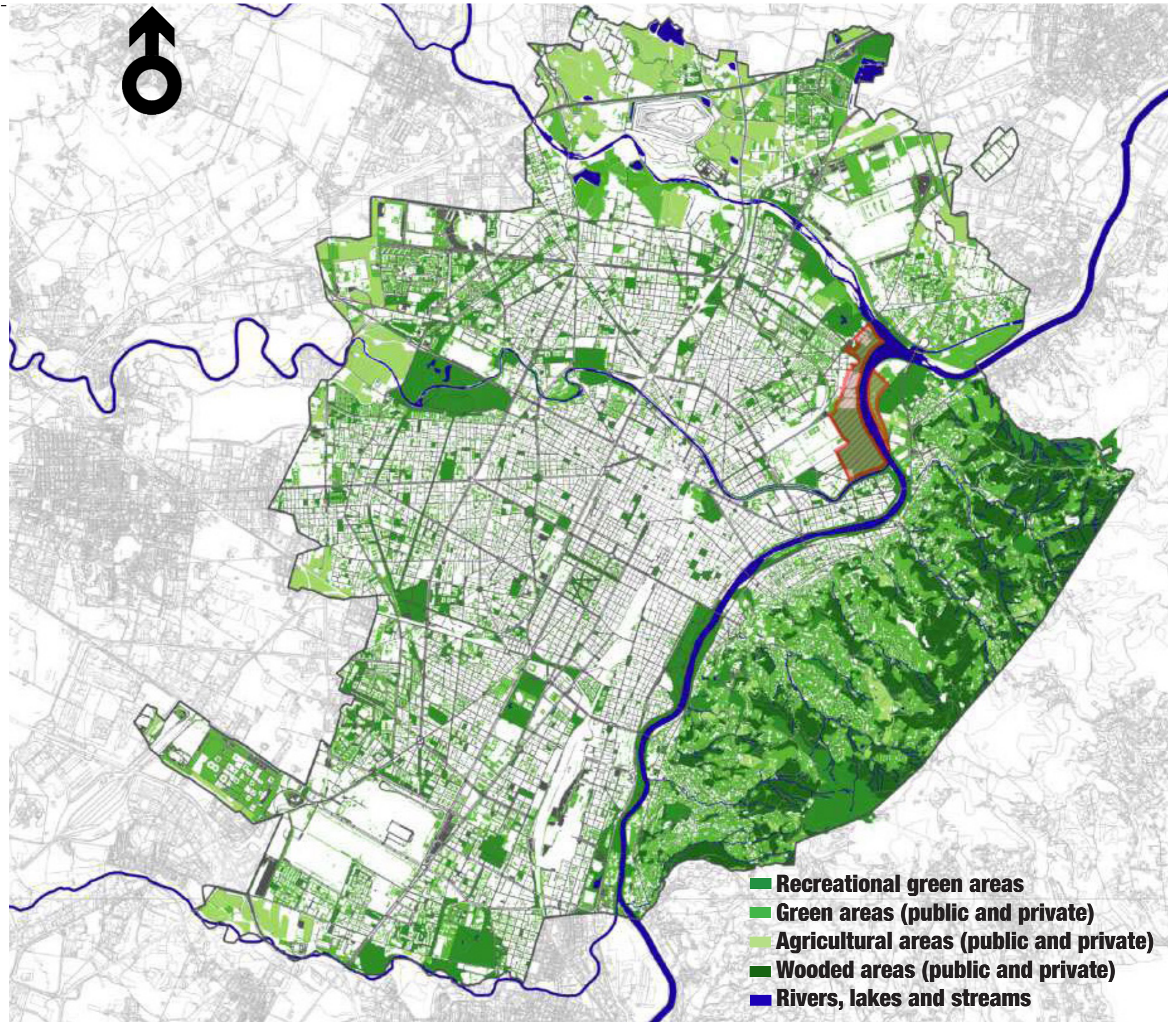
Circoscrizioni

3.4 GREEN AREA

Turin's urban landscape is enriched by substantial green spaces, with a total wooded area spanning 9,561,947 square meters, including 1,073,804 square meters within public green areas, bringing the total forest area to 10,635,751 square meters. City-owned green spaces cover 18,238,018 square meters, accounting for 38% of all green areas in Turin, while the remaining 62%, or 30,124,485 square meters, consists of non-city green spaces. This diverse distribution ensures that a significant portion of Turin's landscape remains green and accessible, contributing to **the city's ecological health and residents' quality of life.**

The surveyed site, located within a city-owned public green space, makes it straightforward to propose intervention plans for urban development.

TURIN URBAN GREEN INFRASTRUCTURE MAP

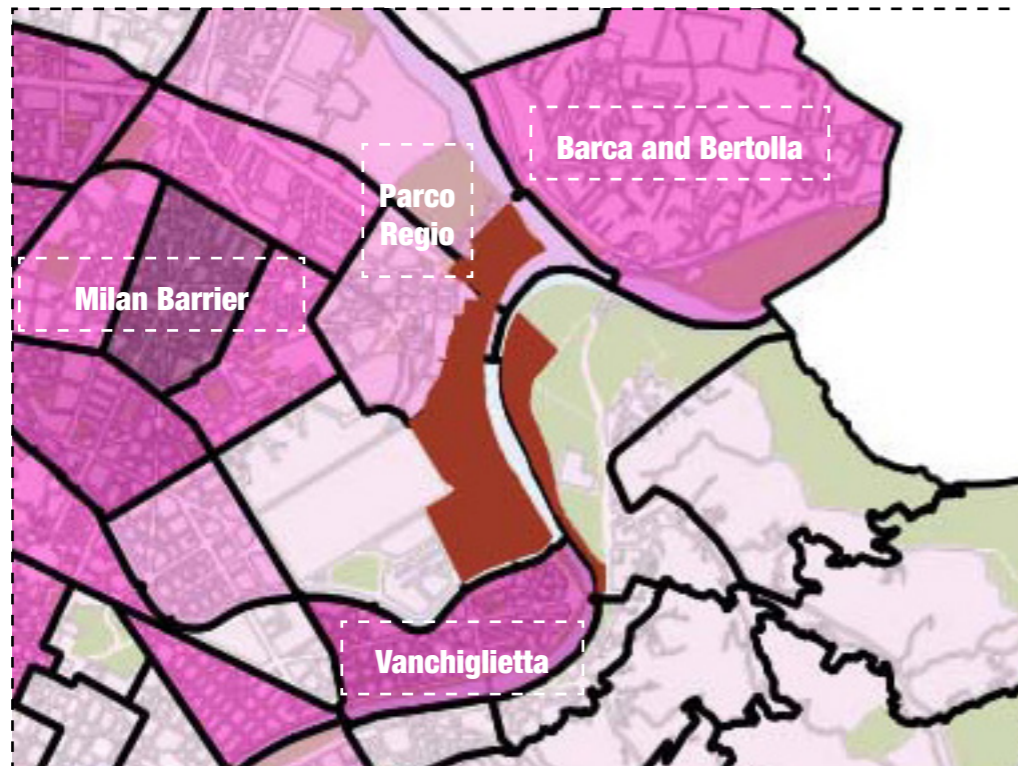


3.5 POPULATION STATISTICS

As of October 31, 2023, Turin boasts a population of 843,514 residents, with its urban area estimated to house approximately 1.7 million people, according to Eurostat. After experiencing population declines in the 1970s and 1980s, Turin has stabilized its demographic profile. The city's central districts, including Centro, Salvatio, and Aurora, are key hubs of urban activity. Notably, the Aurora district along the Dora River stands out for its rich diversity, stemming from a substantial influx of immigrants. This diversity contributes to the area's cultural complexity and vibrancy. On the city map, one can observe a dense concentration of residents along the western banks of the Po River, highlighting Turin's geographical and demographic distribution.

CONTEXT OF THE DESIGN SITE

Although this location lies outside the city center of Turin, it is **surrounded by several densely populated** residential areas including Vanchiglietta, Regio Parco, Barca, Bertolla, Milan Barrier, and notably close to the Aurora district. Among these, Vanchiglietta is a riverside residential area along the Po River with the highest population density ranging from 15,001 to 20,000 inhabitants per square kilometer. Establishing an eco park to serve this area is essential.

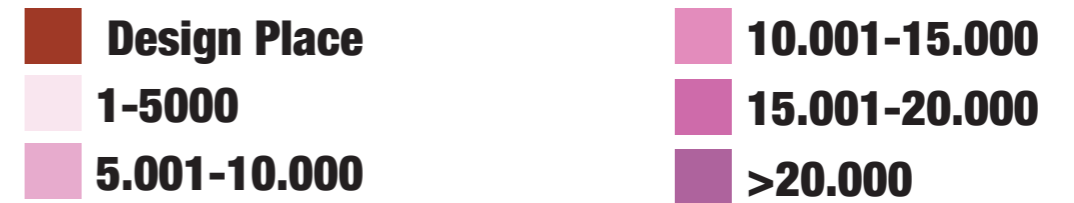
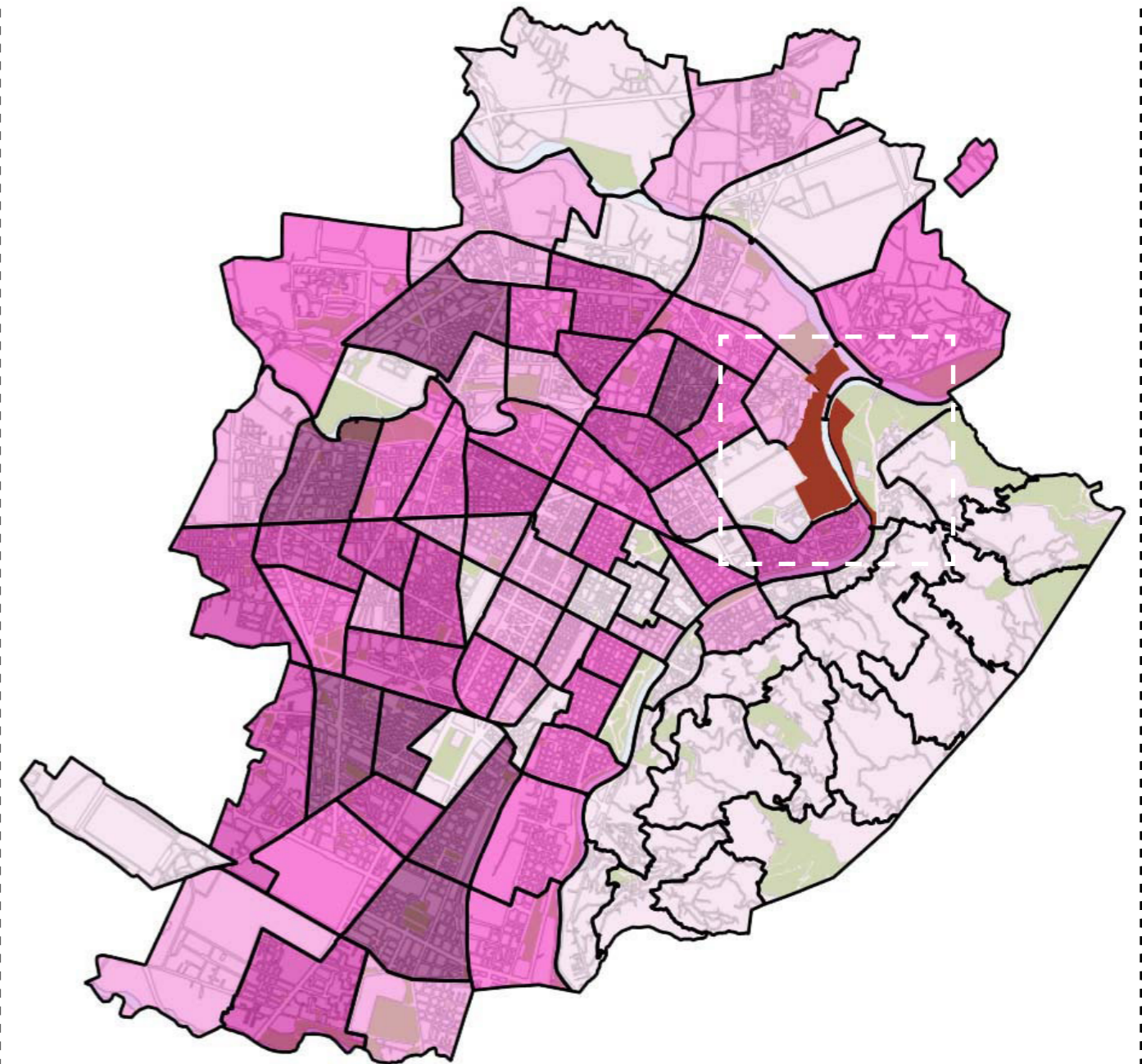


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TURIN POPULATION DENSITY MAP

SCALE 1:100.000



3.6 TRANSPORT

Turin has implemented comprehensive measures to enhance urban mobility, encompassing vehicle sharing, public transit, and the metro system:

Vehicle sharing options in Turin include 735 free-floating vehicles, 173 shared electric vehicles, and 150 electric mopeds, supported by 288 publicly accessible electric vehicle charging stations.

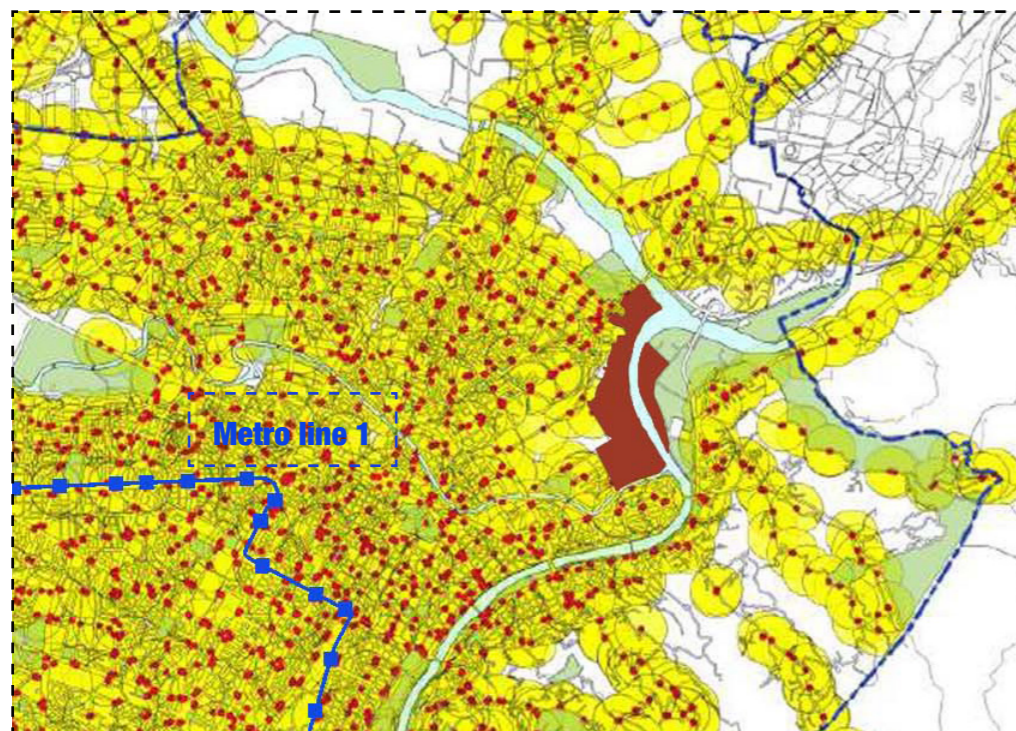
The city's public transit network ensures high accessibility, with 95% of the population living within 300 meters of a stop serviced at least once per hour.

Turin's metro system, specifically Metro Line 1, plays a crucial role in the city's transportation infrastructure. Metro Line 1 connects various key points across Turin, offering efficient and reliable transport for residents and commuters.

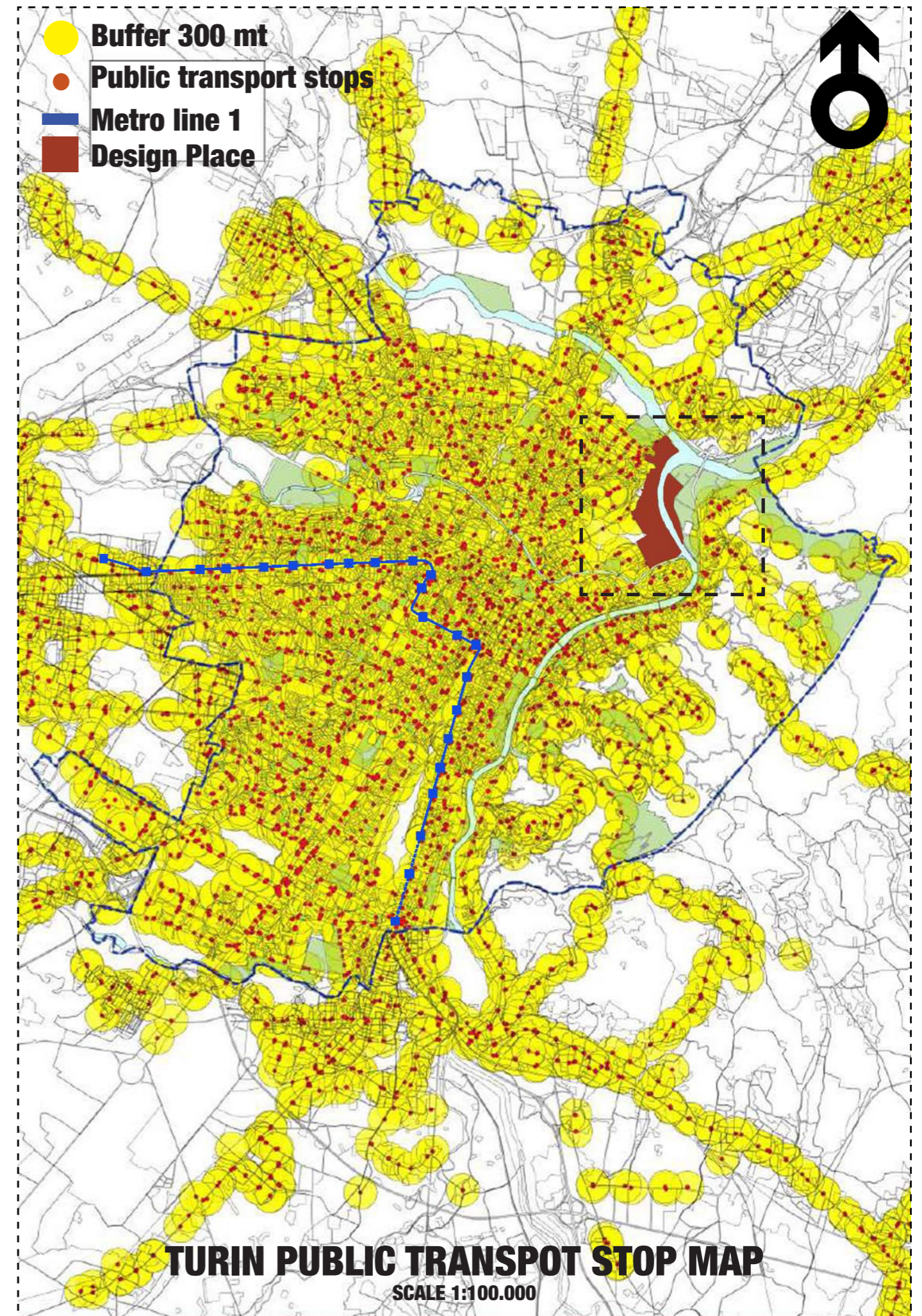
These integrated efforts highlight Turin's commitment to sustainable urban mobility and enhancing accessibility through diverse transportation options.

CONTEXT OF THE DESIGN SITE

It's easy to see that with the dense transportation network covering Turin, it's not difficult to access the design area by road and public transport. However, a **limitation** is that the area is **not currently connected to Metro Line 1**.



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3.7 CURRENT BICYCLE PATH

Turin has made significant strides in promoting **sustainable urban mobility**, particularly through its **pedestrian and cycling infrastructure**:

The city boasts 470,000 square meters of pedestrian areas, a substantial increase from 320,000 square meters in 2008.

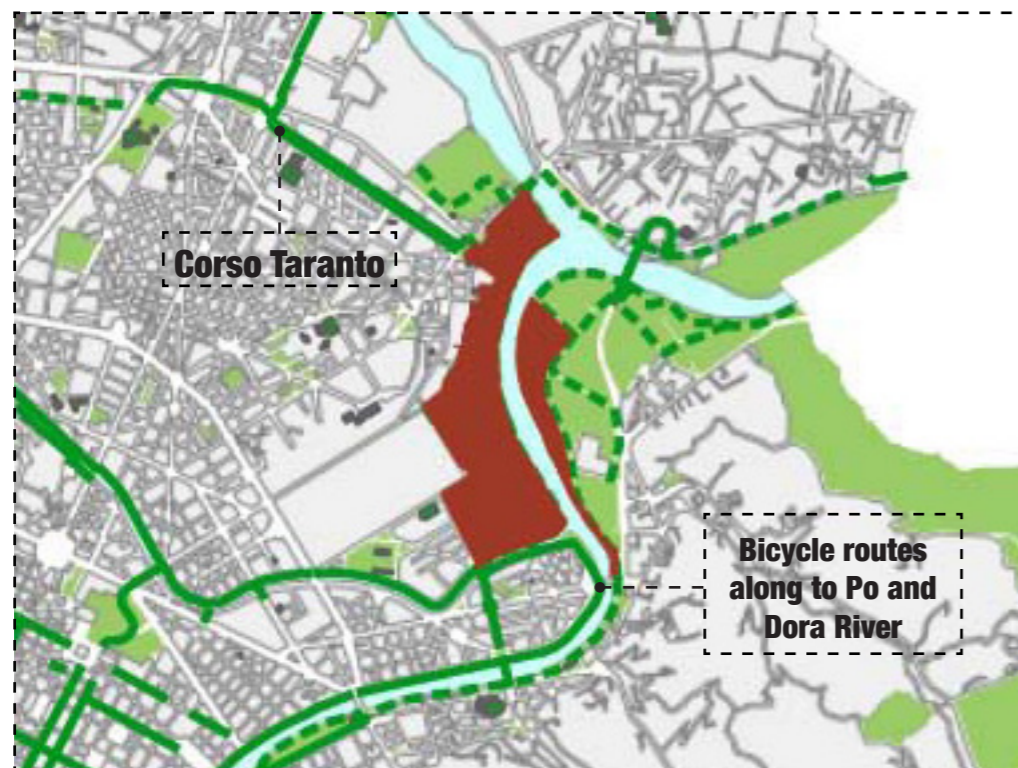
Cycling infrastructure spans 207 km, comprising 147 km of dedicated bike paths integrated into streets and an additional 60 km within parks.

There are 6,000 bike parking stands throughout Turin, ensuring ample facilities for cyclists.

Turin supports cycling with 1,200 bikes available through bike-sharing programs at 165 stations across the city. Additionally, the city embraces 3,000 free-floating bikes, further enhancing accessibility and convenience for cyclists.

CONTEXT OF THE DESIGN SITE

With the well-organized network of pedestrian and bicycle routes currently in Turin, the site is also connected to major bike routes, particularly along the Dora and Po rivers, as well as the Corso Taranto route to the northwest. This creates seamless **bicycle transportation** between **the central districts** and **the surveyed area**.



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TURIN PUBLIC TRANSPORT STOP MAP

SCALE 1:100.000



- Design Place
- Bicycle path

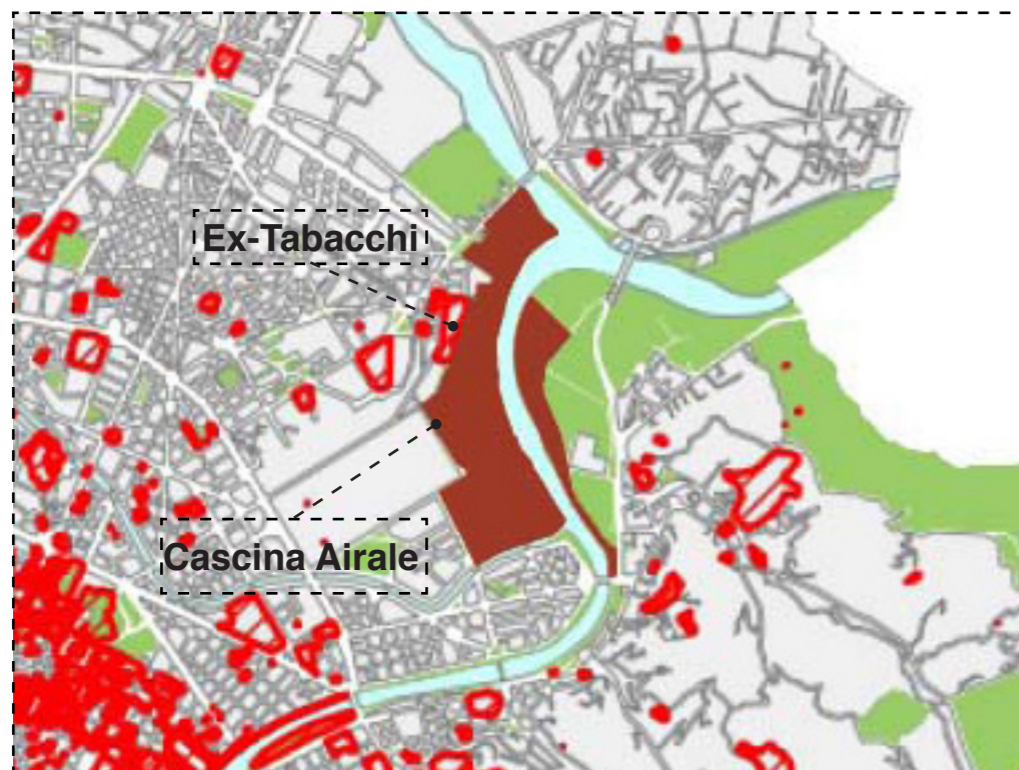


3.8 CULTURAL HERITAGE

As the former capital of the House of Savoy and the first capital of unified Italy, Turin boasts a rich heritage of Baroque architecture. The city's center is densely packed with museums and cultural, artistic, and architectural landmarks such as the **National Cinema Museum**, **Palazzo Reale**, and the Museo Egizio, which is the second most significant **Egyptian museum** in the world after Cairo. The main heritage axis of Turin stretches from **Rivoli Castle** along **C.so Francia** to the city's central district and extends to the area along the Po River. Even the outlying areas feature scattered museums and historic sites like the **Lavazza Museum**, the **Ex-Tabacchi** area, and the **Basilica of Superga**. Overall, with its extensive network of museums and heritage sites both in the city center and the outskirts, Turin is a prime destination for promoting and attracting tourists.

CONTEXT OF THE DESIGN SITE

Although it is located far from the central heritage area of Turin, the site still boasts several historically significant landmarks such as **Ex-Tabacchi**, the old urban district of Regio Parco, and the hunting lodge **Cascina Airale**. Additionally, its proximity to the **Basilica of Superga** offers potential for creating a **new heritage tourism axis**.

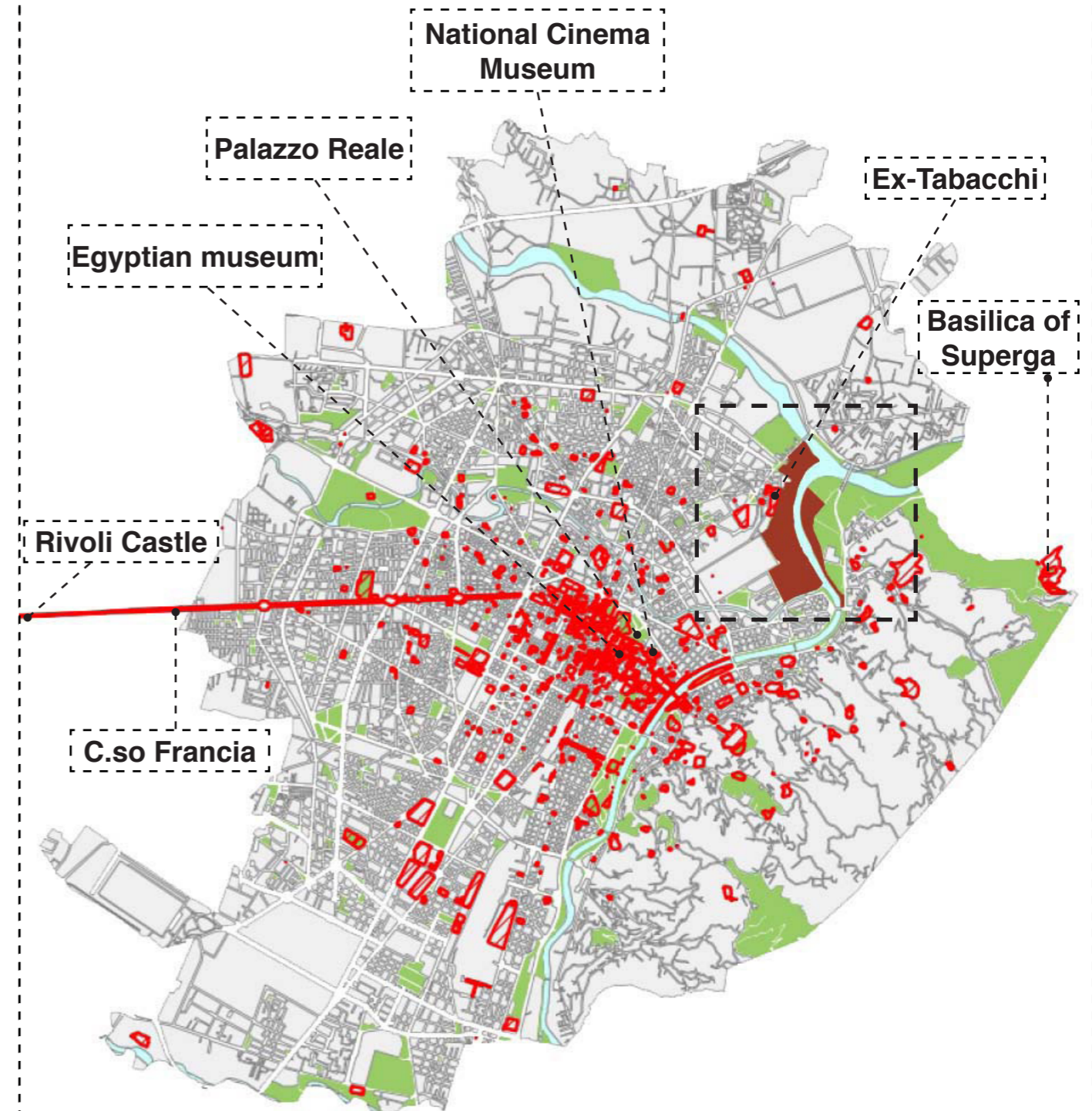


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TURIN CULTURAL HERITAGE MAP

SCALE 1:100.000



- Design Place
- Cultural heritage

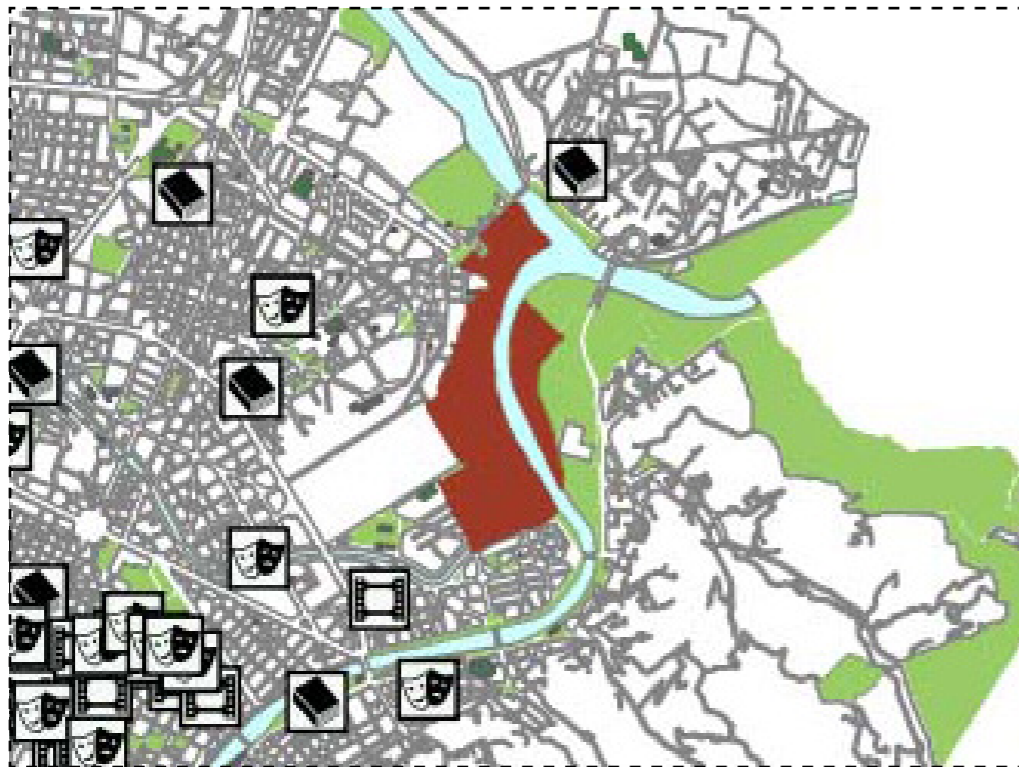


3.9 RECREATIONAL SPACES

As a central city, Turin boasts essential public recreational spaces such as cinemas, theaters, and libraries, predominantly located in central districts for easy access by residents. Notable venues include the Biblioteca Nazionale Universitaria di Torino, Biblioteca Civica Centrale, Cinema Massimo, Teatro Regio, and Teatro Carignano. However, the distribution of these recreational spaces is uneven, with suburban areas notably lacking such amenities. This disparity is evident in the distribution map of recreational spaces across the city.

CONTEXT OF THE DESIGN SITE

As observed, the surveyed area lacks essential recreational spaces and community libraries that would serve the local residents. The absence of such facilities means that people in this area do not have convenient access to public spaces for leisure and learning. The nearest theaters and cinemas are located at a considerable distance from the site, making it difficult for residents to enjoy cultural and entertainment activities. Furthermore, there are no alternative recreational spaces or facilities integrated within the area to compensate for this deficiency. This lack of accessible recreational and cultural amenities highlights a significant gap in the urban infrastructure of the surveyed region.



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TURIN RECREATIONAL SPACES MAP

SCALE 1:100.000



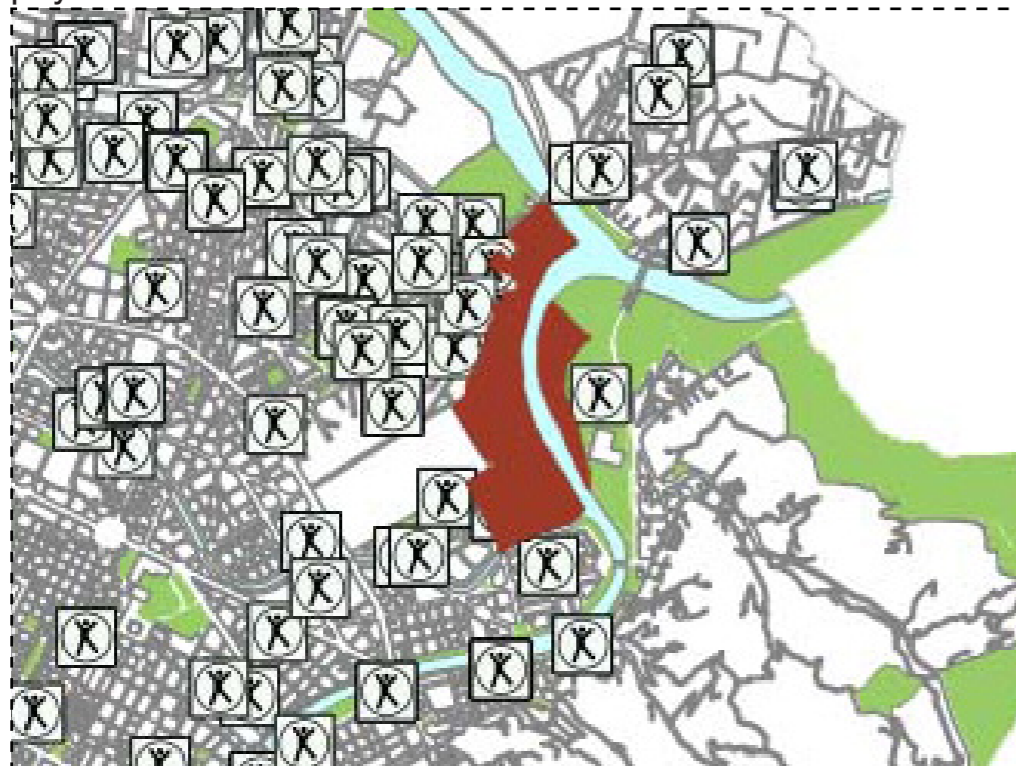
-  Design Place
-  Cinema
-  Theater
-  Public library

3.10 SPORT SPACES

Regarding sports facilities, as a central city, Turin meets the essential need for recreational spaces driven by the high demand from its residents. Turin boasts an extensive network of outdoor sports facilities that are well-distributed across both central and peripheral areas. Most public parks in the city are equipped with various outdoor exercise equipment, allowing residents to engage in physical activities conveniently. This widespread availability of sports facilities ensures that people of all ages and fitness levels can find suitable places for exercise and recreational sports, thereby promoting a healthy and active lifestyle throughout the city.

CONTEXT OF THE DESIGN SITE

The surveyed land area enjoys a significant advantage with its abundance of green spaces integrated with sports facilities like the U.S.D. Vanchiglia 1915 football field and the **Piscina Colletta**. This dual capability provides both outdoor recreational spaces and indoor sports facilities with a variety of dry and wet activities. This combination presents a strategic advantage, offering opportunities for **diverse sports activities** that attract a wide range of participants. Leveraging this sports potential can create a dynamic space that appeals to various interests and **enhances community** engagement in physical activities.

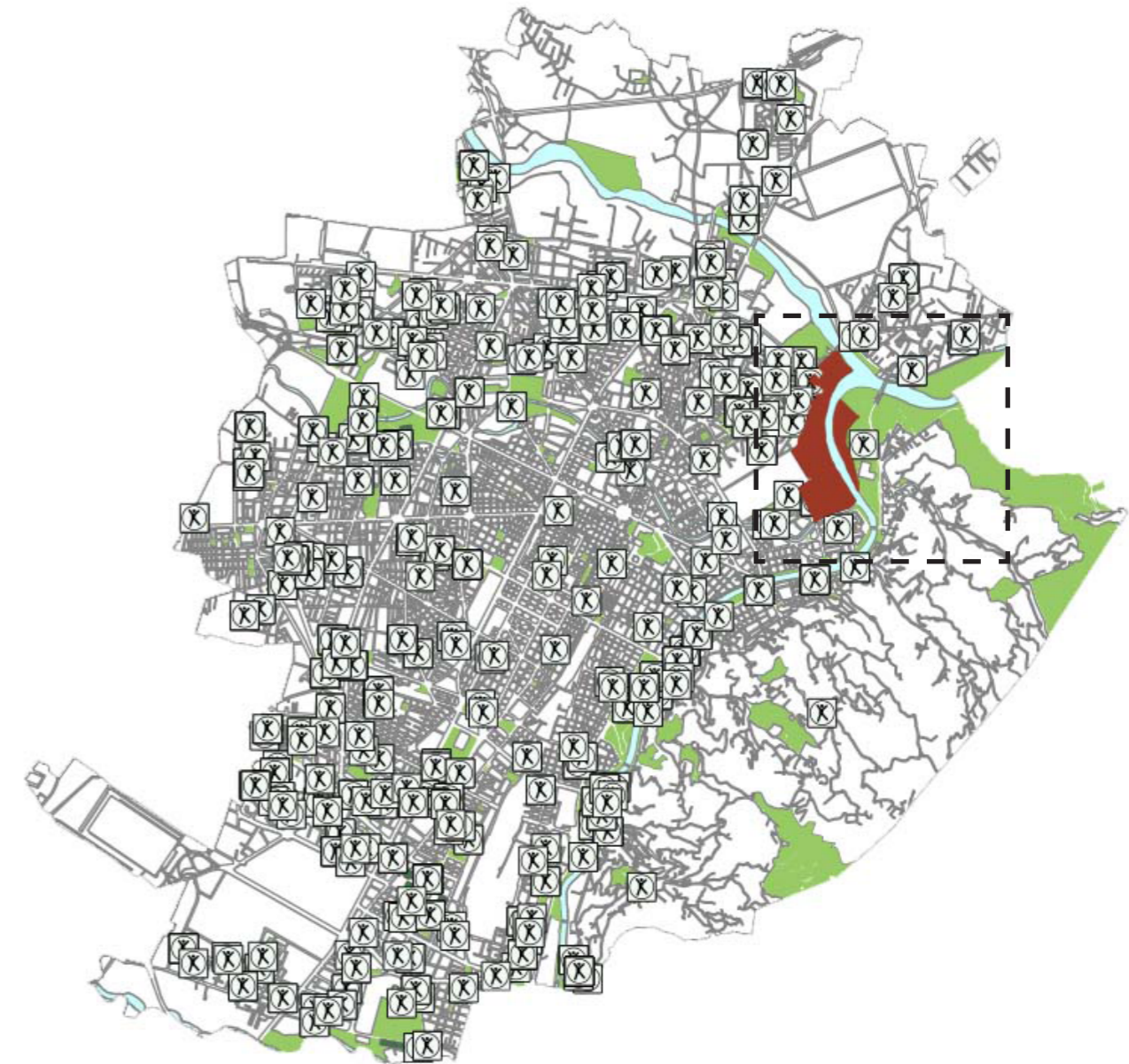


The Design Place



TURIN SPORT SPACES MAP

SCALE 1:100.000



- Design Place
- ⊗ Sport space

3.11 TORINO CAMBIA

The National Recovery and Resilience Plan, alongside national and European Union funds, presents a significant opportunity for Turin and its Metropolitan City to revitalize the local economy, overcome the pandemic-induced economic and social crises, and achieve ecological and environmental transition.

Over the coming years, more than 300 initiatives, both physical and intangible, will reshape the city, enhancing the lives of residents, students, workers, and visitors. The “Torino Cambia” project aims to detail each of these interventions.

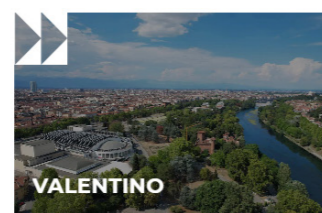
Key urban transformations will take place in iconic locations, such as the Valentino project and new transport infrastructures like Metro Line 2, which will revolutionize mobility within the city. Initiatives to reduce emissions and promote renewable energy sources and the circular economy include the purchase of 245 electric buses and the creation of new eco-islands for waste segregation.

The plan encompasses widespread urban regeneration, energy efficiency upgrades, and redevelopment of schools, libraries, public housing, sports facilities, markets, and squares. New cycle paths and safety solutions for mobility will be introduced. Large projects will ensure widespread, accessible, and high-quality healthcare. There will also be green initiatives to combat climate change and new digital services to bring public administration closer to citizens.

Sustainability evaluations are conducted for all actions, with the Polytechnic of Turin’s EST@energycenter calculating emissions savings using specific models for each intervention.



VERSO IL NUOVO PRG



VALENTINO



TRANSIZIONE DIGITALE



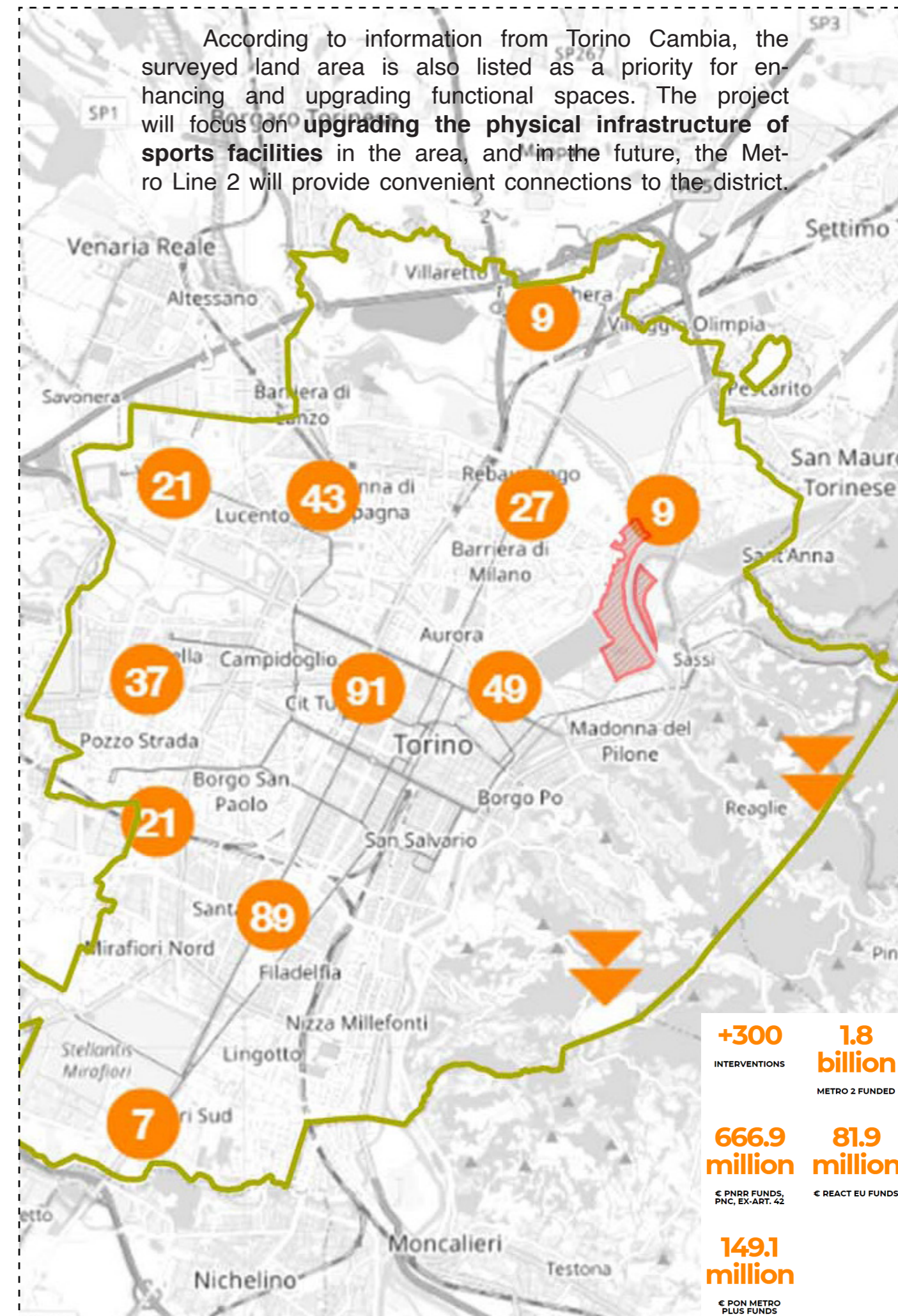
BIBLIOTECHE



LINEA 2 DELLA METROPOLITANA



PORTA PALAZZO

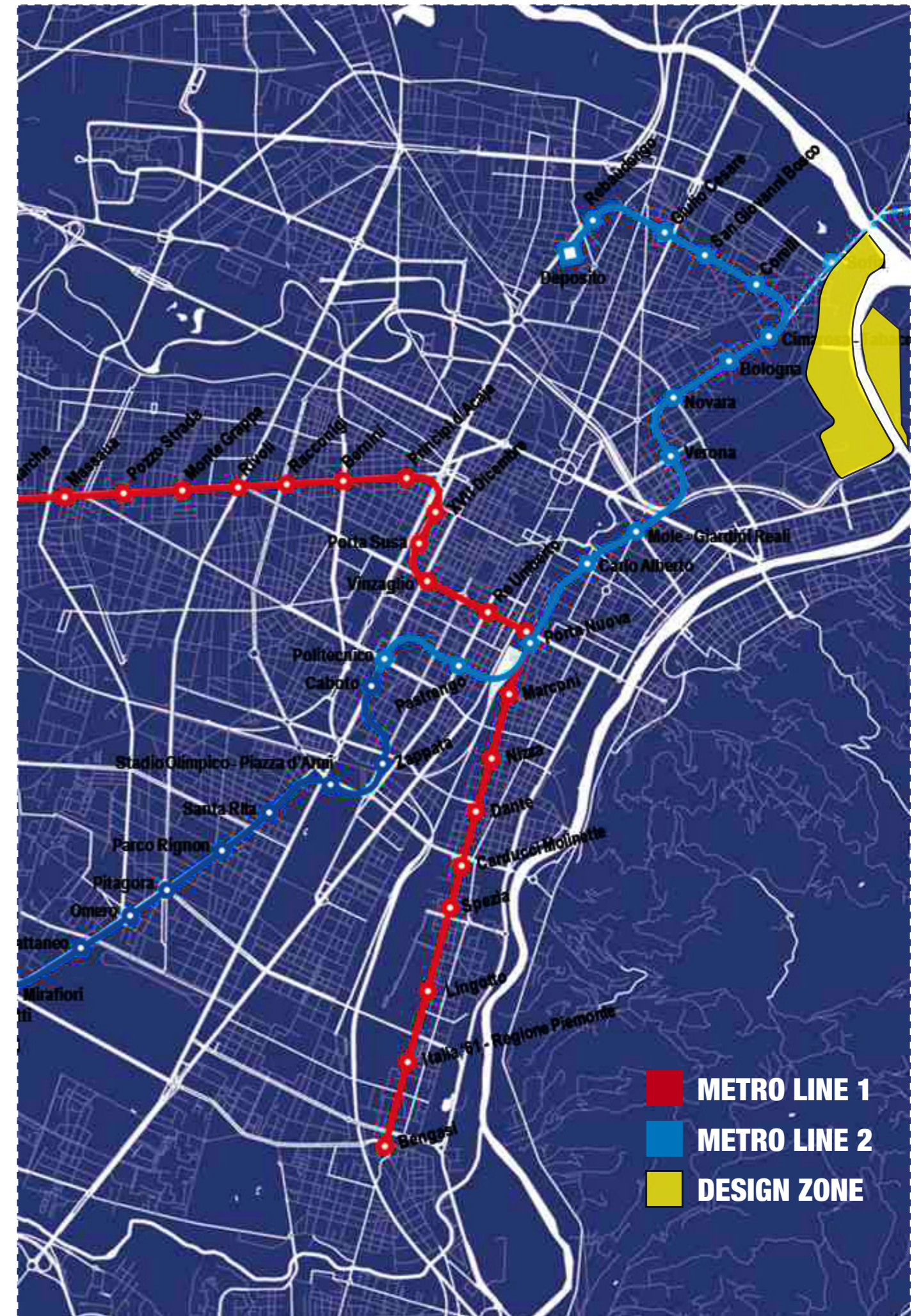


3.12 TORINO CAMBIA METRO LINE 2

The new Metro Line 2 in Turin will significantly enhance city connectivity along its main north-east/south-west axis, spanning 27 km with 32 stations. Featuring self-driving vehicles to minimize wait times and enhance service availability throughout the day, Line 2 is designed in a "Y" configuration.

The central section covers 16 km and includes 23 stations from Rebaudengo to Anselmetti. Additionally, a southern extension links Orbassano with 5 stations over 6 km, while a northern extension to Pescarito/San Mauro covers the same distance with 4 stops. This infrastructure aims to bolster connections between key city hubs such as the FCA plant in Mirafiori, Einaudi Campus, Polytechnic of Turin, city center, and Giovanni Bosco Hospital.

Line 2 integrates seamlessly with existing public transport via three interchange points: Zappata and Rebaudengo stations connect with the Metropolitan Railway System, while Porta Nuova serves as an intermodal hub linking Metro Line 1. Additionally, interchange car parks at Orbassano, Anselmetti, and San Mauro enhance transport intermodality, catering to both public and private transport needs.



3.13 CONCLUSION

Turin has weathered periods of urban and economic stagnation, marked by significant population decline and a downturn in commercial services. However, recent initiatives such as Torino Cambia have injected new life into the city, fostering renewed development momentum and integration. This positions Turin optimistically for the future, particularly up to 2030.

Currently, Turin presents a landscape ripe for investment and construction, particularly in its efforts to establish itself as a hub of sustainable architecture. The city is actively engaged in urban redevelopment, with several modern projects already underway. While many older facilities like the Ex-tabacchi and Aurora areas remain abandoned, plans are in place for their adaptive reuse.

A notable advantage for Turin is its well-maintained water management system, which not only preserves the integrity of riverbank landscapes along the Po River but also facilitates the development of sustainable ecological parkland.

Turin places a significant emphasis on preserving its historical assets as a cornerstone of its identity. However, there is a pressing need for the restoration of peripheral areas and landmarks like the Viboccone ruins and La cascina Airale to integrate them seamlessly into sustainable architectural plans. This approach could potentially create a suburban heritage trail, enriching the tourism experience by guiding visitors beyond the central landmarks.

Despite these strengths, Turin faces challenges such as the centralization of most entertainment and service amenities within the city center, leaving peripheral areas underserved. The Torino Cambia initiative aims to mitigate this issue with the planned launch of Metro Line 2 by 2032, enhancing connectivity across Turin and fostering increased tourist flow.

Turin is also expanding its bicycle and electric vehicle sharing systems along the Po and Dora riverbanks, linking major parks like Parco Valentino and Parco Dora. However, the current bicycle network, while extensive, has yet to fully realize its potential as an experiential asset.

Looking forward, Turin's commitment to sustainable development under the Torino Cambia framework will be critical. This approach prioritizes considerations such as land use, the expansion of green spaces, biodiversity preservation, and improvements in transportation infrastructure.

In planning for future urban integration and development, Turin must adopt a holistic, sustainable approach. This includes revitalizing historical landmarks and ensuring accessibility for diverse community needs, including those of the visually impaired. By blending modern amenities with its rich historical fabric, Turin aims not only to ensure its future sustainability but also to enhance its appeal as a dynamic and inclusive city.

CHAPTER 4

THE DESIGN SITE

THE TURIN PARKS IN THE
CONFLUENCE ZONE





GENERAL INFORMATION

The total area of the three parks Parco Colletta, Parco delle Confluenze, and Parco del Meisin is 838,000 m².

Parco Colletta: 448,000 m²

Parco delle Confluenze: 146,423 m²

Parco del Meisin: 183,880 m²

4.1 WHY IS THIS PLACE ?

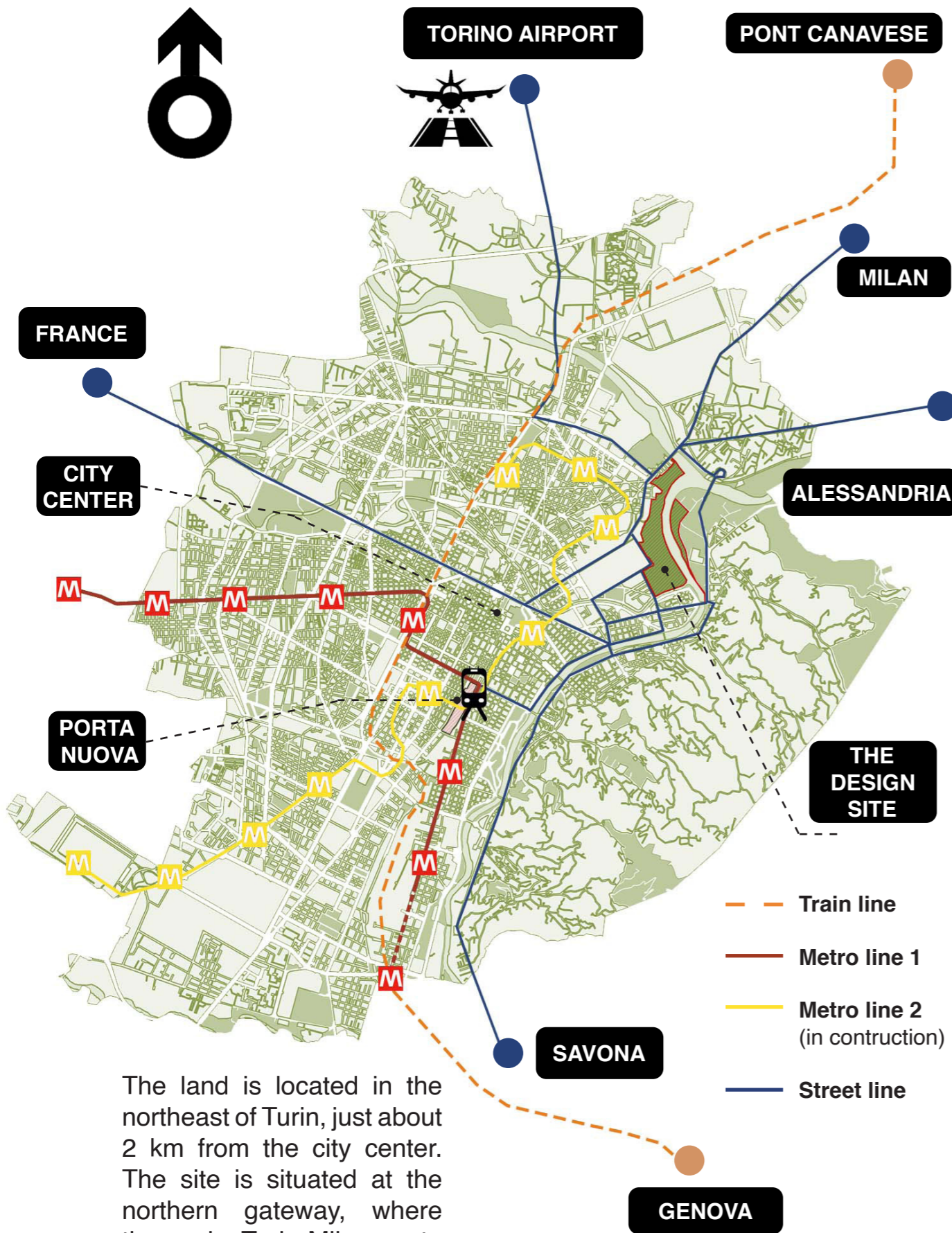
The area of the three parks at this confluence was chosen because it partly embodies the image of Turin throughout its history and development. Looking back, the entire stretch of the existing land features relics from the feudal era, such as the Viboccone castle, the Siege of Turin, and then through the post-World War industrial period with the EX-Manifattura Tabacchi. This is also the only park location in Turin that has three sides adjacent to the city's three main rivers: the Po, Dora, and Stura di Lanzo. Currently, this highly potential land lies dormant, surrounded by the majestic scenery of the hills and rivers. If restored and properly developed, it could fully realize the potential it rightfully deserves. It can be said that:

**“ this land represents the image of Turin
and Turin is the soul of this land.”**



4.2 GENERAL LOCATION

SCALE 1:100.000



The land is located in the northeast of Turin, just about 2 km from the city center. The site is situated at the northern gateway, where the main Turin-Milan route intersects.

CONTEXT OF THE LAND SITE

SCALE 1:50.000



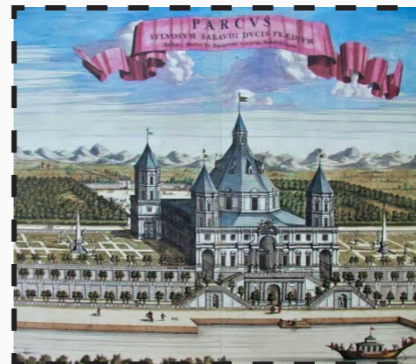
Positioned at the Turin-Milan gateway, the land is highly accessible and holds potential as a future landmark at the northern entrance of Turin. To the north lies Parco delle Confluenze, which offers stunning views of the confluence of the Po and Stura di Lanzo rivers, extending to the scenic Superga hill. This is a notable feature of the site. In the central area, Regio Parco is an old urban district with historical remnants of the former Viboccone castle and the Ex-Tabacchi area, which is currently undergoing redevelopment. To the south, Parco Colletta, located at the confluence of the Po and Dora rivers, is a sports park with significant development potential. It borders the densely populated Vanchiglietta residential area, which has the second-highest population density in Turin. To the east, across the Po River, lies Parco Del Meisino, which is presently undeveloped and undergoing improvements. The design project aims to establish a strong connection between these three key areas.



4.3 HISTORY OF THE LAND - THE PAST

Viboccone Castle

The first of the great residences of "delight and pleasure" built by the dukes around the capital.



Siege of Turin was a key event in the War of the Spanish Succession, where the defenders, led by Victor Amadeus II and Eugene of Savoy, successfully repelled the French.



La cascina Airale

The defense area of the Royal Park,



Supplying the Piedmontese troops with food until the final victory.

Bombs

The three-story building, home to the tobacco factory and housing some apartments, was probably hit by the bombing



Parco Pietro Colletta



1568

1658

1706

1758

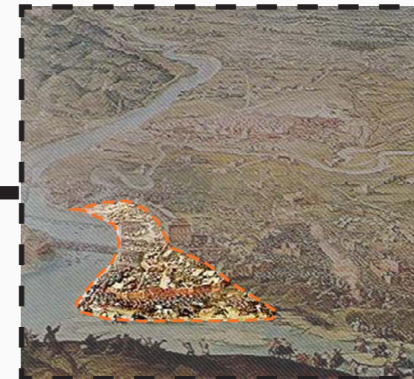
1942-1945

Mid-1950s

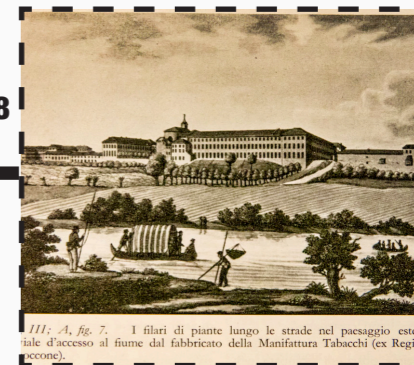
Now



La cascina Airale
a large hunting ground



Siege of Turin
The battle took place along the Stura di Lanzo basin, where the French forces almost completely destroyed Casina del Viboccone.



The Royal factory for the production of tobacco was built on the ruins of Casina del Viboccone.



Manifattura Tabacchi
Until the 1950s was the golden era of the factory.



Ex-Manifattura Tabacchi
The factory has now ceased operations and is abandoned.



SCALE 1:5000



4.3 HISTORY OF THE LAND - THE PRESENT

The confluence between Po River and Stura di Lanzo



Photo by: Mahmoud Fawaz



A historical site reminiscent of the Siege of Turin, offering a beautiful view at the confluence.

La cascina Airale
An old hunting lodge currently abandoned.



Collina del Metano
A high mound with a panoramic view of the confluence area, ideal for landscape

Ex-Manifattura Tabacchi
The abandoned factory is currently undergoing a renovation project.



Ruins of Viboccione Castle
The remaining ruins of the castle, consisting of columns and a base, are now a parking area.

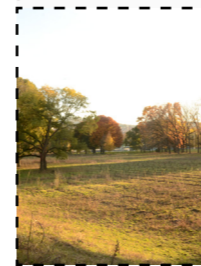


Photo by: Federico Derde / Kathy Anna



The park landscape area, according to locals, is where livestock are released to graze during the spring and summer.

Campi Calcio Colletta



Confluence between Po and Dora River



Piscina Colletta



4.4 CULTURE HERITAGE

The historical analysis of the current land reveals four main heritage areas that need to be utilized and preserved: Ex galoppatoio militare “Ferruccio Dardi,” Ex-Manifattura Tabacchi, Cascina Airale, and the ruins of Viboccone Castle.

1. Ex-Manifattura Tabacchi: This significant site is undergoing renovation to become a *student residence* and a teaching facility for PoliTo and UniTo. This development is expected to attract more students, bringing new vitality to the area. Integrating this site with the planned development through thoughtful design is essential.

2. Cascina Airale: Currently abandoned and occupied by homeless individuals and criminals, this site poses a security risk. There is a proposal to convert it into an *ecological school for children*. The design should preserve historical elements and ensure safety for users.

3. Ruins of Viboccone Castle: Only columns and old foundations remain at Piazza Giuseppe Cesare Abba, now used as a parking lot. This site, reminiscent of the “great residences of delight and pleasure,” offers an interesting historical context. The design should *enhance the connection* to this site and propose improvements to the parking lot to highlight the ancient ruins.

4. Ex galoppatoio militare “Ferruccio Dardi”: This former military equestrian training ground is rich in cavalry traditions. Despite several renovation proposals, no project has been implemented due to its isolated location on the west bank of the Po River and lack of nearby attractions. The design should focus on improving *accessibility and creating connections* to make it more appealing to visitors.



4.5 CURRENT FUNCTIONAL ANALYZE

SCALE 1:5.000

The current functions within the zone reflect a diverse range of activities and facilities catering to both recreational and practical needs. The outdoor fitness area and scenic hill provide opportunities for exercise and relaxation, while the BBQ area offers a social gathering spot for families and friends. The mini soccer field, although abandoned, alongside the maintained soccer field, indicates a history of active sports engagement in the area.

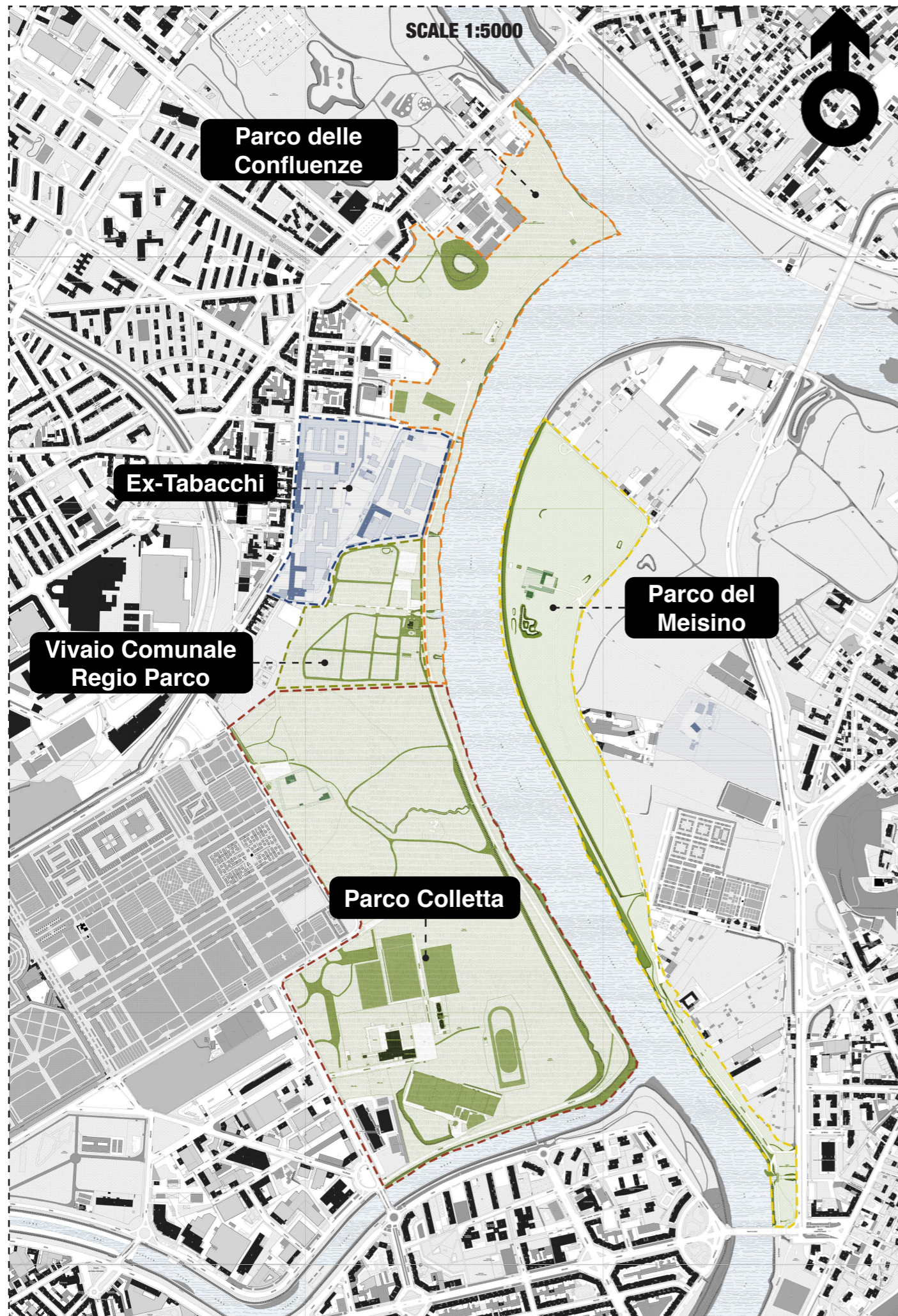
The city tree nursery underscores the zone's contribution to urban greening initiatives, while the skating area and children's playground cater to recreational activities for different age groups. Piscina Colletta and Calcio Colletta suggest organized sports and swimming facilities, enhancing the zone's appeal for athletic activities. Practical amenities include the parking lot and toilets, ensuring convenience for visitors. The pedestrian bridge improves connectivity within the area, and the drainage ditch addresses essential infrastructure needs. Finally, the Vanchiglia football club and the flower shop add to the community's vibrancy, offering sports engagement and aesthetic enjoyment, respectively.

Surrounding the zone are densely populated areas such as Regio Parco and especially Vanchiglietta, which means there is a significant potential user base for these facilities. However, many of the facilities within the zone are old and deteriorating, reducing their attractiveness and usability. During site surveys, it was observed that the area does attract visitors, but the sporting facilities lack engaging activities to draw more people. The sports clusters are sparse, with regular attendance mainly from athletes and club members rather than the general public. This suggests that while the zone has a variety of facilities, there is a need for renovation and the introduction of more engaging activities to fully utilize the potential of the surrounding high-density population.

CURRENT FUNCTION

1. Outdoor fitness area
2. Scenic hill
3. Confluence point
4. Mini soccer field (abandoned)
5. Old cotton factory (abandoned)
6. Ex-tabacchi
7. City tree nursery
8. BBQ area
9. Cascina Airale (abandoned)
10. Parking lot
11. Football field
12. Piscina Colletta
13. Calcio Colletta
14. Skating area
15. Pedestrian bridge
16. Ex-military riding school (abandoned)
17. Toilet
18. Drainage ditch
19. Children's playground

The pros of the current zone include its diverse range of facilities and the presence of organized sports facilities and practical amenities, which ensure a foundational level of usability. Additionally, the zone's contribution to urban greening and connectivity enhances its overall appeal. However, the cons are significant: the aging and deteriorating state of many facilities reduces their attractiveness, and the lack of engaging activities fails to fully capitalize on the potential user base from the surrounding densely populated areas. Addressing these issues through renovation and the introduction of more attractive activities could significantly enhance the zone's appeal and usability, making it a vibrant hub for the community.



4.6 LANDUSES

SCALE 1:1000

PARCO DELLE CONFLUENZE:
 Area: 16.58 Ha
 Landuses: Leisures
 Max building ratio: no
 Max building height: no
 Free area for house: no
 Free area for business: no

PARCO DEL MEISINO
 Area: 18.4 Ha
 Landuses: Sport and Leisures
 Max building ratio: no
 Curent buidling ratio: 0.71 %
 Max building height: no
 Curent buidling height: 6 m
 Free area for house: no

EX-TABACCHI
 Area: 10 Ha
 Landuses: Ex-Factory
 Max building ratio: no
 Curent buidling ratio: 46.6 %
 Max building height: no
 Free area for house: no
 Free area for business: no

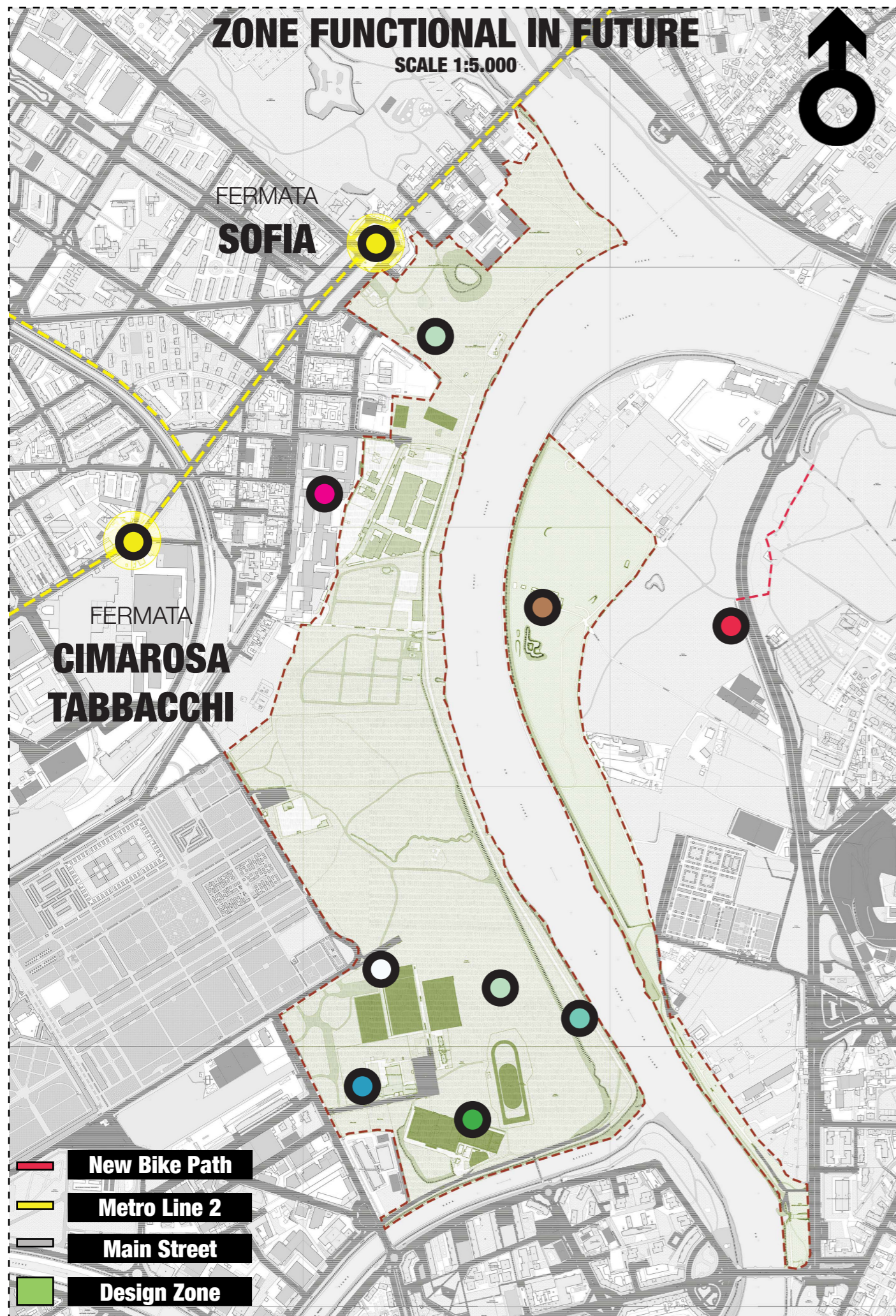
VIVAIO COMUNALE REGIO PARCO
 Area: 6.37 Ha
 Landuses: Municipal nursery
 Max building ratio: no

PARCO COLLETTA
 Area: 44.8 Ha
 Landuses: Sport and Leisures
 Max building ratio: no
 Curent buidling ratio: 1.67 %
 Max building height: no
 Curent buidling height: 10m
 Free area for house: no
 Free area for business: yes

The analysis and evaluation of land use in the surveyed area reveal that most of the park spaces, particularly in Parco delle Confluenze, Parco Colletta, and Parco del Meisino, are predominantly green, with vegetation covering over 90% of these areas, except for the site of the former Ex-tabacchi factory. This extensive green coverage provides an excellent opportunity for landscape planning that can ensure a high percentage of greenery is preserved.

Functionally, the area is primarily utilized for landscaping and outdoor sports activities. Parco Colletta stands out by including an indoor sports complex, whereas the other parks focus on outdoor facilities. The minimal existing development and the high ratio of natural landscapes suggest significant potential for new projects.

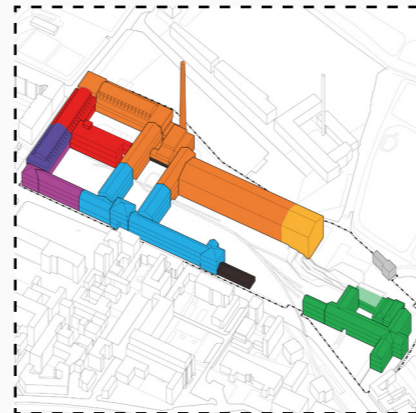
Considering these factors, the area is ideal for an **eco-park** combining green spaces with sports facilities, enhancing both aesthetics and recreational opportunities while aligning with sustainability and active living goals.



4.7 THE FUTURE

TORINO CAMBIA

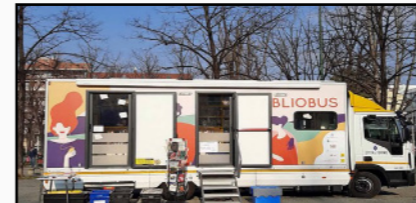
Ex-Manifattura Tabacchi
part of a project to transform into a campus for UniTo, PoliTo, and dormitories



Metro line 2
The two stations: Cimarosa - Tabacchi and Sofia, will approach the northwest side of the area.



The Bibliobus



Campi Calcio Colletta
The 11-a-side football pitch in Colletta Park will receive upgrades to enhance sports activities and citizen use.



Piscina Colletta
will undergo significant maintenance to improve basic sports facilities and enhance accessibility for citizens.



Ex-Military Riding School
Renovating 'Ferruccio Dardi' military riding track buildings for sports facilities



Sports and environmental education in the Meisino park
The former military riding track "Ferruccio Dardi" area will be transformed into a cutting-edge "Sports and Environmental Education Park" in the picturesque Meisino park. A new cycle and pedestrian walkway will link the two sections of the park currently divided by the busy Corso Don Luigi Sturzo

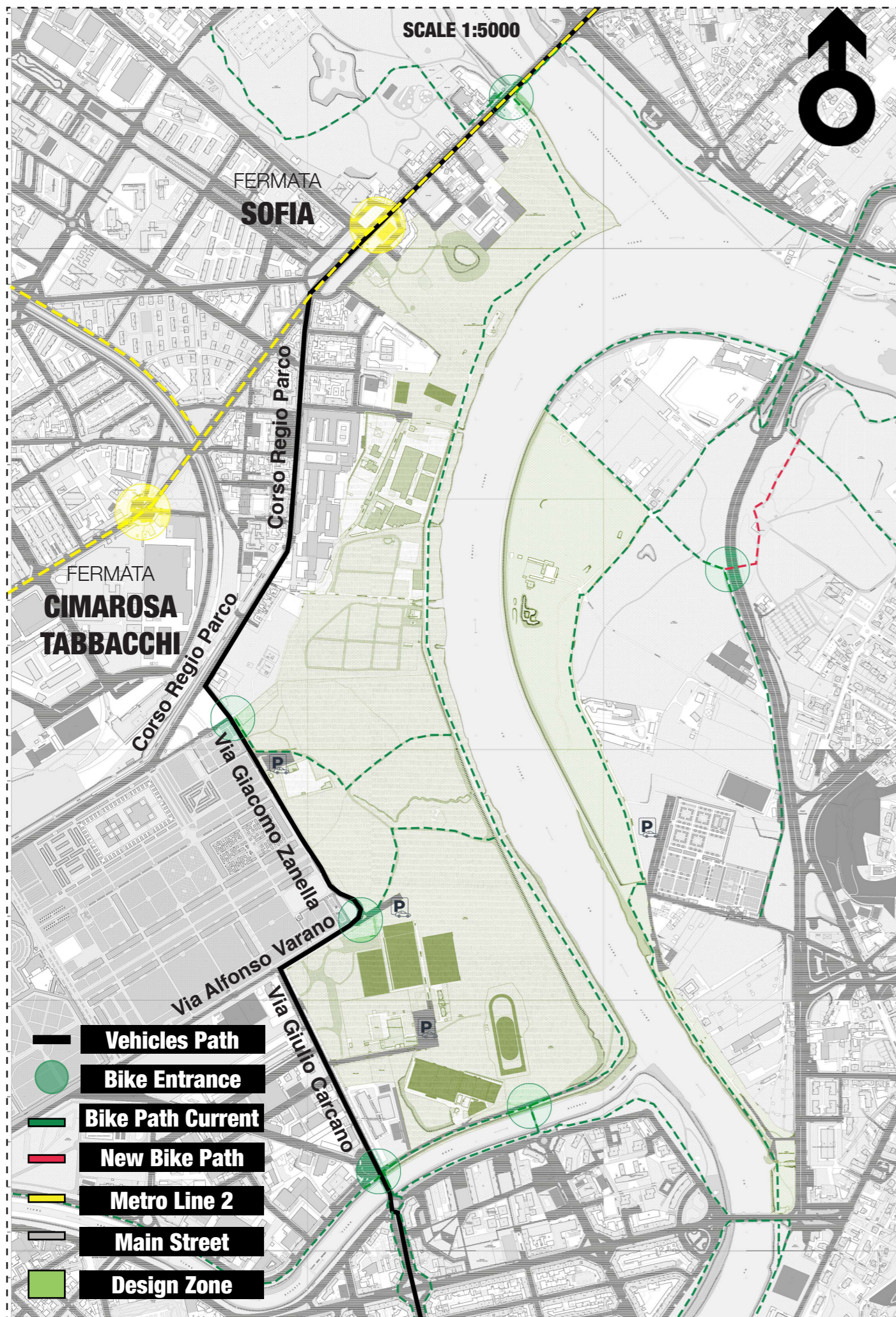


Sports equipment in green areas



Forestation of the river park

The project aims to enhance city river parks (Lot 2) by managing trees for forestry and hydraulic safety, preserving existing tree heritage, and planting large trees along the Dora, Stura and Po river corridors.



4.8 MOBILITY

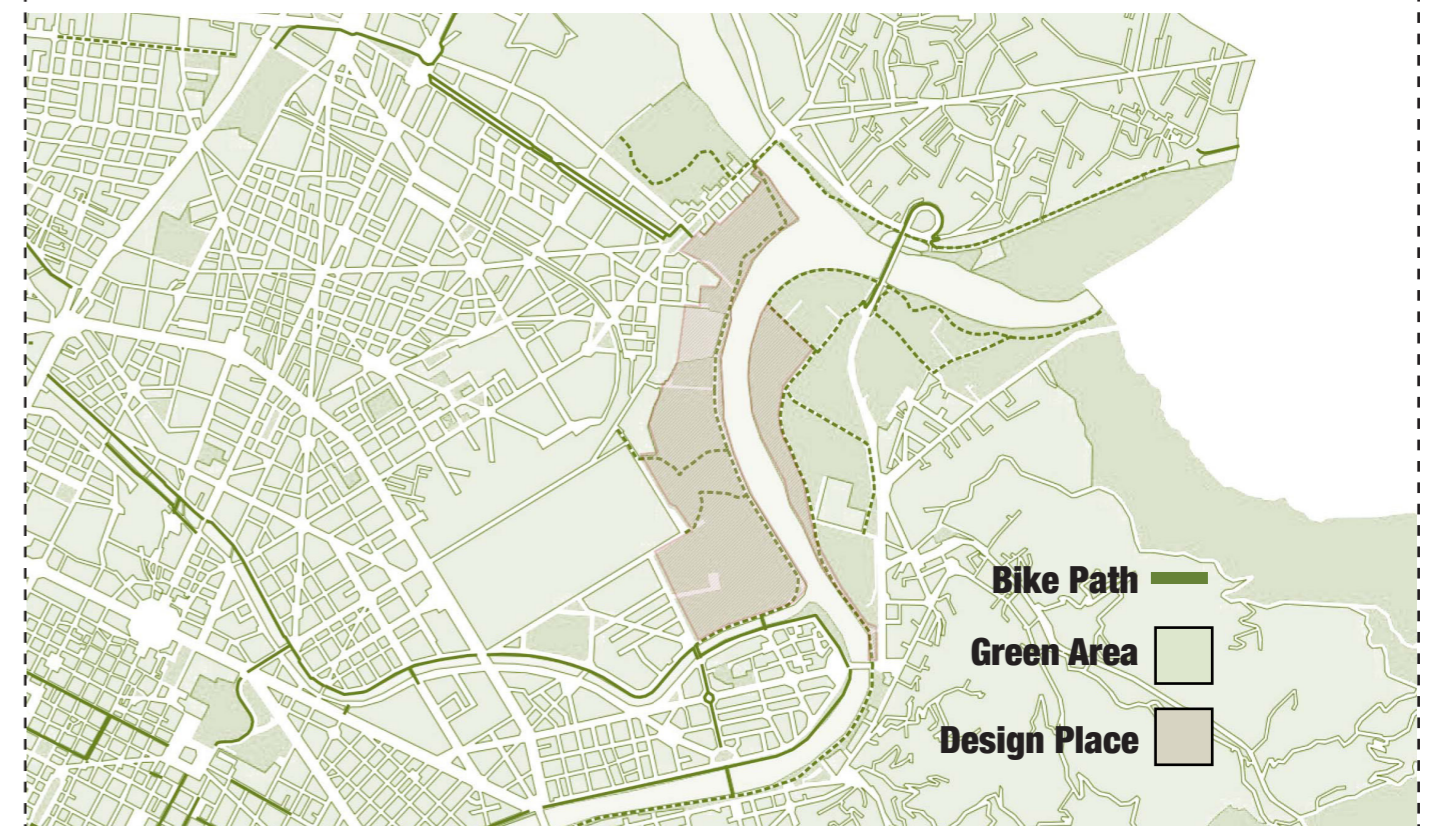
As analyzed, Turin's road traffic system is well-developed and highly connected. With a bus stop every 300 meters, the area is easily accessible. The extensive area allows for access from various points. In the southwest, the two main car entrances will be via Via Ernesto Ragazzoni and Via Alfonso Varano, both featuring large parking lots. The bicycle path system runs along the Dora River and directly into the area via Lungo Dora Colletta Pietro, offering a favorable opportunity to develop a cycling experience for visitors. The entire northwest side is accessible through Corso Regio Parco.

Thanks to the Torino Cambia initiative, Metro Line 2 is expected to open by 2032, with Sofia and Cimaroza Tabacchi stations providing convenient access for city center residents to the area. Therefore, connecting the bicycle and road systems directly from these two stations to the area will enhance overall connectivity.

On the west bank of the Po River, the Parco del Meisino area borders Corso Don Luigi Sturzo. Although there is a bicycle system in this area, it remains relatively isolated, with only local residents frequenting it and lacking direct access to Metro Line 2. Addressing this issue in the design process is crucial for creating seamless connectivity across the east and west banks of the Po River.

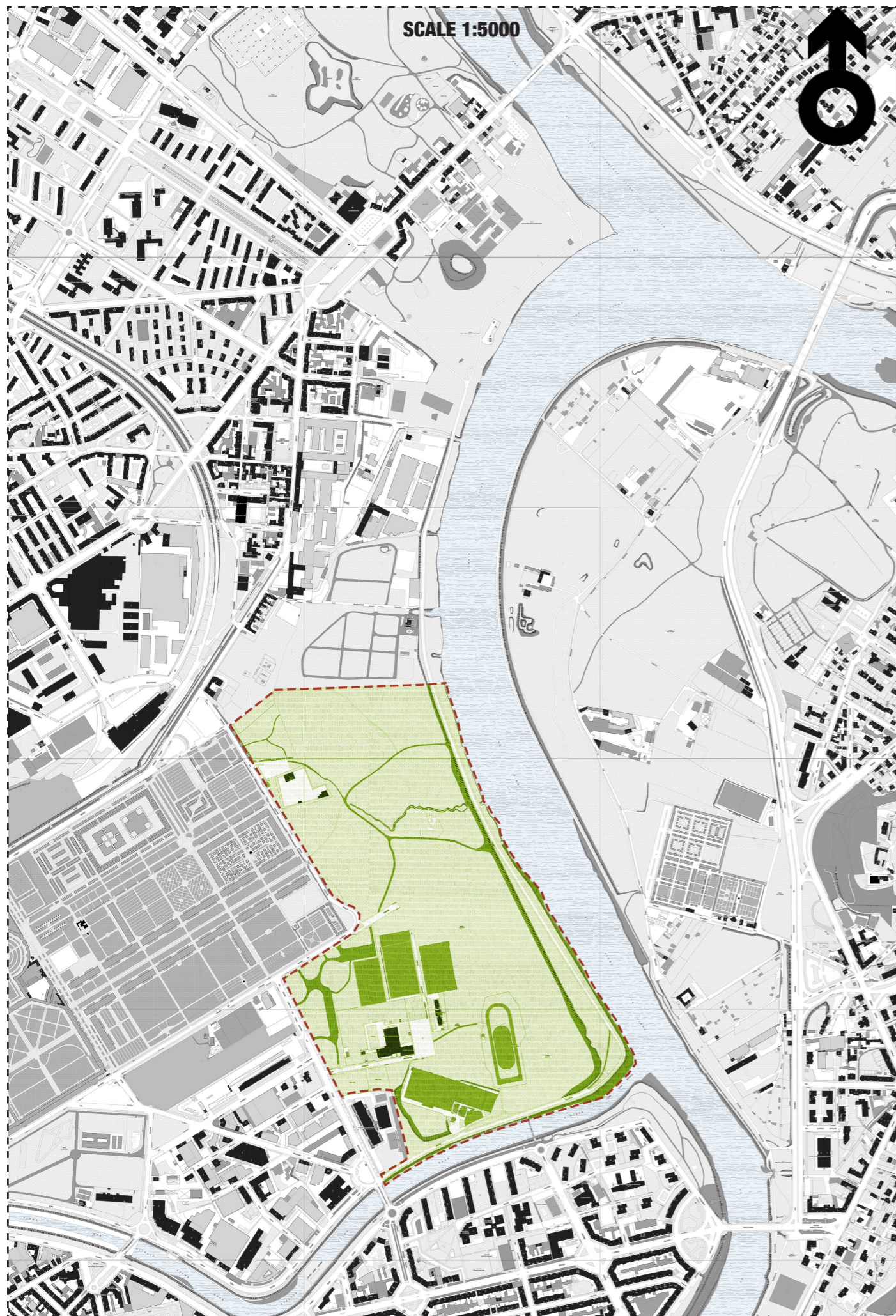
CURRENT CONNECT BIKE PATH in DESIGN ZONE with CITY

SCALE 1:25.000





CHAPTER 5
PARCO
PIETRO COLLETTA



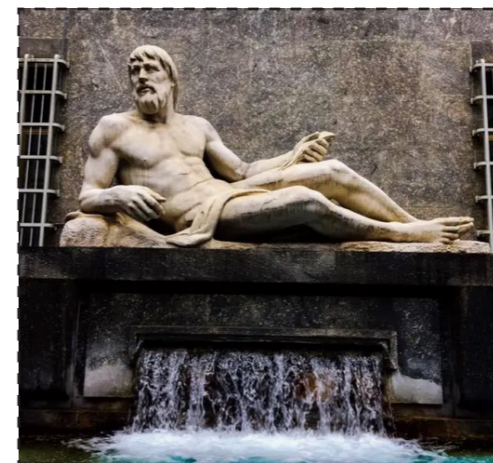
SCALE 1:5000



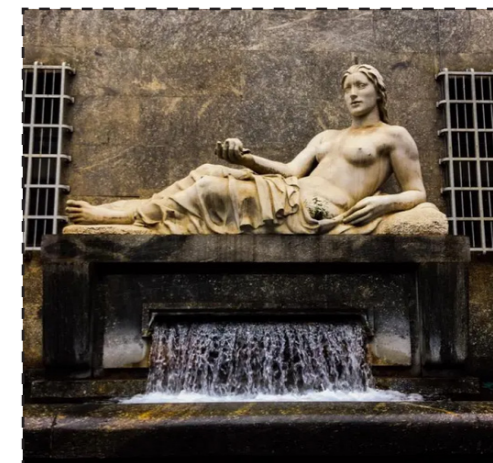
5.1 GENERAL INFORMATION

Parco Pietro Colletta is located in the southern part of the designed area. The site's location carries symbolic significance as it is at the confluence of the Po and Dora rivers, the two largest rivers of the city.

La Fontana del Po



La Fontana della Dora Riparia



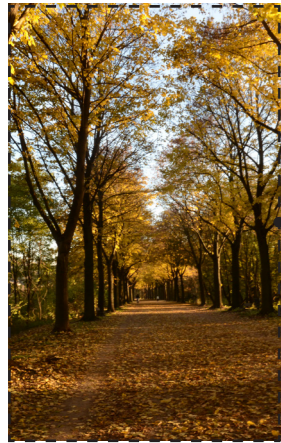
Confluenza della Dora e del Po

*The current park was established in the late 1980s, transforming a large, abandoned area. Named after the Lungodora, which crosses it, and dedicated to **historian and general Pietro Colletta**.*

*The park spans the western course of the Po River, between the confluence of the Dora Riparia to the south and the Stura di Lanzo to the north, bordering the Parco della Confluenza. It straddles the Regio Parco district and Barriera di Milano, with the northern part bordering Arrivavore park. **A 1986 cycle/pedestrian walkway connects it to Vanchiglietta** near Lungodora Voghera and Corso Cadore.*

*Within the park is the abandoned Airale farmhouse, dating back to the sixteenth century and active until 1982. **The river area is rich in birdlife**, and **a popular cycle path runs through the park**, extending towards Bertolla, San Mauro Torinese, and Lungo Dora.*

The park is part of the historic Via Francigena route, with signs along the cycle/pedestrian path from Turin towards San Mauro Torinese and Chivasso.



RIVERSIDE WALKWAY
The current state of the park features a very wide riverside walkway, connecting nature and people. On both sides of the path is a row of ancient trees, creating a stunning scene in the autumn.



5.2 THE SITE SURVEY

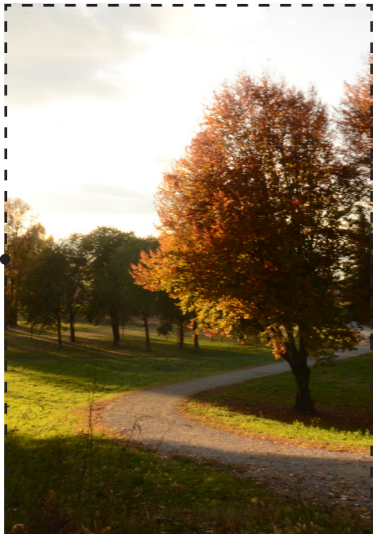


U.S.D. VANCHIGLIA 1915 is one of the oldest and most traditional football fields in Turin, where training activities have been maintained and conducted for over 100 years, carrying significant tradition and historical value.



The park is equipped with several outdoor grills for people to use for BBQs on their own.

The interior of the land currently consists of winding paths covered by large trees. The walkways are relatively wild and natural but have a **high degree of connectivity**.



PASSERELLA CHIAVES - CARRARA, this bridge connects the pedestrian path between the Vanchiglietta residential area and the land. The bridge has a modern design and spans the Dora River near the confluence area. This is an important **entry point** to the land for **cyclists and pedestrians**.



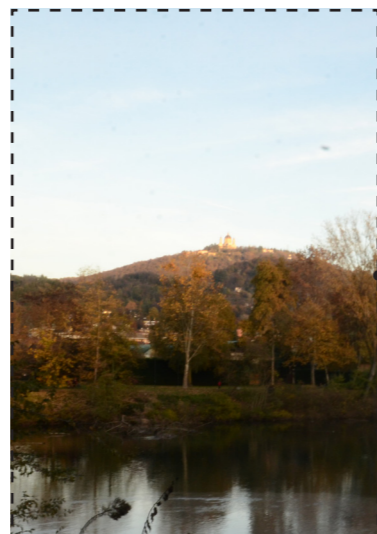
The area right at the entrance of the Piscina Colletta swimming pool is a **dog park**. Surveys show that local residents enjoy bringing their pets here in the afternoons.



The survey shows that the field remains lively and active. However, many areas are deteriorating and lack supporting food and beverage services. It's important to consider **adding more amenities and improving the landscaping** to enhance the value of this historic football field.



BIOLOGY
The park also showcases biodiversity with various plant species and birdlife. Many photographers visit in winter to capture its beauty. It is essential to preserve and enhance the **park's biodiversity value**.



THE VIEW
From the riverside view along the Po, one can see the Basilica of Superga, one of Turin's landmarks. This scenic area can be maximized as an **attraction to draw tourists**.

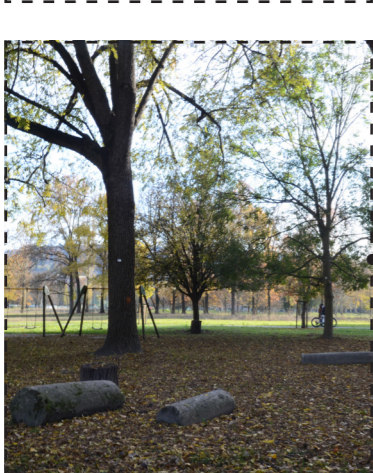


PISCINA COLLETTA faces and remains bustling with activity. However, the swimming pool shows signs of deterioration. It needs renovation and optimization to maximize its potential. A wall has been decorated with Urban Art, adding visual interest for visitors to enjoy.



THE AIRALE FARMHOUSE has been abandoned, with much of its architecture deteriorated, leaving only a wall intact on the southeast side. Adjacent to the building is currently a **BBQ area** serving the local community.

Photo: R. Ostellino
The area is especially attractive for birdlife, hosting nesting species such as the Black Kite, Grey Heron, and Great Crested Grebe. (The information on www.torinobirdwatching.net)



THE RUINS, believed to be from Viboccone Castle, now consist only of columns and have been placed as a feature in a children's playground. Conservation measures are needed to preserve these artifacts and consolidate them into a **historical exhibit area**.

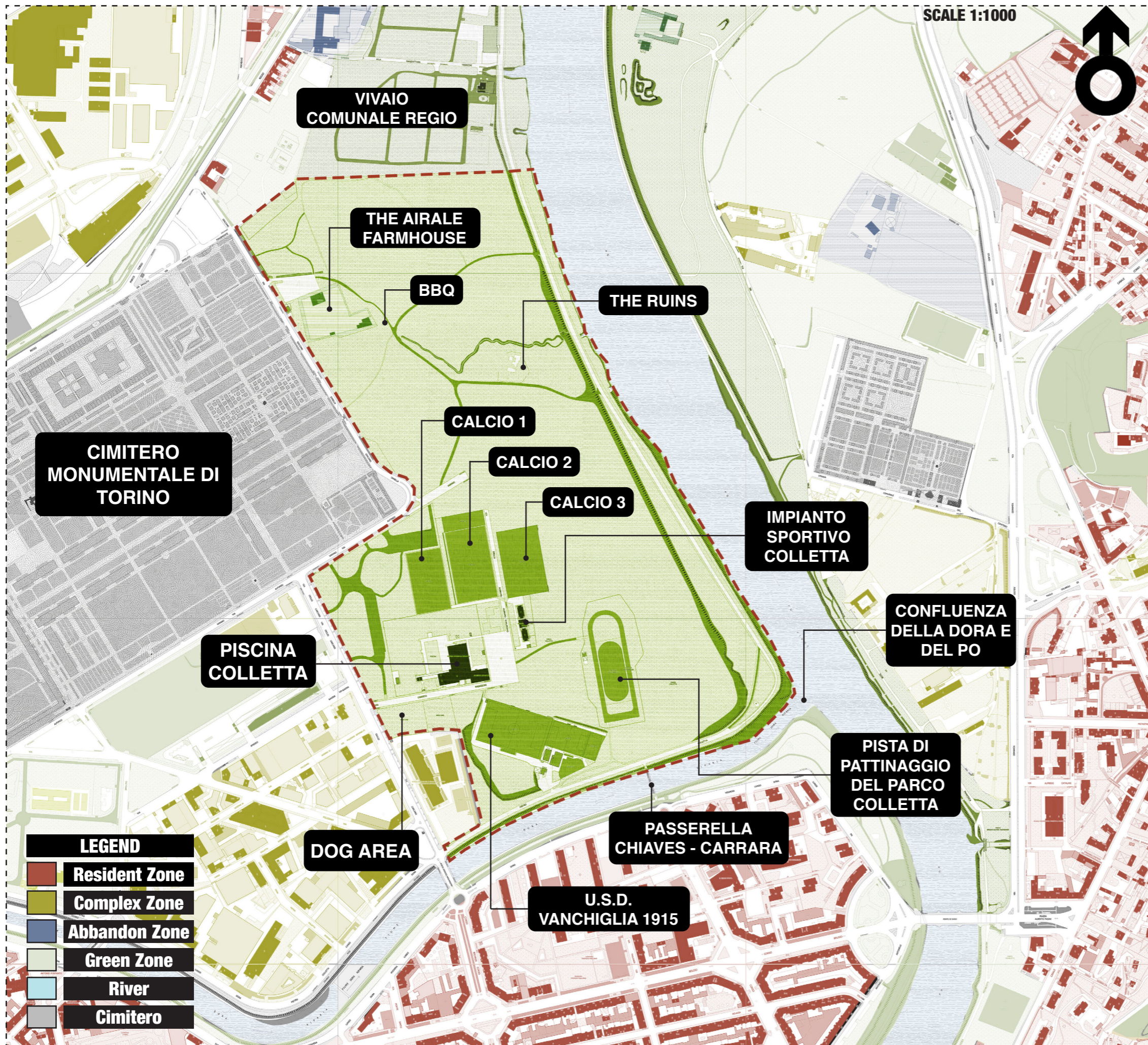


PISTA DI PATTINAGGIO DEL PARCO COLLETTA
The roller skating rink is an interesting place, catering to the needs of roller skating enthusiasts.



In spring and summer, **livestock from local farms** are released to graze on grass in the park. This creates the feeling of a rural area nestled within the heart of Turin city.





5.3 CURRENT FUNCTIONS

Based on a survey and map examination, here are the key findings:

LANDSCAPE AND NATURE:

Parco Pietro Colletta occupies a picturesque location with largely untouched natural scenery, offering sweeping views of the Po River to the east and the iconic Superga landmark. The park's ecosystem is diverse, featuring meadows, wildlife such as birds and squirrels, and aquatic life along the Dora River.

LOCATION:

Located west, the park borders Turin's largest cemetery, Cimitero Monumentale Di Torino, necessitating a green buffer zone for a peaceful environment. It also serves as the main entrance to Piscina Colletta from the southwest, adjacent to an industrial and service complex, and borders the densely populated Vanchiglia neighborhood to the south.

INFRASTRUCTURE:

The park primarily houses sports facilities in the southwest area. Some facilities like Calcio 1 and 2 have ceased operations and need refurbishment, while Calcio 3 and U.S.D. Vanchiglia 1915 remain active. Piscina Colletta, though operational, requires renovation, with some areas underutilized.

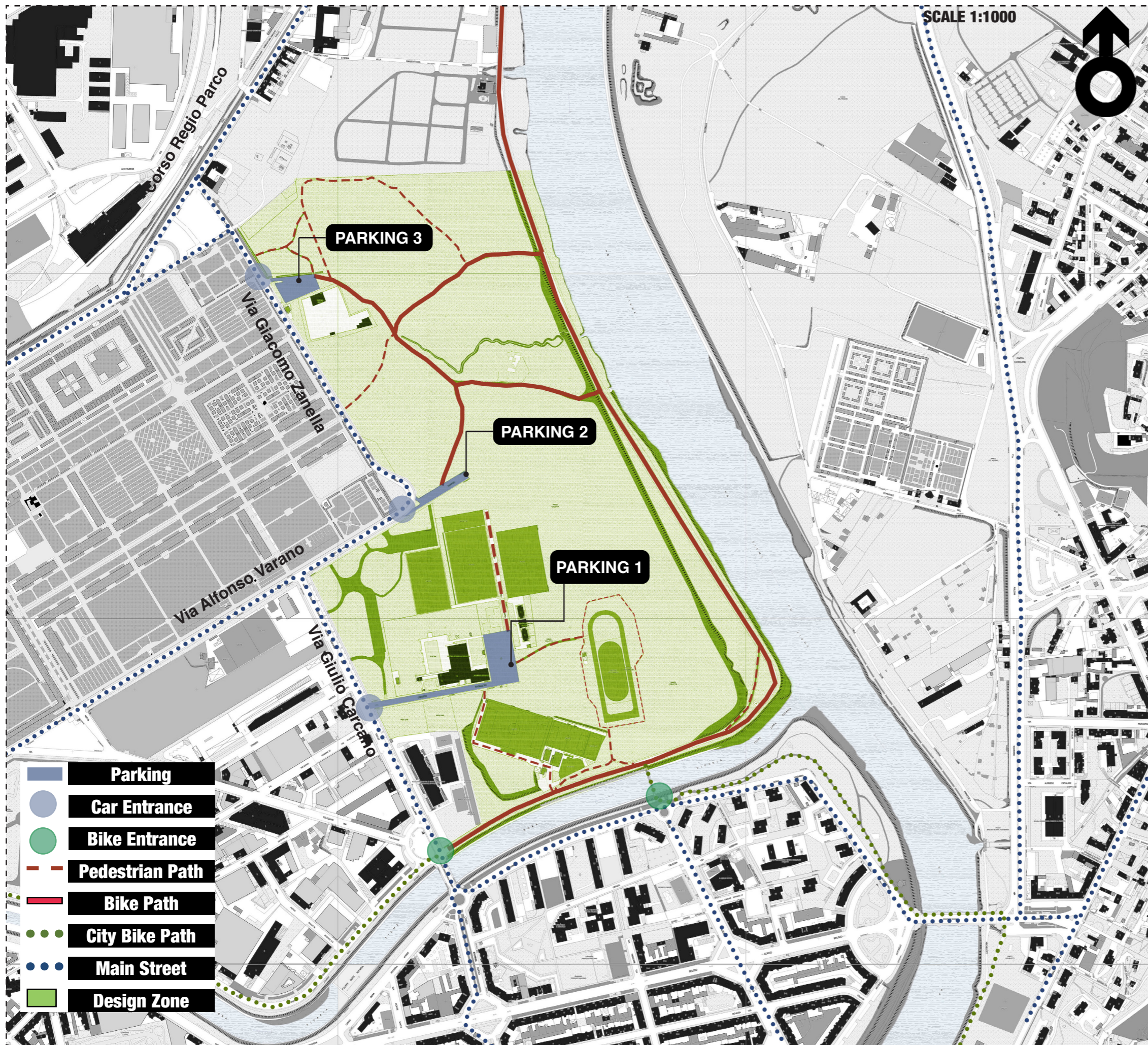
SPECIFIC SITES:

Airale farmhouse is abandoned and overgrown, currently used as makeshift housing and surrounded by a BBQ area used by locals on weekends. Nearby, the ruins of Viboccone Castle serve as a playground.

PROPOSALS:

1. Restructure functional zones.
2. Convert Viboccone Castle ruins into an exhibition area.
3. Preserve and enhance existing infrastructure and landscape.
4. Design a scenic bridge to enhance views towards Superga Hill.

These proposals aim to improve amenities, maximize natural and historical assets, and better serve the community



5.4 MOBILITY

EXTERNAL TRANSPORTATION:

Accessibility: The site is easily accessible from the west via major motor vehicle routes, as detailed in the previous chapter.

Pedestrian and Bicycle Access: Accessible from the south through Passerella del Parco Colletta and Ponte Giorgio Washington.

Future Developments: With the development of Metro Line 2 and the planned renovation of Ex-tabacchi, a new northern bike lane will be implemented to connect with these projects.

INTERNAL TRANSPORTATION:

Pathway System: The main areas are connected by pedestrian and bicycle paths. These paths are primarily gravel, flat, and blend well with the natural landscape. The main road (marked in bold red) is about 7 meters wide, with smaller paths connecting various areas. However, the overall road system is still relatively simple and does not fully connect all the sub-areas.

Connectivity Issues: There is no direct route from the central sports complex to the Po River. Areas like sports fields, roller skating rinks, and the swimming pool are disconnected, requiring detours.

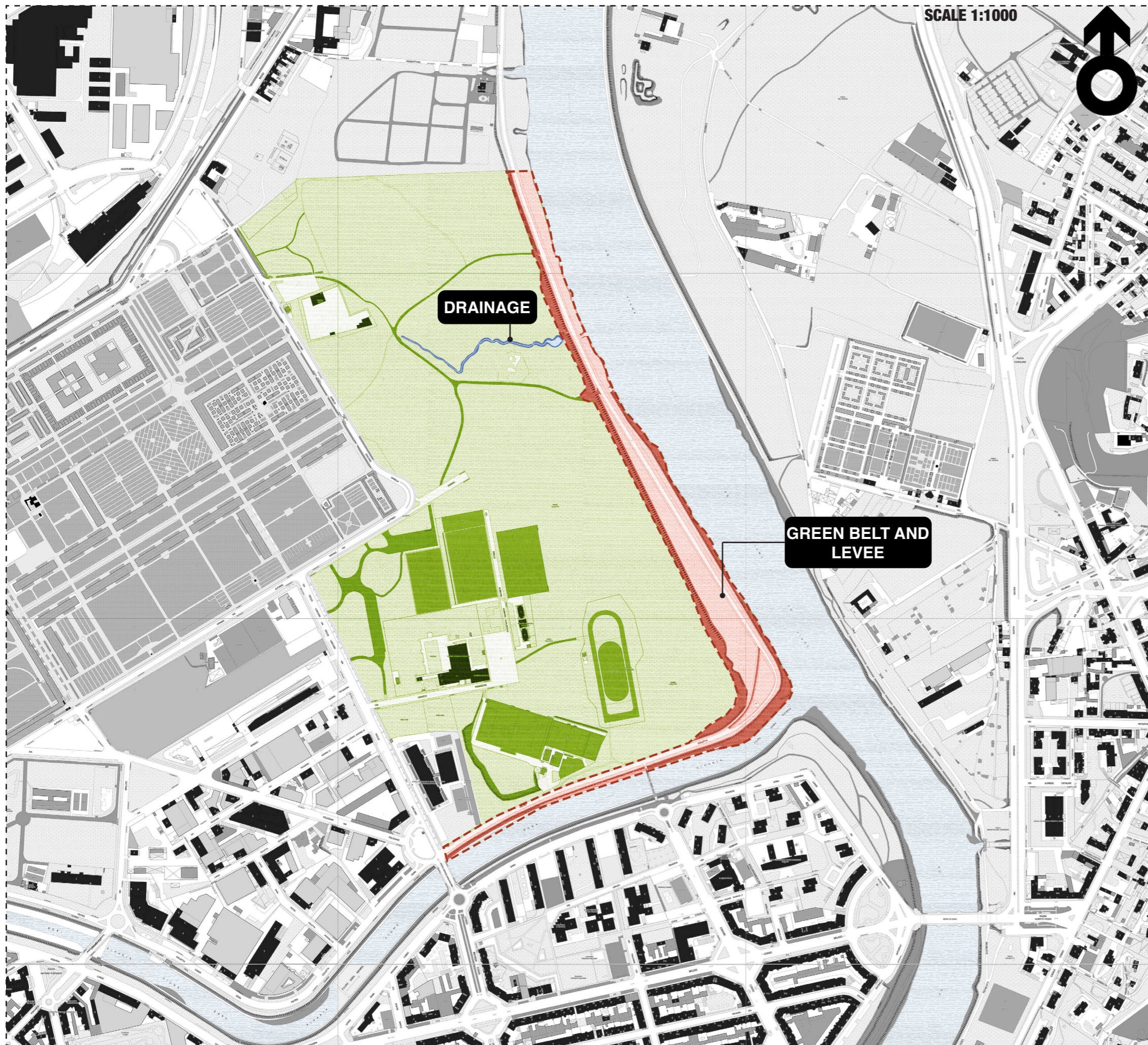
Parking: The current parking lot is relatively small and may need expansion to support future developments.

PROPOSALS:

5. Enhance Pathway System: Design new pedestrian and bicycle paths to better connect different areas, improving the visitor experience.

6. Northern Corridor: Implement a northern transportation corridor to connect Ex-tabacchi and Metro Line 2.

7. Expand Parking: Increase the size of Parking Lot 2 to accommodate more visitors in the future.



5.5 IRRIGATION

HISTORICAL ISSUES:

The site's location at the confluence of two rivers has historically made it prone to landslides and required frequent renovations, particularly on the southern edge adjacent to the Dora River.

PREVENTATIVE MEASURES:

The site benefits from inclusion in the **Operational Territorial Plan of the Po River and Hydrogeological Planning (PAI)**. This has resulted in the construction of a robust levee system that effectively prevents landslides and flooding. Additionally, a greenbelt along the Po River serves as a natural barrier to further reinforce these protective measures.

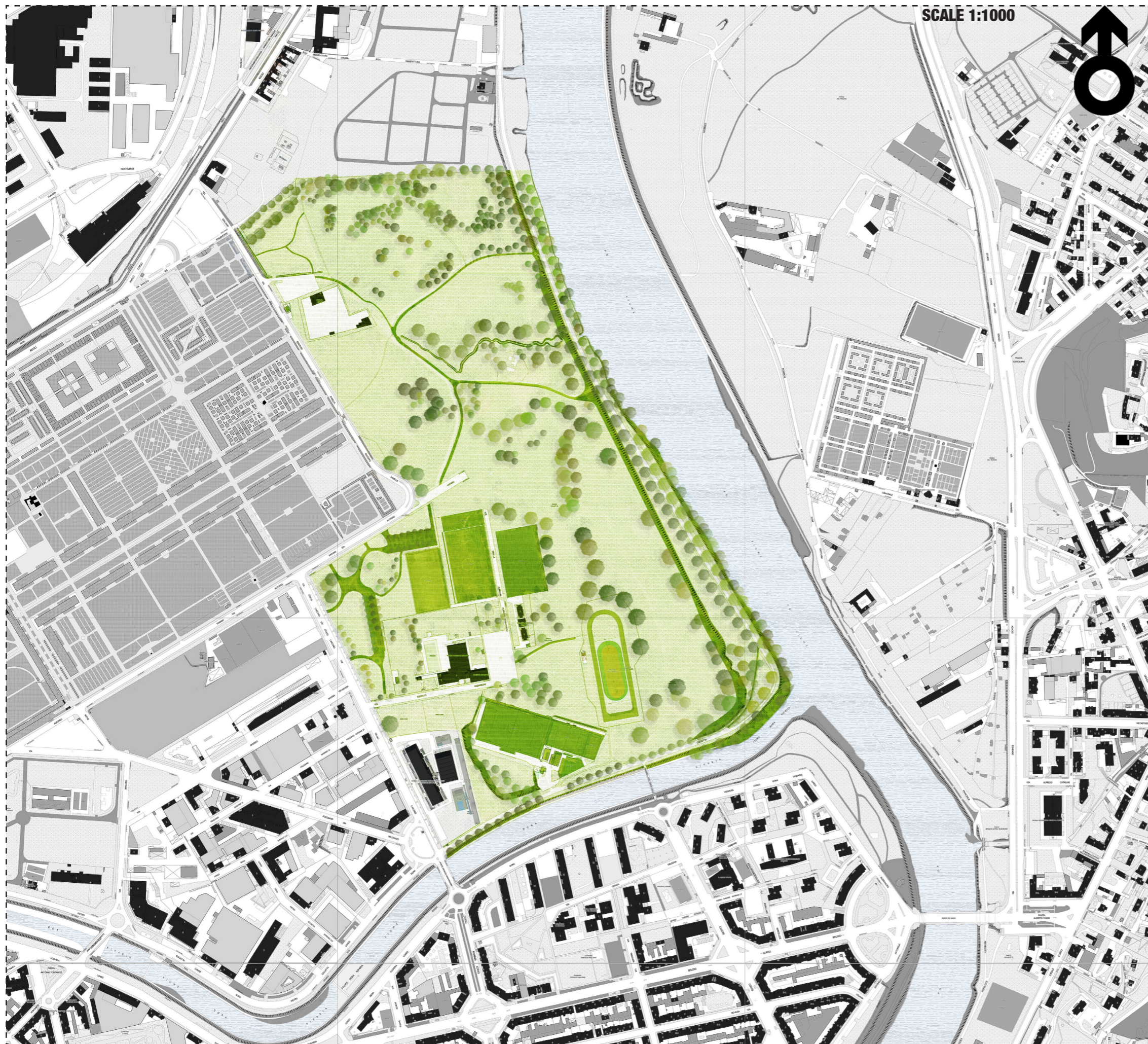
DRAINAGE SYSTEM:

At the center of the site, there is a significant depression approximately 3 meters deep. This functions as a rainwater drainage ditch designed to prevent waterlogging and manage excess rainwater efficiently.

PROPOSALS:

8. Rainwater Harvesting: The existing drainage ditch can be transformed into a rainwater collection pond. This pond would serve as a sustainable water source, collecting and reusing rainwater to support the park's irrigation needs and reduce reliance on external water supplies.

9. Greenbelt and Levee Maintenance: The existing greenbelt and levee systems should be preserved and enhanced. Integrating these features into new park designs will not only ensure continued protection against natural disasters but also improve the aesthetic and ecological value of the park. Enhanced pathways and viewing areas can be incorporated to allow visitors to appreciate the natural beauty and the engineering behind these protective measures.



5.6 CURRENT DISTRIBUTION OF GREENERY

OVERVIEW:

Green Coverage: Over 60% of the area is covered in diverse greenery.

Green Corridors: The most significant green areas are along the Po and Dora rivers, featuring ancient trees. These should be protected and fully integrated.

Natural Vegetation: The northern section has dense, naturally growing vegetation.

SPECIFIC AREAS:

Around Structures: The greenery near structures like the U.S.D Vanchiglia stadium and Piscina Colletta is relatively well-maintained but needs reorganization.

Abandoned Areas: The Airale farmhouse is overgrown with dense vegetation.

PROPOSALS:

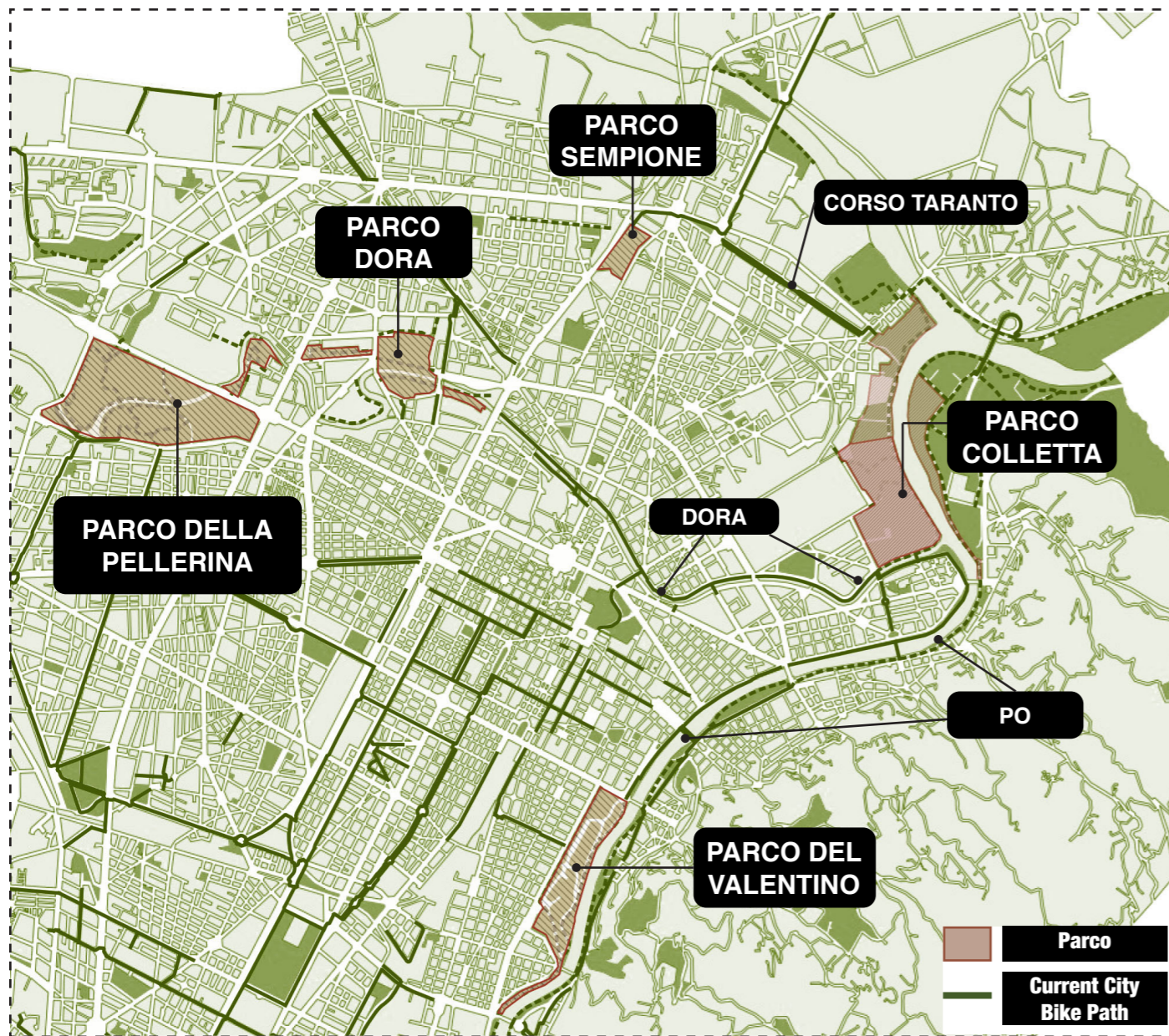
10. Preserve Key Green Corridors: *Maintain existing vegetation along the Po and Dora rivers as primary green corridors and use them to design new green pathways.*

11. Rehabilitate Overgrown Areas: *Clear some vegetation in the Airale farmhouse and repurpose it as a biology education area for children.*

12. Reorganize Internal Greenery: *Redesign internal green spaces along new pathways, and reconfigure greenery around sports facilities for better shading and protection.*

13. Enhance Green Connections: *Improve connections between green areas and water features, especially around Piscina Colletta and the U.S.D Vanchiglia stadium.*

These steps will enhance natural beauty, ecological function, and visitor experience in the park.



5.7 THE RELATIONSHIP AND COMPARISON BETWEEN PARCO COLLETTA AND OTHER PARKS.

The map reveals that Parco Colletta has strong connections with several key parks in Turin. It links to **Parco Del Valentino** via a scenic bike route along the **Po River** and to **Parco Dora** and **Parco Della Pellerina** via routes along the **Dora River**. Additionally, it connects to Parco Sempione through the Corso Taranto axis, which also ties Colletta to the final segment of **Spina 4**.

These connections make Parco Colletta highly accessible and central within Turin's park network, offering convenient bike routes from major parks. This strategic positioning is a significant advantage, drawing cyclists from across the city. Therefore, designing Parco Colletta with beautiful landscapes and varied experiences along the bike paths will be crucial. By providing a unique and engaging environment, it can attract cyclists and

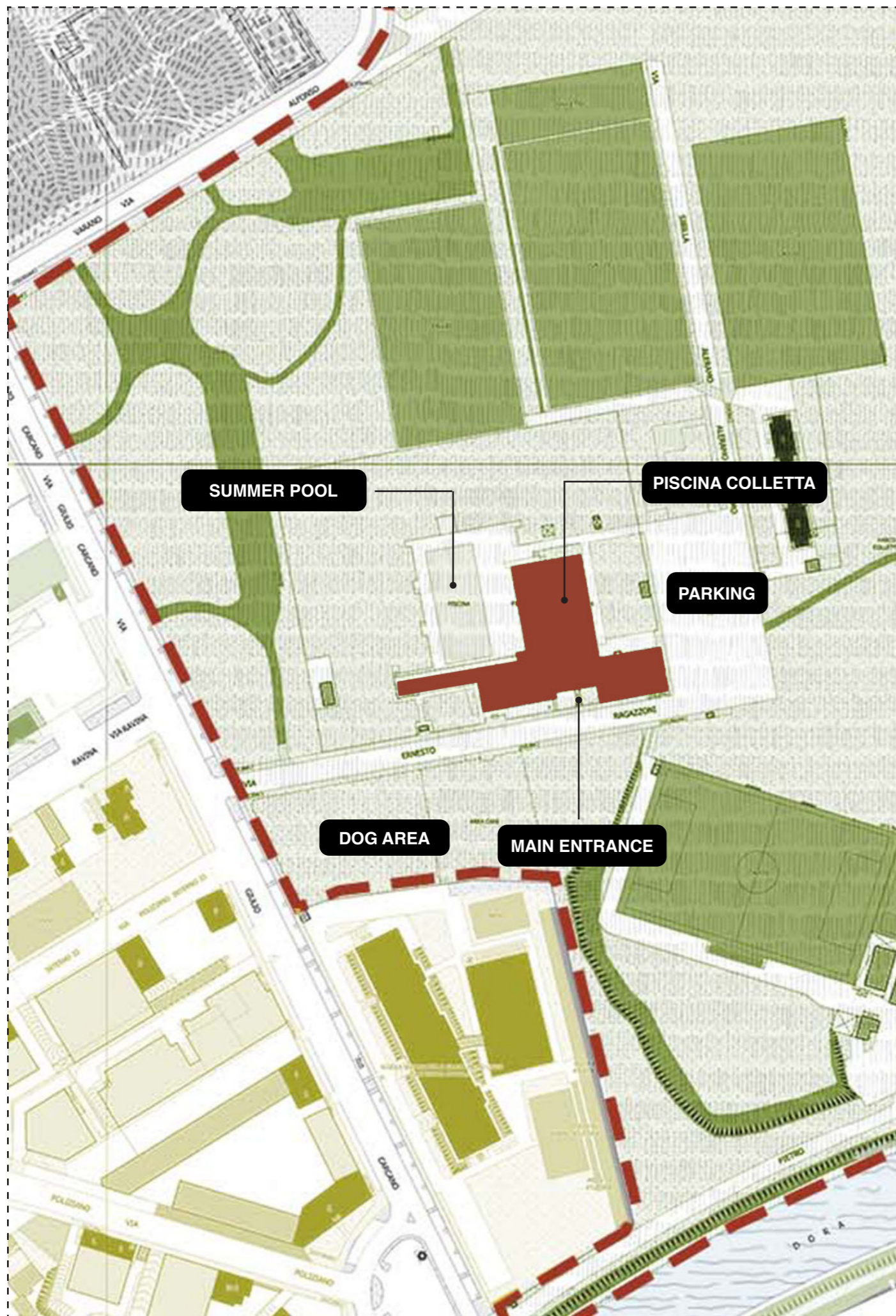
- SUGGESTION**
14. Design an internal bicycle path system with distinctive appeal, following modern landscape trends.
 15. Enhance dining services and provide venues for a variety of cultural and artistic activities.

SURVEY SUBJECTS	PARCO VALENTINO	PARCO DORA	PARCO PIETRO COLLETTA	NOTE (Parco Pietro Colletta)
LOCATION	●	●	●	distance from city center
MOBILITY	●	●	●	have to travel far
GREEN SPACES	●	●	●	
MODERN LANDSCAPE	●	●	●	has not been renovated
EVENT VENUE	●	●	●	no venue available for the event
RIVERFRONT AREA	●	●	●	
SURROUNDING SERVICES	●	●	●	Lack of food and beverage services
HERITAGE	●	●	●	
PLAYZONE	●	●	●	needs to be upgraded and renovated
SPORT FACILITY	●	●	●	
BIODIVERSITY	●	●	●	

Advantages: Parco Colletta features a rich natural landscape and diverse ecosystem, situated between two rivers. It offers sports facilities like Piscina Colletta, which are unique compared to nearby parks. The area also holds cultural and historical assets ready for exploration.

Disadvantages: However, being somewhat distant from the city center, Parco Colletta receives less attention and is primarily used by local residents. Architecturally, it is less modern compared to Parco Dora, which was revamped from an old industrial site. The park lacks large event spaces found in parks like Parco Valentino, limiting its appeal for major events and festivals. Additionally, it lacks sufficient amenities such as dining options, reducing its attractiveness to visitors.

- good
- neutral
- not good



5.8 PISCINA COLLETTA

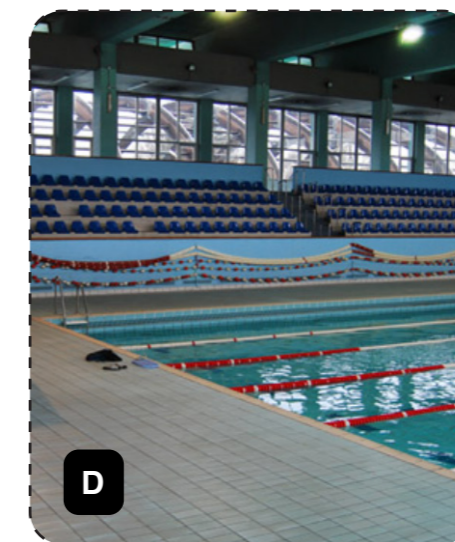
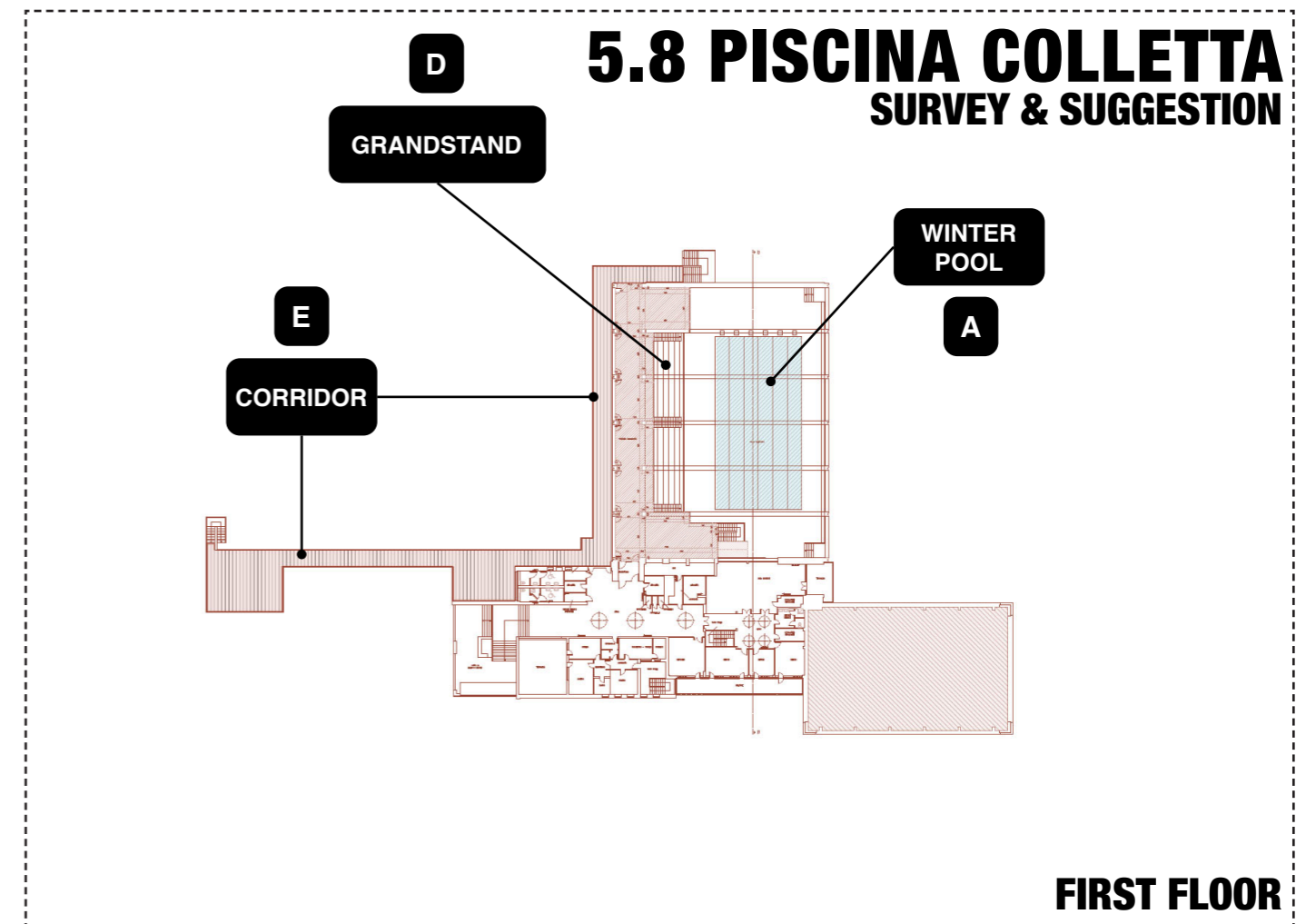
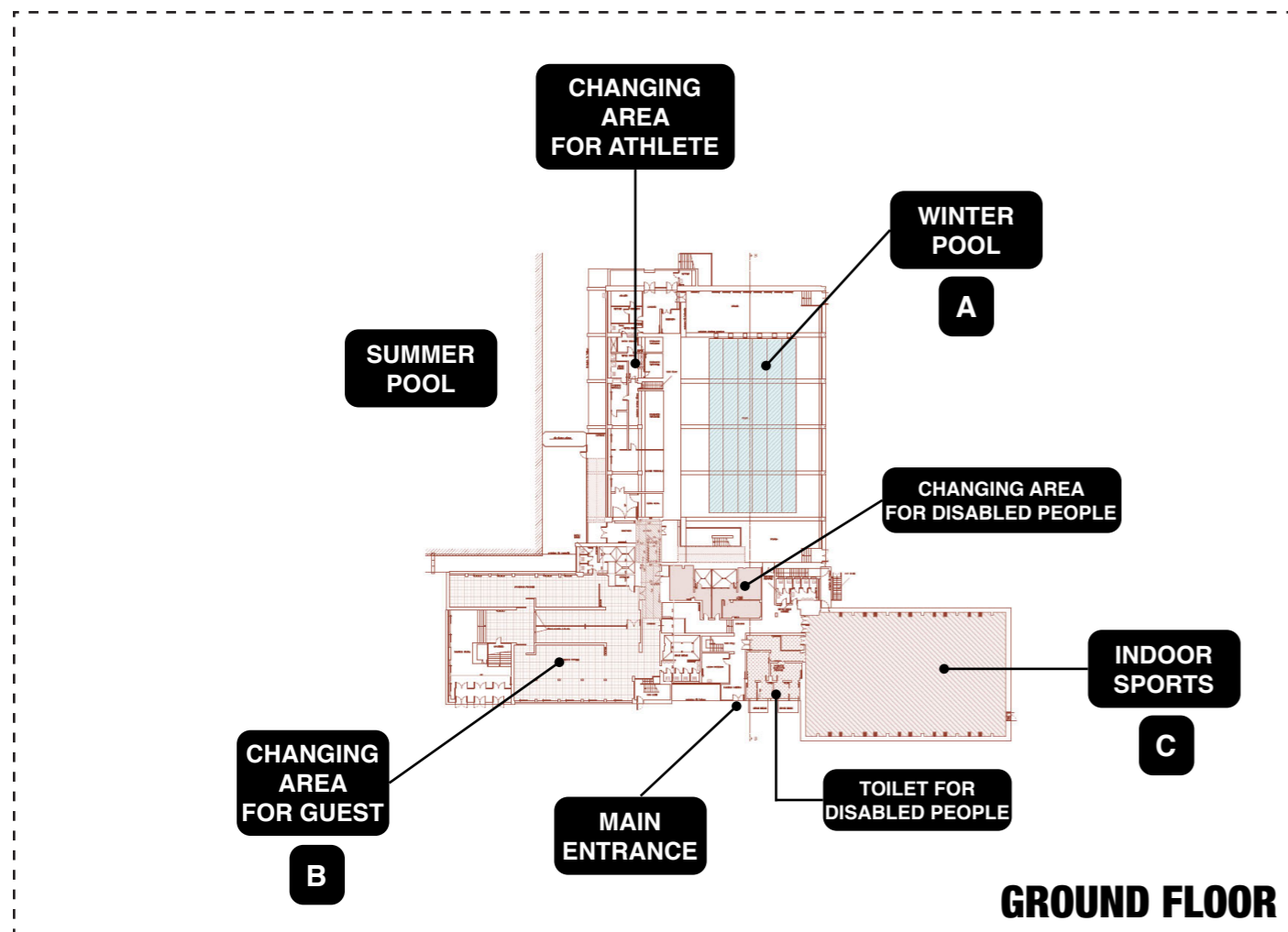
GENERAL INFORMATION

The Colletta swimming pool complex features two distinct pools constructed from reinforced concrete. The winter pool spans 25 meters in length and 12.50 meters in width, offering depths ranging from 1.30 meters to 3.60 meters. In contrast, the summer pool extends to 50 meters in length and 22.50 meters in width, with similar depth specifications of 1.30 meters to 3.60 meters. Strategically situated within Parco Colletta, this facility is surrounded by expansive green areas, providing a tranquil and natural setting for its users. Additionally, the pool complex is equipped with essential amenities including restrooms, spacious changing rooms, and accessible lifts, ensuring accessibility for individuals with disabilities. These facilities enhance the overall comfort and convenience for all visitors, making the Colletta swimming pool a desirable destination within the park for both relaxation and recreational activities.

TORINO CAMBIA

The Colletta swimming pool will undergo extensive renovations to enhance sports facilities and public use. Renovations include upgrading changing rooms, bathrooms, and showers, improving hydraulic systems and drainage, and modernizing water treatment technology with a new compensation tank. Indoor pool tiles will be replaced, and outdoor areas will be resurfaced and restored. This project is part of Turin City's Integrated Urban Plan to improve community amenities and accessibility.





SURVEY

Based on the survey, the swimming pool is relatively well-equipped with necessary facilities. The indoor pool features a hot water system for winter, and the guest changing rooms are spacious and comfortable, capable of accommodating more people if the park expands. The outdoor corridor is quite long and offers a panoramic view of the outdoor pool. The outdoor swimming area is an Olympic-standard pool suitable for professional competitions. During the summer, the outdoor pool serves as a place for people to enjoy swimming and relaxing with food and drink activities. However, the pool shows signs of degradation, and many outdoor areas, which have been in use for a long time, need refurbishing. There is also a lack of diverse functional spaces for outdoor activities. Additionally, the indoor sports area is currently underutilized. The area around the pool is still spacious, with many green spaces surrounding it,

SUGGESTION

- + Utilize the existing underwater sports facilities by expanding the project to create more outdoor water sports activities.
- + Leverage the current outdoor corridor as a connection point for various areas in case of future expansion.
- + Convert the indoor sports area into a new functional space to fully utilize the available area.

5.9 STORIES OF INTERVIEW

I have personally had the opportunity to meet and interview local residents in both Vanchiglia and Parco Colletta. Below are a few short anecdotal stories:

At noon in October 2023, in Vanchiglia, **Massimo** expressed:

"I ENJOY SWIMMING IN THE COLLETTA POOL DURING THE SUMMER. IT'S LIVELY AND BUSTLING, BUT THERE'S ONLY ONE LARGE OUTDOOR POOL. THERE'S NO DESIGNATED AREA FOR SMALL CHILDREN TO PLAY, WHICH WOULD BE IDEAL FOR MY TWO KIDS. PERHAPS I WOULD PREFER A WATER PARK; IT WOULD BE MORE EXCITING."

In the afternoon of October 2023, at Calcio 3 Colletta, **Lorenzo** mentioned:

"I OFTEN PLAY FOOTBALL HERE. THE SCENERY IS BEAUTIFUL, AND THE FIELD IS SPACIOUS. HOWEVER, AFTER EXERCISING, WHEN WE WANT TO EAT OR DRINK SOMETHING WITH MY FRIENDS, THERE'S ALMOST NOTHING NEARBY. WE HAVE TO GO OUTSIDE. IT WOULD BE GREAT IF THERE WAS AT LEAST A BAR OR A PIZZERIA HERE!"

In the evening of October 2023, at Colletta, **Analisa** reflected:

"THIS PLACE IS BEAUTIFUL BUT LACKS AMENITIES. APART FROM THE BOYS PLAYING SOCCER AND SWIMMING, THERE'S NOTHING ELSE HERE. IF I NEED TO VISIT A PARK IN TURIN, I WOULD CHOOSE PARCO VALENTINO; IT'S MORE LIVELY. IT WOULD BE BETTER IF THIS PARK OFFERED MORE SERVICES."

*Through the interview conversations, I have concluded that most concerns of those experiencing Parco Colletta are the desire to improve the infrastructure system, and to add **food and entertainment services**, not just sports. Accordingly, the idea of having a **water park** for all rather than just a regular swimming pool is essential. Additionally, interactions with some visually impaired individuals have highlighted a design consideration: it must **support the visually impaired**. Moreover, delving deeper into this issue, I noticed that the visually impaired face significant dangers in areas near rivers and lakes, so the proposal for a swimming **training facility for the visually impaired**, aimed at helping them survive in dangerous conditions if they fall into the water, is necessary.*

In the afternoon of December 12, 2023, at Parco Colletta, **Elisa**:

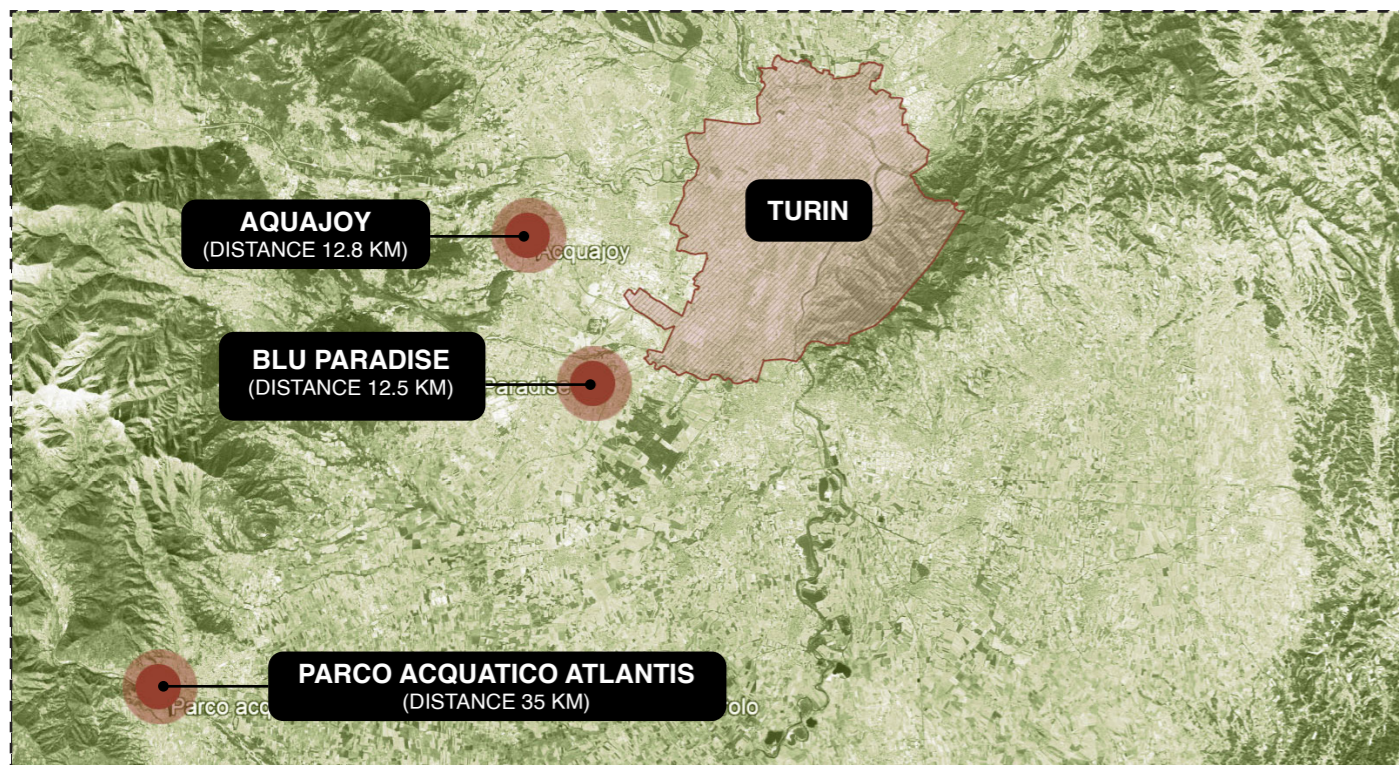
"THIS PARK IS BEAUTIFUL. I HAVE LIVED NEARBY SINCE CHILDHOOD. MY FAVORITE TIME IS SUMMER WHEN LOCAL FARMERS BRING THEIR LIVESTOCK TO GRAZE HERE. IT FEELS LIKE LIVING IN THE COUNTRYSIDE WITHIN TURIN. THERE'S A LADY WHO HERDS THEM LIKE A COWBOY! I WISH MORE PEOPLE IN TURIN WOULD VISIT THIS PARK; PARTLY BECAUSE IT'S SOMEWHAT REMOTE AND HIDDEN, AND PARTLY BECAUSE IT LACKS ATTRACTIONS THAT APPEAL TO YOUNG PEOPLE LIKE MY FRIENDS."

Also in November 2023, **Amelia**, who lives near Ex-tabacchi, mentioned:

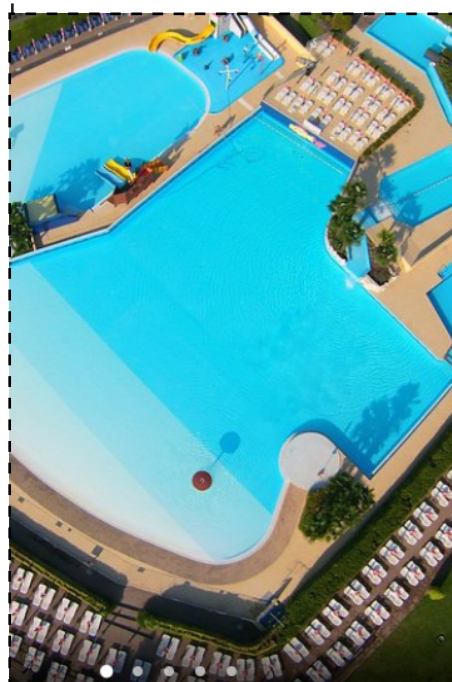
"I LIKE TO STROLL IN THE PARK IN MY SPARE TIME. I OFTEN VISIT PARCO COLLETTA BUT STICK TO AREAS NEAR THE ROAD BECAUSE THE RIVERBANK AREA IS HAZARDOUS FOR SOMEONE LIKE ME. THERE ARE NO TACTILE PATHS OR SIGNS FOR VISUALLY IMPAIRED PEOPLE, SO I CAN'T USE MY CANE TO FIND DANGEROUS SPOTS."

In November 2023, **Alessandro, a visually impaired person**, was walking along the riverbank of Parco Colletta.

"I ENJOY WALKING HERE. IT RELAXES ME AND SOMETIMES HELPS WITH MY DEPRESSION. HOWEVER, I USUALLY HAVE TO BRING MY GUIDE DOG BECAUSE IT CAN BE DANGEROUS IF I FALL INTO THE RIVERBANK; I CAN'T SWIM AND AM AFRAID OF WATER."



5.10 FACT CHECK 1: THE WATER PARKS NEARBY TURIN



AQUAJoy



BLU PARADISE



PARCO ACQUATICO ATLANTIS

On the map, it is evident that currently, there are no water parks within the city of Turin. The existing water parks, such as Aquajoy and Blu Paradise, are located outside the city, more than 10 km from Turin's center, while Parco Acquatico Atlantis is as far as 35 km away. **Utilizing Parco Colletta as a water park would create the only water park in the city, just 2 km from the center. Additionally, with the existing facilities, Piscina Colletta can be used as the central building of the water park for changing and sanitation needs.**

PROPOSAL:

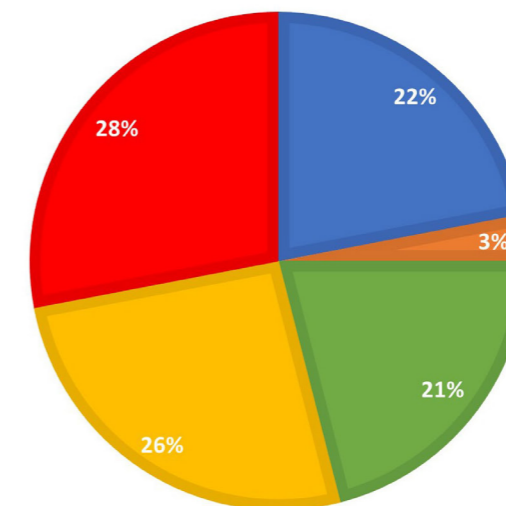
16. Design a water park surrounding the Piscina Colletta.

5.10 FACT CHECK 2: BLINDNESS AND VISUAL IMPAIRMENT: QUALITY OF LIFE AND ACCESSIBILITY IN THE CITY OF TURIN

(BASE ON THE RESEARCH OF FRONTIERSIN)

■ Totally Blind ■ Partially Blind ■ Severe Visual Impairment (VI) ■ Moderate VI ■ Mild VI

Percentage distribution of visual impairment in the study sample in Turin



TYPE Original Research
PUBLISHED
21 March 2024
DOI 10.3389/
fmed.2024.1361631

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Question	1	2	3	4	5	Total
1. Is it difficult for you to see moving objects?	14	38	25	15	8	100
2. Is it difficult for you to correctly define depth and distance of objects?	4	37	26	23	10	100
3. Is it difficult for you to see steps or sidewalks?	8	29	31	19	13	100
4. Is it difficult for you to move outdoors?	12	21	33	23	11	100
5. Is it difficult for you to cross a busy road?	7	31	31	14	17	100
7. How much can low vision influence your QoL?	1	7	25	27	40	100
8. Concerning your sight, do you feel happy with your QoL?	1	40	39	15	5	100

Question 3-5. From 1 (No) to 5 (Extremely difficult)

Question	1	2	3	4	5	Total
19. According to your visual limitations, how would you judge Turin in terms of livability?	0	6	17	28	2	53
20. How would you judge Turin for its accessibility to transport services?	2	13	17	11	2	45
21. During the last 5 years, did you notice any improvements in urban logistics to help visually impaired people?	35	9	7	0	1	52
22. Did renovation works of Turin streets keep in consideration visually impaired people's necessities?	10	4	3	1	1	19
23. Do you think they had a positive impact on your life and your urban mobility possibilities?	5	4	2	1	1	13

Question 20. From 1 (very simple) to 5 (very difficult)

Question 21. From 1 (no improvements) to 5 (many improvements)

Question 22 - 23. From 1 (Not at all) to 5 (yes a lot)

Survey research **published on Frontiersin** reveals that many visually impaired people in Turin struggle with navigating streets, crossing busy roads, and using public transportation. Over the past five years, Turin **has not implemented urban designs to improve their quality of life**, and new construction projects have overlooked their needs. This underscores the necessity to include the visually impaired in Turin's sustainable design projects, especially the Torino Cambia program. **Designing a park that supports their mobility and sensory experience is essential.** Additionally, interviews at Parco Colletta highlight the need for a swimming education facility for the visually impaired

.PROPOSALS:

- 17. The new design must provide a good sensory experience for the visually impaired.**
- 18. Design a swimming class for the visually impaired within the Piscina Colletta area.**

5.11 INSIDE OUT

1. RESTRUCTURE FUNCTIONAL ZONES.
 2. CONVERT VIBOCONE CASTLE RUINS INTO AN EXHIBITION AREA.
 3. PRESERVE AND ENHANCE EXISTING INFRASTRUCTURE AND LANDSCAPE.
 4. DESIGN A SCENIC BRIDGE TO ENHANCE VIEWS OF SUPERGA HILL.
 5. DESIGN NEW PEDESTRIAN AND BICYCLE PATHS TO IMPROVE CONNECTIVITY AND VISITOR EXPERIENCE.
 6. IMPLEMENT A NORTHERN TRANSPORTATION CORRIDOR CONNECTING EX-TABACCHI AND METRO LINE 2.
 7. EXPAND PARKING LOT 2 TO ACCOMMODATE MORE VISITORS.
 8. IMPLEMENT RAINWATER HARVESTING.
 9. MAINTAIN GREENBELT AND LEVEES.
 10. PRESERVE KEY GREEN CORRIDORS ALONG THE PO AND DORA RIVERS AND DESIGN NEW GREEN PATHWAYS.
 11. CLEAR OVERGROWN AREAS AT AIRALE FARMHOUSE AND REPURPOSE FOR CHILDREN'S BIOLOGY EDUCATION.
 12. REDESIGN INTERNAL GREEN SPACES AND RECONFIGURE GREENERY AROUND SPORTS FACILITIES.
 13. IMPROVE CONNECTIONS BETWEEN GREEN AREAS AND WATER FEATURES, ESPECIALLY AROUND PISCINA COLLETTA AND U.S.D VANCHIGLIA STADIUM.
 14. DESIGN AN APPEALING INTERNAL BICYCLE PATH SYSTEM FOLLOWING MODERN LANDSCAPE TRENDS.
 15. ENHANCE DINING SERVICES AND VENUES FOR CULTURAL AND ARTISTIC ACTIVITIES.
16. DESIGN A WATER PARK AROUND PISCINA COLLETTA.
 17. ENSURE THE NEW DESIGN PROVIDES A GOOD SENSORY EXPERIENCE FOR THE VISUALLY IMPAIRED.
 18. DESIGN SWIMMING CLASSES FOR THE VISUALLY IMPAIRED IN THE PISCINA

PISCINA COLLETTA

PARCO PIETRO COLLETTA

1. IMPLEMENT THE MASTER PLAN FOR LANDSCAPE DESIGN

2. DESIGN A BICYCLE AND PEDESTRIAN TRANSPORTATION SYSTEM TO CONNECT ALL AREAS WITHIN THE SITE.

CONFLUENCE ZONE

1. DESIGN INTEGRATED WITH TURIN'S SUSTAINABLE DEVELOPMENT DIRECTION.

THE

2. DESIGN CONNECT WITH METRO LINE 2

TURIN

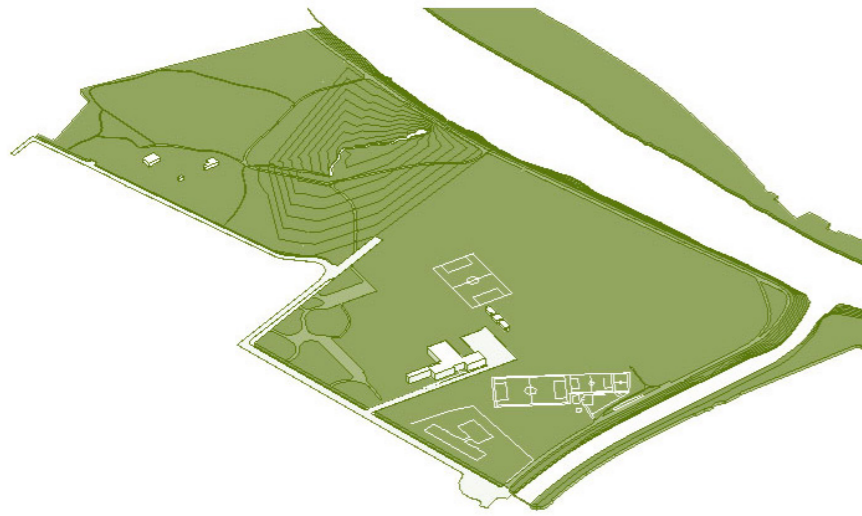
CHAPTER 6: THE CONFLUENCE ZONE DESIGN



6.1 THE EVOLUTION OF PROJECT

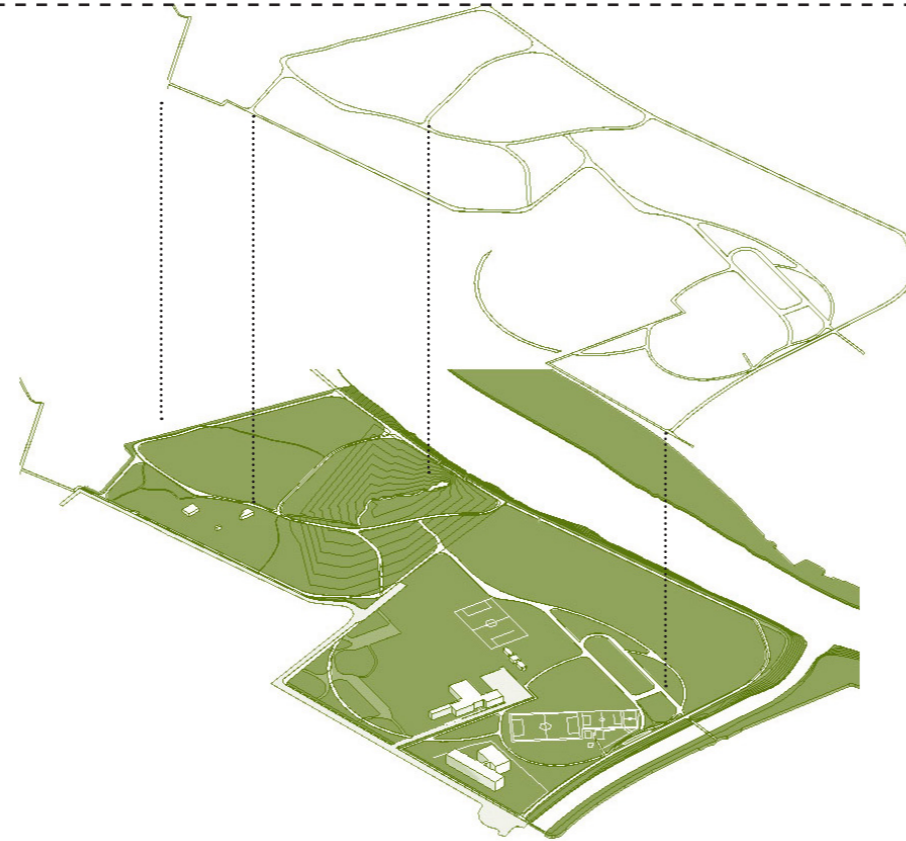
STAGE 1

The current state of the land is fragmented with Piscina Colletta and the football field area.



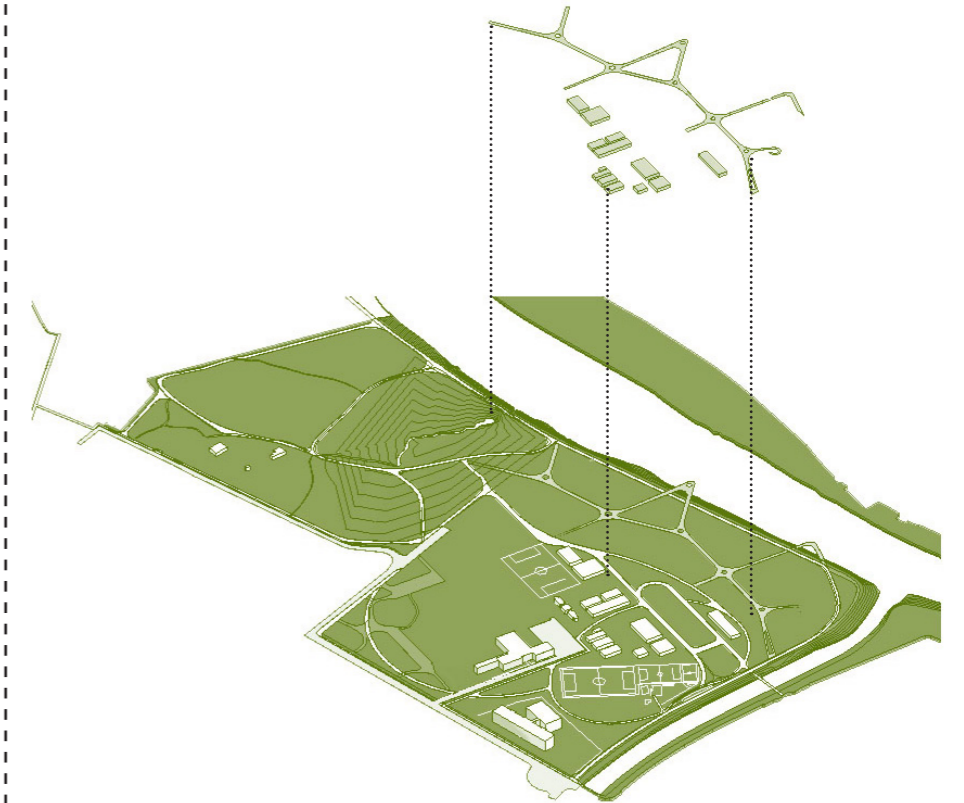
STAGE 2

Create a loop connecting the sports area and the various zones within the land.



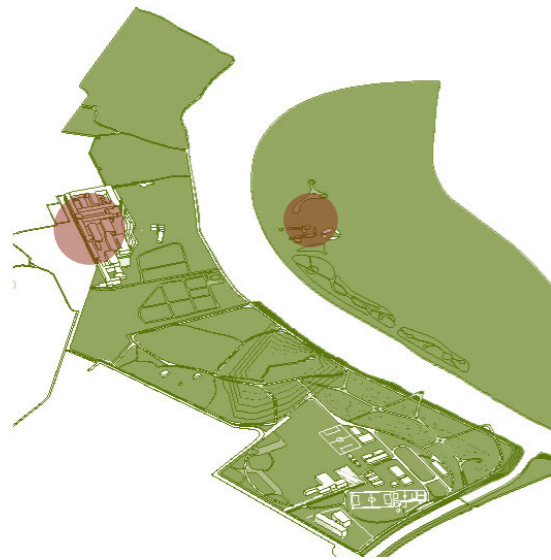
STAGE 3

Analysis shows the need for additional service blocks and a scenic bridge.



STAGE 4

The project is expanded to include interest in Ex-tabacchi and Meisino Park across the river.



STAGE 5

Create a corridor connecting the entire confluence area.



STAGE 6

The final plan includes the connection of the entire area.





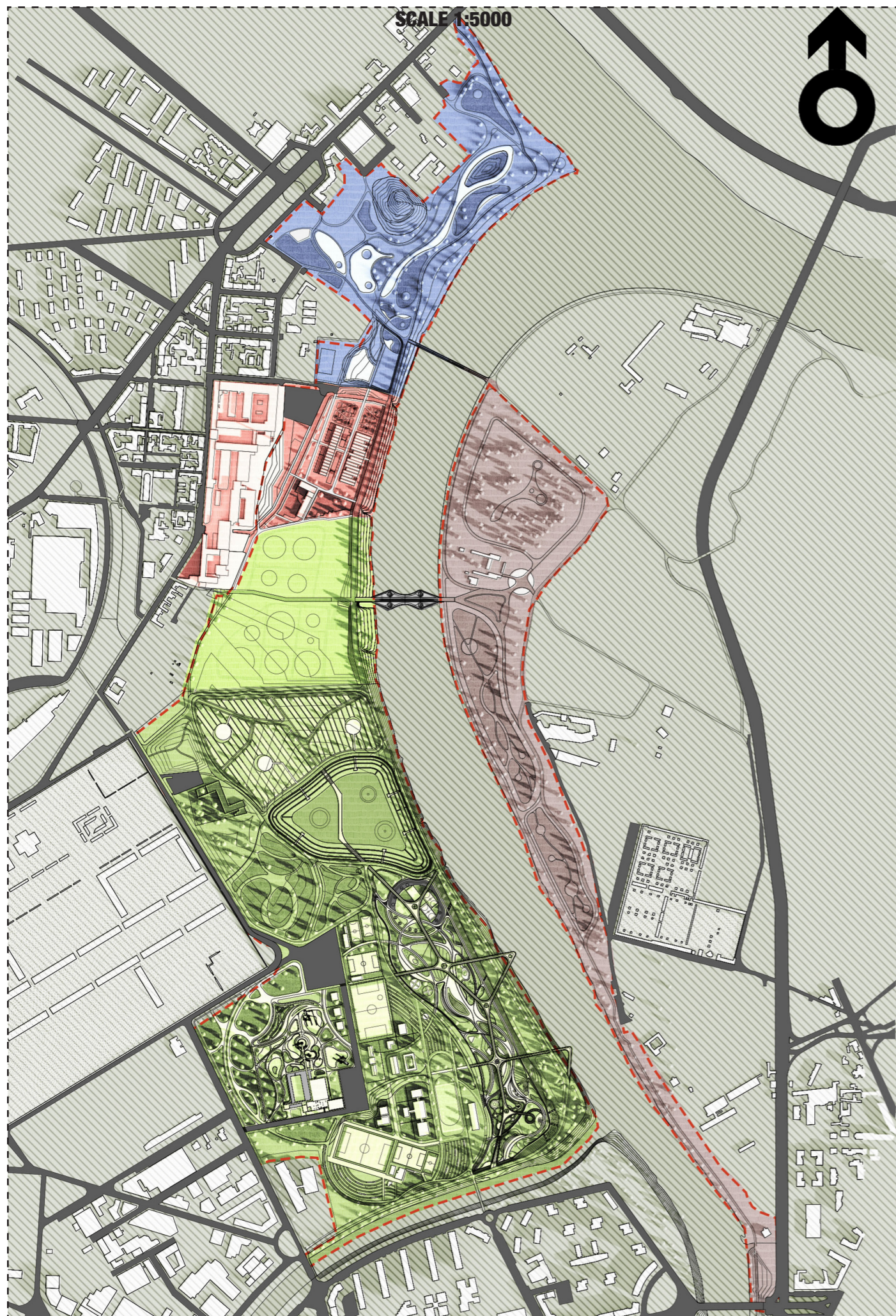
6.2 MASTER PLAN

SCALE 1:5.000

Through analysis and planning, the project proposes an ecological park that seamlessly connects the green spaces in the confluence area from the Dora River to the Stura di Lanzo. The design features various ecological landscapes intended to serve the local residents and students, while also aiming to attract numerous tourists in the future once Metro Line 2 is completed.

PROGRAM

1. TOURIST ATTRACTION OF THE CONFLUENCE AREA
 2. EVENT, BBQ AREA
 3. WALKING PATHS AND SCENERY
 4. SCENIC HILL
 5. OUTDOOR GYM FOR RESIDENTS
 6. NEW BRIDGE 2
 7. SPORTS FIELD FOR TEENAGERS
 8. CRANE PARK
 9. INDOOR SPORTS COMPLEX
 10. SCENIC STEPS
 11. EX-TABACCHI
 12. SCENIC WATER CANAL
 13. CITY NURSERY
 14. NEW BRIDGE 1
 15. OUTDOOR ECOLOGICAL EDUCATION AREA
 16. EX-MILITARY RIDING SCHOOL
 17. ECOLOGICAL WALKING AREA FOR MEISINO PARK
 18. ECO FARMING FOR STUDY
 19. CASCINA AIRALE RENOVATION
 20. GREEN BUFFER ZONE FOR NOISE ISOLATION
 21. RAINWATER COLLECTION AND SCENIC POND
 22. NEW SCENIC BRIDGE FOR PARCO COLLETTA
 23. ECO-PARK
 24. PASSERELLA DEL PARCO COLLETTA
 25. CALCIO U.S.D. VANCHIGLIA
 26. COMMERCIAL AND SERVICE AREA
 27. COLLETTA SWIMMING POOL
 28. COLLETTA WATER PARK
- A,B,C,D. PARKING LOT



SCALE 1:5000



6.3 FUNCTIONAL

PARCO DELLE CONFLUENZE:

Area: 16.58 Ha

This area will be transformed into a scenic park with a prominent tourist attraction at the confluence of the rivers. The existing scenic hill will be preserved and enhanced with new ecological walking paths. Additionally, sports facilities for local residents will be added and upgraded.

EX-TABACCHI

Area: 10 Ha

The landscape behind the factory will be designed to support future redevelopment. The old cotton mill behind Ex-Tabacchi will be repurposed as an indoor sports complex for students. An abandoned canal will be revitalized to create a scenic embankment and walking path. The factory cranes will be converted into a unique crane park. This area will be connected to Parco Confluenze.

PARCO DEL MEISINO

Area: 18.4 Ha

Two new bridges will be constructed. Bridge No. 1 will link the old military training school with Ex-Tabacchi, while Bridge No. 2 will connect to Parco Confluenze, facilitating future integration with Metro Line 2.

VIVAIO COMUNALE REGIO PARCO

The city nursery will be maintained, and two connections will be established: one between Ex-Tabacchi and Scenic Bridge No. 2, and another path connecting to the northeast part of Parco Colletta.

PARCO COLLETTA

Area: 44.8 Ha

This park will be fully developed to maximize its potential. The design includes a water park combined with Piscina Colletta and an eco-park featuring a modern, sustainable design. A scenic bridge will connect the entire area and offer views of the Po river. The old hunting lodge will be restored to its original form to serve as an ecological school for students, complemented by a farm for practical learning. Additionally, a rainwater collection and scenic pond will be created in the site's lower areas.



6.4 MOBILITY

SCALE 1:5.000

The new traffic design has successfully established a cohesive network connecting all three parks.

Heritage Integration: It integrates with significant historical sites such as the ruins of Viccobone Castle, the former tobacco factory turned into an architectural landmark, the military equestrian school, and the strategic confluence point where the historical Turin siege occurred. This design not only preserves but enhances a historical landscape axis, extending from the southern confluence of the Dora and Po rivers to the northern confluence of the Stura Di Lanzo and Po rivers.

Integration with the Torino Cambia Project: The design introduces key connectivity elements, prominently featuring Metro Line 2 with stations at Cimarosa Tabacchi and Sofia. Additionally, the design includes the creation of two picturesque bridges, numbered 1 and 2, linking seamlessly with Meisino Park to form a cohesive circular connection.

Internal Area Development: Within the park's internal area, the design effectively links various amenities, from the Colletta Pool to the Colletta Football Grounds, and the historic tree-lined avenue along the river to the refurbished hunting lodge. This connectivity extends Parco Colletta's reach, integrating it with other areas such as the Ex-tabacchi, repurposed as student residences, and Parco Confluenze to the north.

This comprehensive design not only improves accessibility and connectivity within the park but also revitalizes historical landmarks, creating a unified and dynamic urban environment for residents and visitors alike.

- **Bike Path**
- **Bike Entrance**
- **Metro 2 connect**
- **Heritage connect**
- **New bridge connect**

6.5 AXONOMETRIC VIEW

COLLETTA SWIMMING POOL

EX-TABACCHI

CALCIO U.S.D. VANCHIGLIA

ECO-PARK

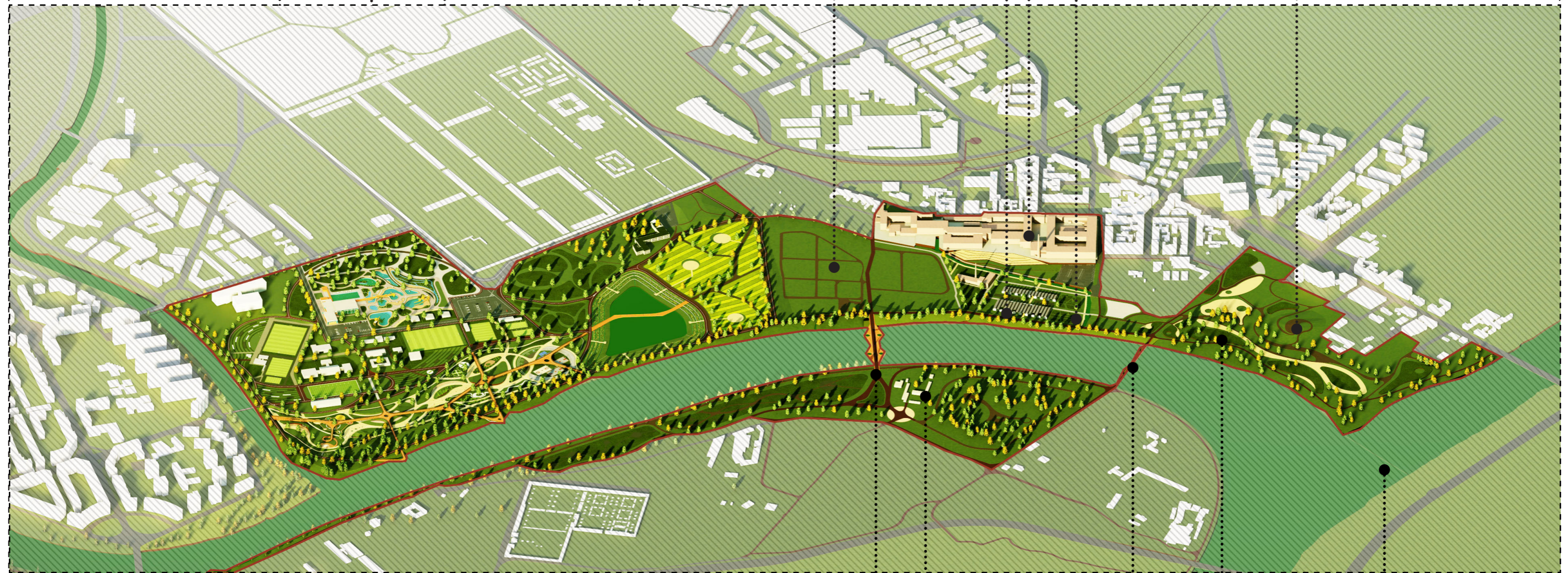
CASCINA AIRALE RENOVATION

CITY NURSERY

INDOOR SPORTS COMPLEX

CRANE PARK

SCENIC HILL



CONFLUENCE PO AND DORA

NEW SCENIC BRIDGE FOR PARCO COLLETTA

ECO FARMING FOR STUDY

EX-MILITARY RIDING SCHOOL

WALKING PATHS AND SCENERY

CONFLUENCE PO AND STURA DI LANZO

COMMERCIAL AND SERVICE AREA

RAINWATER COLLECTION AND SCENIC POND

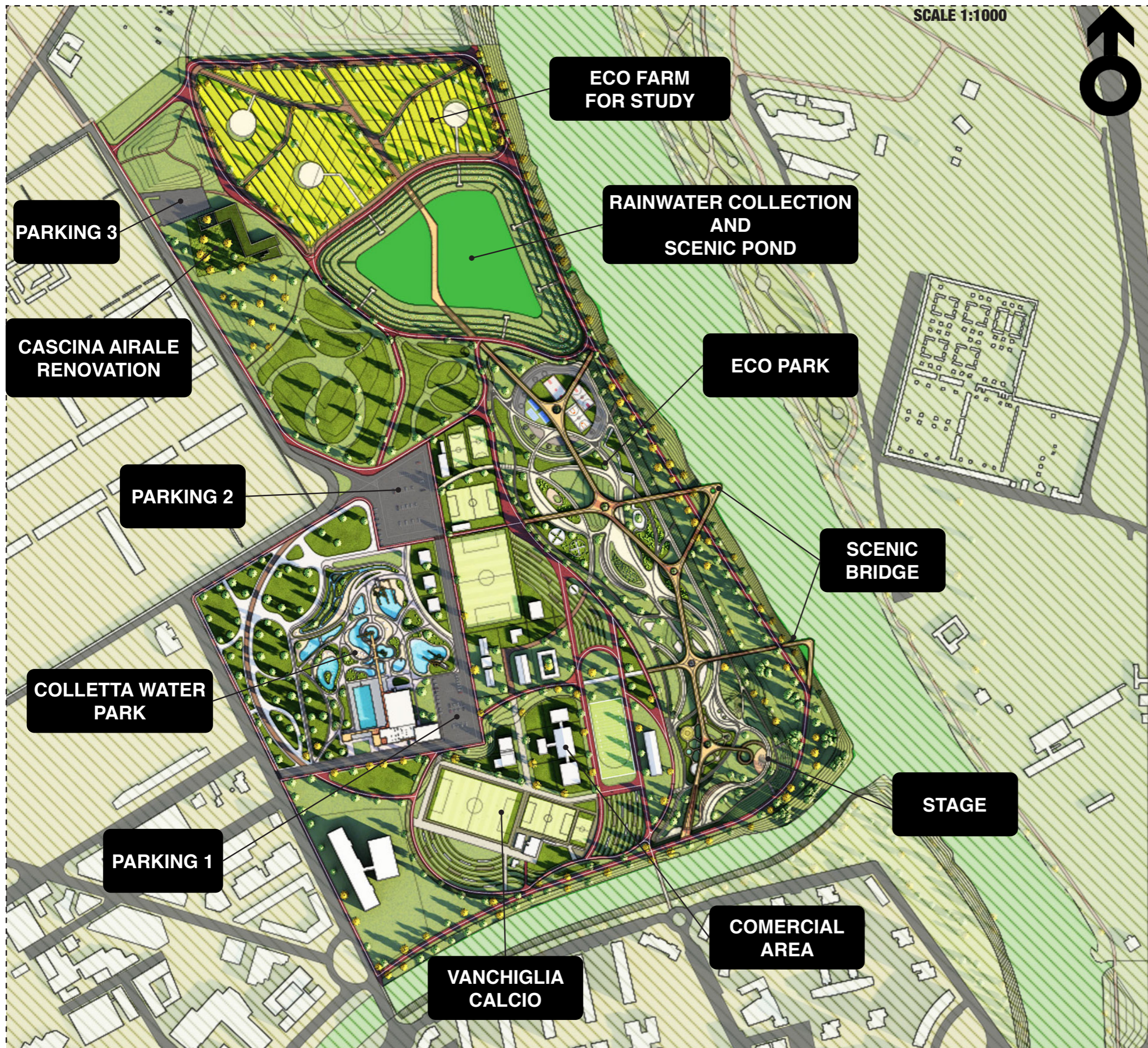
BRIDGE 1

BRIDGE 2

CHAPTER 7

**PARCO PIETRO COLLETTA
DESIGN**





7.1 PARCO COLLETTA MASTER PLAN

The design revolves around the concept of connecting circular zones within the land area using a combination of circular paths and straight lines horizontally. This approach ensures seamless connectivity between different sections.

The design is structured into three main zones:

1. COLLETTA WATER PARK:

Developed and expanded from the Colletta Pool, this area focuses on utilizing water features to create an underwater-themed recreational space. The park includes a variety of water sports facilities and is surrounded by well-maintained greenery to enhance the overall ambience.

2. ECO PARK:

Centered around Calcio Colletta and the adjacent riverside park area, the Eco Park integrates ecological principles with numerous sports facilities. Additionally, commercial and service blocks are strategically incorporated to meet the diverse needs of visitors and sports enthusiasts alike. A notable feature of this zone is a scenic bridge that connects the sports and commercial areas with the riverside landscape, designed to facilitate mobility for all visitors.

3. RAINWATER COLLECTION AND SCENIC POND

Starting from the less developed part of Parco Colletta, this zone includes a rainwater harvesting pond designed to support the water park's needs. It also contributes to the area's landscape, complementing the restored hunting lodge—a key element of the project—with an ecological garden intended for educational and research purposes.



7.2 COLLETTA WATER PARK

7.2 COLLETTA WATER PARK PLAN



Colletta Water Park, originating from the infrastructure of the Colletta Pool, leverages its prime location to create a dynamic recreational space. The design ingeniously utilizes an outer corridor as a connecting bridge to the central focal point of the pool, doubling as a space for thrill-seekers interested in water slides.

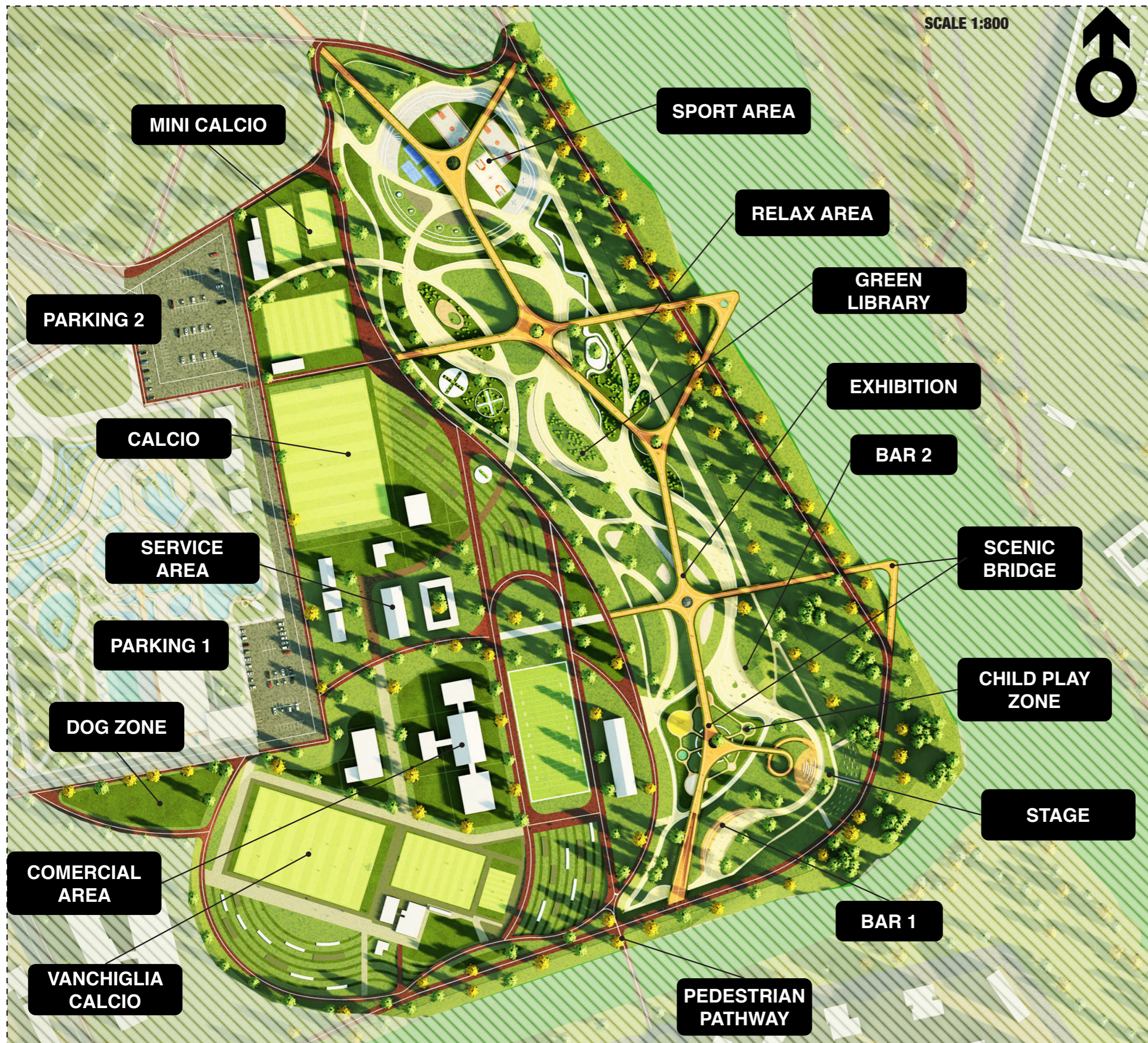
The amenities within the pool area cater to a wide spectrum of interests and ages. Visitors can enjoy the exhilarating water slide zone, where twists and turns provide thrills for adventure enthusiasts. Families with children can explore the lazy river section designed for leisurely floating, complemented by interactive features to entertain the youngest visitors. For those seeking relaxation, the sauna and jacuzzi area offers a serene retreat, while the adult swimming pool area, complete with a bar counter, provides a perfect setting for socializing and unwinding. Additionally, a dedicated children's pool area ensures safe and enjoyable experiences for the youngest guests.

The thoughtful integration of these diverse amenities transforms Colletta Water Park into a multifaceted destination. Whether guests seek adventure, relaxation, or family-friendly fun, the park's comprehensive offerings ensure an enriching experience for everyone, establishing it as a vibrant hub for aquatic leisure and community engagement.



7.3 COLLETTA ECO PARK





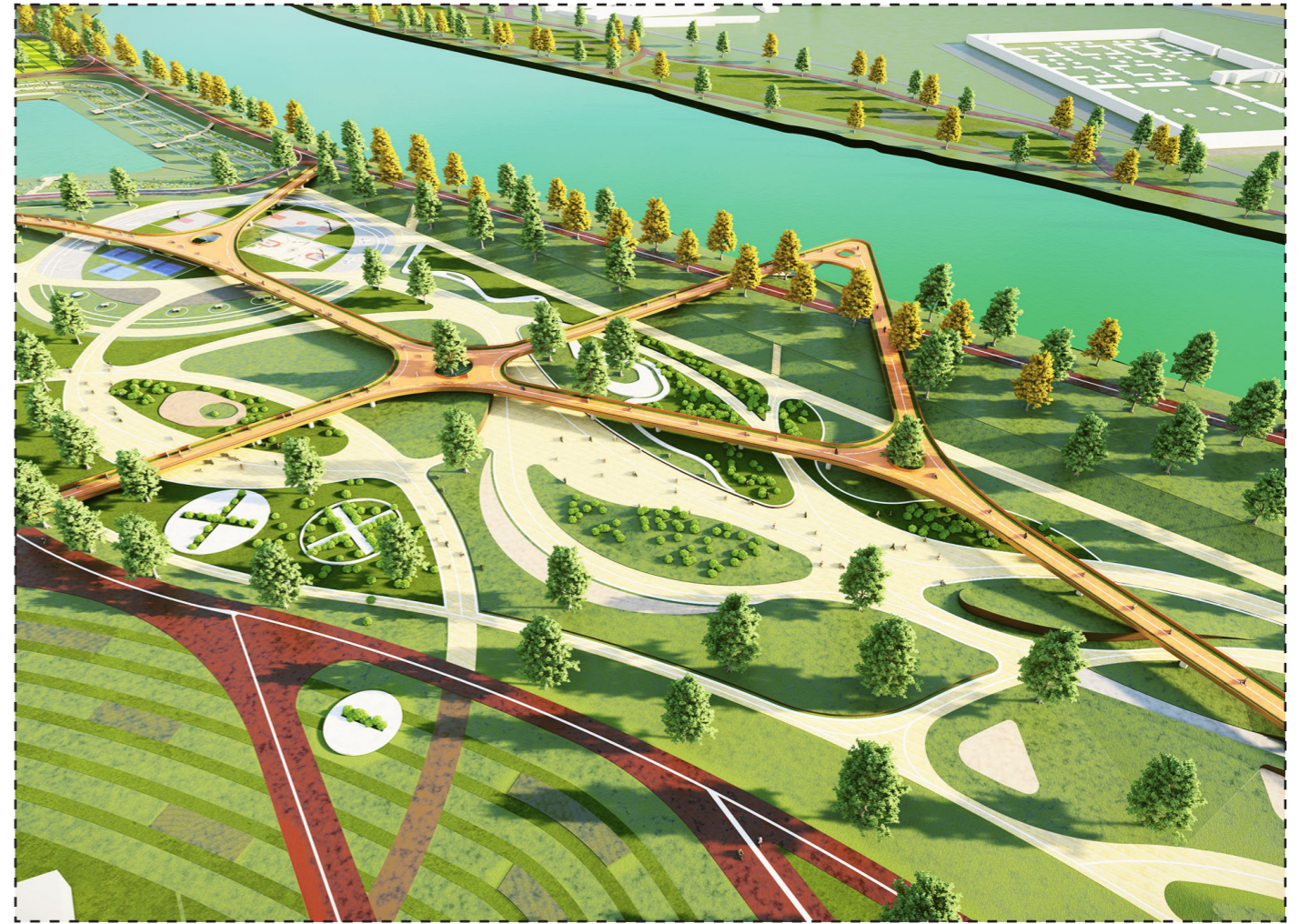
7.3 ECO PARK PLAN

The design of the Eco Park area stems from a thorough analysis of community needs and a vision to create a cutting-edge park for Turin. This area is divided into two primary sections, each serving distinct purposes that enhance the urban landscape and cater to diverse interests.

Vanchiglia Football Grounds: This section has been revitalized and seamlessly integrated with commercial and service amenities to meet the recreational demands of both locals and visitors. It serves as a hub for sports enthusiasts, offering modern facilities amidst a vibrant urban environment.

Riverside Park Area: Positioned strategically along the banks of the River Po, this part of the park features a straight bridge connecting the main sports area from west to east. The bridge not only provides a physical link but also serves as a sensory pathway, enabling visually impaired individuals to engage with the natural surroundings through tactile and auditory cues. From south to north, a pedestrian pathway connects the residential district of Vanchiglia to the scenic lakeside, enhancing accessibility and encouraging community interaction with the serene natural setting.

Underneath the bridge, a diverse array of recreational facilities enriches the park experience. These include a stage area for cultural performances, a dedicated children's playground designed for exploration and play, a green library promoting environmental awareness, and a museum showcasing historical artifacts such as the ruins of Viccobone Castle. Additionally, multipurpose sports facilities cater to various athletic pursuits, promoting an active lifestyle within a harmonious urban oasis.





7.4 COLLETTA SCENIC POND



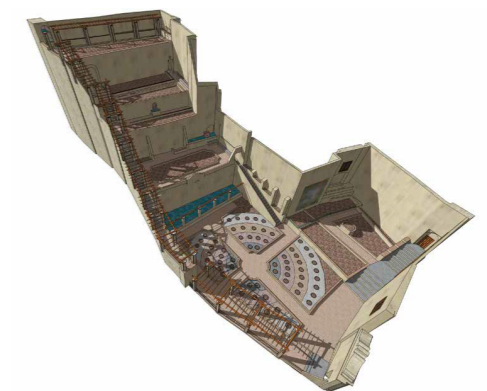
7.4 RAINWATER COLLECTION AND SCENIC POND

The project begins with a low-lying area of the land, where a reservoir has been developed inspired by the water collection system of Minerva Garden in Salerno. This reservoir is the centerpiece, surrounded by a carefully curated botanical garden designed for educational and research purposes. Divided by scenic pathways, the lake offers visitors a tranquil and visually stunning experience.

Adjacent to this water feature, an old hunting lodge has been meticulously restored to its original structure. Once overgrown with vegetation, it now serves as a hub for biological research and education, specifically tailored for children.

Furthermore, the existing grove area has undergone a thoughtful redesign, transforming into an Eco farm. This area serves as a practical learning environment for students, allowing them to engage in hands-on activities such as planting crops and conducting agricultural research.

These three distinct zones seamlessly integrate to form a comprehensive hub for biological study and education. With its school facilities, expansive fields, and serene lake, the site not only promotes academic exploration but also offers a peaceful retreat within the landscape.



Il Giardino della Minerva

CHAPTER 8

CONCLUSION AND DATA

8.1 CONCLUSION

CONCLUSION

Throughout the process of analyzing, evaluating, and proposing the design for the riverside park area in Turin, it has become evident that the city holds immense potential for development, even in lesser-known areas such as the parks at the confluence of the Po, Dora, and Stura di Lanzo rivers. The landscape and heritage of this region are exceptionally rich, with valuable historical assets like Ex-tabacchi, Viboccone Castle, and the former hunting lodge.

In the design process, significant attention was given to these heritage values, and comprehensive plans were made to connect and revitalize them, aiming to bridge the gap between the past and the future. Recognizing the potential brought by the upcoming Metro Line 2, the design has emphasized the importance of connecting various areas within the site and linking them with the new Metro stations.

Moreover, to attract more visitors, the design proposed several new features such as Colletta Water Park and Eco Park, which include not only sports facilities but also services for the community. This initiative will help boost the local economy, generating funds for further improvements in the future. The design also takes into account the needs of both the general public and the visually impaired.

Ultimately, the goal is to create a sustainable ecological network for the entire area, fostering a connection between Parco Colletta and the surrounding region.

HOPE FOR THE FUTURE

Through this design process, it has become clear that Turin possesses significant potential for development, similar to what has been demonstrated in this specific site. With its rich historical background and natural advantages, Turin can evolve into a more widely recognized tourist destination. The design also raises the question of whether sustainable architecture should incorporate more elements and considerations for the visually impaired, promoting inclusivity and accessibility.

8.2 BIBLIOGRAPHY

COMUNE TORINO DOCUMENT:

http://www.gisminer.eu/2020/WEBGIS/Comune_Torino_1000_PDF/#12/45.0750/7.6740
<http://www.comune.torino.it/circ7/cm/pages/ServeBLOB.php/L/IT/IDPagina/3615.html>
<http://www.comune.torino.it/circ7/cm/pages/ServeBLOB.php/L/IT/IDPagina/3348.html>
<http://www.comune.torino.it/circ7/cm/pages/ServeBLOB.php/L/IT/IDPagina/3703>
<https://www.torinovivibile.it/>
<https://www.torinocambia.it/interventi/mappa>
www.regione.piemonte.it
Torino GIS open resource

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www.manifatturatabacchitorino.concorrimi.it
www.museotorino.it
www.alamy.it
<https://earth.google.com/web/>
<https://www.regione.piemonte.it/web/temi/protezione-civile-difesa-suolo-opere-pubbliche/difesa-suolo/strumenti-per-difesa-suolo/piano-per-lassetto-idrogeologico-pai>
<https://www.torinobirdwatching.net/2013/01/07/parco-della-colletta-e-confluenza/>
<https://www.parcopopiemontese.it/pun-dettaglio.php?id=988>
<https://torinounacittatuttadascoprire.wordpress.com/2017/05/11/il-po-e-la-dora/>
https://www.tripadvisor.it/Attraction_Review-g661706-d4502882-Reviews-AcquaJoy-Rivoli_Province_of_Turin_Piedmont.html
<https://www.giardinodellaminerva.it/>
<http://www.gisminer.eu/>
www.torinounacittatuttadascoprire.wordpress.com