

Women move safely

Perception of safety in mobility in informal settlements

Barrio 15

Barrio 20

Barrio 21-24

Barrio Lamadrid

Barrio Playón de Chacarita

Barrio Ricciardelli

Barrio Ramón Carrillo

Barrio Rodrigo Bueno



DEVELOPMENT BANK
OF LATIN AMERICA
AND THE CARIBBEAN



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This document was prepared by the Vice Presidency
Corporate Strategic Programming

Ángel Eduardo Cárdenas
Manager of Urban Development, Water and Creative economies

Emil Rodriguez
Director(e) Habitat and Sustainable Mobility

Edition and CAF Coordination: Angie Palacios

CAF review team:

Mariana Poskus

María Guadalupe Aguirre

Bárbara Zamora Auza

Editing and Coordination Secretary of Transport and
Public Works | Government of the Autonomous City of
Buenos Aires

Carolina Savoca Truzzo

Antonia Rubinstein

Collaborating Areas GCABA (City Government
Autonomous of Buenos Aires):

Undersecretariat for Mobility Planning
(SECTOP)

Operational Management of Planning and Articulation
Strategic (IVC)

Undersecretary of Social Integration and Habitat (IVC)

City Housing Observatory (IVC)

Overall Edition:

Luciana Pacheco

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Cooperativa Cambalache

Active Learning Solutions S.A. (Safetipin)

Graphic design and editorial layout

Estefanie Quispe Salas

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This publication was made within the framework of the study Night Safety Index for the mobility of women in 8 informal settlements in Buenos Aires financed by CAF - Development in support of the Secretariat of Transportation and Public Works of the Government of the City Autonomous of Buenos Aires, within its mobility and gender strategy that seeks to promote more inclusive urban transport systems in Latin American cities.

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Publisher's No.: Understanding that language creates reality and has a direct influence on the way we perceive the society in which we develop and with the interest of generating an inclusive publication not only in the spirit of its content but also in its writing, we established the criterion of making the genre visible only when the communicative situation and the message require it.



Photo 1. Diagnosis on foot in Barrio 20.



How to read this publication?

Color legend by informal settlement:



*'Barrio' means informal settlement.



Executive Summary

Urban mobility is essential for those who live in cities. Transport infrastructures and services are an essential means of improving people's well-being, facilitating their access to the economic and social benefits of urban life. The lack of a robust and efficient public transport system in a city has a negative impact on the life and well-being of its inhabitants. The associated consequences are more accentuated for women and diverse people, who have limited mobility options. The experience of access to the urban environment and public transport is not always equitable and varies according to gender, age, socioeconomic background, place of residence and work. Thus, the challenges are even greater for women who live in low-income and socially vulnerable informal settlements, due to lack of access or low frequency of public transport services.

Photo 2. Diagnosis on foot in Barrio 20.

Recent research in Latin American cities has shown that women's mobility is profoundly affected by gender violence. While men are more concerned about armed robbery or pickpocketing, women fear sexual harassment and assault. The fear of any form of gender-based violence significantly influences the travel options and patterns of women, who prefer to travel in groups, especially during the day or accompanied. Harassment and sexual violence prevent women from truly enjoying their right to the city, limiting their access to education, employment, leisure and well-being opportunities.

The new paradigms when designing and planning cities leave aside the universal subject for which they were historically intended, and assume the diversity of users who move around them daily. From this approach the present study arises in order to achieve a comprehensive approach from a gender perspective in the mobility of women living in informal settlements in the City of Buenos Aires. According to the latest surveys, there are more than 5,500 informal settlements in Argentina, of which 50 are in the Autonomous City of Buenos Aires (CABA)¹.

The Development Bank of Latin America and the Caribbean (CAF), together with the Secretariat of Transportation and Public Works of the Government of the Autonomous City of Buenos Aires, and with the collaboration of a team of international consultants, made up of Safetipin (India), the Cooperativa Cambalache (Argentina), and the City Housing Institute (IVC), carried out this **study with the aim of understanding the barriers to the mobility of women in 8 informal settlements in the city. This study focuses on understanding the factors that impact the daily mobility of women and people with diverse identities around the selected informal settlements.** Thus, it was possible to outline a system of lines of action and possible solutions in order to improve mobility in these informal settlements from a gender perspective.

This study constitutes a highly relevant tool for the Government of the Autonomous City of Buenos Aires (GCABA), from its competent agencies and other civil society actors, to better understand the main problems faced by women and the existing challenges related to mobility in the informal settlements of the City. Likewise, this initiative manages to generate information on an urban problem in informal settlements that tends to have a chronic deficit of access to quality information for the design of effective public policies.

¹ Law 27.694/2022.

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Photo 3. Diagnosis on foot in Barrio 20.

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01

Actors involved

This study was carried out within the framework of the Gender and Mobility strategy carried out by the Secretary of Transportation and Public Works of the City of Buenos Aires (CABA), which seeks to encourage the development of efficient, safe, inclusive transportation and mobility systems and sustainable, in pursuit of improving the quality of life of users.

CAF - The Development Bank of Latin America and the Caribbean is a development bank whose objective is to promote sustainable development and regional integration of the countries of Latin America and the Caribbean, by financing programs and projects in the public and private sectors and providing cooperation and technical assistance, among others. This study is part of CAF's urban development guidelines, which propose to contribute to making urban systems² in Latin America and the Caribbean more inclusive, diverse, productive, safe, resilient and sustainable, focusing on three lines of work:

² Urban systems range from small semi-rural towns to large metropolitan conurbations.

Photo 4. Participatory Mapping and Diagnosis on foot in Barrio 20.

Urban Management, focused on the governance of urban systems, planning, territorial management and financing for urban development; Urban Areas, contemplating aspects of access policies and housing infrastructure, social infrastructure, accessible urban environments and citizen safety; and Urban Networks, including sustainable urban mobility, in its aspects of planning, technological innovation, urban form and integrated transport systems and systems of quality public spaces.

Likewise, the focus of this study on informal settlements is framed within CAF's Guidelines on housing, which focus on improving access to adequate housing and its surroundings, with emphasis on vulnerable populations. This goal contributes to meeting target 11.1 of Sustainable Development Goal 11, which seeks, by 2030, to ensure access for all people to adequate, safe, and affordable housing and basic services, and to improve slums.

Finally, in order to contribute to a more inclusive development where all people can exercise the same rights, the study is developed under the first CAF Strategy for Gender Equality, which recognizes the progress made to date and that the greatest challenge in the region lies in achieving substantive equality, since there are still gender gaps that limit the autonomy of women.

The Strategy aims to contribute to equal opportunities and the empowerment of women and girls, from an intersectional perspective, through support for public equality policies and gender mainstreaming in the different CAF services, through three strategic axes of intervention: economic autonomy, physical autonomy, and autonomy for decision-making.

Secretary of Transportation and Public Works (SECTOP)

It is in charge of the design and implementation of public policies, programs and projects to improve mobility in the City, in addition to the execution of public works of the Government of the Autonomous City of Buenos Aires. Understanding aspects related to transportation, pedestrian and vehicular circulation, based on the economic, environmental and social development policies of the Autonomous City of Buenos Aires, is one of its primary responsibilities.

Within the Secretariat, the Sub-Secretariat for Mobility Planning, through the General Directorate for Planning, Use and Evaluation, is in charge of conducting data surveys related to mobility and evaluating the experience of users with respect to the projects and transportation services in the Autonomous City of Buenos Aires; as well as carry out evaluation of the projects, policies and programs and issue recommendations to the different areas of the Secretariat.

City Housing Institute (IVC)

It carries out the housing policy of the City of Buenos Aires. It seeks to reduce, through active policies, the housing deficit and guarantee access to decent housing for all the inhabitants of the City, focusing on the social situations of greatest socioeconomic vulnerability. It focuses its approach on three axes: housing, urban and socio-economic integration, because it understands that the problem must be addressed from an approach that encompasses all of the families' living conditions.

02

Introduction

Background

With the aim of achieving accessible and inclusive transport and mobility systems, since 2016 the SECTOP has been developing, with the support of various actors, specific interventions in terms of equity and gender equality. These include the promotion of integrated mobility with a focus on active mobility, paying particular attention to gender gaps in the use of bicycles, the problem of street sexual harassment of girls, women and other gender identities, labor inclusion in the transport sector and the generation of data and statistics disaggregated by gender.

2017 | She Moves Safely: it is a joint work of CAF and the FIA Foundation where the perception of safety of women in public transport in three Latin American cities, including Buenos Aires, was analyzed. As a result, the Secretary of Transportation had solid data that made it possible to plan one of the main public transportation policies with a gender perspective: Line 22676 (ACOSO) for reporting and emotional support for victims of this type of violence. The campaign “Neither crazy, nor persecuted, nor hysterical. Harassment exists”, present in all modes of transport, stations, platforms and public transport wagons, reaching more than 2 million people at the moment.

Photo 5. Diagnosis on foot in Barrio 20.

2017 | Women and Urban Cycling: this study financed by the Inter-American Development Bank (IDB) investigates the mobility patterns of women and in particular their use of the bicycle as a means of travel. It takes as a case study the City of Buenos Aires, where a participatory instance was carried out within the framework of this initiative. Finally, it elaborates a series of recommendations to increase the use of bicycles by women in urban environments.

2019 | Gender and Mobility Plan: For the first time, and with the support of CAF, a plan was drawn up that included an extensive diagnosis and clear proposals with the aim of including the gender perspective in the design and implementation of public transportation policies. part of the SECTOP. The focus was to attend to the medium-term obstacles faced by women and the different groups traditionally relegated in the design of the City of Buenos Aires.

2020 | Training in Daily Mobility with a Gender Perspective: within the framework of the actions promoted by the Gender and Mobility Plan and with the support of CAF, SECTOP trained its directors and managers in mainstreaming the gender perspective in transportation projects through a program designed by the feminist urbanism group ColLECTiu Punt 6.

2021 | Daily Mobility Guide with a Gender Perspective: as a continuation of the training given to directors and managers, ColLECTiu Punt 6 together with SECTOP and with the support of CAF drafted this methodological guide. It proposes tools to diagnose, design, apply, evaluate and periodically monitor the implementation of the gender perspective in mobility and transport systems with practical examples.

2022 | Manual for the design of public spaces with a gender and diversity perspective: SECTOP collaborated with the Urban Anthropology area of GCABA, which coordinated and wrote this manual. It was developed from collaborative work between different government areas and is intended to serve as a practical reference for local governments, civil society organizations, companies and work teams that participate in or develop projects related to the design of public spaces.

This document is a continuation of CAF's support to SECTOP in pursuit of making the city's mobility and transportation networks more inclusive. Here we present the methodology, findings and steps to follow to improve the mobility of women within the scope of informal settlements in the Autonomous City of Buenos Aires.



Photo 6. Bike path in Barrio Mugica.



Graph 1. Time line of the background.

Gender and mobility perspective

Historically, cities were planned and designed from an androcentric perspective and with a universal male subject at the center. This subject moved mainly for work and educational reasons (activities that encompass the majority of the trips made by men), leaving aside the trips linked to care tasks mostly carried out by women. The material footprint of this approach are transport networks that connect the center with the peripheries, with few connections between them and few services outside peak hours (where there are more trips related to caring for people).

Today, new approaches to the production of the city and its operation when planning are discussed: **it is understood that there is no longer a universal subject for which to design cities.**

Including the intersectional gender perspective³ in the policies and design of transport networks and mobility spaces implies assuming that there are a wide variety of users with different needs and behaviors. This is not limited to the eradication of violence and harassment suffered by women and diverse people on public transport and public roads, but also, and above all, aims to reduce inequalities between men and women and between environments urban, peri-urban and rural, when it comes to accessing the different services and activities that urban life offers. The lack of services at intermediate times, the disconnected networks and the quality of the infrastructure for active mobility are some of the determining factors when it comes to accessing job opportunities, health services or education, as well as an increase in the times engaged in unpaid care work.

³ The intersectional approach raises the impossibility of studying gender as an isolated category, but instead takes into account several factors (such as gender, age, origin, sexual orientation, functional diversity, among others) that intersect, giving as result in multiple levels of social injustice.



Photo 7. Bike path in Barrio Mugica.

Mobility and gender in the City of Buenos Aires

The Autonomous City of Buenos Aires is the capital of the Argentine Republic and, in addition, the economic, institutional, cultural and geographical center of the Buenos Aires Metropolitan Area (AMBA), the third largest city in Latin America. 33% of the population lives in the AMBA and more than 30% of the total GDP of the country is concentrated⁴. Approximately 3 million people live in CABA and 16 million in Greater Buenos Aires (GBA).

According to official data, **1.3 million people living in GBA enter the City of Buenos Aires daily for work reasons**⁵. In a situation where a large number of people travel within the city in search of education, employment and access to other urban services, public transport begins to play a fundamental role in the economic and social life of the city⁶. Currently, CABA has a public transport network made up of 276 bus lines, 8 railway lines and 6 subway lines.

In 2018, CAF reported that of the 19 million daily trips made in the Buenos Aires Metropolitan Area, **49% are by public transport**, with 8 out of 10 trips made by bus. 24% of the trips were on foot. Of the total trips made by women, 54% are made by public transport (CAF, 2018).

According to data from the latest ENMODO⁷, women make 50% of all their trips by bus compared to 37% of men, while only 8% of their trips are made in private vehicles compared to 28% among men (Mendiola & Gonzales, 2021).

While the city center has a dense transportation network, services reduce in number and frequency the further you get from the center. In 2020, the World Bank reported that most internal routes in low-income communities in Buenos Aires were not served by buses, or at best services were limited and very infrequent⁸. In a situation where public transport connectivity is limited, low-income women, who do not have access to private vehicles, are the most affected by their inefficiency (CAF, 2018). In addition to facing difficulties in accessing public transport, the “She Moves Safe” study revealed that **72% of the women interviewed also felt unsafe when using public transport** (compared to 58% of men) in the Buenos

⁴ <https://worldpopulationreview.com/countries/argentina-population>

⁵ Labor Mobility in the Metropolitan Area. Center for Metropolitan Studies. 2020

⁶ Allen, H.; Cardenas, G.; Pereyra, L.P.; Sagaris, L. “She moves confident. A study on women’s personal safety in public transport in three Latin American cities,” Books, CAF Development Bank of Latin America, 2018.

⁷ National Survey of Household Mobility, 2010.

⁸ Gonzalez, K.D.; Machado, A.L.; Alves, B.B.; Raffo, V.; Warriors; Portabales, I. “Why Does she She Move? : A Study of Women’s Mobility in Latin American Cities”. World Bank, Washington, DC. 2020. <https://openknowledge.worldbank.org/handle/10986/33466>

Aires Metropolitan Area. Aires (CAF, 2018). While men feared armed robbery or pickpocketing, the possibilities for violence against women also include sexual harassment and assault, significantly affecting their travel choices and patterns. This includes traveling alone at specific times or accompanied and limited exclusively to travel for work reasons. The connectivity of the bus networks further exacerbates alerts, as they are forced to walk long distances on unsafe or deserted streets (World Bank, 2020).

In addition to concerns for personal safety, women also face other issues related to societally imposed gender roles when using public transport. According to the “National Time Use Survey (INDEC, 2021), in Argentina women spend, on average, almost twice as much time as men on tasks related to care. As a result, they are forced to make shorter but more frequent trips due to the needs of the people they care for, spending more time and money on public transport (CAF, 2018).

Therefore, problems in connectivity to safe and accessible public transport networks not only affect women’s ability to carry out their daily tasks, but also restrict their access to better paid jobs, education, health services and, in consequence, opportunities for social and economic development.

In this context, the Secretary of Transportation and Public Works, together with its strategic partner CAF, defined the need to carry out a study to understand mobility conditions in a unified and comprehensive manner through a better understanding of the existing barriers to women who live in 8 informal settlements in the City of Buenos Aires, with a focus on personal safety, connectivity and universal accessibility. This was done through the following actions:

- Contextualization of the problems in the territory by the main government actors of the City of Buenos Aires.
- Definition of the analysis framework and a mixed data collection methodology.
- Analysis of the data collected to identify the main safety, accessibility and connectivity problems, especially for women and girls.
- Systematization of the main findings and identification of steps to follow to transform informal settlements and mobility spaces into safer and more accessible places for all users and particularly for women and girls.

The study selected **8 informal settlements within the City of Buenos Aires** to carry out a diagnosis on mobility with a gender perspective. It has the purpose of identifying the factors that affect the perception of safety of the women who live and move in these spaces, territorialize these factors and systematize the information in indicators that allow comparing the situation in each of them and thus develop a series of recommendations for interventions and public policies to carry

out. The criteria when selecting the informal settlements focused on choosing those with various morphological characteristics, connectivity and urban insertion, dimensions, amount of population and state of ongoing socio-urban integration interventions. The selected informal settlements were: **Barrio 15, Barrio 20, Barrio 21-24, Barrio La Madrid, Barrio Playón de Chacarita, Barrio Ramón Carrillo, Barrio Padre Ricciardelli (ex Villa 1-11-14) and Barrio Rodrigo Bueno.**



Photo 8. New entrance of line 45 to Barrio Mugica.

03

The informal settlements of the City of Buenos Aires

The focus of this study is placed on the informal settlements of the Autonomous City of Buenos Aires. According to the National Registry of Informal Settlements (RENABAP), there are a total of 57 sites⁹ considered informal settlements within the scope of the city, differing in their origin, morphological characteristics, dimensions, and population.

Informal settlements in Argentina are defined by law¹⁰ as informal settlements made up of a minimum of eight grouped or contiguous families, where more than half of the population does not have a land title or regular access to at least two of the services basic (running water network, electricity network with home meter and/or sewage network)¹¹.

⁹ Law 27453/2018 and its update 27694/2022

¹⁰ Law 27453/2018 and its update 27694/2022

¹¹ Law 2670/2015

Photo 9. Aerial view of the Barrio Rodrigo Bueno.

Informal settlements, historically called villas, arose during the 1930s in the context of the global economic crisis. The first of relevant scale was the one known as **Villa 31 -today Barrio Mugica-** which received, in large part, immigrants recently arrived in the country and a flow of rural workers who sought better working conditions and quality of life. In the following decades, new settlements appeared in different parts of the city, organized on different scales and always linked to large infrastructures and urban barriers. Each economic crisis that plagued the country increased the number of population expelled towards informality, consolidating the villas and settlements as a feasible alternative to access housing in the city. Towards the end of the 1970s and with the arrival of the last military dictatorship, the policy that took hold was the eradication of the shantytowns, generating a decrease in its inhabitants who were or were expelled to their country of origin or to areas of the AMBA. . The return to democracy, with the economic complexities that have been experienced in recent decades, could not reverse the growth of shanty towns and settlements by not developing a consolidated housing access policy.

According to the 2010 Census, **the number of inhabitants in towns and settlements in the city reached 170,000.** The population increase, however, was not followed by a territorial expansion, which accounts for the proliferation of high-rise construction in these settlements, and the increase in the levels of overcrowding to the detriment of the quality of life of the inhabitants.

Since 2016, the Government of the Autonomous City of Buenos Aires, through different organizations, has carried out Socio-Urban Integration Processes (PIRU) in the informal settlements of the city. They were legitimized through the enactment of specific urbanization laws in some of the informal settlements studied (Barrio 20, Barrio Playón de Chacarita, Barrio Rodrigo Bueno). The regulatory framework established, among other things, the objectives of the process and the formation of the participatory management boards, organizations made up of all the actors involved, in charge of the diagnosis, design, monitoring and evaluation of the processes to be carried out.

Calling on the different sectors of civil society involved in this task, they ranged from the laying of infrastructure networks to the construction and adjudication of new housing units. Understanding that access to transport and mobility networks is a fundamental part of the integration of those who live in the informal settlements into urban life, various improvements were made in this area. The connection with the bike path network, the entry of bus lines into the informal settlements, the inclusion of protected bus stops, among others.

Photo 10. 'Villa Desocupación'



The 'Villa Desocupación' is the settlement that was destroyed by the state in the 1930s. Photograph taken from Valeria Snitcofsky and the BBC.com portal.

Photo 11. Villa 31



The oldest informal settlement in Buenos Aires, Villa 31 is almost 80 years old and embedded in the wealthiest area of the city. Photography taken from Movimiento Evita and the BBC.com portal.

04

Methodology

This study adopted a methodological approach divided into two main phases of data collection -quantitative and qualitative- and a final phase of data analysis. The data collection and its subsequent analysis were carried out between the last quarter of 2021 and the second quarter of 2022. This work compiles all the results in the same report.

Phase 0. Preparation

As an initial instance, the Secretary of Transportation and Public Works shared with the consulting teams the available data and information regarding the transportation and mobility system, urban structure, and land use in order to configure the base cartographies. In addition, the routes to be carried out for data collection around the informal settlements were designed and the transport stops to be audited were selected. All this information was validated with the territorial referents of the City Housing Institute.

Photo 12. Participatory Mapping and Diagnosis on foot Barrio 20.

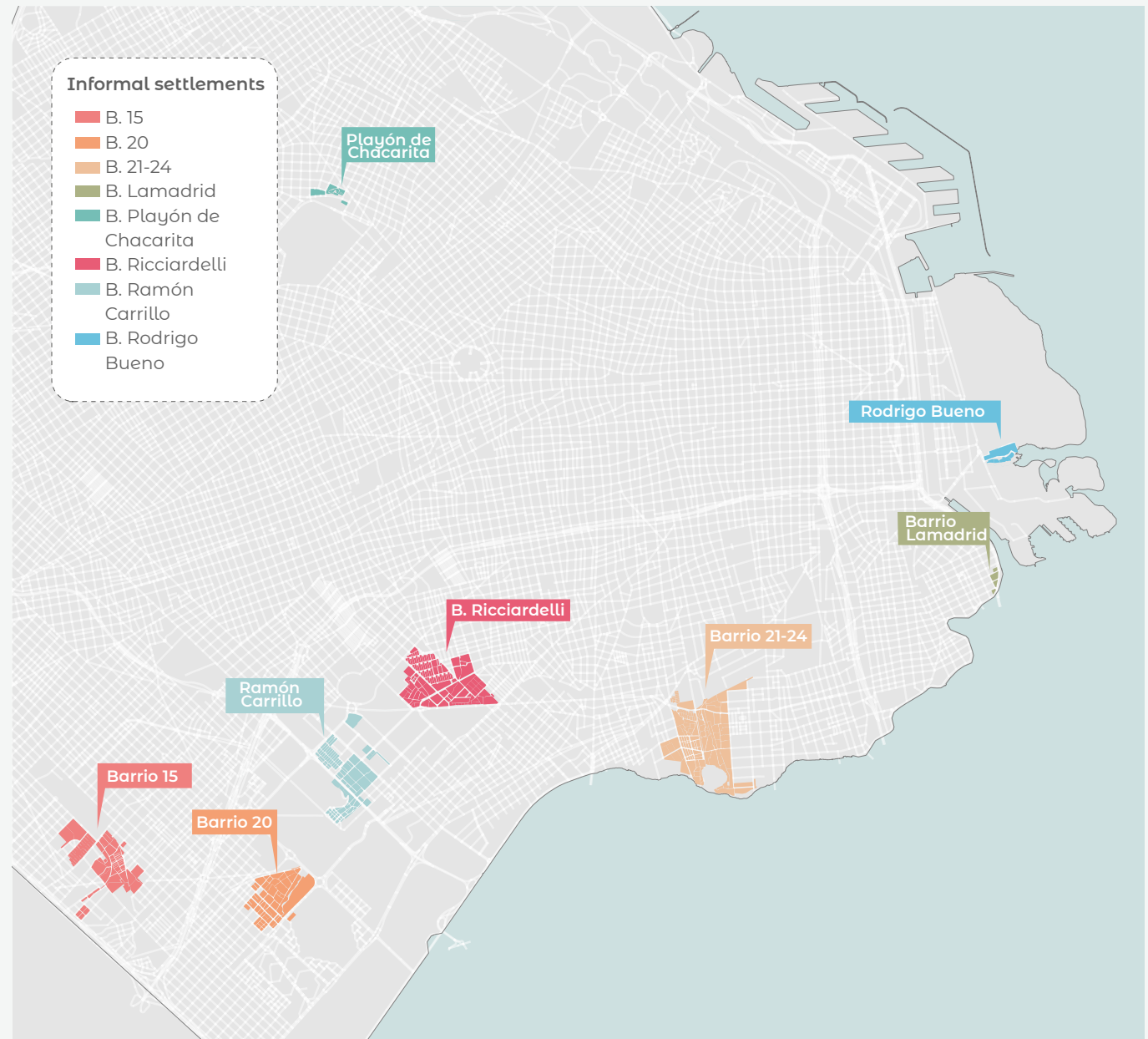
Phase I. Quantitative research

- **Quantitative data collection** was performed with two digital applications created by the technology company Safetipin¹²: Safetipin Nite and Safetipin Site. The applications work through mobile devices allowed the entry of georeferenced information in real time about the safety level of a specific place. This phase was carried out during the months of November and December 2021, in which more than 105 linear km were surveyed in eight informal settlements in the Autonomous City of Buenos Aires.
- **Data collection of the urban environment through the Safetipin Nite application.** The Safetipin Nite application was used to collect georeferenced images in the surroundings of eight informal settlements in CABA. Through vehicular routes, more than 105 linear km were surveyed. In order to be able to identify the variations in the state of the variables and/or conditions that may affect the perception of personal safety of those who move, especially women, between day and night, this survey was carried out at two specific moments: in the presence of natural light (6 - 8 pm) and when it was already dark (8 - 10 pm). 5,204 images were collected during the day and 4,710 at night. A mobile device mounted inside a vehicle recorded images every 50 meters of travel, both day and night.
- Once the journey was finished, the records were uploaded to the Safetipin servers where an internal team of image analysts rated them within the following parameters: **lighting, openness, visibility, crowdedness, presence of women, safety presence, availability of public transport and the status of the pathway** (See Table 1. Variables and score for Safetipin parameters, page 30). Subsequently, they were grouped into audit points to simplify the visualization of the results by variable and combined to generate the composite index of safety by informal settlement.
- **Survey of public transport stops through the Safetipin Site application.** As a complement to the survey carried out with the Safetipin Nite application, the customizable Safetipin Site application was used. This application is designed to collect information on spatial, safety and infrastructure parameters in public places such as public transport stops, toilets and public parks from a detailed questionnaire, images and spatial data.

¹² Safetipin is an India-based technology company that develops a suite of participatory applications to make communities and cities safer by collecting and analyzing safety-related data on a large scale.

Focusing on mobility and gender, the public transport stops around each informal settlement were analyzed according to certain parameters. Two questionnaires were used:

- “User testimony”, which corresponds to an anonymous survey aimed at finding out the perception of safety and mobility of the users of public transport, specifically those who were at the most used bus stops.
- The second questionnaire: “Evaluation of the bus stop”, corresponds to a form to be completed, at night, with the different characteristics of the stop: infrastructure, light, accessibility, visibility, among others. Additional information such as bus routes and their schedules and frequencies at selected stops was also recorded. Four bus stops were surveyed in each informal settlements, collecting a total of 132 surveys from 79 women, 49 men and 4 users of other genders. “User testimony”, which corresponds to an anonymous survey aimed at finding out the perception of safety and mobility of the users of public transport, specifically those who were at the most used bus stops.



Map 1. Location of the 8 informal settlements in the study in the CABA.

Phase II. Qualitative research

Complementary to the collection of quantitative data, an instance of participatory mapping was developed in each of the surveyed informal settlements. In this sense, with the data collected through the Safetipin digital tools, a generalization is established about the safety conditions of an informal settlements through a series of variables, which, for their better implementation in a diagnostic work, deserve to be complemented with information from other sources. By themselves, the Safetipin tools provide data that refers only to the specific moment of information collection and is processed based on certain pre-established parameters.

- **Participatory mapping with neighbors.** After the quantitative collection instances, participatory mapping workshops were held in the different informal settlements with the objective of (1) understanding what the mobility of women is like inside and outside the informal settlement, (2) knowing the situations that generate unsafety and the strategies they develop to feel safe and (3) inquire about those elements that facilitate or hinder their mobility.
- Participatory mappings are inserted within what is known as Social Cartography. This discipline is developed around a common goal with input from an entire community in an open and inclusive process. The higher the level of participation of all the members of a community, the more beneficial the result will be, since it reflects the collective experience of the group that produced it. Map production is carried out by communities to show information that is relevant and important to their needs and intended for their use. These maps contain the names of a community's places, their symbols, scales and priority features and represent local knowledge systems.
- The activity was carried out on Tuesdays and Thursdays, to avoid the days where mobility is more atypical (Friday to Monday), the duration was 2 hours and an average of 15 women participated per workshop¹³. The aim was to guarantee an accessible and equipped location within the informal settlement, the provision of materials for the activity and a clear and transparent call among the neighbors of the informal settlements through territorial references of the IVC.
- Regarding this last point, it is important that those who are summoned and decide to participate are aware of the objectives of the workshop and are interested in the subject. In addition, there was support for the care of boys and girls in case they came accompanying their person in charge. Subsequently, the records provided by the women of the informal settlement were georeferenced to order and synthesize the data set in four dimensions: daily practices and frequent routes; displacements outside the informal settlement; connection of the informal settlement with the environment and perception of safety and mobility strategies and public space.

¹³ Although the initial objective was focused on knowing the mobility of women and diverse people, it was not possible to capture this difference since the call only managed to focus on women from informal settlements.



Photo 13. Participatory Mapping and Diagnosis on foot in Barrio 20.



Photo 14 and 15. Participatory Mapping and Diagnosis on foot in Barrio 20.

When consulting and evaluating the results obtained in phases I and II, it is important to take into account the representativeness of the samples and the ways in which the information is obtained in each case:

- **Phase I** works with quantitative data derived from the processing of images collected through an application. It is important to consider in this case that the samples were collected at a specific time and therefore respond to the prevailing conditions at that particular time of data collection. Based on this type of sample, it is not possible to consider possible situations that could occur over a longer period of time or under other conditions, for example: other times of the year, other environmental conditions, particular events, among other possibilities.
- **In phase II** it is also important to consider the composition of the sample, in this case the groups of women involved in the activity. Taking into account the methodology used, the characteristics of the call made and the effective participation of women in the groups, the information obtained from the participatory mapping workshops does not constitute a representative sample of all the safety and mobility problems experienced by women from that informal settlement. The reading of the information in this case must be carried out taking into account how the participating group was made up, their place of residence, activities carried out, age and other data provided through the testimonies and published in the qualitative report¹⁴.

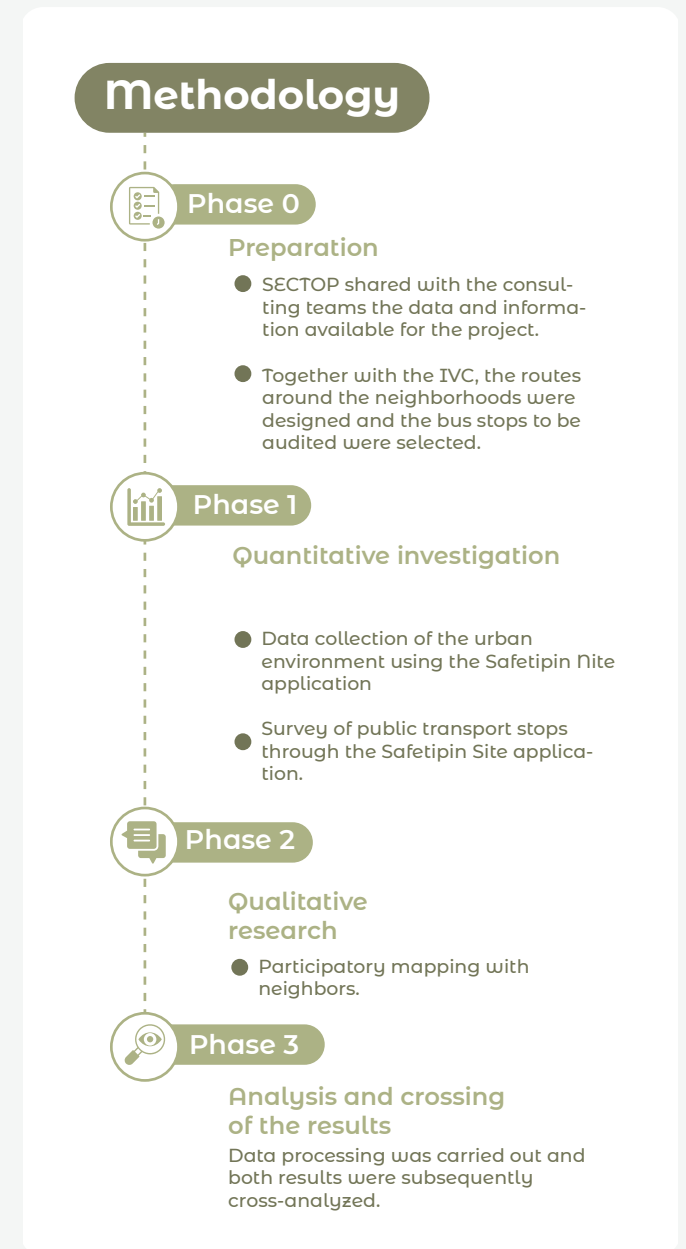
Phase III. Analysis and crossing of the results

Once both instances of data collection were completed, the information was processed and later both results were crossed. In addition to the information collected, the analysis was complemented with information provided by the SECTOP and IVC technical teams regarding public transportation services, urban equipment, land use, and public green spaces.

Quantitative investigation

The results are processed and systematized in databases and maps that account for each of the variables collected in each informal settlement.

¹⁴ To expand on the results of the qualitative methodology, see "Qualitative Report. Participatory Mapping Workshops."



Graph 2. Phases of the methodology.

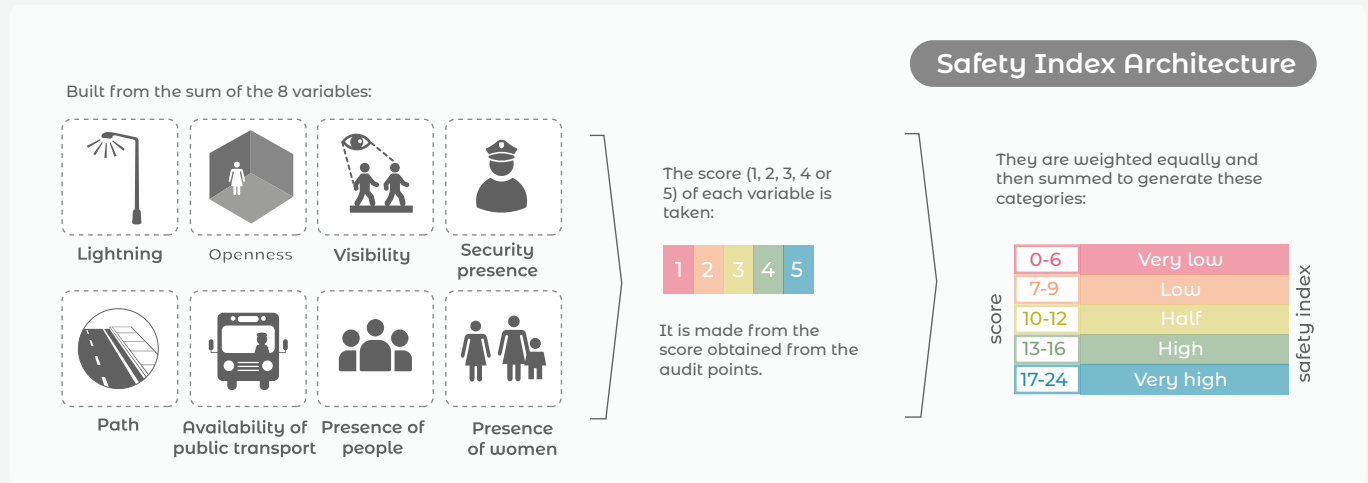
Table 1. Variables and score for Safetipin parameters.

Variables		Description	Scoring Rubric for Parameters (Bus Stops)									
	Lightning	Availability of sufficient light to see around you.	1	None	2	Not working	3	Little	4	Enough	5	Bright
	Openness	Ability to see and move in all directions.	1	Zero visibility	2	Poor visibility	3	Partially visible	4	Quite conspicuous	5	Full visibility
	Visibility	Vendors, shops, building entrances, windows and balconies where you can be seen.	1	They do not look	2	Few look	3	Some look	4	Many look	5	Highly visible
	Security presence	Presence of formal police or private guards.	1	None	2	Minimum	3	Moderate	4	Good	5	Maximum
	Path	Either a pavement or path with room to walk	1	None	2	Poor	3	Fair	4	Good	5	Excellent
	Availability of public transport	Availability of public transport services.	1	None at all	2	From distance	3	Near	4	Very close	5	Very accessible
	Presence of people	Number of people around you.	1	Desert	2	Few people	3	Some people	4	A lot of people	5	A crowd of people
	Presence of women	Presence of women and children around you.	1	No people	2	There is no diversity	3	There is little diversity	4	There is some diversity	5	There is diversity

Once the images were uploaded to the system, the Safetipin team created routes with audit points. The images were analyzed based on the indicated parameters and sub-parameters (see image on the right). Analysts grouped 2-3 images at a distance of 30-50m to generate audit points at 100m intervals. This was supplemented with images from Google Maps (including Google Earth and Street View) to identify certain sub-parameters. The revised data set is then used to construct, from the audit point scores, the parameter index and thematic spatial maps for each neighborhood.

Finally, the crossing of these variables made it possible to prepare and map the composite index of daytime and nighttime **safety**. The complex index constructed from the surveyed parameters identifies those with high values as safest points and those with low values as unsafe. In addition, the results of the testimonies' surveys at bus stops were systematized. Based on these findings, areas for improvement and possible next steps were identified. The maps and results of this analysis are presented in section '6. Main results'.

More information on the calculation of the index can be read in the ANNEX.



Graph 3. Architecture of the safety index.

Qualitative research

After the workshops, the intervened maps were reviewed in depth and the results were systematized in order to distinguish and identify the results obtained. The data was organized into four dimensions, which arose from the questions that structured the mapping workshops:

- Daily practices and frequent tours
- Travel outside the neighborhood
- Connection of the neighborhood with the environment
- **Safety perception** and mobility strategies
- Uses and experiences in public space

Final crossing of results

With all the systematized information, progress was made towards superimposing the results of the participatory mappings with the quantitative georeferenced information. Spatial patterns could be deduced from these information crossings. In addition, when comparing the quantitative and qualitative data, it was possible to verify some hypotheses that emerged during the first instance, obtain new findings and find some discrepancies that require continuity of analysis in the area.

05

Main results

The following section brings together the main results obtained from the processing of information collected during the quantitative phase and the instances of participatory mapping. First, the results by neighborhood are presented and finally the general findings of the study are consolidated.

Photo 16. Participatory mapping and diagnosis on foot in the 20th neighborhood.

Barrio **15**

B. 15

Barrio **20**

B. 20

Barrio **21-24**

B. 21-24

Barrio **Lamadrid**

B. Lamadrid

Barrio **Playón de Chacarita**

B. P. Chacarita

Barrio **Padre Ricciardelli**

B. Ricciardelli

Barrio **Ramón Carrillo**

B. R. Carrillo

Barrio **Rodrigo Bueno**

B. R. Bueno

Barrio

15

Photo 17. Aerial view of Barrio 15.



Barrio 15

Barrio 15

Barrio 15, popularly known as Ciudad Oculta, dates back to the late 1930s when workers from the area began to settle there. Currently, the informal settlement is made up of various settlements “that emerged later in its vicinity and without being formally considered part of the town, they have similar territorial and social structures”¹⁵. The presence of large green spaces for both public use (squares and parks) and private use (clubs, sports centers, sports fields), as well as industrial land and industrial sheds function as urban barriers.

In 2018, the White Elephant¹⁶ was demolished, a building abandoned for years that housed more than 270 families for decades. In its place, and as part of a broader socio-urban integration process, the new headquarters of the Ministry of Human Development and Habitat of the City was installed there.

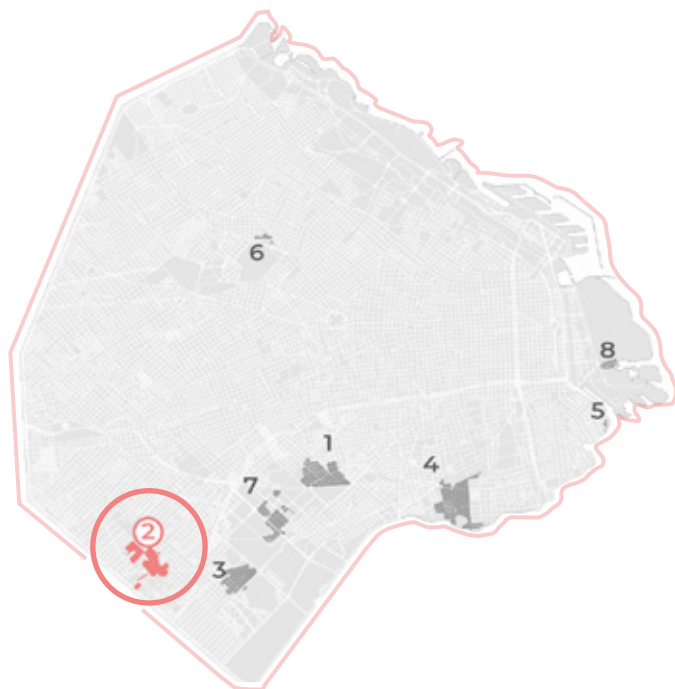
It is one of the largest informal settlements surveyed in this study and does not have ongoing urbanization processes. Currently, the IVC is working on the provision of services and the application of programs and carrying out infrastructure works in different parts of the informal settlement.

¹⁵ Brikman, D. (2019). The mobility lens. An analysis of Villa 15, its segregation characteristics and the daily practices of its inhabitants.

¹⁶ The White Elephant was a building intended to be a public hospital that was never completed and was occupied by numerous families until it was demolished in the Villa Lugano neighborhood.

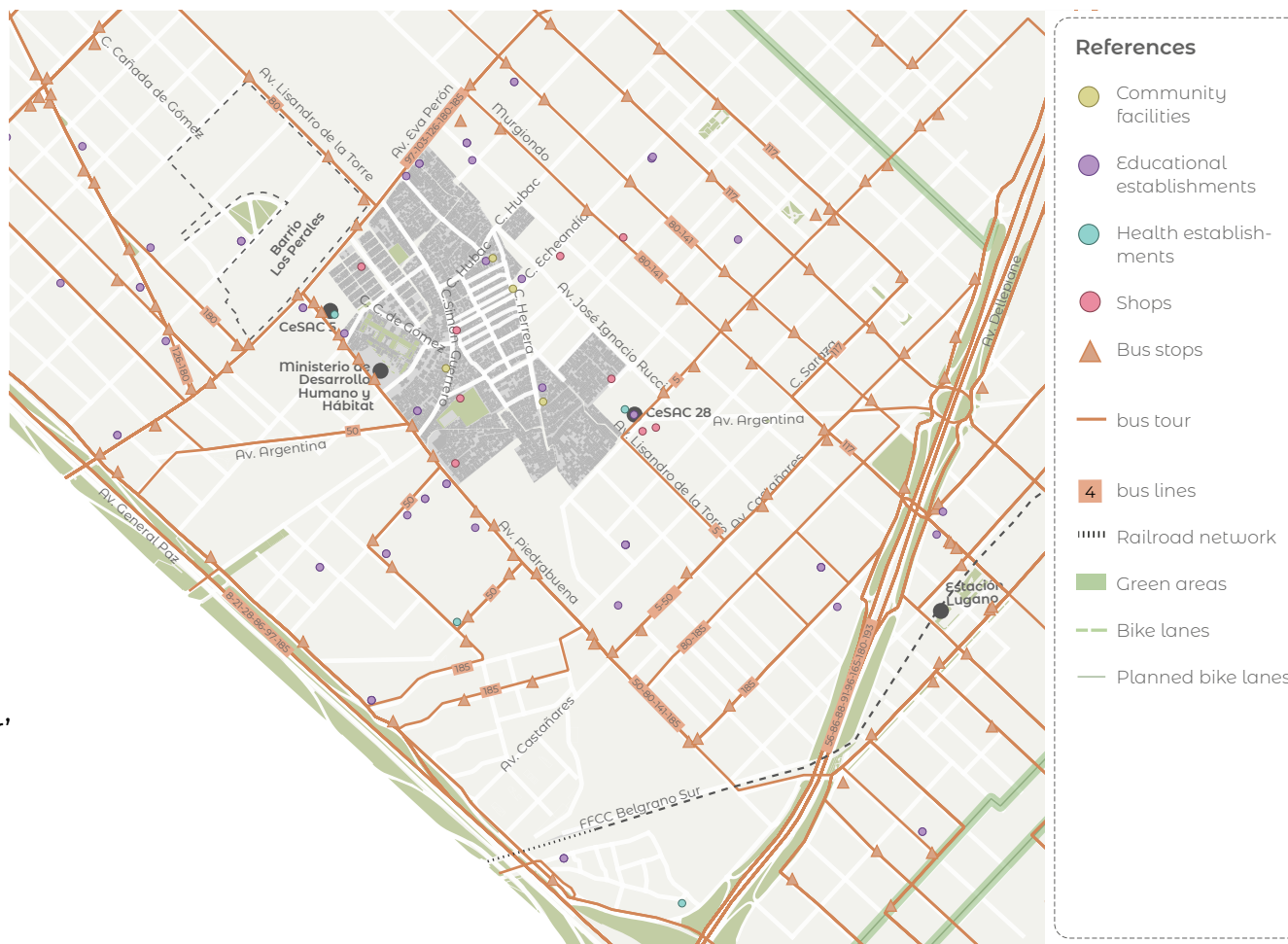
Photo 18. Urban postcard of Barrio 15.





Sociodemographic data 'Barrio 15', 'Santander' (San Pablo Settlement) and Transitory Housing Nucleus (NHT) of Labor¹⁷

Location: Villa Lugano | Commune 8
 Inhabitants: 47000
 Families: 7755¹⁸
 Dwellings: 7050
 Area: 32 ha
 Density: 1469 inhab/ha



¹⁷ Statistics and Censuses, General Directorate. (2015) Census 2010. Situation and characterization of precarious settlements in the City of Buenos Aires (No. 856). Statistics and Censuses, General Directorate.

¹⁸ Informal Settlements Map (RENABAP, 2018) - Populations. (s.f.). <https://mapa.poblaciones.org/map/3401/>

Map 2. Location of Barrio 15 in CABA. Transport network around Barrio 15. Bus lines 5, 50, 80, 97, 103, 126, 141, 145 and 185.

Phase I - Quantitative

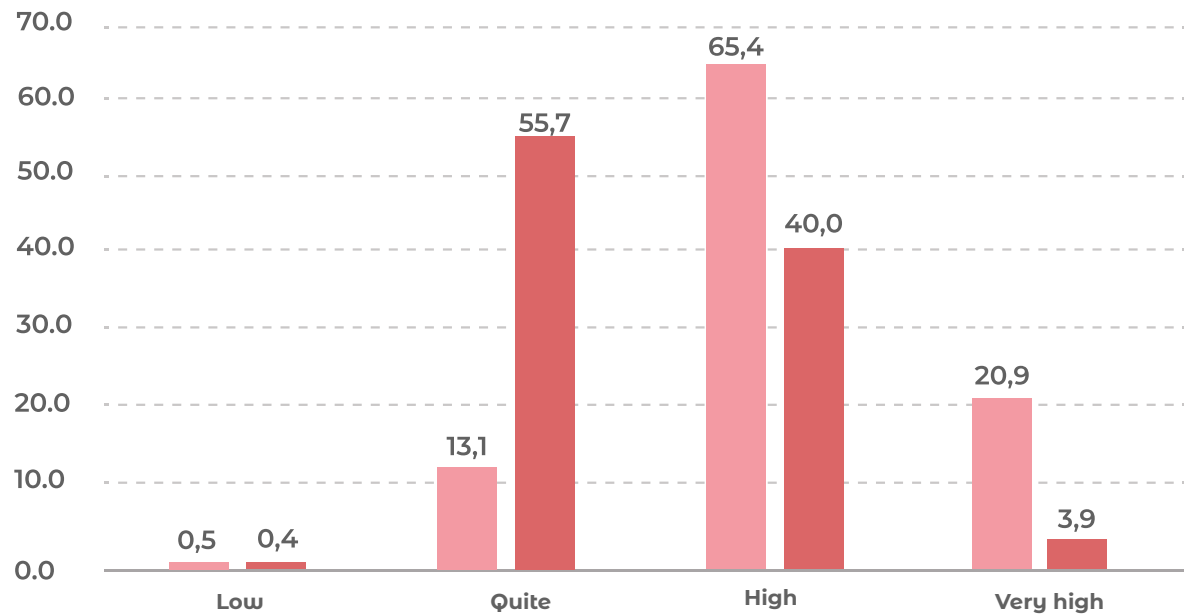
Data collection of the daytime and nighttime urban environment | Safetipin Nite

Name of the informal settlement: Barrio 15
 Daytime Collection: 12-16-2021/ 4:10 p.m. to 5:50 p.m.
 Night Collection: 12-17-2021/ 10:10 p.m. to midnight
 KM collected (average): 26
 Audited stops: 4
 Collected Testimonials: 21
 Number of Daytime Photos: 1,190
 Number of Night Photos: 750

The composite safety index obtained during the daytime collection places most of the audit points in high and very high values. The points where concentrations of people were identified were generally around government buildings or health establishments¹⁹. In almost all of the points that yielded a medium index, the variables with the lowest scores were presence of people, mixed presence, safety and, in some cases, visibility.

Saraza street between Piedra Buena and José Ignacio Rucci has large expanses of walls on both sides of the street that house educational facilities²⁰ and other empty or industrial land that breaks with the neighborhood fabric. Being non-residential streets with little traffic, there are fewer windows and places from which to see to the outside. Something similar occurs in Cañada de Gómez street, where the results gave a low index for the height of the school²¹, which also has an extensive wall.

Safety index



Graph 4. Daytime and nighttime safety index of Barrio 15. ■ Day ■ Night

Another sector characterized as medium according to the composite safety index is on Lisandro de la Torre avenue at the height of Barrio Los Perales. As in the previously mentioned sector, there are no services on these blocks, nor a large number of people circulating or windows, since the buildings of the housing complex -Barrio Los Perales- are oriented towards the interior of the block, away from the sidewalk.

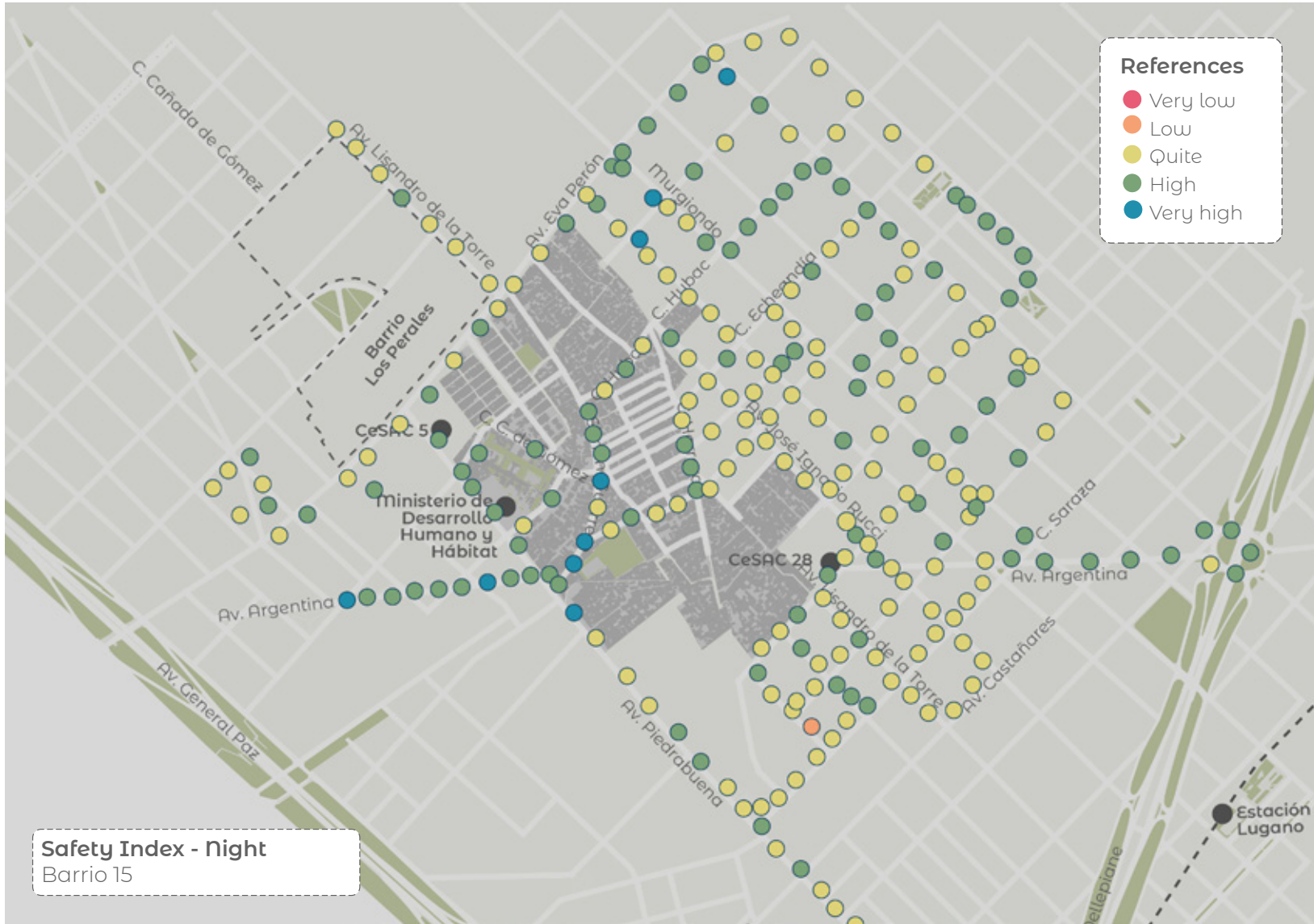


Photo 19. Saraza Street between Piedra Buena and José Ignacio Rucci.

¹⁹ Ministry of Human Development and Habitat or the Center for Health and Community Action (CeSAC).

²⁰ Don Orione Institute

²¹ Secondary School No. 02/20

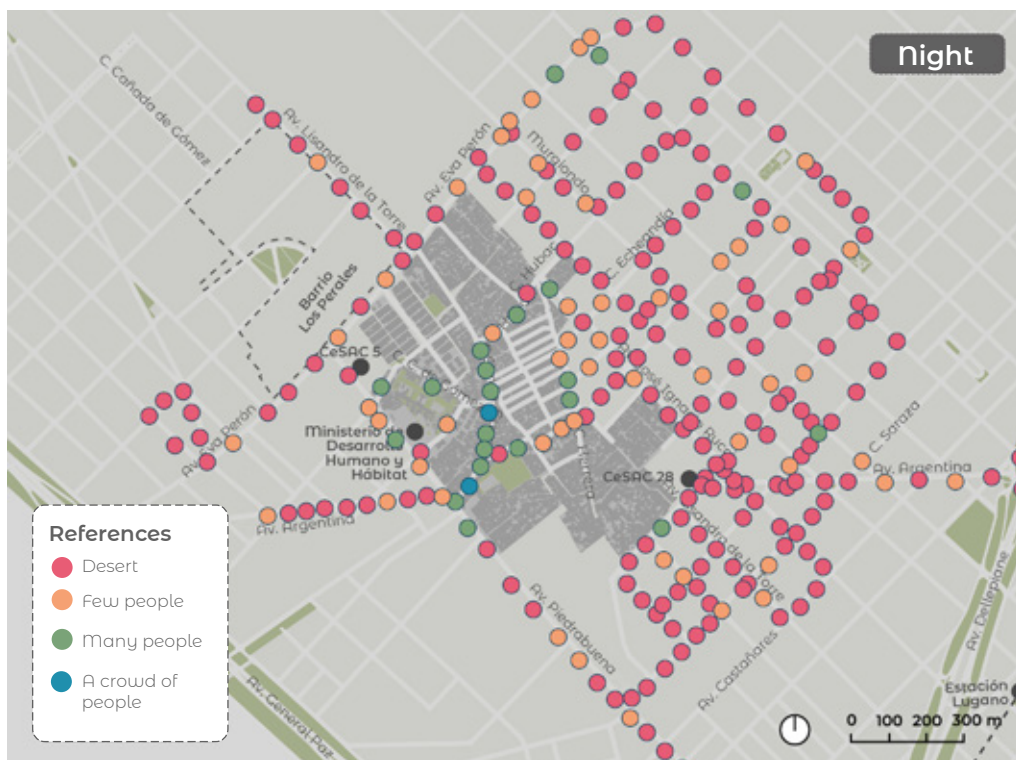


Map 3. Night safety index of Barrio 15.

Presence of people

Barrio 15

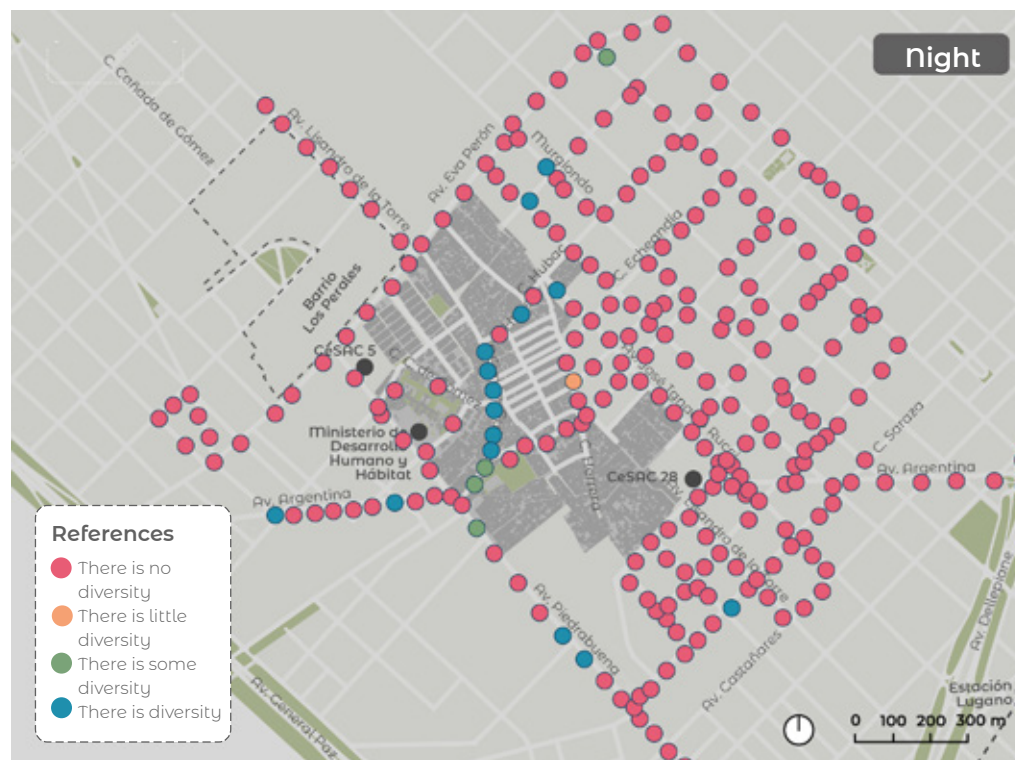
Map 4. Presence of people from Barrio 15, night collection.



Mixed presence

Barrio 15

Map 5. Mixed Presence of Barrio 15, night collection.



Public transport



In the vicinity of the neighborhood there are **7 bus lines**²².

86%

86% of audit points have public transport available within a **2-minute walk**.

14%

14% of the auditoriums have public transport within a distance of between **2 and 5 minutes on foot**.

The index of presence of people during the daytime collection located 41% of the points in the desert, a value that rose to 72% in the nocturnal collection. Regarding the mixed presence of people, the diversity is reduced from 15% to 6% from day to night.

Beyond the difference observed between these variables, the axis with positive values that is visible in the concentration of green and blue points on Simón Guerrero street -a central axis in the informal settlement- is interesting, in terms of the presence and diversity of people as opposed to the surroundings of the informal settlement.

²² Bus lines 5, 50, 80, 97,103,126,141,145 and 185 are the main ones in the vicinity of the informal settlement

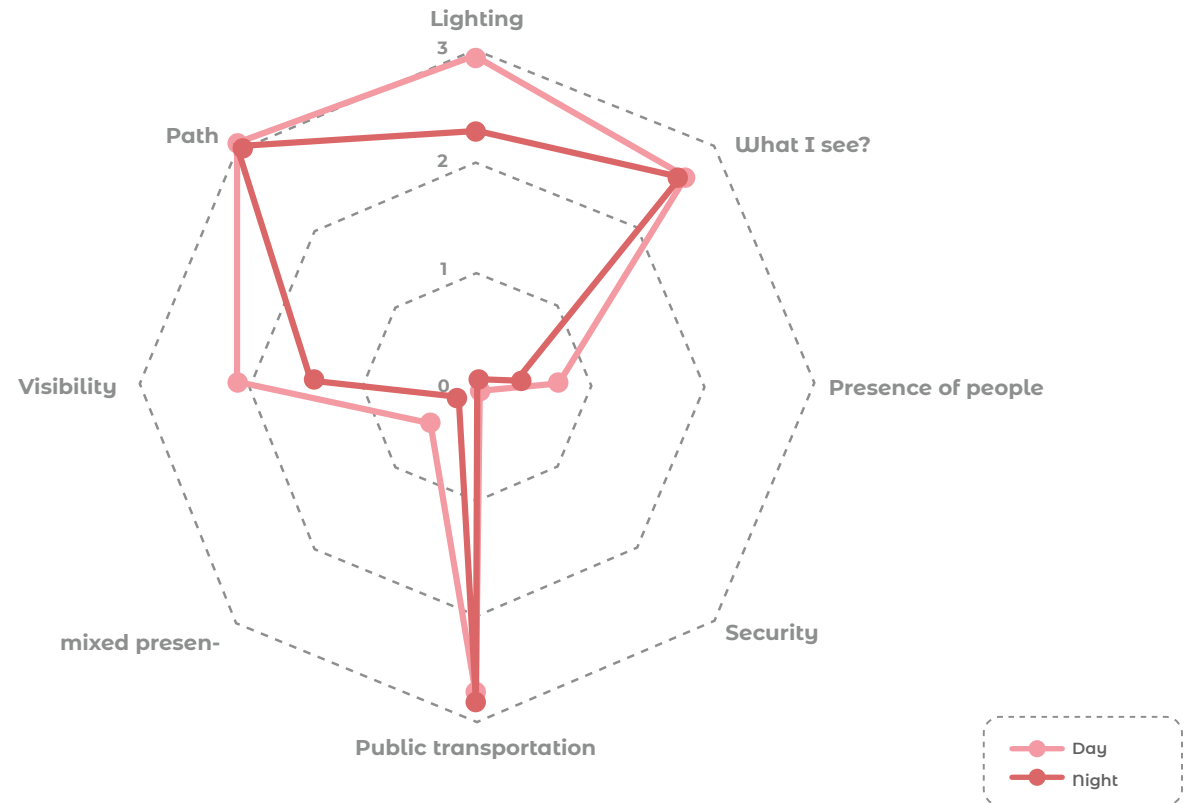
Graph 5. Data on the audits of the public transport stops in Barrio 15.

The graph below allows you to visualize the average score obtained in the points collected during the survey with the quantitative methodology, according to each variable and moment of collection. At first glance it can be seen that all the variables behave in a similar way between day and night, **lighting, presence of people and visibility being the variables that show the greatest variation.** It is understood that during the day there is maximum illumination due to natural light and at night this decreases due to the presence of artificial light. However, the differences that the variables present between day and night in this informal settlement are not great. The difference in the presence of people and visibility is to be expected, since people reduce their movements between day and night.



Photo 20. Los Perales neighborhood - Lisandro de la Torre avenue.

Barrio 15
Average value according to the variable



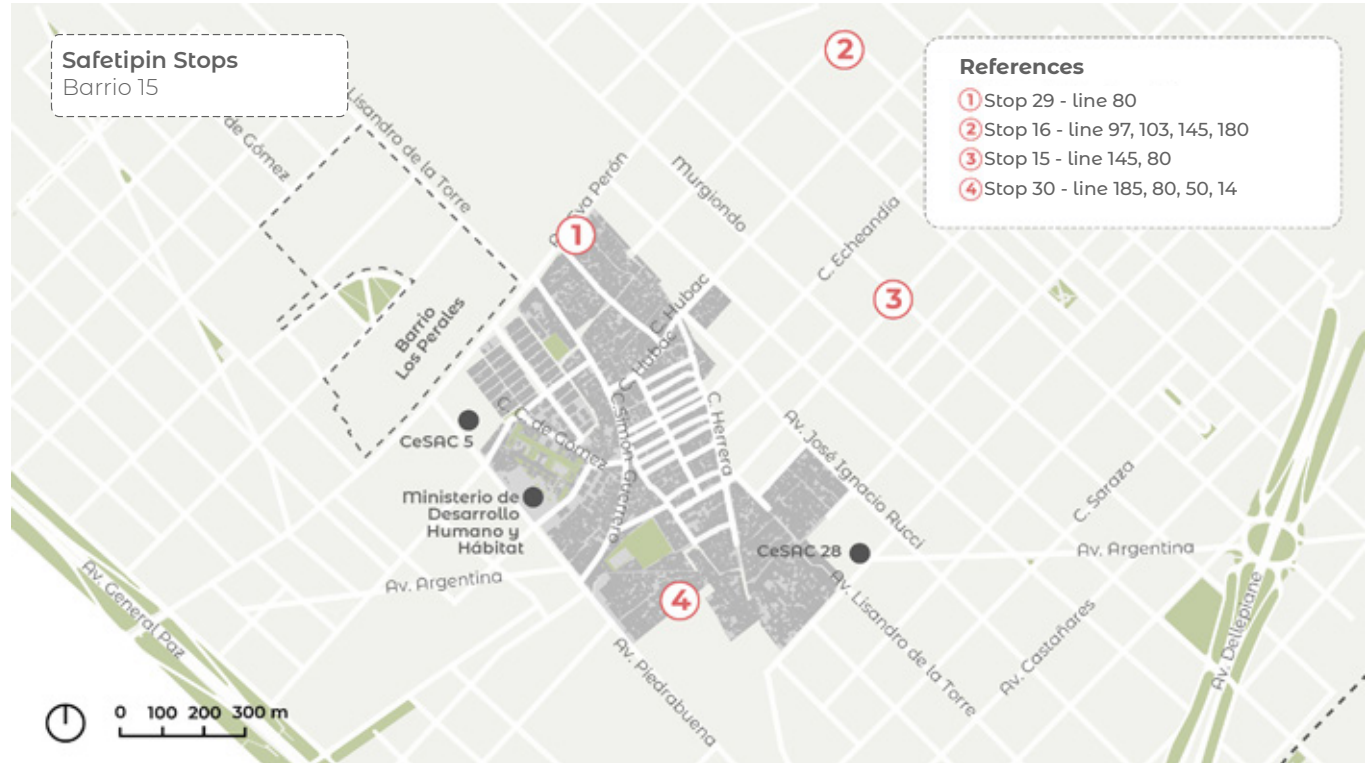
Graph 6. Average value according to the Barrio 15 variable. Average value according to variable where 0 corresponds to very low and 3 to very high.

Phase I - Quantitative

Surveys and audits at public transport stops | Safetipin Site

Four stops were surveyed in the vicinity of the informal settlement where 21 interviews were conducted with users of 6 bus lines²³. These were selected based on the demand verified from the SUBE²⁴ transaction data, and subsequently validated with territorial references as they are the most used by residents of the informal settlement.

The audit of the public transport stops in Barrio 15 and its surroundings shows that the majority suffer from deficiencies in relation to the available equipment and lighting. This last point was also verified during the surveys where it was stated that it is one of the causes linked to the low perception of safety in waiting areas. The presence of surveillance identified during the audits, on the other hand, does not influence the perception of unsafety.



Map 6. Location of the bus stops in Barrio 15.

Bus stop audit

	Signaling	Shelter	Bench	state of the sidewalk	universal accessibility	obstacle	visibility	vigilance	lighting
①	✓	✗	✗	✓	✗	✗	✗	✗	✓
②	✓	✓	✓	✗	✓	✗	✗	✓	✗
③	✓	✗	✗	✓	✗	✗	✓	✓	✗
④	✓	✓	✗	✗	✗	✗	✓	✓	✗

Table 2. Audit of the bus stops in Barrio 15.

²³ Bus lines 50, 80, 97, 103, 145 and 185 were surveyed

²⁴ Unique Electronic Ticket System (SUBE)

The main causes linked to the feeling of unsafety in women commented on are: **the lack of signaling at bus stops, the decrease in frequencies at night and the constant feeling of unsafety despite having sentry boxes and cameras.**

Also, it was recorded that many women opt for these stops since they are the busiest, despite not being the closest.

Safety perception
in women



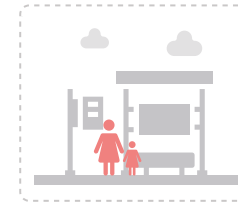
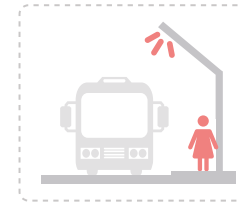
5 out of 12 women feel unsafe on their way to the bus stop, regardless of the time of day.



11 out of 12 women feel unsafe while waiting at a bus stop.



The main causes linked to the feeling of insafety in women are: **fear of theft, lack of police presence**, poor lighting and absence of people around bus stops.



As for the condition of the furniture, low maintenance, the need to **incorporate seats and shelters** and the necessary pruning of trees that obstruct lighting were highlighted.

Graph 7. Perception of insafety in Barrio 15.

User testimonials



I feel unsafe after dark due to lack of lighting. No people around either. Police presence would make areas seem safer.

I feel unsafe because there are many robberies in the area and people from outside come to buy drugs.

I always move in groups and never alone.

- Young woman commuting for education purposes.

- Middle-aged woman who travels a few times a week for leisure purposes

The infrastructure of the bus stop must be improved and the trees pruned to increase the security of the place.

- Young woman who travels a few times a week for educational reasons

Photo 21. Diagnosis on foot in Barrio 20. Graph 8. Testimonials from users of Barrio 15.

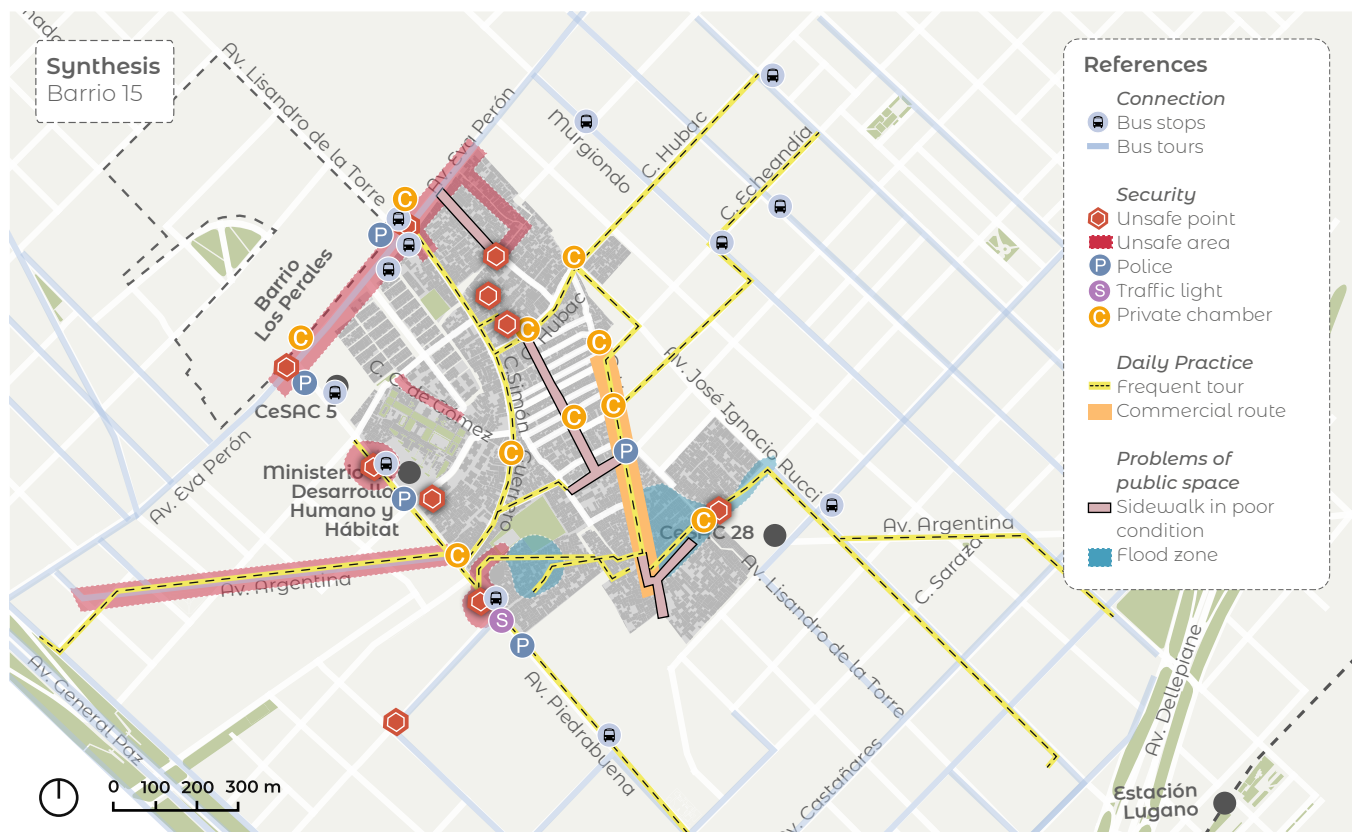
Phase II - Qualitative

Participatory Mapping

Location: SUM of Barrio 15 - Block 28 House 16
 Day and time: April 13, 2022 between 2:00 p.m. to 4:00 p.m.
 Call: by the IVC
 Duration: 120 minutes/ 2 hours
 Participants: 26 women between the ages of 20 and 65
 Team present: IVC team, SECTOP staff and 3 people from Cambalache.

The participatory mapping instance allowed the collection of qualitative data on the daily mobility experiences of women in the informal settlement and its surroundings. The collected information was reflected in five maps, which are presented below in a synthesis map:

- Daily practices
- Displacement out of the informal settlement
- Connections and forms of mobility
- Safety perception
- Mobility strategies and public space



Map 7. Synthesis of Barrio 15.



Daily Practices

- Daily practices linked to the various facilities of the informal settlement: health, education, community, sports and administrative facilities, small businesses.
- The main government buildings or health establishments²⁵ constitute nodes within the informal settlement, they are an administrative and recreational axis that was highlighted for its good lighting.
- Herrera street is the main shopping area.
- The displacements are carried out mainly on foot.
- The existence of areas with sidewalks in poor condition are a problem for circulation and a great impediment to moving with baby carriages or for people with reduced mobility.



Movements outside the informal settlement

- During the week, travel is usually by public transport since if there is a private vehicle in the home, it is usually in charge of the man.
- No use of alternative private vehicles such as motorcycles or bicycles was identified, due to the presence of a large number of robberies and thefts.
- Displacements at night or on rainy days are usually done in remis. This service has a strong presence in the informal settlement and it is difficult to use it at peak times due to high demand. The city taxi service or similar services offered by apps do not enter the informal settlement and only stop at the main nodes on its borders, for example in front of the government building²⁶, as the informal settlement is perceived as unsafe by the drivers.



Connection of the informal settlement with the environment

- The main means of transportation used to move outside the informal settlement is the bus²⁷. The most used stops are located on large avenues that have lighting or some type of close surveillance, and yet the participants consider them unsafe at night or early morning.
- Bus drivers deviate from the official route on Piedrabuena Avenue due to unsafety.
- On Piedrabuena avenue, a stop corresponding to the public school bus service provided by the GCABA was identified. Currently, this service does not enter the informal settlement, which creates difficulties for the women in charge of caring for children.
- The proximity of Barrio 15 to General Paz Avenue, the Dellepiane Highway, the Lugano Station (Belgrano Sur Line of the Buenos Aires Metropolitan Railway System) and the Liniers Transfer Center constitute a comprehensive transport offer to various points of the City.

²⁵ Ministry of Human Development and Habitat or the Center for Health and Community Action (CeSAC).

²⁶ Ministry of Human Development and Habitat.

²⁷ The main bus lines mentioned were 5, 80, 97, 141 and 185.



Safety perception and Mobility Strategies

- The perception of safety predominates while waiting for the bus or on the way to the bus stop.
- Corridors and passages within the informal settlement are identified as unsafe spaces due to poor lighting. In the informal settlement there is a common practice in which lights are intentionally broken so that the darkness facilitates criminal acts.
- At night, the traffic lights located on Eva Perón avenue have an intermittent mode that favors vehicle circulation and increases the feeling of unsafety, among other factors, due to the difficulty in crossing and choosing the route they want.
- Areas perceived as unsafe along Lisandro de la Torre avenue due to the low presence of people and the frequent robberies that take place there.
- Areas perceived as unsafe on Antártica Argentina avenue towards General Paz, due to poor lighting, large properties and little pedestrian circulation.
- The presence of safety elements in the informal settlement, such as domes and police booths, does not increase the perception of safety.
- Organized groups of neighbors have installed cameras that can be monitored through an application. In general, these cameras are accompanied by luminaires.
- Preference to navigate the widest and main streets.
- Women indicate that they prefer to travel accompanied by a family member or acquaintances who leave their homes at the same time. They mentioned feeling safer when moving in groups of three or more people.
- The women stated that they were aware of the times in which the bus services usually pass and approach the stop minutes before to reduce the waiting time to avoid robberies, especially those that leave at infrequent times (5-6 a.m.).
- They indicated that they prioritize traveling during the day, opting for alternative means to public transport, such as private vehicles or informal settlement remises, to travel at night.
- They indicated that they avoid, as far as possible, moving through unfamiliar areas within the informal settlement.

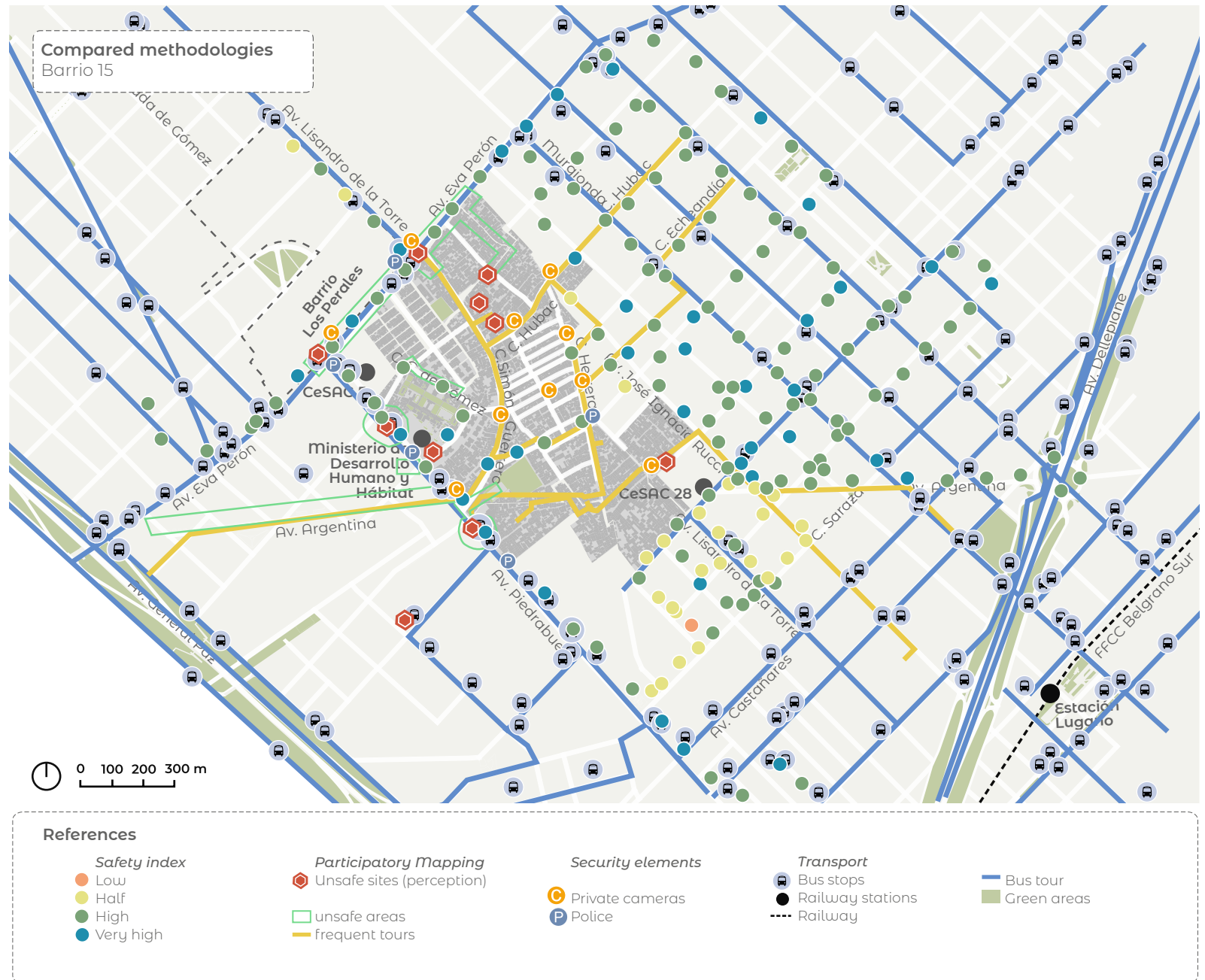
Photo 22. Herrera Street in Barrio 15.



Findings

The map below shows the overlap between both methodologies that varies according to the areas of the informal settlement. On the one hand, areas where there are no coincidences between the two methodologies were detected: the testimonials from the workshops provided a perspective that contrasts with the information collected by Safetipin.

On the other hand, areas perceived as unsafe arose in the participatory mapping that had not been surveyed with the Safetipin Nite application. Finally, coincidences were verified in some points. Below are some conclusions.





Public transport

Beyond the high values obtained by the variable in the Safetipin Composite Safety Index, the testimonies collected during the qualitative instance shed nuances on it. This is because the application evaluates the existing infrastructure and not the service or the immaterial conditions of the mobility experience (perception of safety, for example). The lines that circulate in the vicinity of the informal settlement have low frequency during night hours. For trips outside the informal settlement, the women make use of public transport, except at night or in emergency situations when they resort to private transport services. Public services such as taxis or those provided by apps do not enter the informal settlement, which implies that residents must complete the chain of displacement on foot. The most used bus stops are chosen for their concurrence and not for their proximity to the point of origin. The women stated that the lack of lighting and the low pedestrian flow on the routes negatively influence their perception of safety.



Standby Infrastructure

The surveyed infrastructure in general was evaluated on average, highlighting the variety of ways to which one has access in the informal settlement. However, it was not verified that this affected the perception of safety of those who answered the survey or participated in the mapping. The shortcomings they expressed are linked to the difficulty in reaching the stops in terms of safety, especially at night and the quality of the existing infrastructure.



Urban environment

Towards the interior of the informal settlement, the structural conformation is visible, mainly constituted by passages, internal corridors and by some streets that cross it (Simón Guerrero, Hubac, Echeandía, Argentina avenue) and connect with the surrounding environment. In the mapping workshops it was possible to see that women in their frequent journeys tend to avoid walking through the passages and corridors due to the lack of lighting and the perception of safety, opting for wider and more crowded streets. The survey carried out with the application of Safetipin did not cover these sections since, due to their width and their condition, it was impossible to circulate with a vehicle.



Land Use and Urban Structure

Barrio 15 is surrounded by large extensions of public green spaces (squares and parks) and private (clubs, sports centers, sports fields) with which the urban fabric is fragmented. The predominant fabric in this sector of the city is mixed, through the coexistence of residential, commercial, industrial (factories, storage sheds, and other types of equipment), educational, and recreational uses. From the map it can be seen that the informal settlement is connected to other areas of the city through the avenues that surround and cross it (General Paz avenue, Eva Perón avenue, Lisandro de la Torre avenue, Piedra Buena avenue, Dellepiane avenue). The location of the informal settlement between urban highways facilitates its access and connection to other points, mainly for moving around with motorized vehicles.

Barrio

20

Photo 23. Aerial view of Barrio 20.



Barrio 20

Barrio 20 is located in the southern part of the city, in a historically underdeveloped area where large social housing complexes are concentrated.

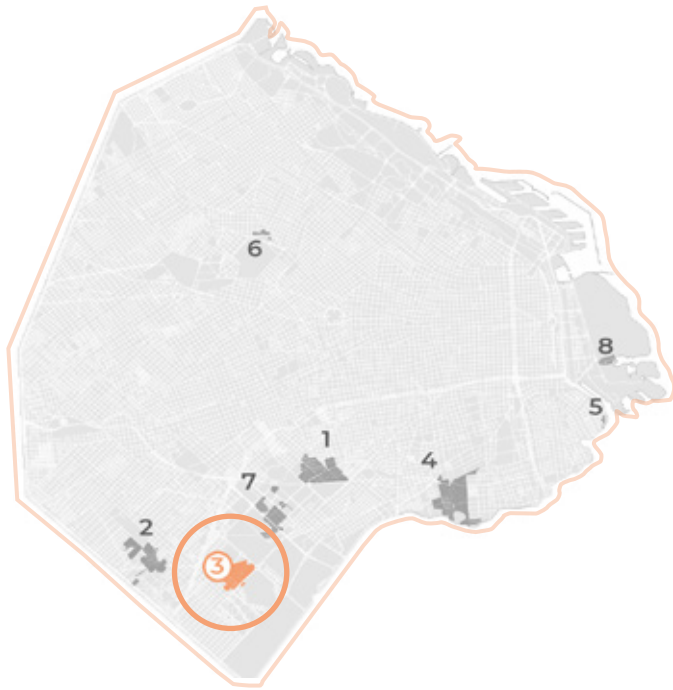
During the last decade, the Government of the Autonomous City of Buenos Aires carried out works to improve accessibility to the informal settlement through the construction of exclusive corridors for public bus transportation, called Metrobús.

Within the framework of the PIRU, developed from the Socio-Urban Integration and Redevelopment Law (Law No. 5,798), the “Socio-Urban Integration Program: Villa 20, Villa Rodrigo Bueno and Villa Fraga of the City of Buenos Aires” was designed, partially financed with CAF resources. Its purpose is to generate housing solutions, as well as redevelopment, zoning, and urban, housing, and socio-economic integration of informal settlements. The urbanization process is linked to a series of socio-labour programs that complement the work carried out in situ. Despite all the interventions described above, mobility of proximity remains an undressed matter due to high-speed roads and the large-scale infrastructure that surrounds it.



Photo 24. Urban postcard of Barrio 20.

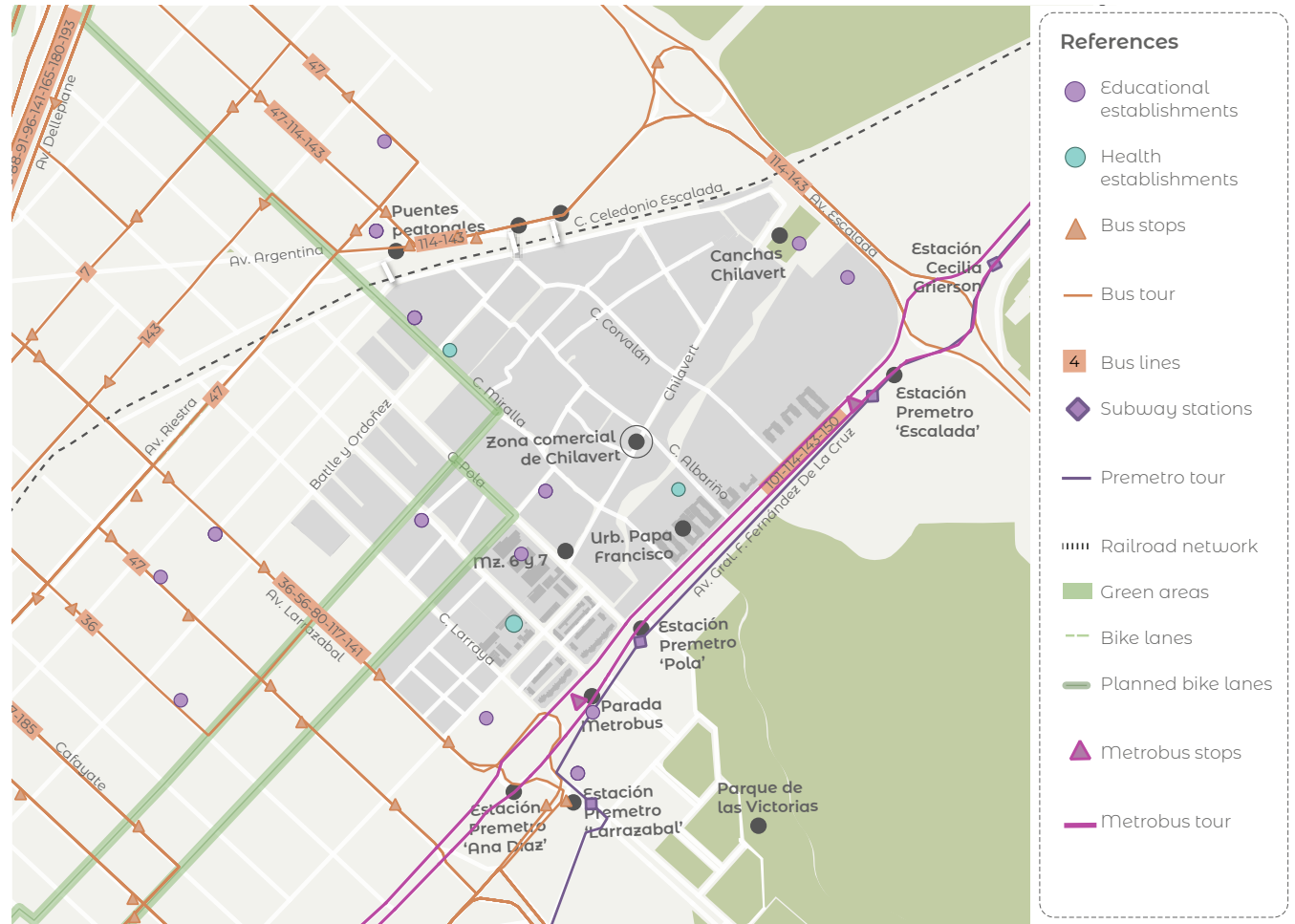
B.20



Sociodemographic data Barrio 20

Location: Villa Lugano
 Inhabitants: 27990
 Women: 10117
 Males: 8878
 Families: 9116
 Homes: 4559
 Area: 48 ha
 Density: 583 inhab/ha²⁸

Map 2. Location of Barrio 15 in CABA.



²⁸ City Housing Institute (2016). Final Report Census 2016 Villa 20. Buenos Aires: Statistics and Census Department, Social Intervention and Habitat Operations Management, Housing Development Management.

Map 9. Location of Barrio 20 in CABA. Transport network around Barrio 20: Bus lines 7, 36, 47, 56, 80, 86, 88, 91, 96, 101, 114, 117, 141, 143, 145, 150, 165, 180, 185, 193.

Phase I - Quantitative

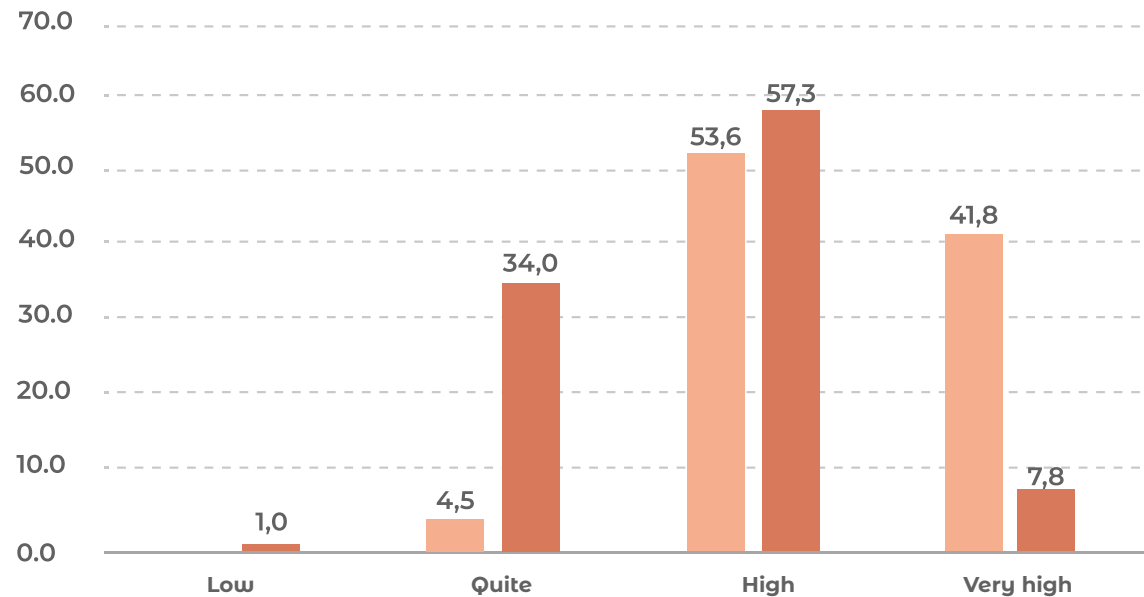
Data collection of the daytime and nighttime urban environment | Safetipin Nite

Safety index

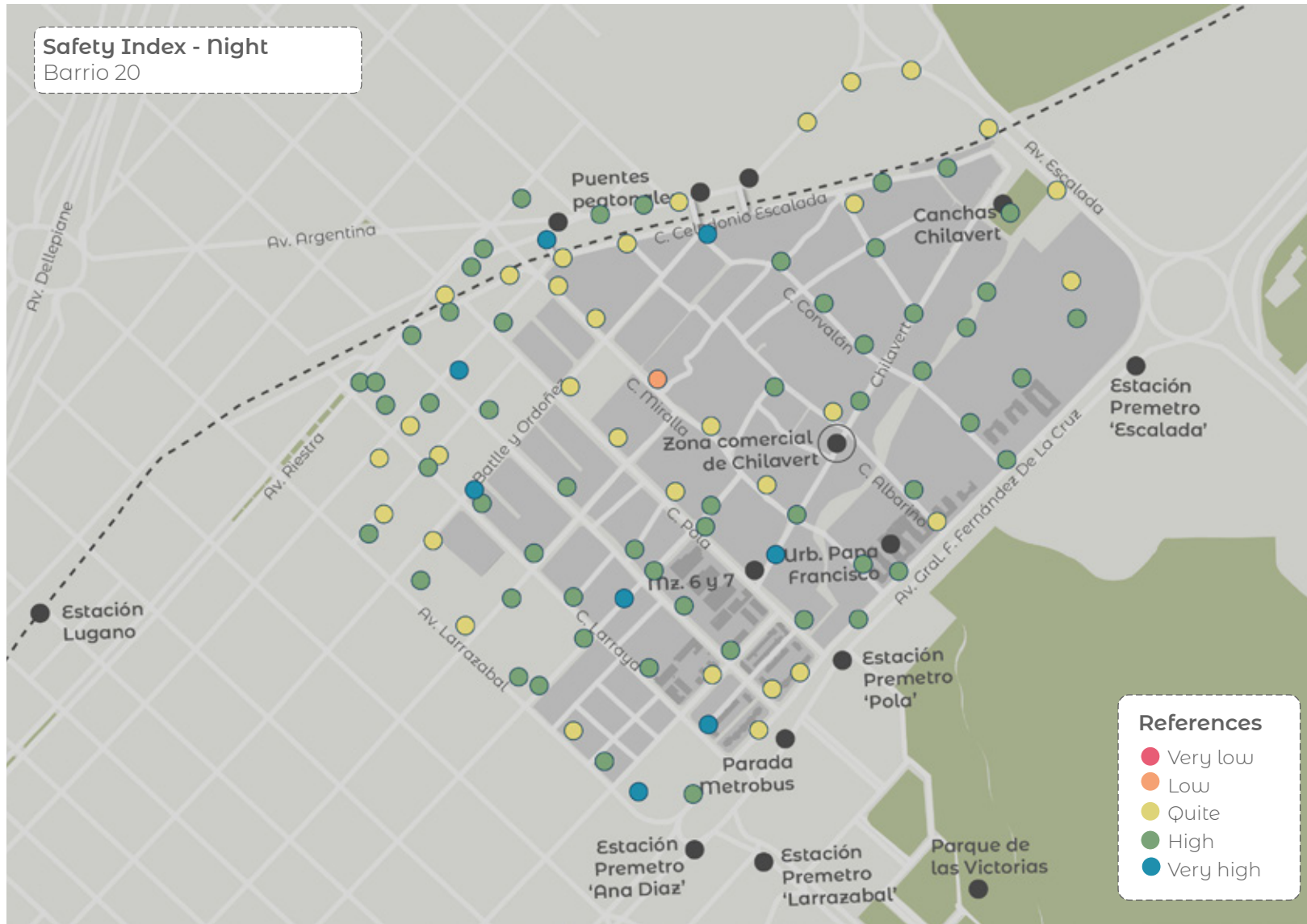
Name of the informal settlement: Barrio 20
 Daytime Collection: 12-01-2021/ 6:16 p.m. to 7:53 p.m.
 Night Collection: 12-01-2021/ 9:45 p.m. to 10:12 p.m.
 KM collected (average): 14.5
 Audited stops: 4
 Collected Testimonials: 17
 Number of Daytime Photos: 244
 Number of Night Photos: 624

The composite safety index shows higher values inside the informal settlement than in its perimeter and its surroundings, despite not having transportation inside it. The greatest contrast occurs in the presence of people who are concentrated inside the informal settlement, a fact linked to the predominantly residential and commercial fabric. Few people were detected during the collection, especially very few women and children, especially at night.

There are only two sectors where average values for the index are identified: at the junction of Escalada avenue and the railway and at Gral. F. Fernández De La Cruz and Albariño avenue, one of the entrance streets to the informal settlement, area of new buildings, in which there is little movement of people and very little lighting.



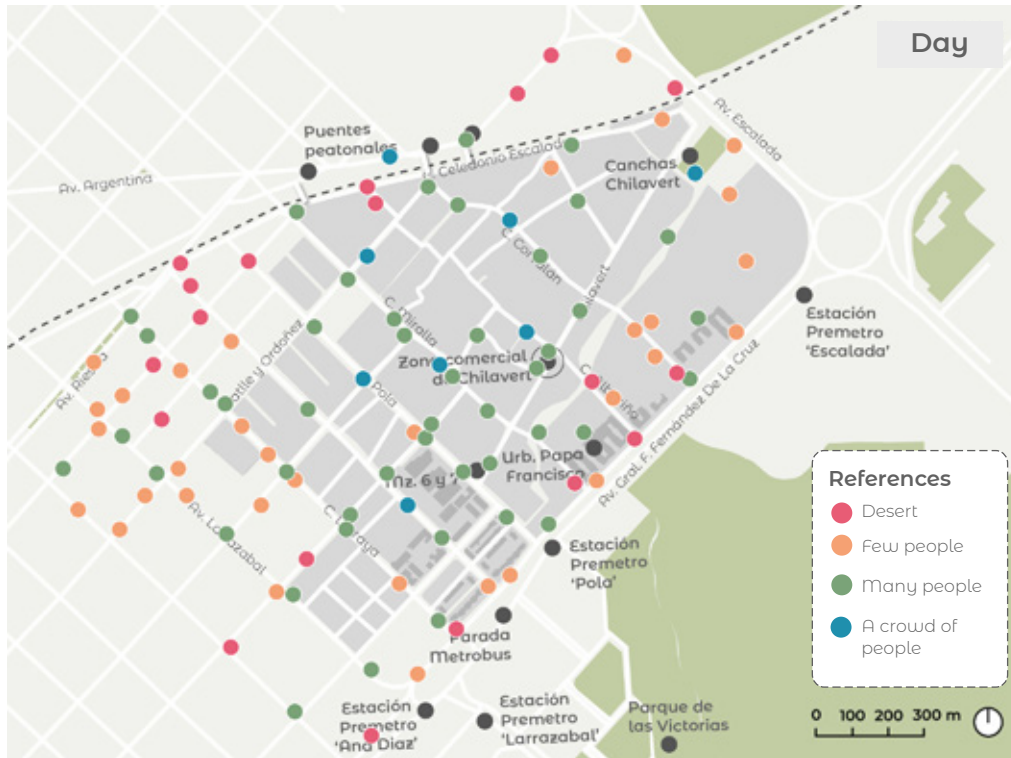
Graph 9. Daytime and nighttime safety index of Barrio 20. Day Night



Map 10. Night safety index of Barrio 20.

Presence of people - Day
Barrio 20

Map 12 Presence of people Barrio 20, daily collection.



Presence of people - Night
Barrio 20

Map 11. Presence of night people Barrio 20, night collection.



Public transport



There are a total of **18 bus lines**²⁹ in the vicinity of the neighborhood.

68 %

68% of the audit points in the analyzed area have public transport available within a **2-minute walk**.

32 %

32% of the audit points in the analyzed area have public transport available between **2 and 5 minutes on foot**.

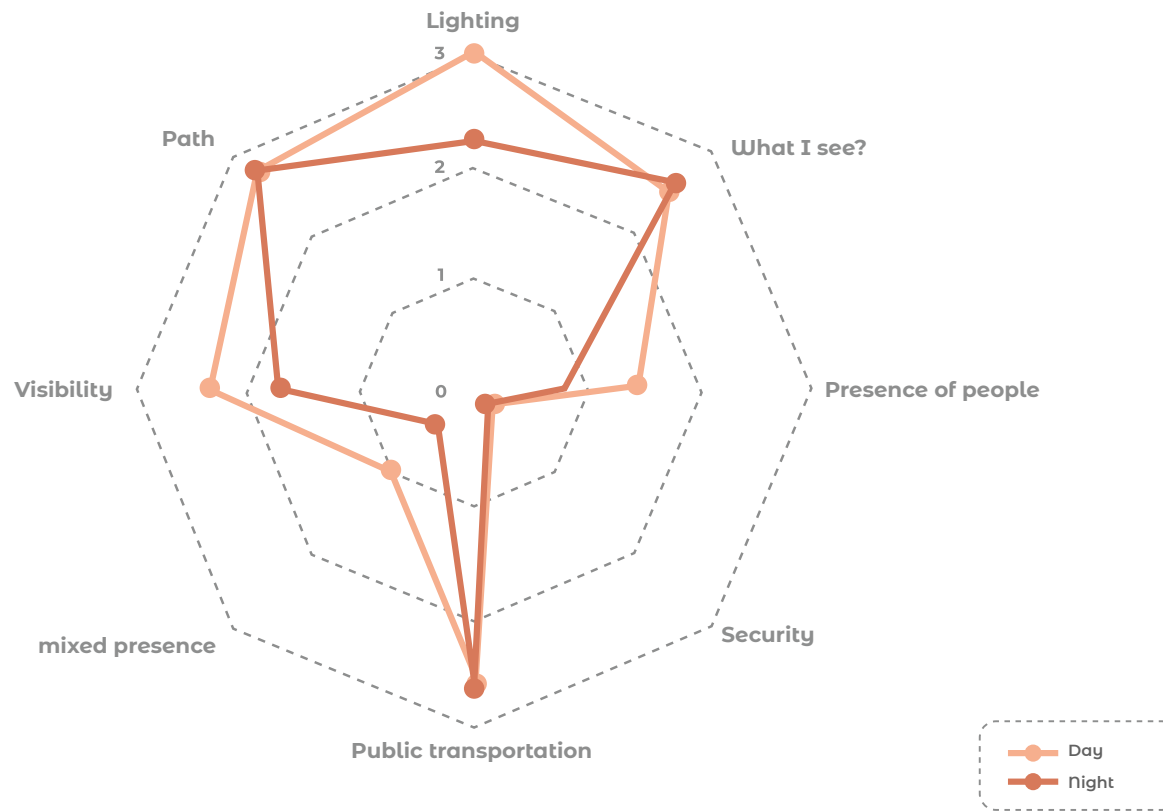
²⁹ Bus lines 7, 36, 47, 56, 86, 88, 91, 96, 101, 114, 117, 141, 143, 150, 165, 180, 185, 193.

Graph 10. Data on the audits of the Barrio 20 stops.

The graph below represents the average score obtained in the points collected during the survey with the quantitative methodology, according to each variable and time of collection, making visible the slight difference between both time ranges. The behavior between day and night of the variables can be observed, lighting being the variable that presents the greatest variation since during the day there is maximum illumination due to natural light and at night this decreases due to the presence of artificial light.

Other variables that show changes between day and night are presence of people and mixed presence, something that is to be expected, since people reduce their movements between day and night. Regarding visibility, we can comment on a behavior related to the lighting variable, since there are also fewer visible windows, more premises and services that are closed at night, decreasing the number of entrances from which it can be seen.

Barrio 20
Average value according to the variable



Graph 11. Average value according to the Barrio 20 variable. Average value according to variable where 0 corresponds to very low and 3 to very high.

Phase I - Quantitative

Surveys and audits at public transport stops | Safetipin Site

Four stops were surveyed in the vicinity of the informal settlement where 17 interviews were conducted with users of bus lines 145, 101, 114, 150 and 143 and the Premetro*. These were selected from the SUBE transaction data and validated with territorial references as they are the most used by residents of the informal settlement.

The results of the audits of stops showed that despite being well signposted and with equipment available, there is a lack of vigilance in them. This could be translated into the low perception of safety that was identified in the surveys of users.



Map 13. Location of the bus stops in Barrio 20.

Bus stop audit

	Signaging	Shelter	Bench	state of the sidewalk	universal accessibility	obstacle	visibility	vigilance	lighting
①	✓	✓	✓	✗	✓	✗	✓	✗	✓
②	✓	✓	✓	✗	✓	✗	✓	✗	✓
③	✓	✓	✓	✗	✓	✗	✓	✗	✗
④	✓	✓	✗	✓	✓	✗	✗	✗	✗

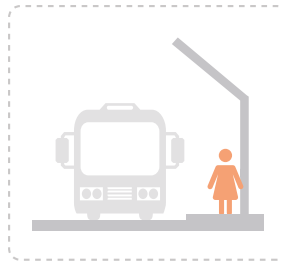
Table 3. Audit of the bus stops in Barrio 20.

* PREMETER. Tram line that circulates through the south of the City of Buenos Aires. It is the only one of its kind in the city and is part of the subway network.

Most of the women surveyed feel unsafe on their way to the bus stops and while waiting at the stops, unlike the majority of the men surveyed, who did not report feeling unsafe on these journeys. The number of men who reported feeling unsafe due to fear of robbery is low.

The need for more safety near stops is identified. The reasons associated with the feeling of unsafety are fear of robbery, lack or absence of police patrols, and poor lighting around bus stops. The women did not mention any form of sexual harassment or violence at or near bus stops.

Safety perception
in women



Most of the women interviewed feel **unsafe on the way to the bus stops** and while waiting at the stops.



The reasons associated with the **feeling of insafety are the fear of theft, the lack or absence of police patrols** and the lack of lighting around bus stops.



Many people emphasized the low frequency of buses at night, which impacts on the **quality of the trip and on safety**, as they feel unsafe while waiting for the bus.



The women **did not discuss any form of sexual harassment** or violence at or near bus stops.

Graph 12. Perception of insafety in Barrio 20.



“
People would feel safer if there were more lighting and security near the bus. In addition, you have to improve the frequency.”

- Young woman commuting for work

“
One has to be careful when choosing the path to get to the bus stop, especially after it gets dark.”

“
I feel unsafe walking to the stop and also when I have to wait. There is almost no security here. There are no police in this area.”

- Middle-aged woman commuting for work

“
I prefer areas with more light to walk.”

- Senior woman commuting for work

Photo 25. Participatory mapping and diagnosis on foot in Barrio 20. Graph 13. Testimonials from users of Barrio 20.

Phase II - Qualitative

Participatory Mapping

Place: IVC tent - Corvalán Recova street
 Day and time: March 16, 2022 between 3:45 p.m. and 5:00 p.m.
 Call: by the IVC
 Duration: 75 minutes/ 1.15 hours
 Participants: 14 women between the ages of 20 and 60
 Team present: IVC team, SECTOP staff and 3 people from Cooperativa Cambalache.

The participatory mapping instance allowed the collection of qualitative data on the daily mobility experiences of women in the informal settlement and its surroundings. The collected information was reflected in five maps, which are presented below in a synthesis map:

- Daily practices
- Displacement out of the informal settlement
- Connections and forms of mobility
- Safety perception
- Mobility strategies and public space

In Barrio 20, the participatory instance was complemented by a walk-through diagnosis carried out within the framework of another SECTOP and IVC initiative financed by the French Cooperation Agency (AFD). Its objective was to study the urban environment of the informal settlement. Findings from that activity are also included here.



Map 14. Synthesis of Barrio 20.



Daily Practices

- The informal settlement has various types of sports, recreational, educational and health facilities that are located mainly at the ends of the informal settlement, bordering the infrastructure of the informal settlement (I.E. El Macizo).
- It should be noted that, for the most part, the participating women prioritize the use of the main arteries of the informal settlement, mostly coinciding with commercial areas and/or school routes.
- Three streets with strong commercial activity within the informal settlement are identified: Pola street, where the informal settlement fair and various businesses take place, and the intersection between Corvalán and Chilavert streets, the main node of the informal settlement. In addition, the presence of great commercial activity concentrated at the intersection of these last two streets, Corvalán and Chilavert.

- The main reasons for frequent displacement within the informal settlement and its surroundings are for work, educational reasons and those that revolve around care tasks.
- A preference is identified for traveling on foot, by bus and by metro depending on the distance to be covered and the destination.
- People prefer to move through the routes of higher commercial hierarchy and greater familiarity.
- At night, the areas of the recent urbanization in the “Barrio Papa Francisco” are avoided due to the large number of robberies, poor lighting and low circulation of people.



Movements outside the settlement informal

- As recreation spaces, the supermarket stands out on the outskirts of the informal settlement, which is also a space for domestic purchases and also the games that are behind this property in the ‘Parque de las Victorias’.



Connection of the informal settlement with the environment

- The most frequented stops are those located on Argentina Avenue due to the wide range of services, followed by the Premetro (Pola and Escalada station) and the Metrobús.
- To access the stops on Argentine Avenue, it is necessary to cross the Belgrano Sur railway tracks (FFCC) through the pedestrian bridges located on Miralla and Corvalán streets, points considered unsafe by the women of the informal settlement.
- The tracks of the FFCC, as well as the tracks of the PREMETRO and the Metrobús, configure urban barriers that interrupt and limit the connection of the informal settlement with the surroundings.
- The presence of remis services within the informal settlement stands out, widely used for night movements and in emergency situations.
- With regard to buses, the reduction in frequency at night time is mentioned as a difficulty in getting around. For its part, the Premetro stops working at 9:00 p.m.



Safety perception and Mobility Strategies

- The new Papa Francisco urbanization is associated with poor lighting and the presence of lonely streets and, along these lines, the women of the informal settlement tend to avoid moving through this sector.
- Block 21 of the historic informal settlement is often avoided because of the dark corridors.
- On Fernández de la Cruz avenue, the neighbors prefer to circulate on the hand bordering the informal settlement since the sidewalk in front is identified as an unsafe area due to the lack of lighting and the few people present.
- Another area of unsafety identified is located on Chilavert street, between Pola and Larrazabal, mostly in the early morning hours since at that time there are long lines of waiting to get numbers for the CeSAC of the informal settlement and also for school entrance in several levels to the Educational Pole. The women highlighted, in this area, the theft of cell phones from adolescents, which is why they prefer to accompany their children to their destinations.
- In the corridors of blocks 6 and 7, another unsafe zone is identified, as are the unsafe points located on Pola street. Both situations are closely associated with theft and drug use. Despite the fact that Pola is a busy street with great commercial activity on fair days, many of them prefer to avoid it and opt for the commercial area of Chilavert in the center of the informal settlement where many residents are sitting on the sidewalks and local. Not only are there people circulating and passing through, but there is a remarkable community activity that generates safety during the day.
- Along Celedonio Escalada street, bordering the Belgrano Sur Railroad tracks, another area of unsafety associated with the lack of lighting and the limited space available to circulate due to the large presence of cars, waste and debris on the street stands out. This situation is enhanced on and around the pedestrian bridges to cross to Antártida Argentina avenue and to access the bus stops.
- As a strategy to mobilize, mothers accompany their children everywhere and prioritize moving through known spaces -those frequented regularly and where they know the neighbors-.
- Night mobility is reduced to a minimum and is mostly done by private vehicles, whether owned or remises from the informal settlement.

Phase III

Findings

The map below shows the overlap between both methodologies that varies according to the areas of the informal settlement. On the one hand, areas where there are no coincidences between the two methodologies were detected: the testimonials from the workshops provide a perspective that contrasts with the information collected by Safetipin.

On the other hand, areas perceived as unsafe arise in participatory mapping that have not been surveyed with Safetipin. Finally, coincidences are verified in some points. Below are some conclusions.



References		Infrastructure and services		Transport	
● Low	⬠ Unsafe sites (perception)	C ATMs	🚏 Bus stops	● Railway stations	--- Railway
● Half	▭ Unsafe areas	📖 Schools	+ Center for Health and Community Action	--- Bus tour	■ Green areas
● High	--- Frequent tours	+ Hospitals	P Police stations	--- Metrobus	
● Very high					

Public transport

Although the Safetipin composite safety index indicates high values for the public transport variable and there is no effective access to transport because the journeys to be made to reach the stops and waiting at them are unsafe (bus, Premetro, Metrobus and train) seem to confirm it, this was not verified in the participatory mappings with the neighbors. The options are unsafe both in the journeys to be made to reach the stops and in the waits.

There are two axes of mobility that border the informal settlement. On the one hand, there is the Metrobús on Fernández de la Cruz avenue and the Premetro. On the other hand, on Argentina avenue, there are some bus lines that the women from the informal settlement mentioned that they use regularly.

Despite the fact that there are more bus lines around the informal settlement than other informal settlements analyzed in this report, the journey from the informal settlement to the bus stops is considered an access barrier. According to the testimonies provided by the women, they feel unsafe on the route and while waiting for the bus, especially at the stops on Argentina Avenue. This was mostly associated with the lack of lighting and activity, particularly at night.

Standby Infrastructure

The surveyed infrastructure in general was evaluated on average, highlighting the variety of modes of transportation available in the informal settlement. However, it was not verified that it affected the perception of safety of those who responded to the survey or participated in the mapping. The shortcomings they expressed are related to the difficulty in reaching the stops in terms of safety, especially at night.

Urban environment

Some points and areas identified as safe according to the Safetipin index were registered as unsafe by the neighbors during the participatory mapping. The area corresponding to the new urbanization of Papa Francisco and the massif of Manzana 21 are areas that women tend to avoid due to the lack of lighting and little pedestrian circulation. Something similar occurs on Fernández de la Cruz avenue, which coincides with the Metrobus and the Premetro, where they prefer to circulate on the hand next to the informal settlement and not on the opposite one. Another point is the section of Chilavert between Pola and Larrazabal that coincides with the space for waiting for CeSAC shifts and with the school entrances to the Educational Pole, although the composite safety index identifies them as unsafe, the neighbors reported that they are sources of robberies, especially in the early hours.

Both methodologies identified the “Plaza de las Risas” as a safe point. It should be noted that the workshop held in Barrio 20 was one of the few workshops in which the neighbors identified a safe place. It was mentioned that this space was recently intervened and has good lighting, trees and is regularly frequented by the participants.

This space and its characteristics are in contrast to the fields located on Chilavert street, mostly occupied by men and not frequented by women.

Land uses and urban structure

Barrio 20 is almost entirely surrounded by a large number of properties for industrial use, large commercial facilities, and public spaces (squares and parks) and private spaces (clubs, sports centers, sports fields). The predominant fabric in this sector of the city is mixed, through the coexistence of residential and industrial uses and large green spaces, which make up urban barriers.

Inside the informal settlement, it is also visible that the structural conformation of the urban fabric is mostly made up of internal passages and corridors and there are few streets that communicate effectively with the surrounding environment. In the mapping workshops it was possible to see that women in their frequent journeys tend to avoid going through the passages and corridors, except for journeys that they cannot avoid. The map shows some passages identified as unsafe, along with some sites inside the informal settlement. However, other unsafe areas and sites sit on the main roads, which does not in any way rule out the perceived unsafety in the passages/corridors. In this sense, the fact that the corridors are not identified for the most part as unsafe areas responds more to the fact that they are routes of circulation that they avoid and therefore know less about. In the same way, the main streets, which are the ones they choose over the corridors, condense a greater number of unsafe sites and areas because they are better acquainted with the dynamics that take place there.

Barrio

21-24

Photo 26. Aerial view of Barrio 21-24.



Barrio 21-24

Barrio 21-24

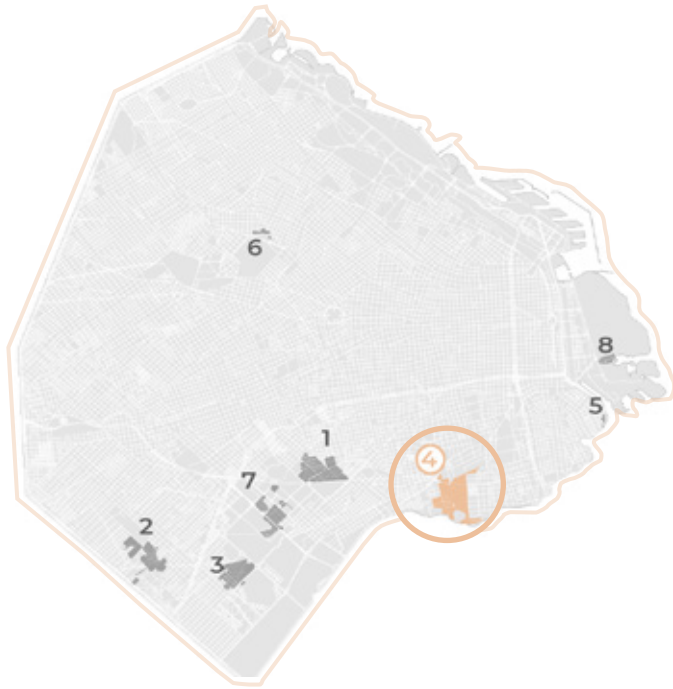
The first residents of Barrio 21-24 settled around 1940 on the land of abandoned port facilities, destined for burning waste. Since then, its population has fluctuated and today it is one of the largest in size and in population informal settlements in the City of Buenos Aires. It is located in the southern part of the city, in a flood zone of the Matanza-Riachuelo River basin, at the height of the Brian Meander, in an area with the presence of freight and passenger railways. This has given rise to unfavorable conditions for the development of the settlement.

Currently, an urbanization process is being carried out that focuses on the social and economic integration of residents, mainly those who live on the Camino de Sirga, a flood-prone sector on the banks of the river. Recently, around 1,330 families who were living there and were frequently affected by floods, relocated. This process is carried out by the IVC with the support of the Matanza Riachuelo Basin Authority (ACUMAR).



Photo 27. Urban postcard of Barrio 21-24.

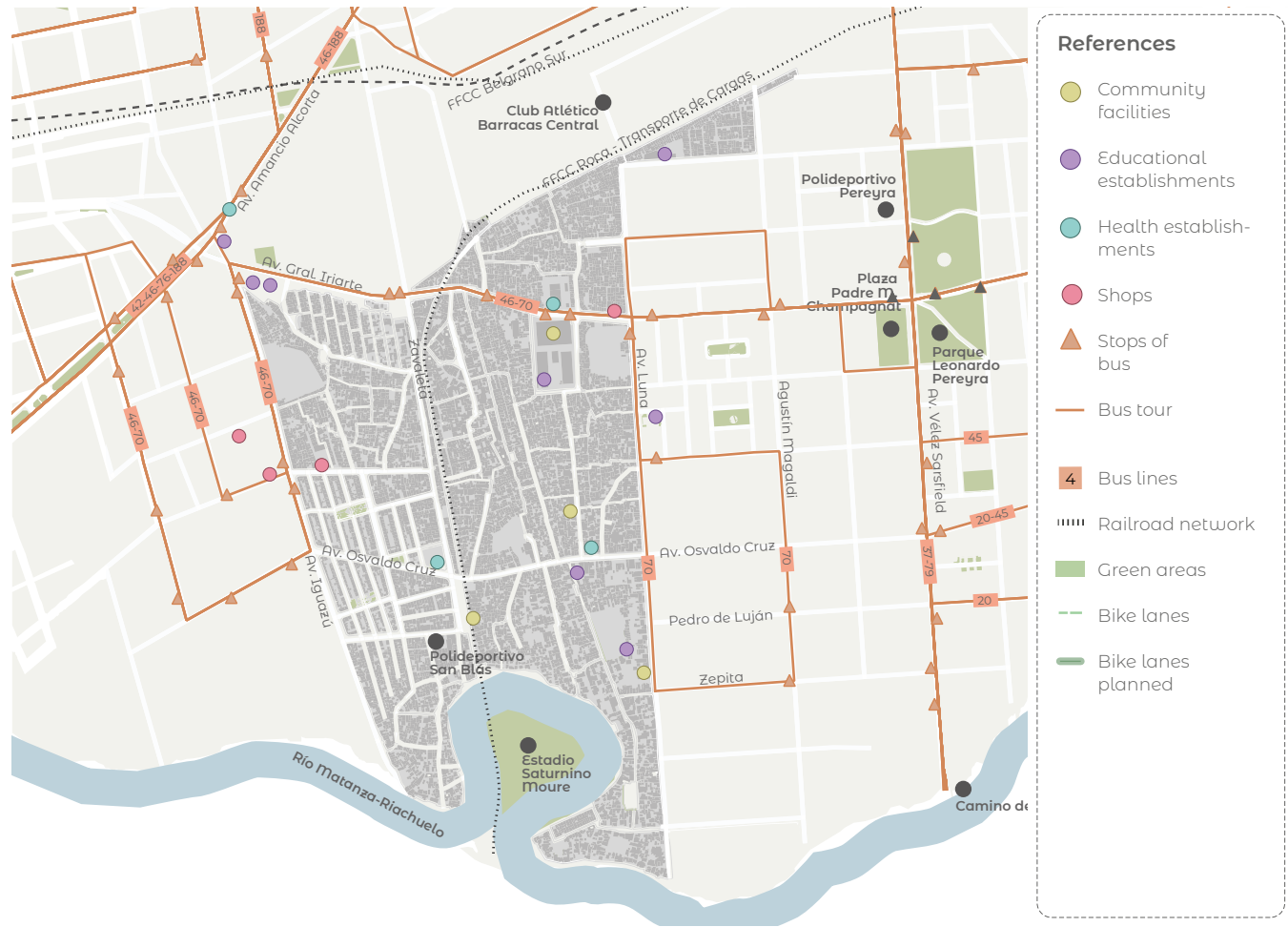
B.21-24



Sociodemographic data Barrio 21-24

Location: Barracas and Pompeii -
 commune 4
 Inhabitants: 35,761
 Families: 14,720
 Homes: 8950
 Area: 79 ha
 Density: 573 inhab/ha³⁰

Map 2. Location of Barrio 21-24 in CABA.



³⁰ City Housing Institute (2018). Final Report Census 2017 Barrio 21-24

Map 16. Location of Barrio 21-24 in CABA. Transport network around Barrio 21-24. Bus lines 20,37,42,45,46,70,76,150 and 188.

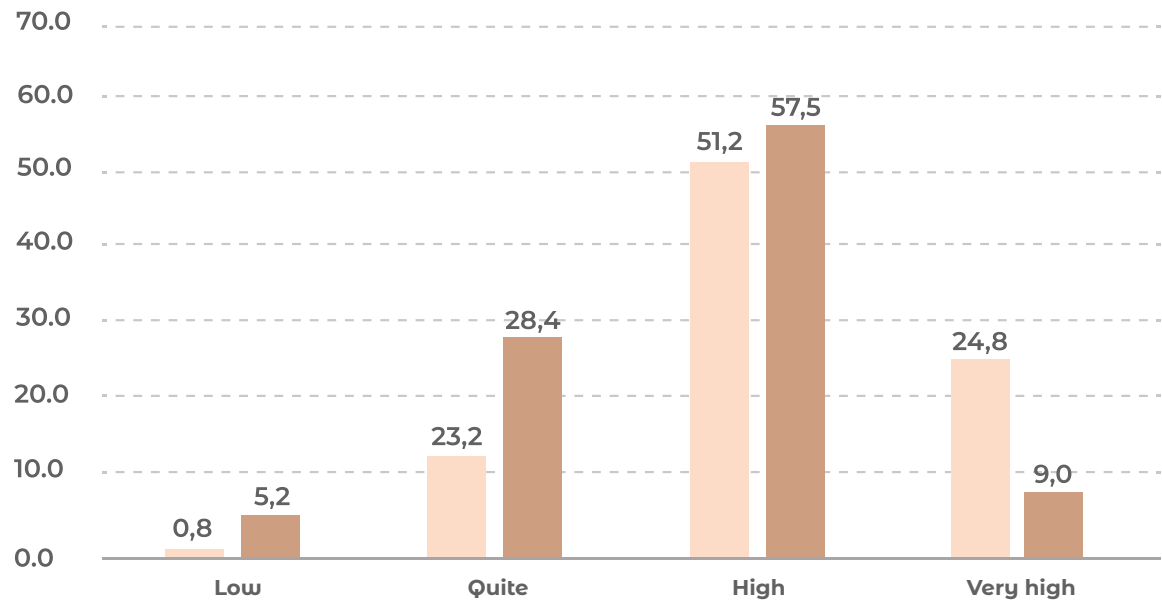
Phase I - Quantitative

Data collection of the daytime and nighttime urban environment | Safetipin Nite

Name of the informal settlement: Barrio 21-24
 Daytime Collection: 11-23-2021/ 5:27 p.m. to 6:19 p.m.
 Night Collection: 11-23-2021 / 20.08 to 21.05 pm
 KM collected (average): 26
 Audited stops: 4
 Collected Testimonials: 11
 Number of Daytime Photos: 697
 Cant. Fotos Nocturna: 641

The composite index of safety for women in public spaces did not survey corridors or internal streets. It presents a majority of points with high and very high levels in the immediate perimeters of the informal settlement³¹, with the exception of the Camino de Sirga and the eastern section of Osvaldo Cruz street where the values drop to medium. There is a greater presence of people inside the informal settlement, in the western sections of the main axes surveyed (Osvaldo Cruz and Iriarte avenue). These sections are in turn those that show some degree of diversity of people, even if it is low; that is, more women were registered inside the informal settlement than in its perimeter and surroundings. The same occurs with the visibility variable between these sections and the surroundings of the informal settlement. There was no presence of safety personnel on the tours.

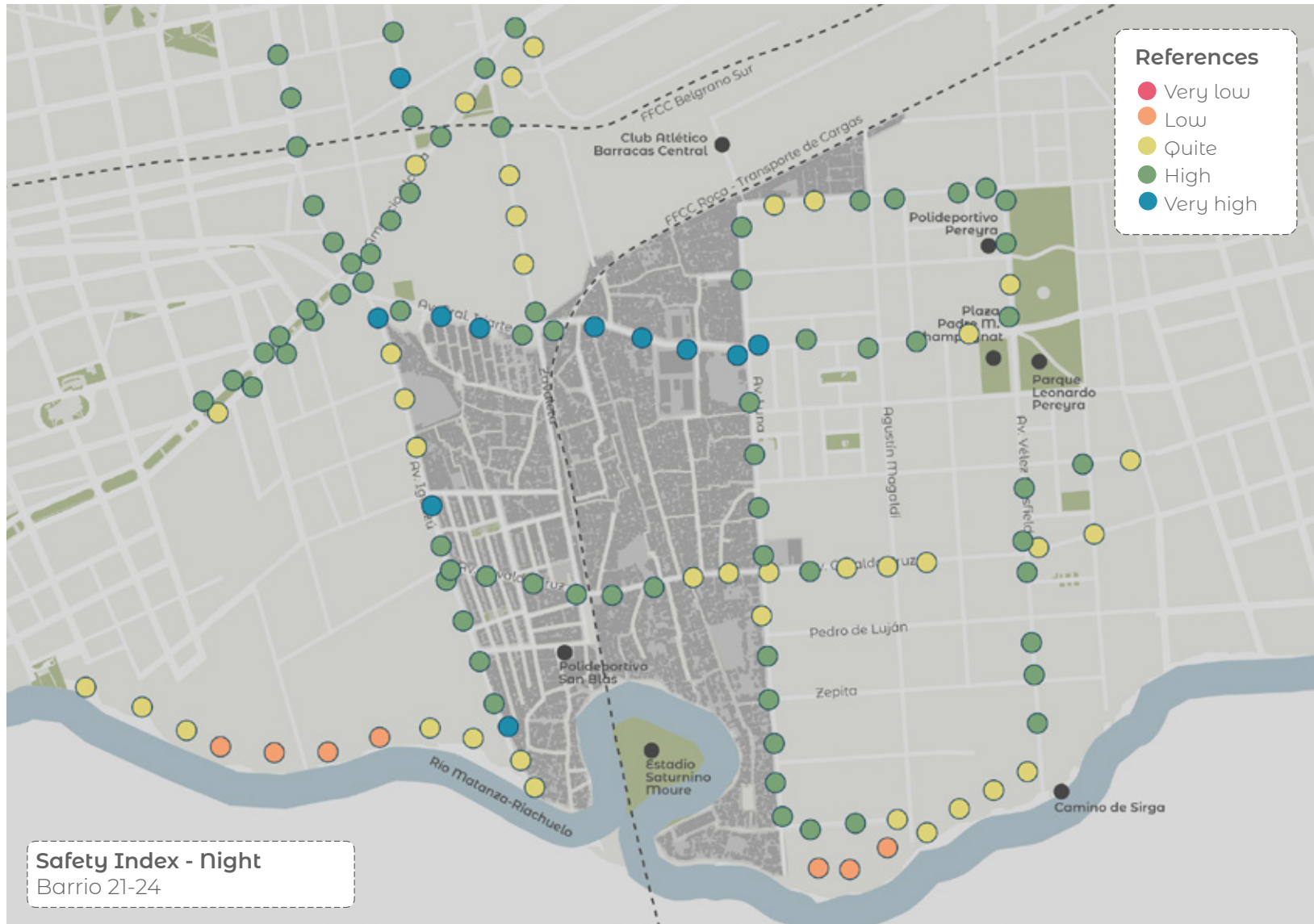
Safety index



Graph 14. Daytime and nighttime safety index of Barrio 21-24. Day Night

³¹Iriarte avenue, Osvaldo Cruz avenue, Iguazú and Luna

Map 17. Safety index of Barrio 21-24, night collection.



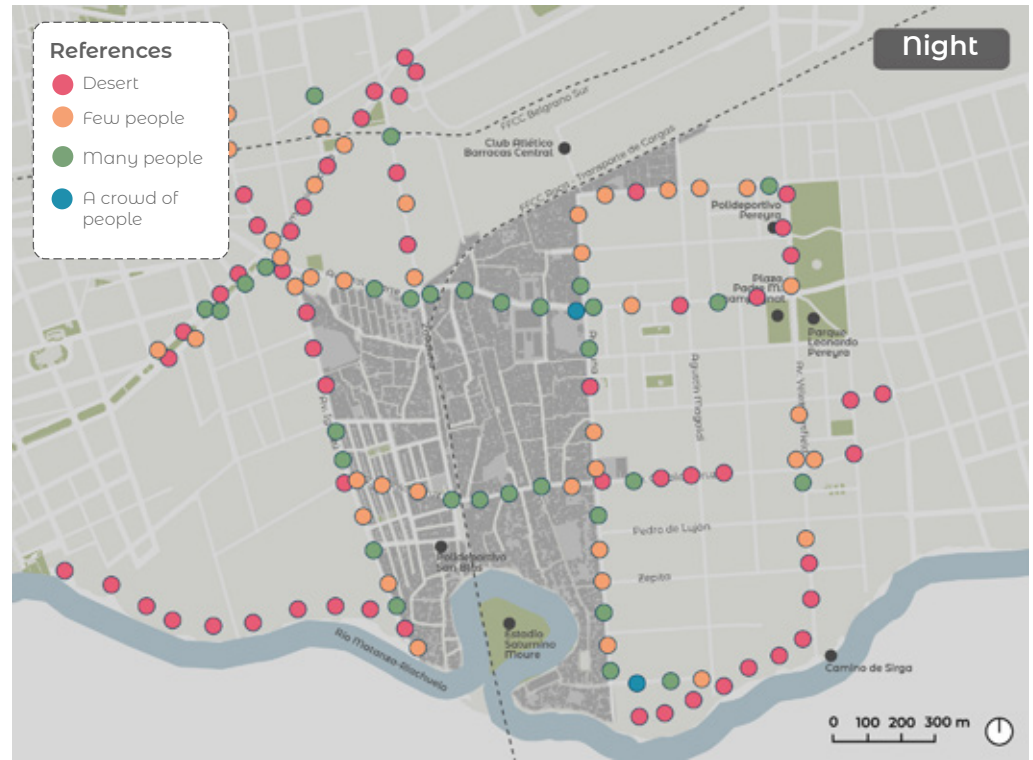
Presence of people - Day
Barrio 21-24

Map 18. Presence of people Barrio 21-24, daily collection.



Presence of people - Night
Barrio 21-24

Map 19. Presence of people Barrio 21-24, night collection.



Public transport



Only 2 bus lines enter the neighborhood³², as long as we walk around it is possible to find **less than 6 lines**³³.

63 %

63% of the audit points in the analyzed area have public transport available within a **2-minute walk**.

16 %

16% of the audit points in the analyzed area have public transport available within a distance of 5 minutes or more on foot.

21 %

21% of the audit points in the analyzed area have public transport available between **2 and 5 minutes on foot**.

³² Bus lines 70 and 46

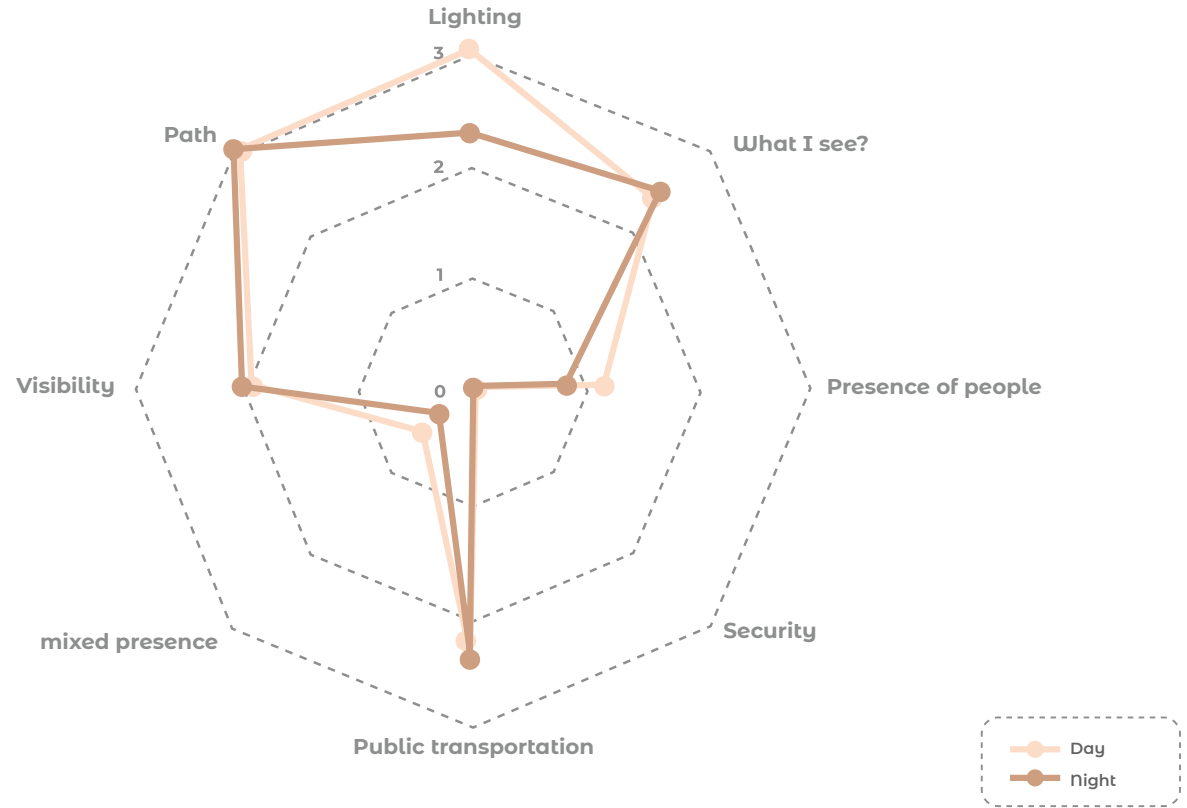
³³ The bus lines that enter the informal settlement are 46 and 70; bus lines 20,37,42,45,46,70,76,150 and 188 operate around the informal settlement.

Graph 15. Data on the audits of the stops in Barrio 21-24.

The main variations between daytime and nighttime collection occur on the Camino de Sirga and on the perimeter and internal axes of the informal settlement. The least variation occurs in the eastern section of Osvaldo Cruz and Iriarte, which is due to the fact that the presence of people increases slightly, but not diversity. This may be due to the fact that there are more homes and, therefore, when the working day is over, there is more circulation.

The graph below represents the average score obtained in the points collected during the survey with the quantitative methodology, according to each variable and time of collection, making visible the slight difference between both time ranges. At first glance, it can be seen that all the variables behave in a similar way between day and night, with lighting, the presence of people, and the mixed presence being the variables that present the greatest variation due to issues typical of the daily rhythm. However, the difference in the lighting variable is more drastic in comparison, so it could be thought that there is a poor quality of night lighting in the informal settlement.

Barrio 21-24
Average value according to the variable



Graph 16. Average value according to the variable of Barrio 21-24. Average value according to the variable where 0 corresponds to very low and 3 to very high.

Phase I - Quantitative

Surveys and audits at public transport stops | Safetipin Site

Data from stops was collected and 11 interviews were conducted with users at stops of five bus lines (No. 46, 70, 45, 37 and 188). Three stops were surveyed on Iguazú street and one on Amancio Alcorta avenue. These were selected from the SUBE transaction data and validated with territorial references as they are the most used by residents of the informal settlement.

Beyond being signposted and with different levels of quality of infrastructure available (shelters, seats, accessibility elements), the audited public transport stops do not have surveillance or available lighting. This could have direct consequences on the perception of unsafety manifested during the surveys carried out.



Map 20. Location of the bus stops in Barrio 21-24.

Bus stop audit

	Signaging	Shelter	Bench	state of the sidewalk	universal accessibility	obstacle	visibility	vigilance	lighting
1	✓	✗	✗	✗	✓	✗	✓	✗	✗
2	✓	✓	✗	✗	✗	✓	✓	✗	✗
3	✓	✗	✓	✓	✓	✗	✓	✗	✗
4	✓	✓	✓	✗	✓	✗	✗	✗	✗

Table 4. Audit of the bus stops in Barrio 21-24.

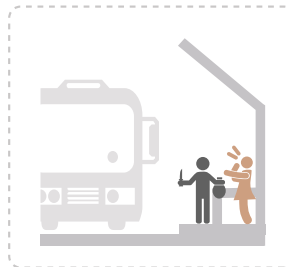
The reasons associated with the feeling of insafety are fear of robbery and little police presence.

7 out of 11 of the women surveyed reported feeling unsafe while waiting for the bus.

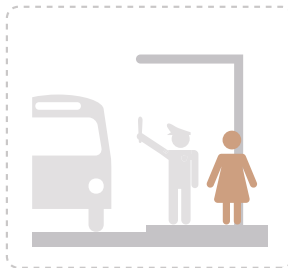
The trips to the stops are made in groups and on internal streets, since there is a greater sense of safety.

Intermittencies in the bus service and a decrease in the frequency at night were mentioned, which have as a consequence that women are forced to opt for more expensive alternatives to the bus, such as taxis or remises.

Safety perception
in women



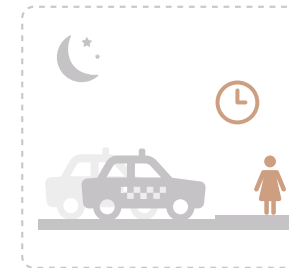
70% of all women interviewed reported **feeling unsafe at the bus stop.**



The reasons associated with the feeling of unsafe are **the fear of theft and the lack of police presence.**



The trips to the stops are made in groups and on internal streets, as there is a greater **sense of safety.**



Intermittent bus service and a **decrease in frequency at night** have been mentioned, with the result that women are forced to opt for more expensive alternatives to the bus, such as taxis or remises.

Graph 17. Perception of insafety in Barrio 21-24.



“
The infrastructure of the stops must be improved, and the place should be able to shelter us from the rain.
”

“
I feel unsafe after dark because of the break-ins.
”

- Middle-aged woman commuting for work

“
I always feel unsafe walking to the bus stop and also waiting for the bus due to the lack of lighting in the area. There should be a booth nearby.
”

- Young woman who travels a few days a week for care tasks

“
They should put more traffic lights and security measures to make the area safer for girls and boys.
”

- Young woman commuting for work

Photo 28. Diagnosis on foot Barrio 20. Graph 18. Testimonials from users of Barrio 21-24.

Phase II - Qualitative

Participatory Mapping

Origin period: 1940s
 Inhabitants: 45285
 Families: 11321
 Homes: 7455
 Area: 79 hectares
 Main roads: Osvaldo Cruz avenue - Iriarte avenue - Iguazú avenue - Amancio Alcorta avenue - Zavaleta

The participatory mapping instance allowed the collection of qualitative data on the daily mobility experiences of women in the informal settlement and its surroundings. The collected information was reflected in five maps, which are presented below in a synthesis map:

- Daily practices
- Displacement out of the informal settlement
- Connections and forms of mobility
- Safety perception
- Mobility strategies and public space



Map 21. Synthesis of Barrio 21-24.



Daily Practices

- There is a consolidated commercial axis along Osvaldo Cruz avenue that coexists with a wide variety of businesses that proliferate throughout the informal settlement.
- The coexistence of residential fabric and small commercial premises appears as a result of the strong association between housing and work spaces.
- The main reasons for traveling within the informal settlement and its surroundings are carried out on foot and are linked to tasks of care, work, study or visiting relatives.
- Stops corresponding to the public service of school buses were identified, where it was highlighted that currently they do not enter the informal settlement nor do they have internal stops, but rather have two access points where they leave the children. This situation generates difficulties in the displacements linked to care tasks.



Movements outside the informal settlement

- The main trips outside the informal settlement respond to different needs: study, work, shopping, assistance to more complex health centers that are accessed within the informal settlement, administrative procedures, and recreation.
- These tours are mostly done on foot or by bus depending on the distance they have to cover.
- In some cases, the use of the bicycle was pointed out as a quick way to leave the informal settlement and the use of remises in emergency situations or in cases of reduced mobility.



Connection of the informal settlement with the environment

- The Argerich Hospital and the Penna Hospital emerged in the conversations as spaces that, although they are not everyday, are places to visit that are often necessary to access with remises.
- Only two bus lines enter the informal settlement.
- The mobility axis of Velez Sarsfield Avenue is perceived as the best connection with the rest of the city, since there are more bus lines³⁴.
- Regarding buses, the reduction or cut in the frequency at night time stands out as a difficulty to get around.
- In cases of need or urgency, they point out that they exclusively depend on the informal settlement's remittance services to get around, since taxis and travel apps do not enter the informal settlement.

³⁴ Bus lines 20, 37, 45 and 79.



Safety perception and Mobility Strategies

- The routes perceived as unsafe are mainly associated with the lack of lighting, the presence of lonely streets in industrial areas and the lack of response from the safety forces.
- The accesses to the informal settlement and the streets that connect it with Vélez Sarsfield avenue are perceived as unsafe. In this case, the following factors of unsafety stood out: the extended presence of factories and walls above the residential fabric, which makes those streets dark and lonely. The neighbors mentioned that the unsafety situation worsens at night.
- Areas perceived as unsafe are associated with bus stops, since that is where there is the greatest movement of people and the most robberies tend to occur. In particular, those that are close to corridors or passages, which are faster escape routes, were mentioned.
- Women prefer the bus stops located on Iriarte avenue over those located on Iguazú street, since the former are more crowded and have better lighting.
- The women manifested a preference for circulation through wide streets and avenues rather than internal corridors that are darker and more deserted.
- The women expressed that, beyond the presence of safety elements in the informal settlement -such as domes and police booths-, they do not feel protected. That is, the presence of these elements does not diminish the perception of safety.
- Women prefer to make their journeys accompanied and prioritize moving around during the day.
- The participants in the activity mentioned the presence of a neighborhood organization that installs private safety elements such as safety cameras and alarms.



Urban environment

- The state of the sidewalks when moving on foot emerged as a relevant issue. Difficulties associated with their poor condition, the presence of unevenness and invasion of public space by commercial premises and improperly parked cars were identified. Specifically, they are barriers that are identified when traveling by bicycle and with baby carriages, and for people with reduced mobility.

Findings

The map below shows the overlap between both methodologies that varies according to the areas of the informal settlement. On the one hand, areas where there are no coincidences between the two methodologies were detected: the testimonials from the workshops provide a perspective that contrasts with the information collected with the Safetipin application.

On the other hand, areas perceived as unsafe arise in participatory mapping that have not been surveyed with Safetipin. Finally, coincidences are verified in some points. Below are some conclusions.

Map 22. Comparative methodologies of Barrio 21-24.





Public transport

In the workshops, the women mentioned that, on occasions, the frequency of public transport decreases or shows nocturnal intermittencies. Access to bus stops presents a situation that generates unsafety, especially if it is at night and they have to travel through arteries with little pedestrian circulation. These issues that arose in the qualitative instance were not recorded during the quantitative instance, since the Safetipin application evaluates the state of the infrastructures and not the service or the experience of those who use it.



Standby Infrastructure

Regarding transportation waiting spaces, both methodologies characterized the surveyed stops with regular values; the results of the mapping workshop associate them to a great extent with unsafe spaces.



Urban environment

During the participatory instance it was verified that the women prefer the main avenues of the informal settlement to circulate over the corridors since they consider them more unsafe due to the lack of lighting and the criminal acts that take place there. In addition, there is a greater concentration of shops and activities, which guarantees a greater presence of people.



Land Use and Urban Structure

The Padre Ricciardelli neighborhood (ex 11-1-14) is surrounded by large expanses of green public spaces and private facilities, with which the urban fabric is interrupted.

The predominant fabric in this sector of the city is mixed, through the coexistence of residential and recreational uses. From the map it can be seen that the informal settlement is connected to other areas of the city through the avenues that surround and cross it (Perito Moreno avenue, Riestra avenue, Varela avenue, Francisco Fernández de la Cruz avenue, Cobo avenue). Likewise, the map identifies private properties that make up urban barriers, mainly the property that corresponds to Club Atlético San Lorenzo facilities on its edges on Perito Moreno avenue and Varela avenue.

Towards the interior of the informal settlement, the structural conformation is visible, mainly constituted by internal passages and corridors and by some avenues that cross it (Col. Esteban Bonorino avenue, Pres. Torres and Tenorio, Riestra avenue) and connect with the surrounding environment.

Barrio

Lamadrid

Photo 29. Aerial view of the Barrio Lamadrid.



Barrio Lamadrid

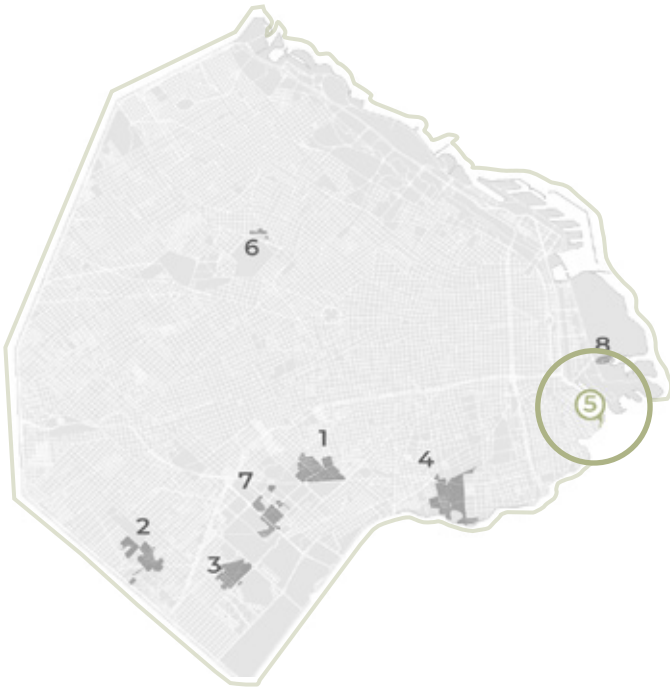
Barrio Lamadrid

The Lamadrid neighborhood emerged in the early 1990s on the southern edge of the city, at the mouth of the Riachuelo. It is located on land under the Buenos Aires-La Plata highway, in a sector of the city with great port and industrial activity, close to cultural, sports and tourist nodes typical of the informal settlement of La Boca, one of the oldest in the City. from Buenos Aires. It is the smallest informal settlement addressed in this study, where the housing core was informally built on the pre-existing urban fabric.



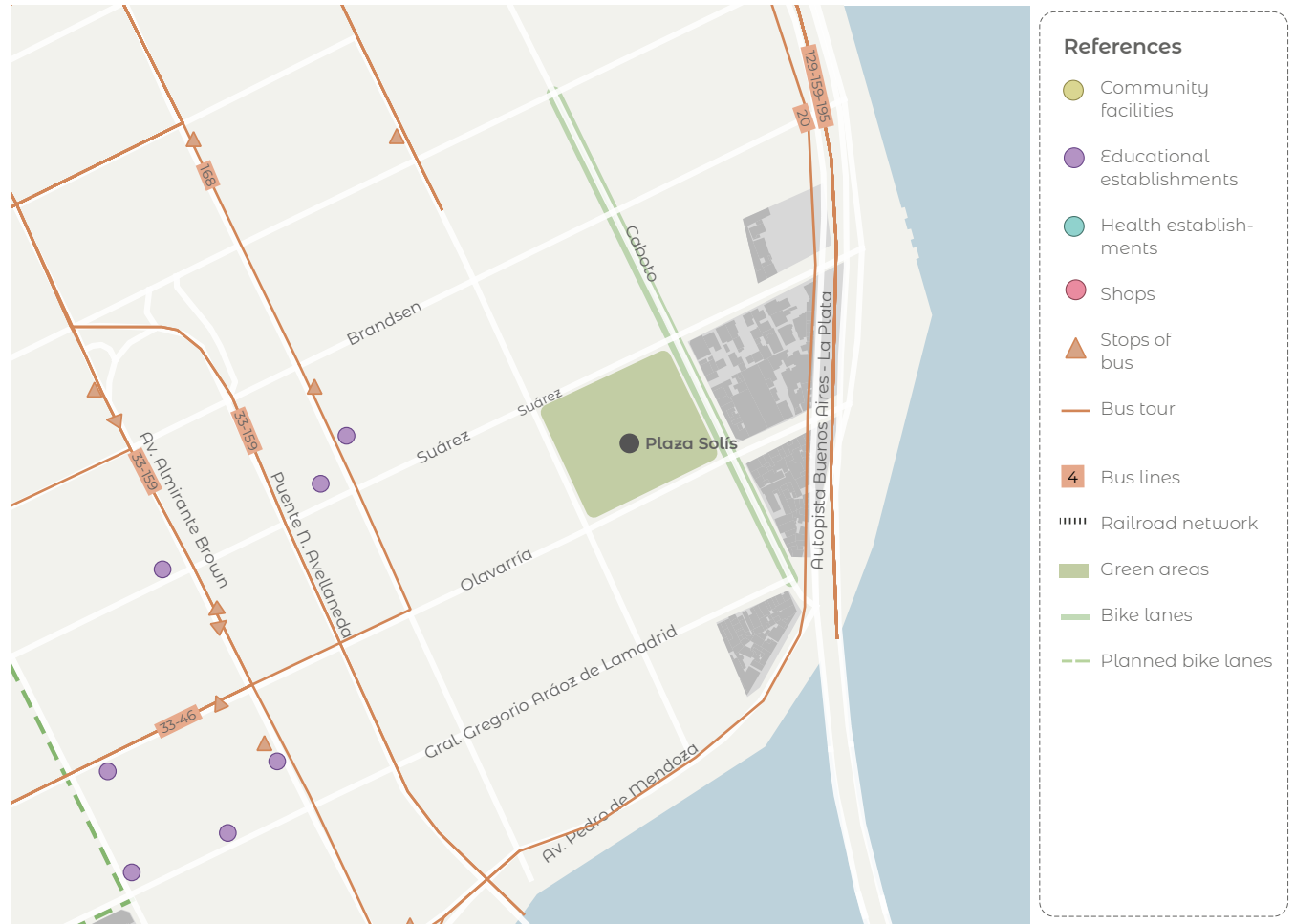
Photo 30. Urban postcard of the Barrio Lamadrid.

B.Lmd



Sociodemographic data Barrio Lamadrid

Location: La Boca | commune 4
 Inhabitants: 1217
 Families: 380
 Homes: 199
 Area: 2 ha
 Density: 609 inhab/ha³⁵



³⁵ Lamadrid. (s. f.). <https://www.buenosaires.gob.ar/instituto-devivienda/integracion-de-los-asentamientos-informales/lamadrid>

Map 23. Location of the 'Barrio Lamadrid' in CABA. Transport network around the 'Barrio Lamadrid': bus lines 46 and 114.

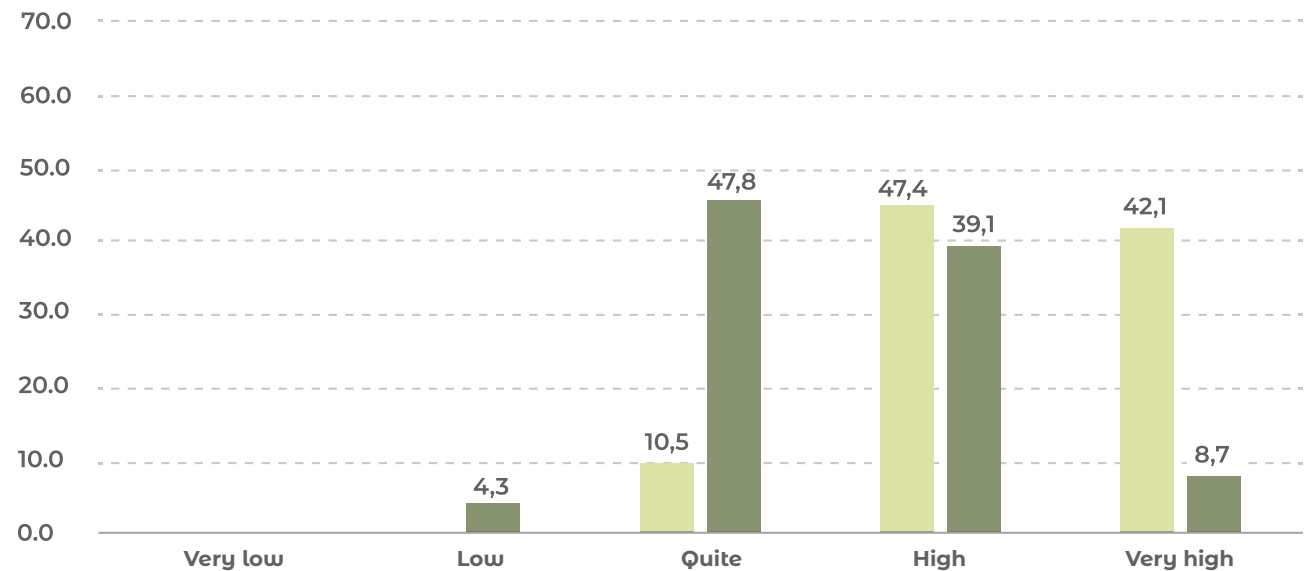
Phase I - Quantitative

Data collection of the daytime and nighttime urban environment | Safetipin Nite

Name of the informal settlement: Barrio Lamadrid
 Daytime Collection: 12-21-2021/ 6:53 p.m. to 7:06 p.m.
 Night Collection: 12-21-2021/ 8:37 p.m. to 8:50 p.m.
 KM collected (average): 3
 Audited stops: 4
 Collected Testimonials: 12
 Number of Daytime Photos: 113
 Number of Night Photos: 119

The composite safety index for the Lamadrid neighborhood in general yields positive results, presenting high and very high values in the vast majority of points. Where average values are displayed, it corresponds to the margin of the Riachuelo, on one of the edges of the informal settlement and at the foot of the highway. This is due to the variables presence of people, mixed presence and safety that gave low values in this area.

Safety index



Graph 19. Daytime and nighttime safety index of the 'Barrio Lamadrid'. Legend: Day (light green), Night (dark green)



Map 24. Location from google earth of Barrio Lamadrid.

Safety Index - Day

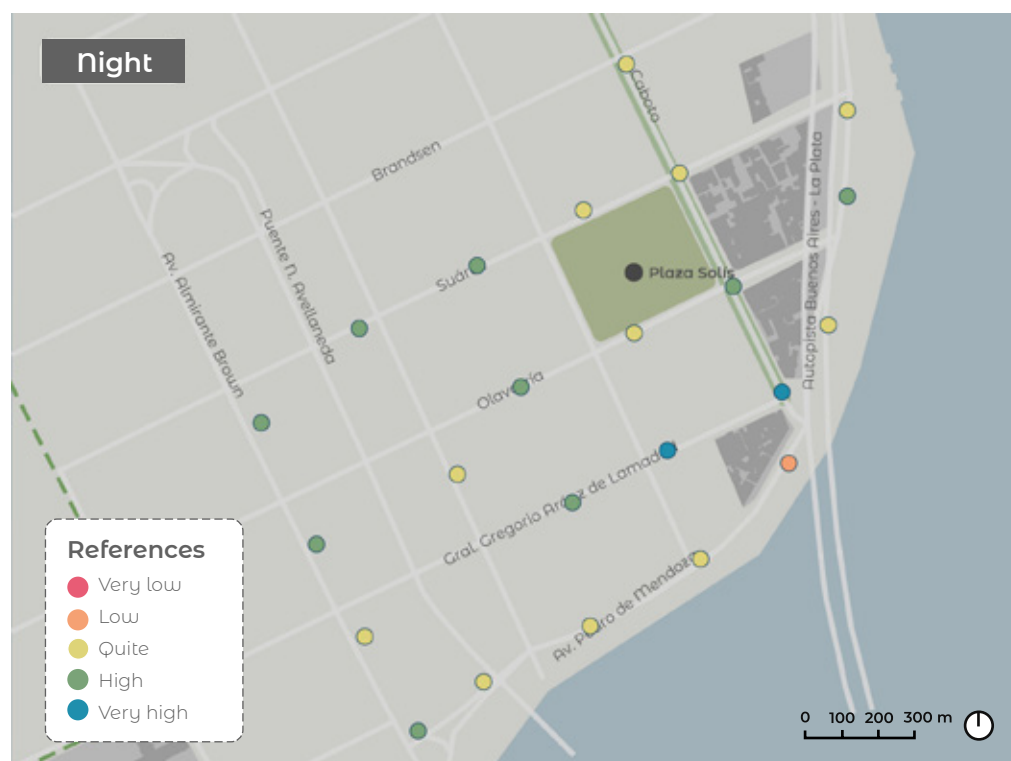
Barrio Lamadrid

Map 25 Night safety index of the 'Barrio Lamadrid'.

Safety Index - Night

Barrio Lamadrid

Map 26. Daytime safety index of the 'Barrio Lamadrid'.



Public transport



13 bus lines³⁶ circulate around the neighborhood.



Line 168 has its terminus near the neighborhood.



100 %

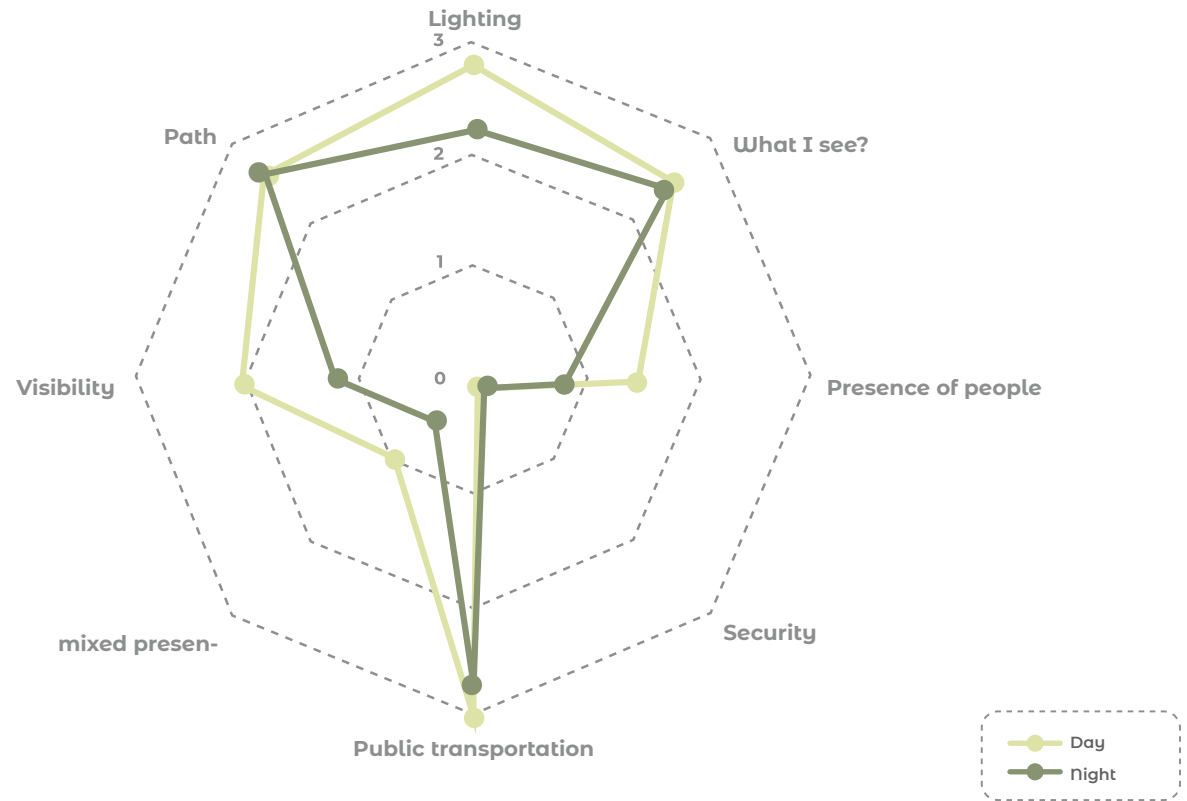
All audit points in the analyzed area have public transport available within a **2-minute walk**.

³⁶ Bus lines 20, 25, 29, 33, 46, 53, 64, 86, 129, 152, 159, 168 and 195.

Graph 20. Data on the audits of the stops in the Lamadrid neighborhood.

The graph below represents the average score obtained in the points collected during the survey with the quantitative methodology, according to each variable and time of collection. More significant changes are visible between day and night compared to other informal settlements. The main variables that affect this variation are: lighting, visibility, mixed presence and presence of people. These variations can be attributed to the fact that the Lamadrid neighborhood is continuously inserted in the formal urban fabric, it is bordered by a very crowded public green space during the day, which guarantees a great flow and mixed adherence of people. The change in dynamics of Almirante Brown Avenue also has an impact: during the day it has an active commercial life, but not at night.

Barrio Lamadrid
Average value according to the variable



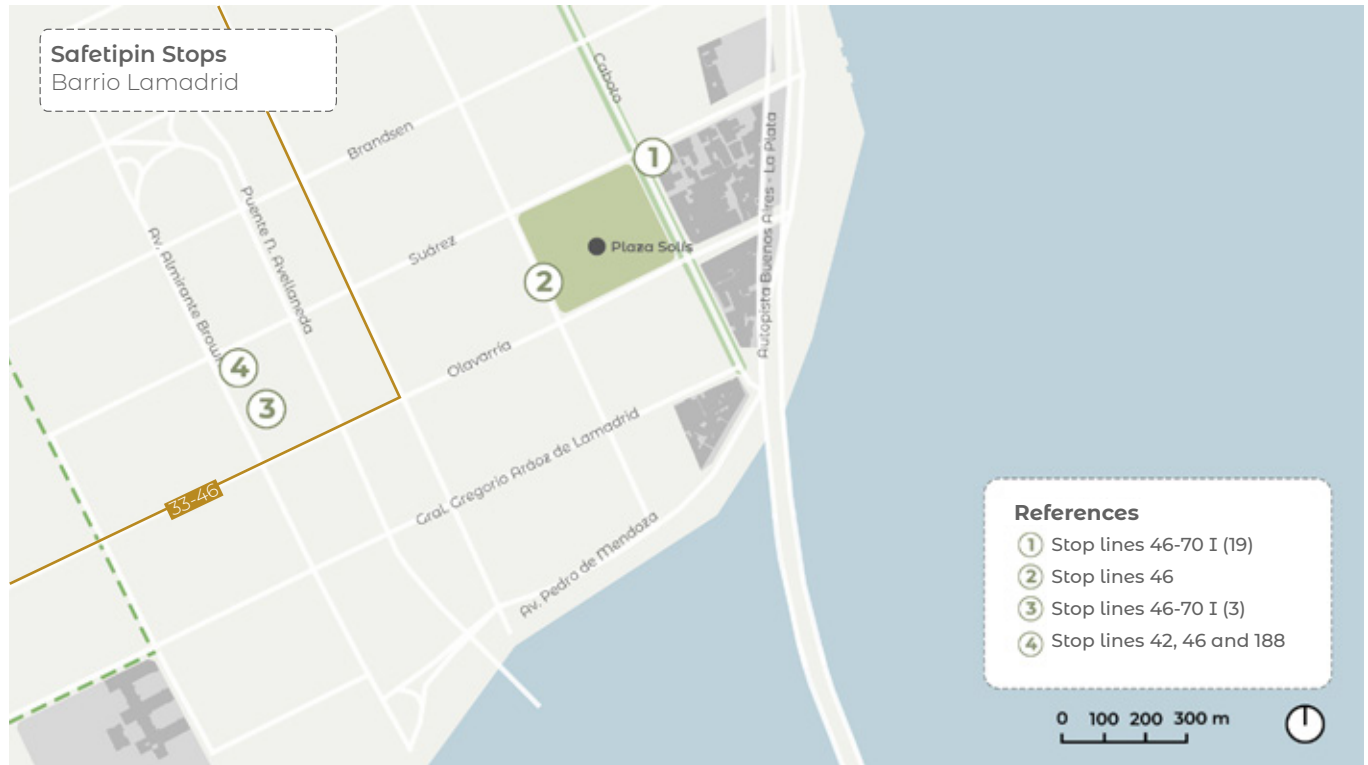
Graph 21. Average value according to the Lamadrid neighborhood variable. Average value according to variable where 0 corresponds to very low and 3 to very high.

Phase I - Quantitative

Surveys and audits at public transport stops | Safetipin Site

Two stops around Plaza Solís were surveyed, on lines 20 and 168; and two stops on Almirante Brown avenue, for lines 64 and 152 on one side and lines 29 and 53 on the other. These were selected from the SUBE transaction data and validated with territorial references as they are the most used by residents of the informal settlement.

The audit of public transport stops shows that the majority suffer from deficiencies in relation to the available equipment, they do not have shelter, seats, and infrastructure with universal access. However, they have lighting and most of them have surveillance, key elements in the users' perception of safety, although the testimonies collected in the surveys suggest that this would not be enough.



Map 27. Location of the bus stops in the 'Barrio Lamadrid'.

Phase II - Qualitative

Participatory Mapping

The mapping workshop necessary to carry out the qualitative analysis of the Lamadrid neighborhood could not be carried out. The people who refer to the IVC in the informal settlement expressed certain difficulties in carrying out the call that later led to the impossibility of carrying out the activity. Nor were the necessary conditions met for the neighborhood or IVC referents to provide an interview to replace the participatory mapping instance.

Bus stop audit

	Signaling	Shelter	Bench	state of the sidewalk	universal accessibility	obstacle	visibility	vigilance	lighting
①	✗	✗	✗	✗	✗	✗	✓	✓	✓
②	✓	✗	✗	✓	✗	✗	✓	✓	✓
③	✓	✓	✗	✗	✓	✓	✗	✗	✓
④	✓	✗	✗	✓	✓	✗	✓	✗	✓

Table 5. Audit of the bus stops in the 'Barrio Lamadrid'.



There should be more lighting as the area is dark, line 33 takes a long time, should be fixed.

- Middle-aged woman who travels a few days a week for work

I feel unsafe since I saw many cell phone thefts in the area. Police patrolling and lighting should be increased.

- Young woman commuting for work

There should be rain shelters and waiting seats. There is a lot of vandalism and very little hygiene. Cleaning should improve.

- Senior woman commuting for work

I don't feel unsafe as I am familiar with the stop and it is on the avenue with the most people. But there should be more police present.

- Young woman who travels a few days a week for work reasons

I feel unsafe since I'm not from the neighborhood.

- Young woman who travels a few days a week for recreation.

Photo 31. Diagnosis on foot Barrio 20. Graph 22. Testimonials from users of the 'Barrio Lamadrid'.

Barrio

Playón de
Chacarita

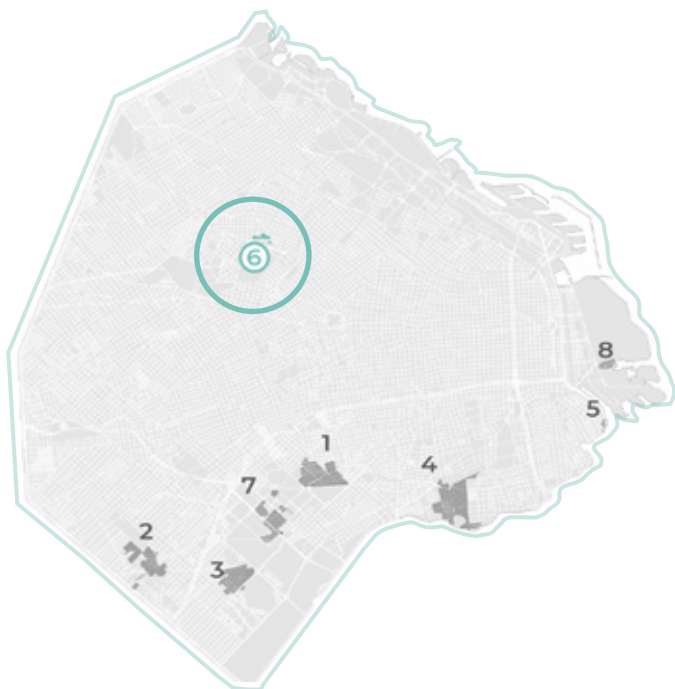
Photo 32. Aerial view of the 'Barrio Playón de Chacarita'.



Barrio Playón de Chacarita

The Playón de Chacarita neighborhood, also known as the Fraga neighborhood, is close to the Lacroze Transfer Center, where train, subway, and bus transfers take place. Like many other vulnerable housing areas in the city, which emerged in the context of the 2001 economic crisis, its population has grown exponentially in recent years. Situated on former railway land, it is very well connected to the rest of the city. Within the framework of Law No. 5799 approved in 2017, the informal settlement began its socio-urban integration process, being one of the most paradigmatic processes in the City.

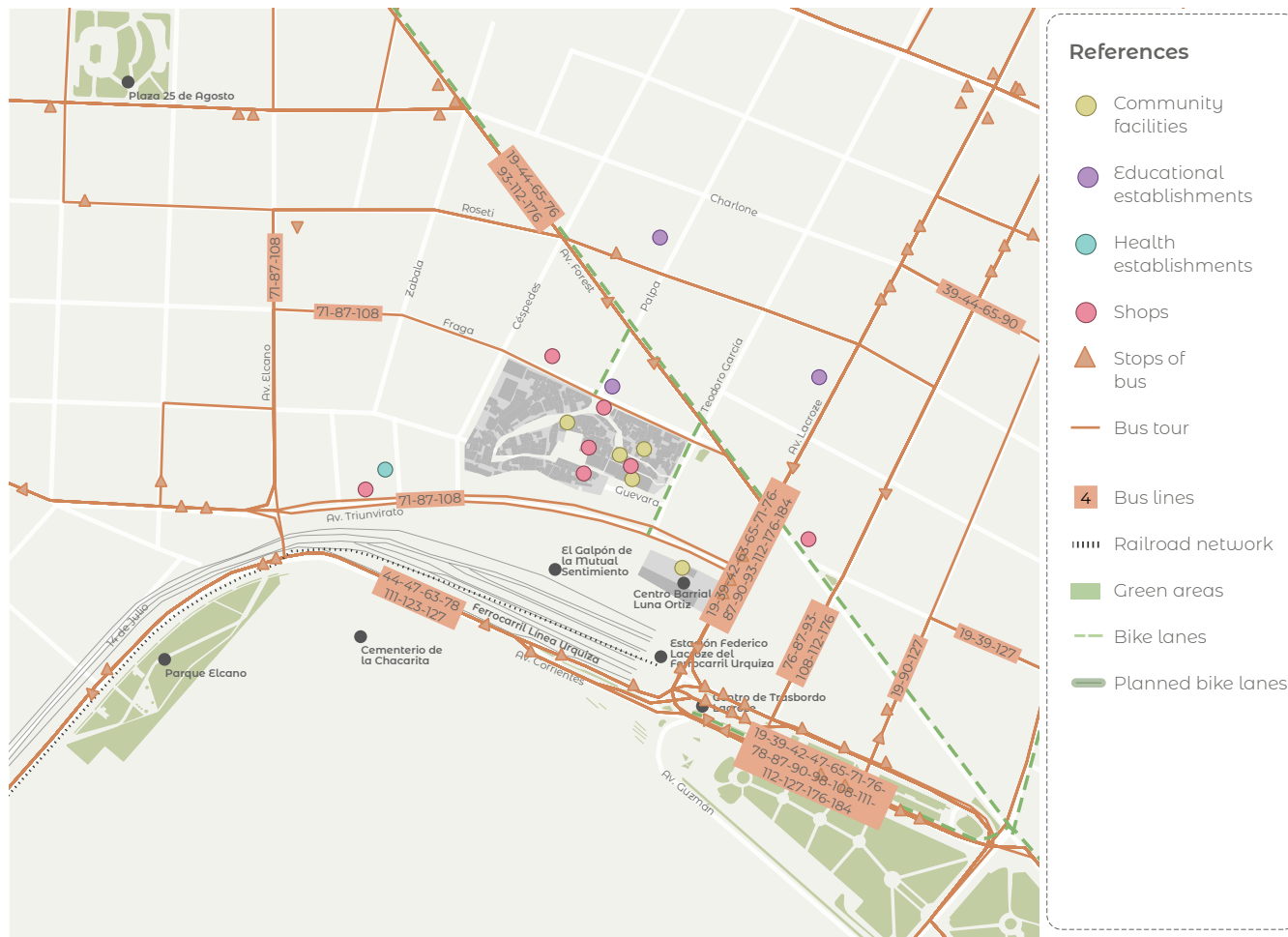
The IVC coordinates the project that included the layout of streets and alleys and the connection of the informal settlement to the formal infrastructure network, the construction of new homes for families affected by the new layout of streets, and the improvement of historic homes. 678 new homes were built on the property and Triunvirato avenue and Céspedes and Teodoro García streets were extended. In addition, the consolidation of the layout of Palpa and Guevara streets and of the internal passages to the informal settlement is underway, as well as the laying of the infrastructure network that will connect the houses with the basic formal services of the city.



**Sociodemographic data
'Barrio Playón de Chacarita'³⁷**

Location: Chacarita | commune 15
 Inhabitants: 2764
 Women: 1282
 Males: 1230
 Families: 1042
 Dwellings: 513
 Area: 2.5 ha
 Density: 1106 inhab/ha

Map 2. Location of the 'Barrio Playón de Chacarita' in CABA.



³⁷ City Housing Institute (2016). Final Report Census 2016 Playón de Chacarita. Buenos Aires: Statistics and Census Department, Social Intervention and Habitat Operations Management, Housing Development Management.

Map 28. Location of the 'Barrio Playón de Chacarita' in CABA. Transportation network around the 'Barrio Playón de Chacarita'. Bus lines 19, 39, 42, 44, 47, 63, 65, 71, 76, 87, 90, 93, 108, 111, 112, 117, 176, 184 and 193.

Phase I - Quantitative

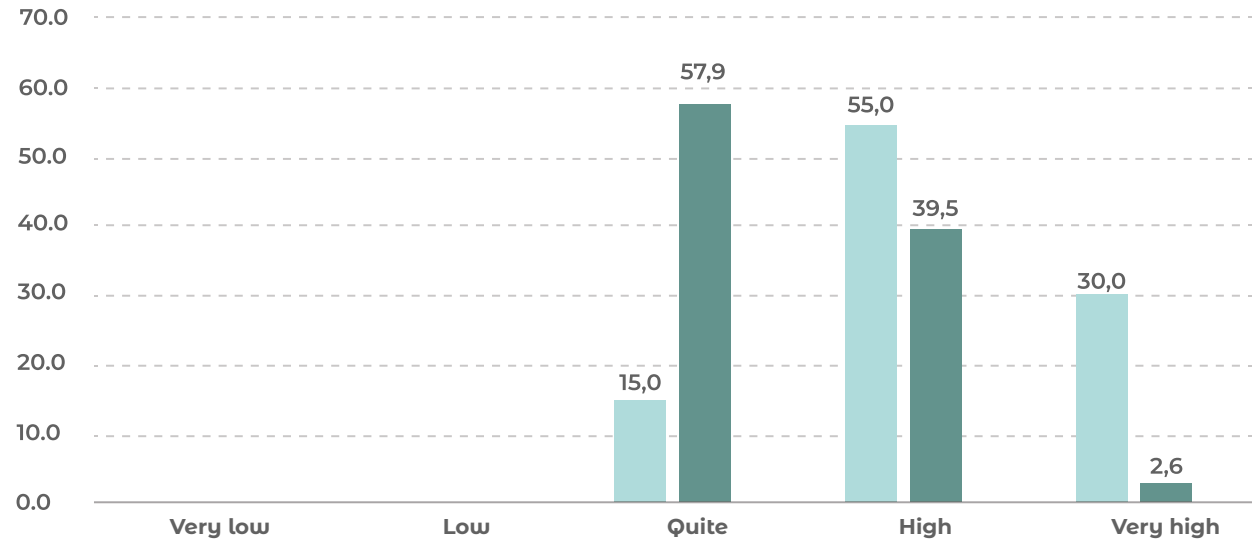
Data collection of the daytime and nighttime urban environment | Safetipin Nite

Name of the informal settlement: Barrio Fraga - Playón de Chacarita
 Daytime Collection: 02-12-2021/ 5:52 p.m. to 6:33 p.m.
 Night Collection: 11-02-2021/ 8:30 p.m. to 9:28 p.m.
 KM collected (average): 6.50
 Audited stops: 4
 Collected Testimonials: 22
 Number of Daytime Photos: 390
 Number of Night Photos: 52

The composite safety index produced from the daytime collection gives values between high and very high in the main arteries that surround the informal settlement (Triunvirato avenue, Fraga and Lacroze avenue) coinciding with the new opening of streets and the urbanization and the main public transport infrastructures in the area -Urquiza Railway, Line B of the underground train and Lacroze Transfer Center-.

The composite safety index drops to average values on Guzmán avenue. Although there are bus stops, it is surrounded by railway beaches on one side and by the Chacarita Cemetery on the other. Among the variables that make up the composite safety index, for this sector the presence of people, safety and mixed presence obtained a low score over others.

Safety index



Graph 23. Daytime and nighttime safety index of the Barrio Playón de Chacarita

Other points yielded average values such as Fraga between Elcano and Zabala avenue, and Zabala between Fraga and Guevara, where they may be associated with a low score in the presence of people and safety, among other variables.

As can be seen on the map, the informal settlement does not present safety indices with low and very low values. This could be because it is located in a commercial area and close to a transshipment center that registers a great deal of activity during daylight hours.



Map 29. Night safety index of the Barrio Playón de Chacarita.

Presence of people - Day
Barrio Playón de Chacarita

Map 30. Presence of people 'Barrio Playón de Chacarita', daily collection.



Presence of people - Night
Barrio Playón de Chacarita

Map 31. Presence of people 'Barrio Playón de Chacarita', night collection.



Public transport



The Urquiza Railway, Line B of the subway and ten bus lines³⁸ are the **main public transport options** in the vicinity of the neighborhood.

90 %

90% of the audit points in the analyzed area have public transport available within a **2-minute walk**.



The neighborhood is also integrated into the **city's network of protected bike paths**.

10 %

10% of the audit points in the analyzed area have public transport available within a distance of between **2 and 5 minutes on foot**.

The variables with the highest incidence in the difference between daytime and nighttime collections were lighting and presence of people. The lighting decreases for reasons related to the absence of natural light, although it is maintained with sufficient values. The presence of people varies due to the fact that it is a commercial and passenger transfer area, it is expected that during the night the movements and the presence of people will be reduced.

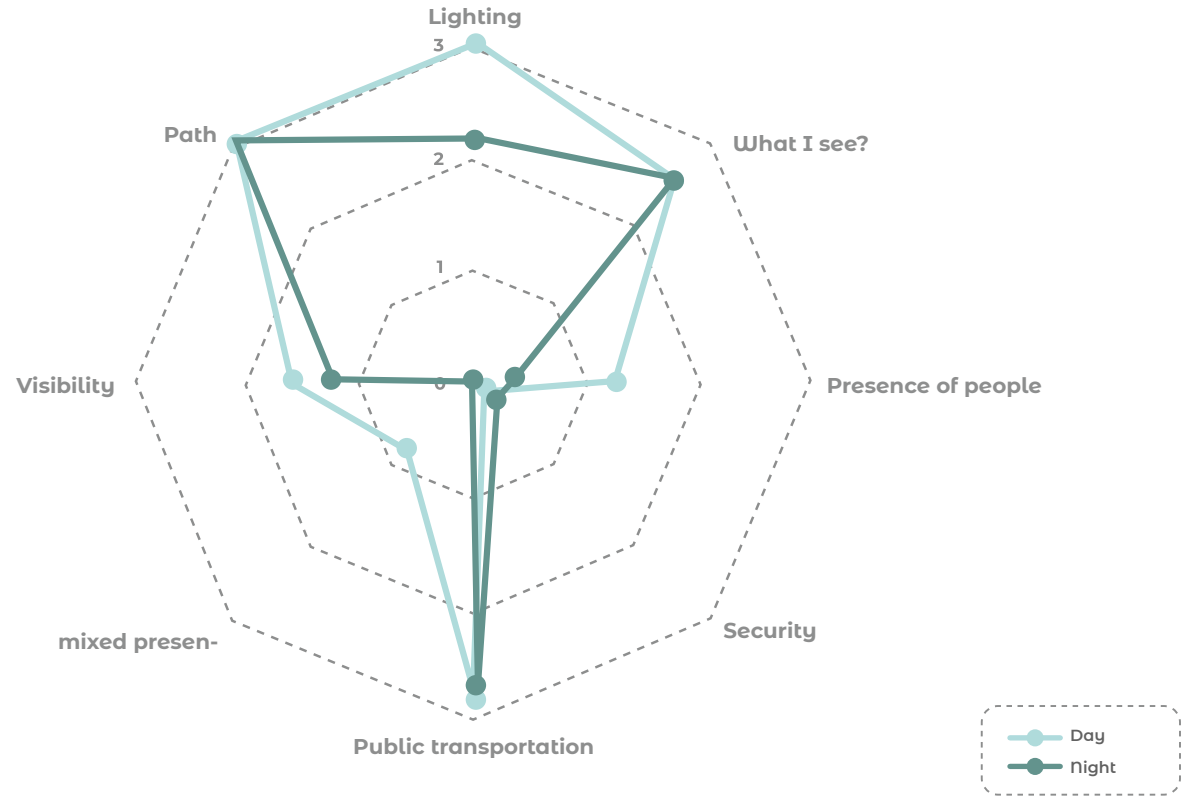
³⁸ Bus lines 87, 71, 108, 39, 63, 44, 65, 76, 176 y 193

Graph 24. Data on the audits of the stops in the Barrio Playón de Chacarita.

The presence of people also varies to a lesser extent, since during the night almost the entire collection presented low values, indicating the almost exclusive presence of males. The uneven distribution of the presence of people shows how little adherence Guzman Avenue has: despite having many bus stops, it does not have pedestrian circulation, probably due to the urban environment characterized by large walls and few uses.

The graph below represents the average score obtained in the points collected during the survey with the quantitative methodology, according to each variable and time of collection, making visible the slight difference between both time ranges. **At first glance it can be seen that all the most relevant differences are found in the lighting variables, presence of people, mixed presence and visibility.**

Barrio Playón de Chacarita
Average value according to the variable



Graph 25. Average value according to variable of the 'Barrio Playón de Chacarita'. Average value according to variable where 0 corresponds to very low and 3 to very high.



Most women stated that they only **felt unsafe after dark.**



The bus lines **do not respect the stops** in the neighborhood on Triunvirato Ave.

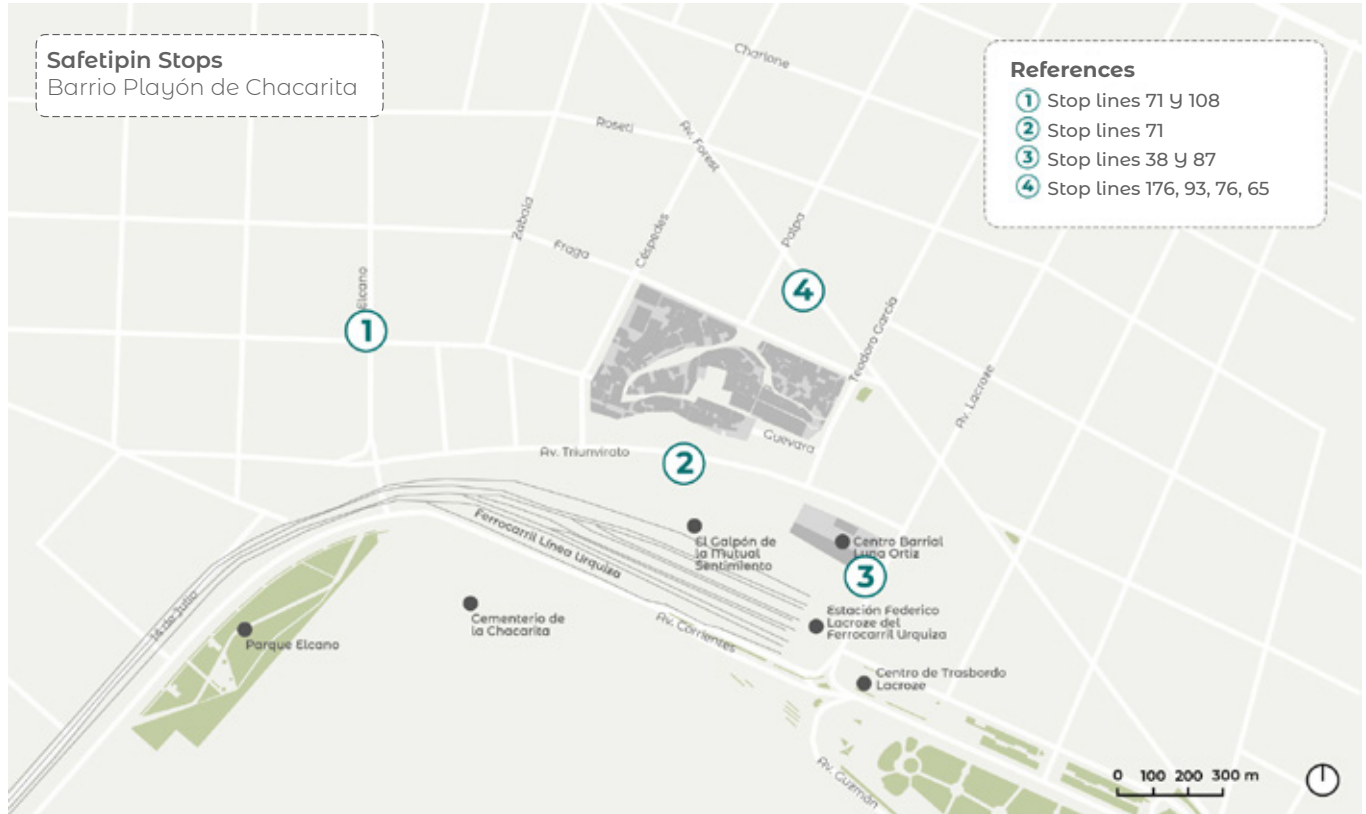
Graph 26. Perception of insafety in the 'Barrio Playón de Chacarita'.

Phase I - Quantitative

Surveys and audits at public transport stops | Safetipin Site

22 interviews were conducted at bus stops with users of lines 87, 71, 108, 39, 63, 44, and 19. In addition, the status of four stops was surveyed. These were selected from the SUBE transaction data and validated with territorial references as they are the most used by residents of the informal settlement.

Although the results of the audits at public transport stops show that they all have lighting and good quality furniture, the people surveyed stated that they felt unsafe. It can be thought that this means that the perception of unsafety is not given only by the characteristics of the infrastructure, but also and above all by the urban environment where it is inserted. In the audits, in addition, the results showed that there is no vigilance in the surveyed stops, another factor that is key in the perception of safety.



Map 32. Location of the bus stops in the 'Barrio Playón de Chacarita'.

Bus stop audit

	Signaling	Shelter	Bench	state of the sidewalk	universal accessibility	obstacle	visibility	vigilance	lighting
①	✗	✗	✗	✓	✓	✗	✓	✗	✓
②	✓	✗	✗	✓	✓	✗	✓	✗	✓
③	✓	✓	✓	✓	✗	✓	✗	✗	✓
④	✓	✓	✓	✗	✓	✗	✓	✗	✓

Table 6. Audit of the bus stops in the 'Barrio Playón de Chacarita'.



“
I feel unsafe because it is dark and there are few people. More lighting and better accessibility to the stop should add up.
”

- Young man who travels daily for work reasons

“
I am afraid that someone will steal my belongings, so I always feel unsafe.
”

“
I feel unsafe because of the lack of lighting. I am afraid of being robbed. The 108 stop lacks light and security.
”

- Young woman commuting for work

“
Increased police presence and lighting at the bus stop would make the area safer.
”

- Middle-aged woman who travels a few days a week for work

B. 15

B. 20

B. 21-24

B. Lamadrid

B. P. Chacarita

B. Ricciardelli

B. R. Carrillo

B. R. Bueno

Photo 34. Diagnosis on foot 'Barrio 20'.
Graph 27. Testimonials from users of the 'Barrio Playón de Chacarita'.

Phase II - Qualitative

Participatory Mapping

Place: IVC tent - Triunvirato and Teodoro García avenue
 Day and time: April 19, 2022 between 5:00 p.m. and 7:00 p.m.
 Call: by the IVC
 Duration: 85 minutes/1.25 hours
 Participants: 14 women between 35 and 65 years old
 Team present: IVC team, SECTOP staff and 3 people from Cooperativa Cambalache.

The participatory mapping instance allowed the collection of qualitative data on the daily mobility experiences of women in the informal settlement and its surroundings. The collected information was reflected in five maps, which are presented below in a synthesis map:

- Daily practices
- Displacement out of the informal settlement
- Connections and forms of mobility
- Safety perception
- Mobility strategies and public space



Map 33. Summary of the 'Barrio Playón de Chacarita'.



Daily Practices

- The informal settlement has a wide range of shops and services inside. There are dining rooms where many of the workshop attendees work. These activities are concentrated in the historic massif and not in the area of the new houses.
- The educational establishments that their daughters and sons attend are outside the informal settlement but a short distance away.



Connection of the informal settlement with the environment

- The informal settlement is connected to the rest of the city, inclusively, it is the informal settlement that has the best connection compared to the others studied and is perceived in this way by the neighbors.
- The underground train is the public transport most used by the neighbors. In addition, the use of the Urquiza Line Railway is recorded during weekends and leisure days.
- The most frequented bus stops are those located, firstly, on Guzmán avenue and Elcano avenue and, secondly, the stops on Teodoro García and Fraga streets.
- Although all the participants agreed that the frequency of buses decreases at night, they pointed out that this situation does not imply restrictions on mobility.
- The use of taxis is mentioned only if necessary.
- Despite the fact that the informal settlement is connected to the network of segregated bike paths, the bicycle is not mentioned as a means of travel used.



Safety perception and Mobility Strategies

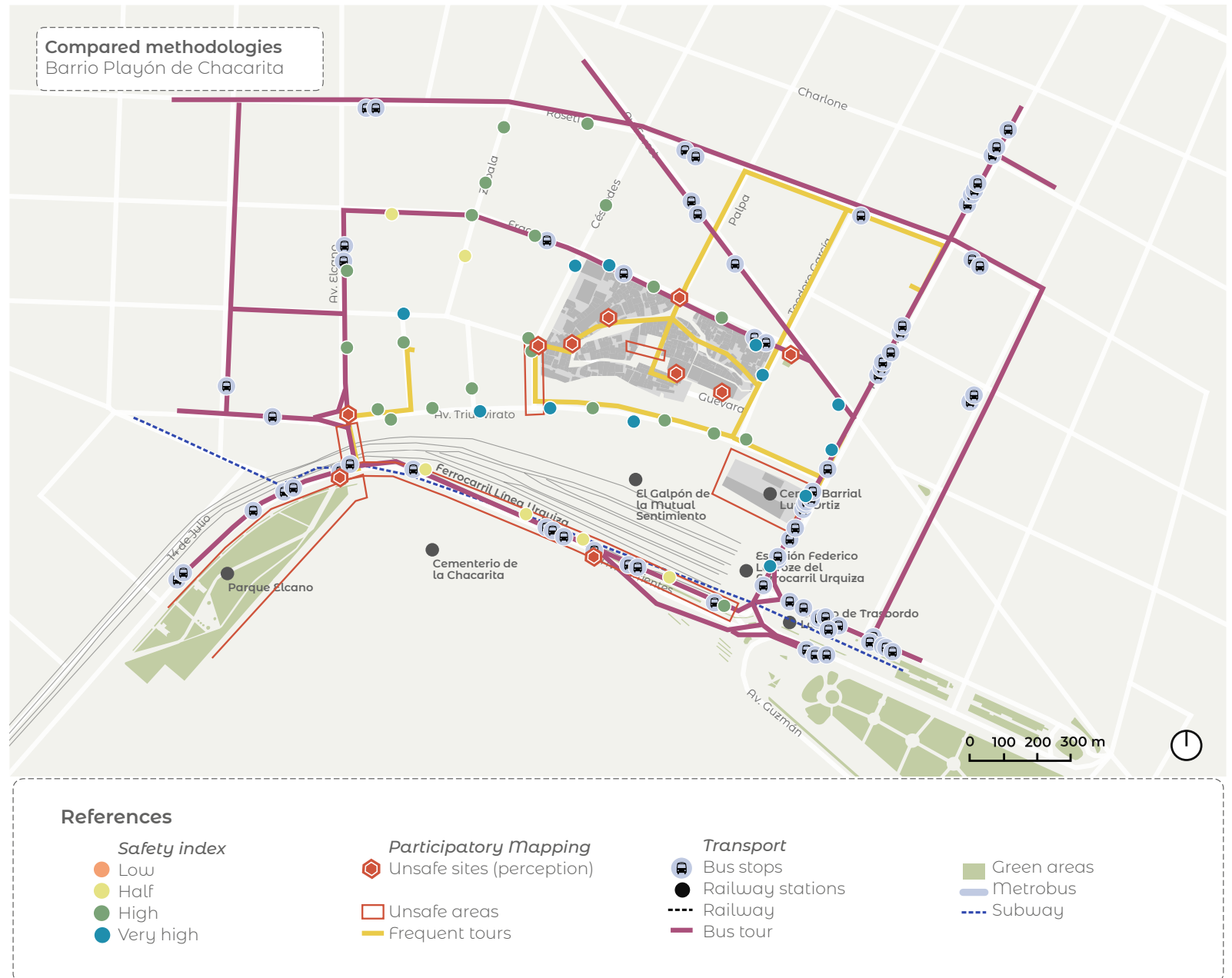
- The main unsafe area identified during the mapping activity is Guzmán avenue, an area that coincides with the edges of the railway playón and the Chacarita Cemetery.
- The block at the intersection of Triumvirate Avenue and Lacroze Avenue, an uninhabited disputed property that coincides with one of the main accesses to the informal settlement, is considered unsafe.
- Other points identified as unsafe are associated with the opening of streets or new homes where there is a lack of lighting and theft and consumption of problematic substances are concentrated.

Findings

The map below shows the overlap between both methodologies that varies according to the areas of the informal settlement. On the one hand, areas where there are no coincidences between the two methodologies were detected: the testimonials from the workshops provide a perspective that contrasts with the information collected by Safetipin.

On the other hand, areas perceived as unsafe arise in participatory mapping that have not been surveyed with Safetipin. Finally, coincidences are verified in some points. Below are some conclusions.

Map 34. Comparative methodologies of Playón de Chacarita.





Public transport

The Playón de Chacarita neighborhood is the best connected to the public transport network of all the informal settlements that make up this study, this is because it is accessible by bus, train, subway and is close to a transfer center. In addition, it is connected to the city's network of protected bike paths. This was reflected both in the survey of the Safetipin application and in the instances of participatory mapping.

The women from the informal settlement stated that they used public transport regularly, although some issues arose that could be improved. On the one hand, they mentioned that the buses do not always respect the new stops on Triunvirato avenue, which implies that they must go to the Transfer Center. On the other, if possible, they avoid the existing stops on Guzmán avenue at night due to a low perception of safety.



Standby Infrastructure

The waiting infrastructure surveyed was generally perceived to be in good condition, although it is noted that accessibility elements could be incorporated into stops and shelters to improve waiting.

The low perception of safety expressed by the users during the questionnaire is linked to the lack of lighting, even though according to the audit of stops they have adequate lighting, and to the low circulation of people at night, issues also reflected in the Survey of the Safetipin application.



Urban environment

Within the historic sector, in some corridors and passages there are points where unsafety is perceived. However, outside the limits of the historic informal settlement, there are sites and areas that women also perceive as unsafe, specifically the property located at the intersection of avenue Lacroze and avenue Triunvirato and the demarcated area on avenue Guzmán, where the railway lands from the Federico Lacroze station, function as a barrier to the urban fabric. The perception of safety in these areas is mainly related to the low presence of people and at certain times and the lack of lighting in some points, a situation also recorded in the survey of the Safetipin application.



Land Use and Urban Structure

The informal settlement has two large urban barriers on one of its sides. On the one hand, there is the large estate of the railway land belonging to the Federico Lacroze station of the Urquiza Railway, located towards the south side of the informal settlement. It works as an access barrier to the bus stops on Guzmán avenue; area that, based on participatory mapping, was perceived as an unsafe area.

On the other hand, next to the railway land is the Chacarita Cemetery, which added to the null commercial activity existing in this sector makes the area even more solitary for the journey on foot.

It is important to point out that there are no properties in the vicinity of the informal settlement for industrial use, nor productive, storage or logistics spaces. In this sense, to the north, east and west of the informal settlement, the continuity in the residential fabric is well marked. The informal settlement presents two well-defined sectors: the urbanized sector on Triunvirato avenue and Elcano avenue and the undeveloped historical sector.

Regarding the structural conformation of the urban fabric of the latter -the historical massif-, some corridors/passages are observed, but due to the characteristics and size of the informal settlement, they do not have large dimensions. As for the accesses, it is well connected with the surrounding environment.

Barrio

Padre

Ricciardelli

Photo 35. Aerial view of the 'Barrio Padre Ricciardelli.



Barrio Ricciardelli

Barrio Padre Rodolfo Ricciardelli (ex 1-11-14)

The informal settlement was born as the union of three popular settlements (1, 11 and 14) in the early 1940s. In the early 2000s, the population increased as a result of the economic crisis. Since 2019, it has received the official name Barrio Padre Ricciardelli (formerly 11-1-14)³⁹, in honor of a priest who defends human rights. It integrates the former Villa 1-11-14 and the adjacent housing complexes Bonorino I, Bonorino II, Bonorino III, Rivadavia I, Rivadavia II, Conjunto 2M, Conjunto 2N, Illia I and Illia II.

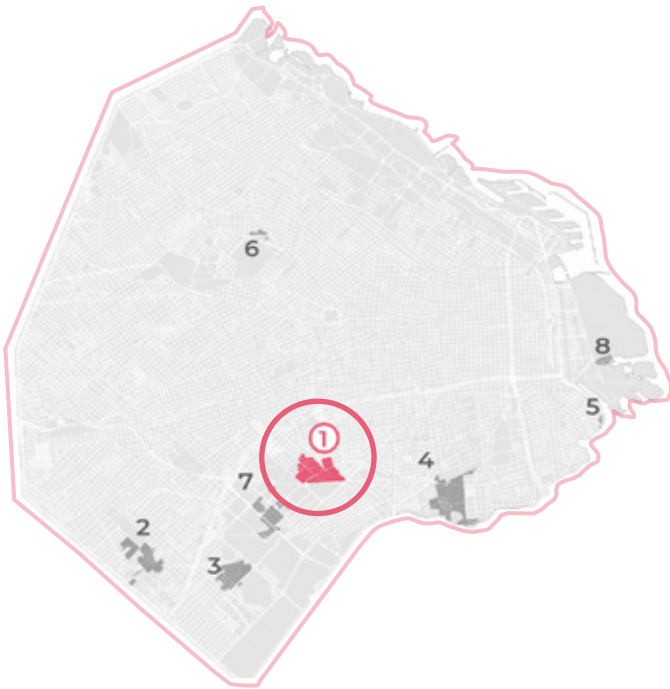
It is located in an area that concentrates several avenues and highways, as well as clubs and sports facilities, including the Pedro Bidegain stadium (San Lorenzo de Almagro). In the year 2000, the Comprehensive Urbanization Plan (Law 403) was presented, which, among other issues, provides for: opening of streets and sidewalks, provision of community facilities, regularization of land and ownership, and development of plans for social housing and recovery of spaces.

³⁹ COMMUNITY RESOLUTION n° 4931426/GCABA/COMUNAR7/13

⁴⁰ City Housing Institute (2019). Final Report Census 2018 Padre Rodolfo Ricciardelli Buenos Aires: Statistics and Census Department, Social Intervention and Habitat Operations Management, Housing Development Management.

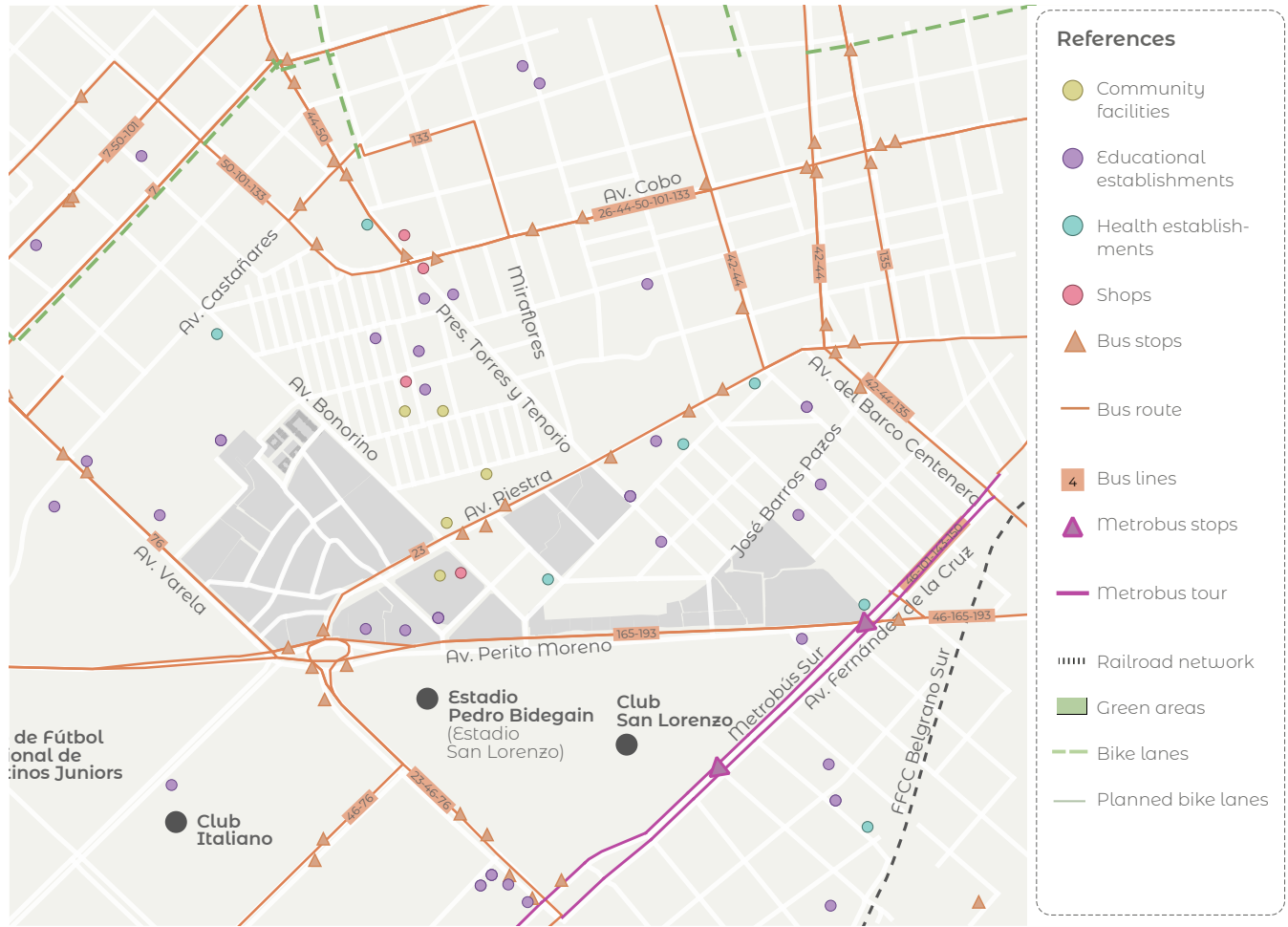
Photo 36. Urban postcard of the 'Barrio Padre Ricciardelli'.

B.RIC



Sociodemographic data Barrio Padre Ricciardelli, (Ex 1-11-14)

Location: Barrio Flores | Commune 7
 Inhabitants: 40059⁴⁰
 Families: 12852⁴¹
 Homes: 4907⁴²
 Area: 34 ha⁴³
 Density: 1178 inhab/ha⁴⁴



partment, Social Intervention and Habitat Operations Management, Housing Development Management.
⁴³Includes housing complexes. Data after the IVC Census carried out in 2018.
⁴⁴Includes housing complexes. Data after the IVC Census carried out in 2018.

Map 35. Location of the 'Barrio Padre Rodolfo Ricciardelli' in CABA. Transport network around the 'Barrio Padre Rodolfo Ricciardelli' - Bus lines 23, 26, 42, 44, 46, 50, 76, 101, 133, 135, 143, 146, 150, 165 and 193.

Phase I - Quantitative

Data collection of the daytime and nighttime urban environment | Safetipin Nite

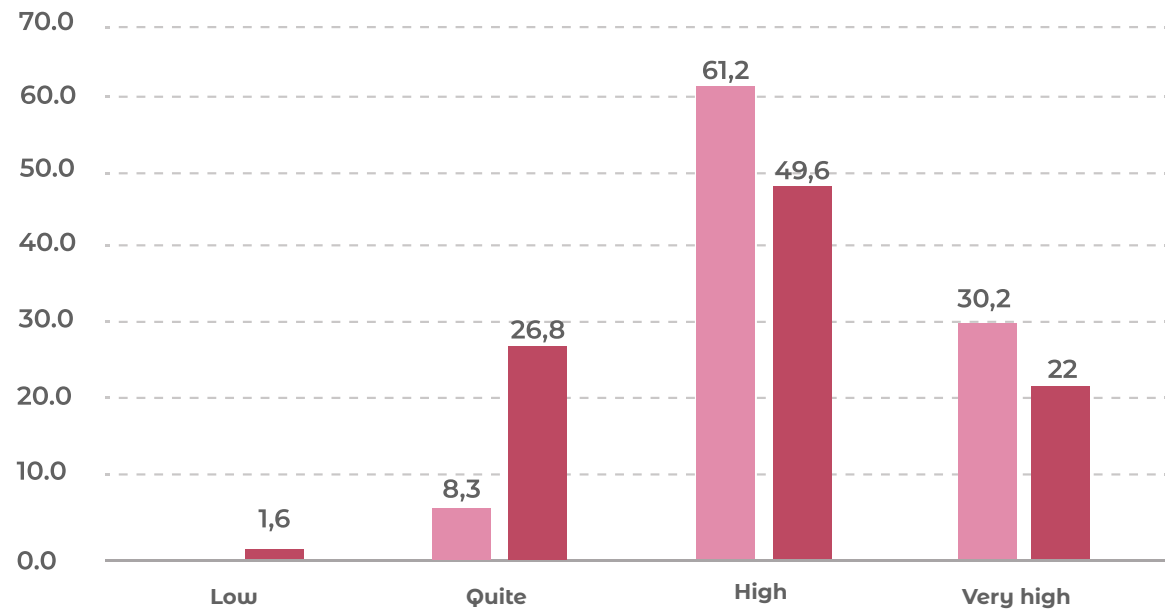
The composite index of safety for women in public spaces during the day results in high and very high levels in most of the surveyed points. In some sectors of Perito Moreno and Varela avenue, there are points with average values that coincide with the large extensions of private green spaces -clubs and sports fields- where the urban fabric is interrupted and there is less pedestrian circulation.

The highest values of presence of people and mixed presence are found towards the interior of the informal settlement, in the arteries that border the massif to the east, which indicates that a differentiated use of spaces persists towards the interior and around the settlement. informal settlement, as well as between the different areas of the same.

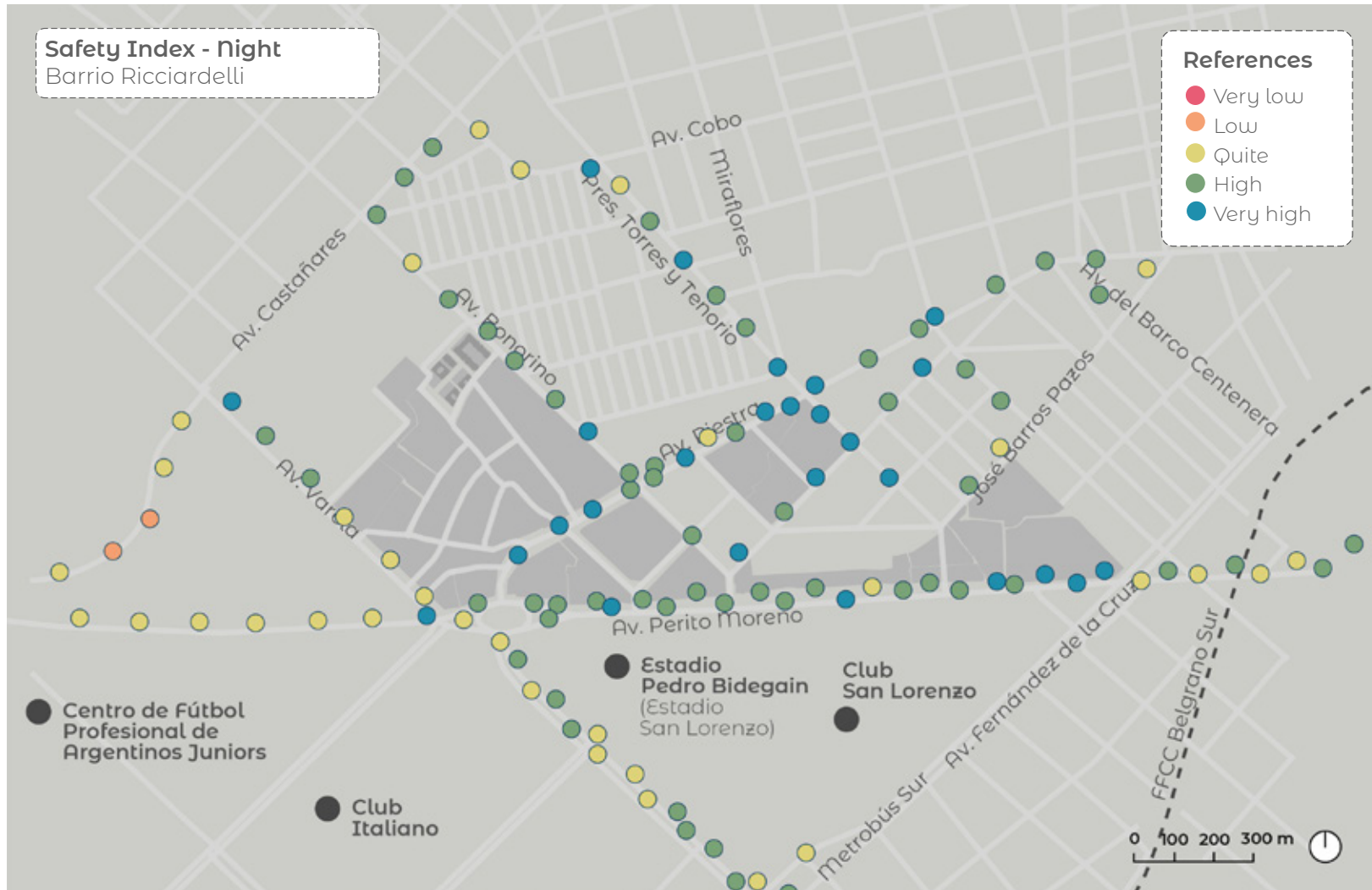


Photo 37. Perito Moreno avenue and Varela avenue.

Safety index



Graph 28. Daytime and nighttime safety index of the 'Barrio Padre Rodolfo Ricciardelli'. ■ Day ■ Night



Map 36. Night safety index of the 'Barrio Padre Rodolfo Ricciardelli'.

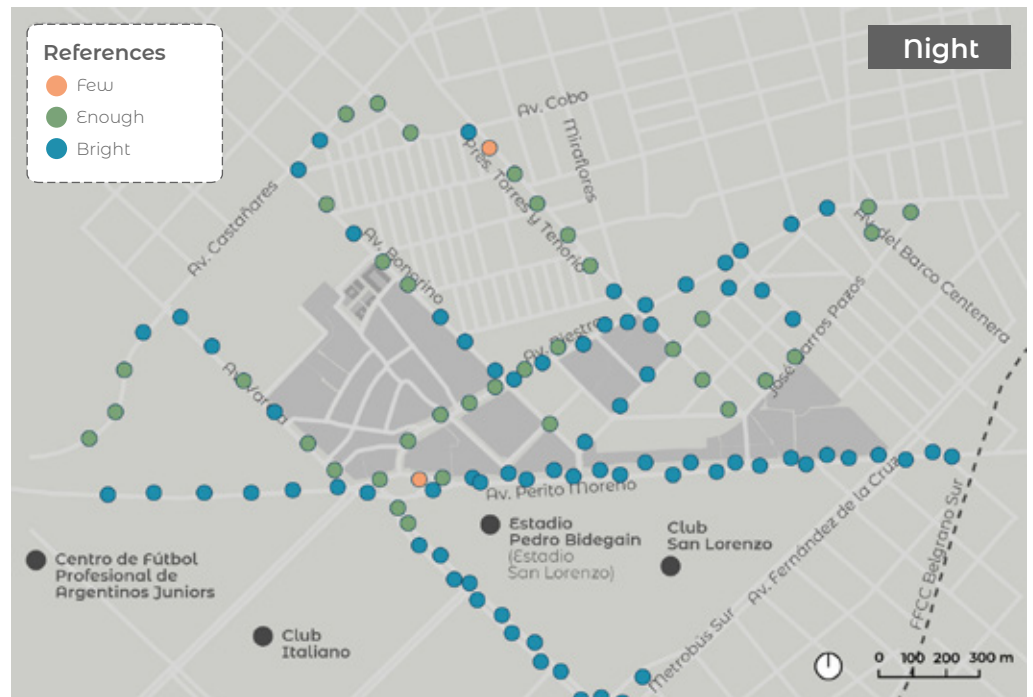
Presence of people - Night
Barrio Ricciardelli

Map 37. Presence of people from the 'Barrio Padre Rodolfo Ricciardelli', nocturnal collection.

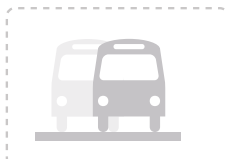


Lighting - Night
Barrio Ricciardelli

Map 38. Illumination of the 'Barrio Padre Rodolfo Ricciardelli'.



Public transport



There are **14 bus lines** in the vicinity of the neighborhood⁴⁵.

87 %

87% of the audit points in the analyzed area have public transport available within a **2-minute walk**.

1 %

The remaining 1% 2 audit points are available within a **5 minute walk or so**.

12 %

12% of the audit points are within a distance of between **2 and 5 minutes on foot**.

⁴⁵ Bus lines 23, 26, 42, 44, 46, 50, 76, 101, 133, 135, 143, 150, 165 y 193.

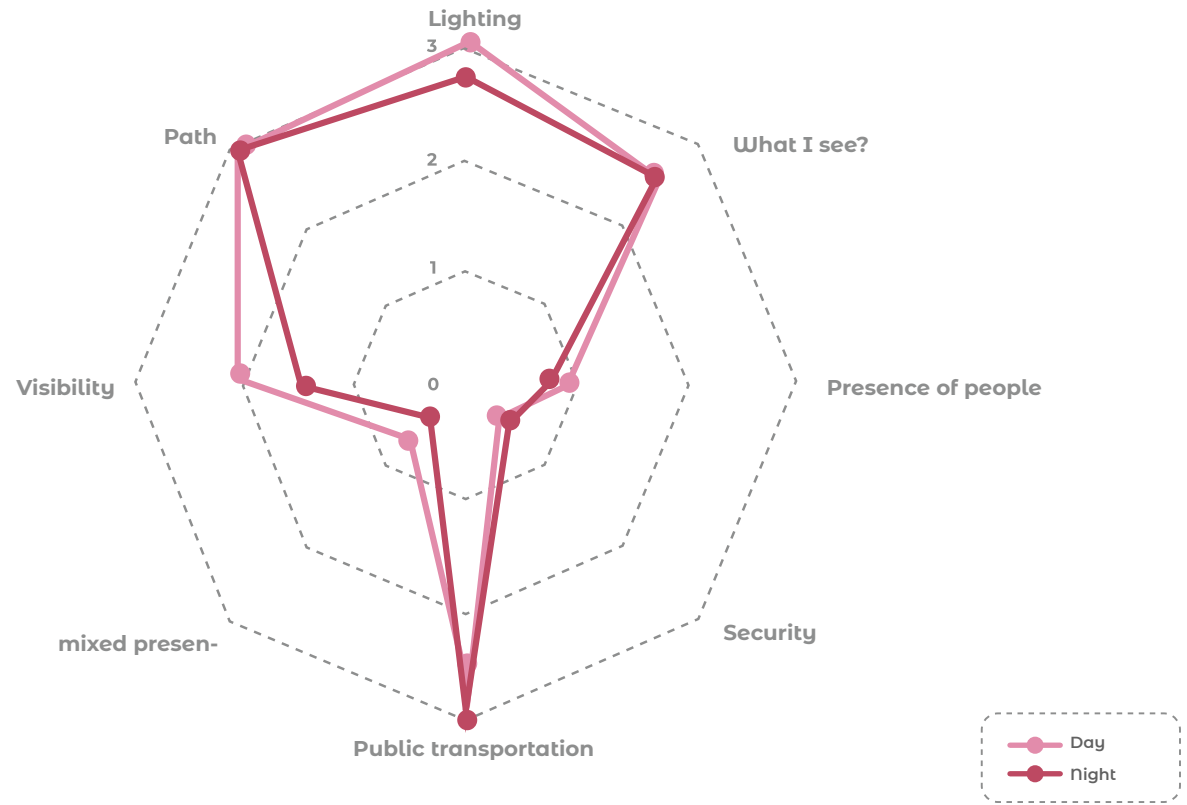
Graph 29. Data on the audits of the 'Barrio Padre Rodolfo Ricciardelli'.

It should be noted that the low levels of presence of people at night contrast with the high score in the lighting variable, as can be seen in the previous maps, which suggests that the level of lighting is not a decisive factor in the time to choose where to go.

The variables that make up the composite safety index for women behave in a similar way between day and night, lighting and visibility being the variables that show the greatest variation. However, these differences are small. Although the variables of presence of people and mixed presence also present slight variations, it is important to emphasize that they present a very low score during the day and at night.

The graph below represents the average score obtained in the points collected during the survey with the quantitative methodology, according to each variable and time of collection, making visible the slight difference between both time ranges. The greatest difference is given by the visibility variables, followed by lighting, the mixed presence and the presence of people.

Barrio Ricciardelli
Average value according to the variable



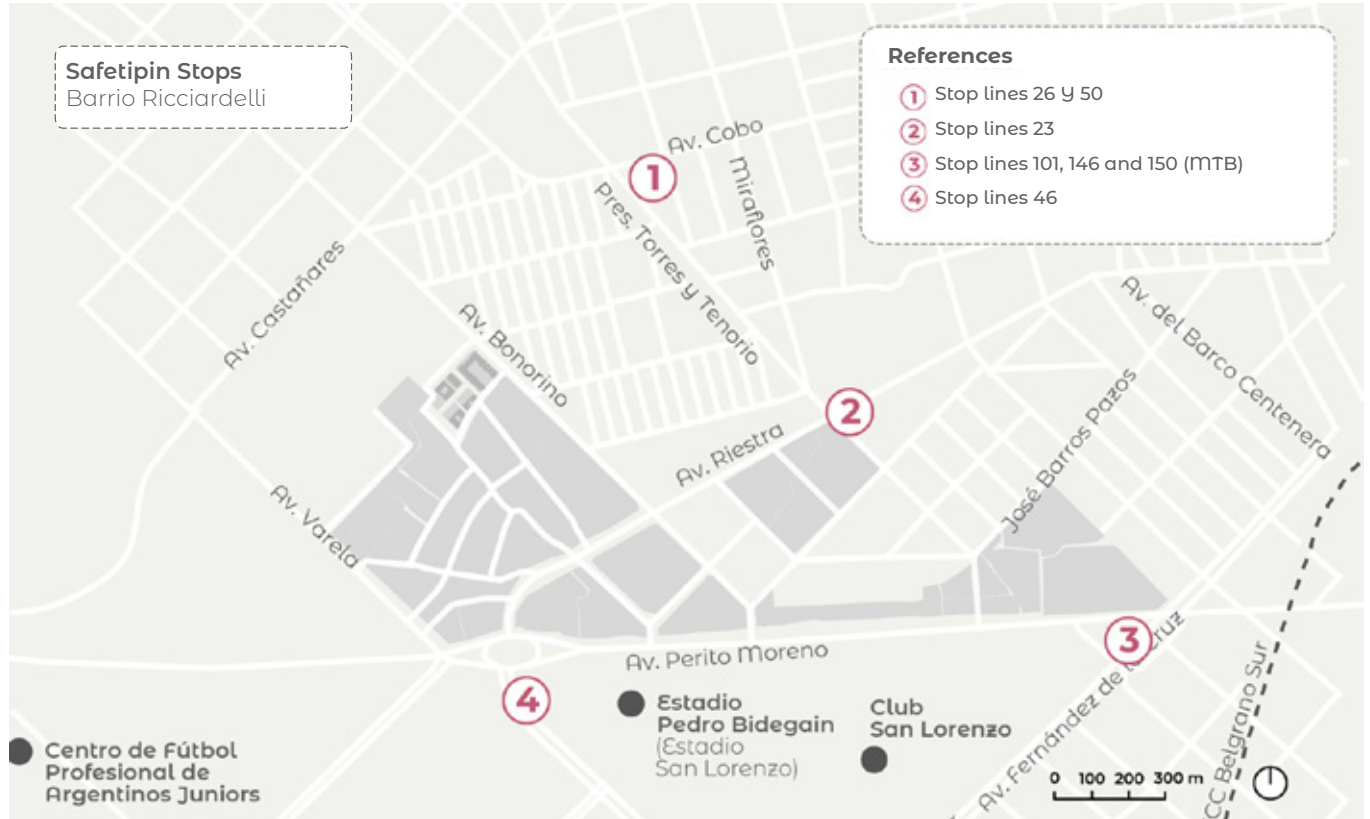
Graph 30. Average value according to the variable of the 'Padre Rodolfo Ricciardelli'. Average value according to variable where 0 corresponds to very low and 3 to very high.

Phase I - Quantitative

Surveys and audits at public transport stops | Safetipin Site

Four stops were surveyed in the vicinity of the informal settlement where 22 interviews were also conducted with users of 7 bus lines (23, 26, 46, 50, 101, 146 and 150). These were selected from the SUBE transaction data and validated with territorial references as they are the most used by residents of the informal settlement.

The results of the audits of public transport stops showed that the infrastructure conditions of the stops are heterogeneous. However, an aspect common to all emerged: the lack of visibility. The possibility of being seen and watched indirectly by another could have a direct impact on the perception of unsafety manifested during the surveys.



Map 39. Location of the bus stops in the 'Barrio Padre Rodolfo Ricciardelli'.

Bus stop audit

	Signaling	Shelter	Bench	state of the sidewalk	universal accessibility	obstacle	visibility	vigilance	lighting
1	✓	✓	✓	✓	✗	✗	✗	✗	✓
2	✓	✗	✗	✓	✗	✗	✗	✓	✗
3	✓	✓	✓	✓	✓	✓	✗	✗	✓
4	✓	✓	✗	✗	✓	✗	✗	✗	✗

Table 7. Audit of the bus stops in the 'Barrio Padre Rodolfo Ricciardelli'.

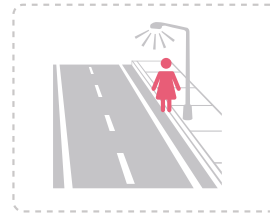
Safety perception
in women



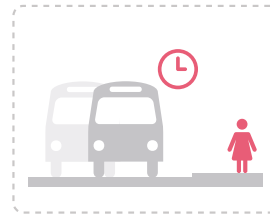
2 out of 9 women interviewed said they combined bus routes to their destination to save time and feel safer.



7 out of 9 women feel unsafe on the way to the bus stop or while waiting for the bus.



The main causes linked to the feeling of insafety in women are the **fear of robberies and the lack of lighting at the stops** and on the way to the stops.



The main controversies pointed out were: **the low frequency of circulation of public transport services at night** and the consequent dependence on alternative services such as remises, which make travel more expensive.

Graph 31. Perception of insafety in the 'Barrio Padre Rodolfo Ricciardelli'.



“
The sentry box, which is in poor condition, should be improved and the frequency of line 46 after 5:00 p.m. should be increased.”

- Young woman commuting for work

“
There is a lack of lighting at night and depending on the weather my insecurity increases since there are frequent robberies and I feel very insecure.”

“
More lighting would make the place safer.”

- Young woman commuting for work

“
The frequency of the groups has to improve. Line 101 sometimes doesn't stop, especially after 5pm and it gets unsafe after dark.”

- Middle-aged woman commuting for work

Photo 38. Participatory Mapping and Diagnosis on foot in Barrio 20. Graph 32. Testimonials from users of the 'Barrio Padre Rodolfo Ricciardelli'.

Phase II - Qualitative

Participatory Mapping

Location: Neighborhood Care Center - Riestra and Bonorino avenue
 Day and time: April 5, 2022 between 5:00 p.m. and 7:00 p.m.
 Call: by the IVC
 Duration: 120 minutes/ 2 hours
 Participants: 10 women between 25 and 60 years old
 Team present: IVC team, SECTOP staff and 2 people from Cooperativa Cambalache.

The participatory mapping instance allowed the collection of qualitative data on the daily mobility experiences of women in the informal settlement and its surroundings. The collected information was reflected in five maps, which are presented below in a synthesis map:

- Daily practices
- Displacement out of the informal settlement
- Connections and forms of mobility
- Safety perception
- Mobility strategies and public space

The information collected and displayed on the synthesis map is closely related to the call and is conditioned by the place of residence of the workshop participants.



Map 40. Summary of the 'Barrio Padre Rodolfo Ricciardelli'.



Daily Practices

- The main reasons for displacement are care tasks, purchases for home care and fulfilling study and work obligations.
- The consolidated commercial axes are Perito Moreno avenue and Riestra avenue and the area known as “Los Cholos”. The neighbors mentioned that after 9:00 p.m. this area is considered unsafe.
- Frequent tours are mainly done on foot or by bus, depending on the distance to be covered.
- The women who participated in the activity mentioned avoiding circulation through passages or corridors as they perceive them as more dangerous areas.
- The choice of some routes over others is due to the familiarity they have with these places and their dynamics: the presence of shops and knowing their hours increases the perception of safety when planning the routes.



Movements outside the informal settlement

- The women who participated in the participatory mapping stated that they do not tend to move frequently outside the informal settlement. Their activities are concentrated within the informal settlement.
- Travel outside the informal settlement is mainly by bus.
- The main reasons for travel are access to commercial offers in other areas of the city and to health services with more complex services than those found in the informal settlement and its surroundings (mainly centers located in Nueva Pompeya and Once).



Connection of the informal settlement with the environment

- The neighbors stated that the choice of bus lines⁴⁶ is determined by their frequency and not by the distance covered on foot.
- Line 23 is the only one that crosses the informal settlement. It stops circulating between 7:00 p.m. and 11:00 p.m., which makes it difficult to get around. The participants mention that the operator does not enter due to issues of traffic congestion and citizen safety.



Environments

- The tension over the occupation of the public space on Riestra Avenue, where there is intensive use of the street as a parking space, both by merchants and residents of the area, hinders all types of circulation.

⁴⁶ Bus lines 44, 101 and 133 on Cobo avenue



Safety perception and Mobility Strategies

- All accesses to the informal settlement through Perito Moreno avenue, characterized by large walls corresponding to the stadium, are considered unsafe since they are mainly associated with robberies due to their ease of escape and connection to the interior of the informal settlement through the corridors.
- The entrance to the informal settlement via Miraflores street, which is very crowded during peak hours due to its connection to the bus stops, was also identified as an unsafe area.
- Some unsafe points coincide with the pedestrian bridge that must be taken to cross Perito Moreno avenue and the lack of traffic lights at this intersection.
- On the days that there is a match at the San Lorenzo stadium, all the women agree that crimes on Perito Moreno Avenue increase.
- The “area behind the salita⁴⁷” was also identified as unsafe by the people who circulate and frequent that space, evidencing a large number of robberies, mainly adolescents and women, due to its proximity to the school and the health center⁴⁸.
- Perceived and suffered unsafety appears to be strongly associated with points and areas of high crime concentration, controlled by groups associated with the sale of drugs.
- The presence of sentry boxes, cameras and other safety elements does not increase the perception of it.
- People prioritize displacements through areas where they know the neighbors and the existing dynamics.
- Night trips are reduced to a minimum and only in case of emergency, and in case of having to make night trips, private remises are chosen.

⁴⁷ The CeSAC are usually called salita

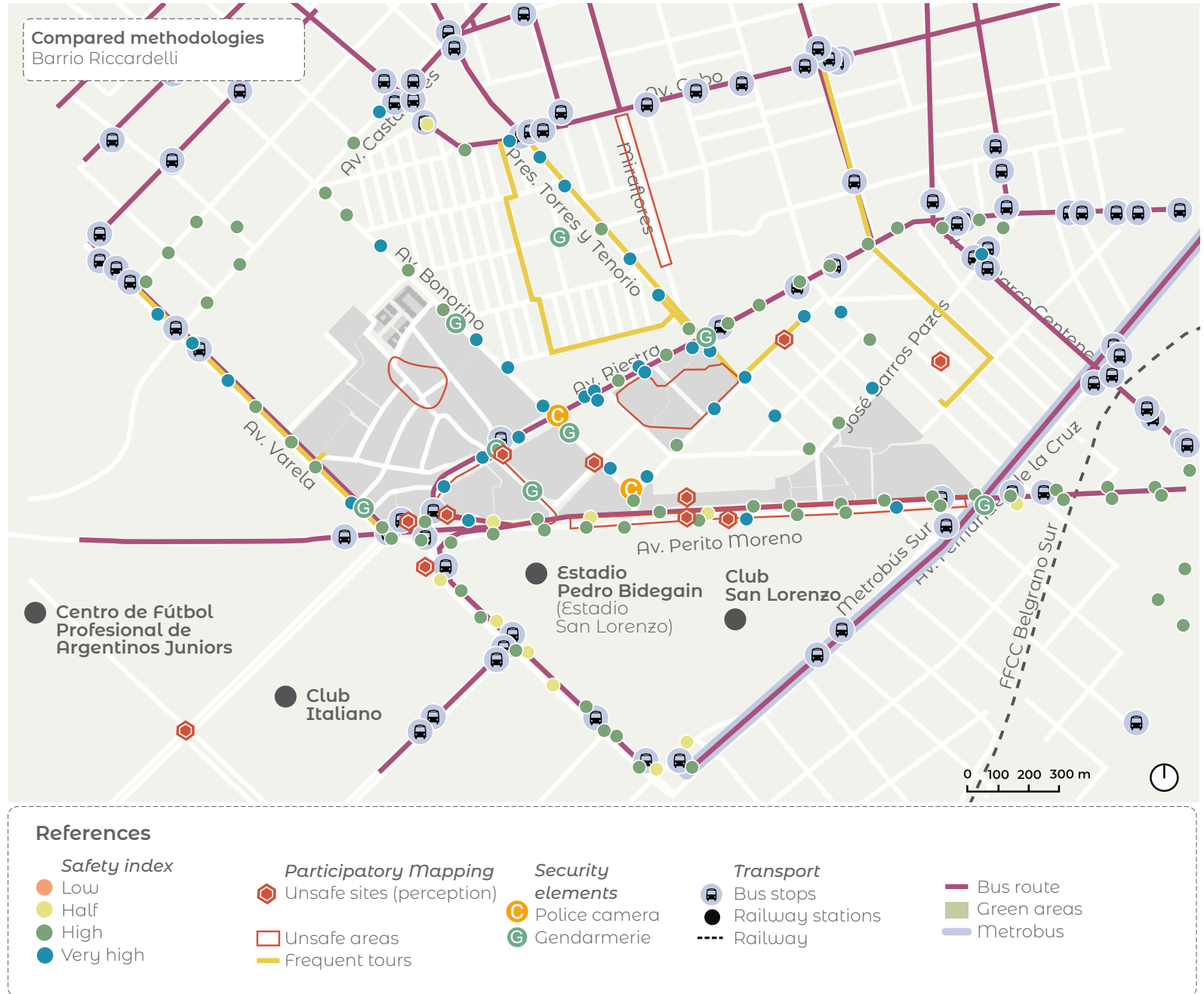
⁴⁸ CESAC N° 20

Findings

The map below shows the overlap between both methodologies that varies according to the areas of the informal settlement. On the one hand, areas where there are no coincidences between the two methodologies were detected: the testimonials from the workshops provide a perspective that contrasts with the information collected by Safetipin.

On the other hand, areas perceived as unsafe emerge in participatory mapping that were not surveyed with the Safetipin methodology. Finally, coincidences are verified in some points. Below are some conclusions.

Map 41. Comparative methodologies of the 'Barrio Padre Rodolfo Ricciardelli'.





Public transport

The informal settlement has a good level of coverage and adequate access to public transport; in fact, the women who participated in the workshop frequent a large number of bus stops, located on arteries that coincide with the daily routes they usually use to get around. Due to the scale of the informal settlement, many women mentioned transferring within the informal settlement to move to other parts of the city. Beyond the high value obtained with the Safetipin Nite survey for the transportation variable, much mention was made of the reduction in frequency at night and the dependence on private services to leave the informal settlement in case of emergencies. This is because the application evaluates the infrastructure and not the coverage or the level of service.



Land Use and Urban Structure

The Padre Ricciardelli neighborhood (ex 11-1-14) is surrounded by large expanses of private sports facilities⁴⁹ (clubs and sports centers) with which the urban fabric is interrupted. The predominant fabric in this sector of the city is mixed, through the coexistence of residential and recreational uses.

On the map it can be seen that the informal settlement is connected to other areas of the city through the avenues that surround and cross it⁵⁰. Likewise, the map identifies sports facilities, mostly for private use, that make up urban barriers, mainly the property that corresponds to Club Atlético San Lorenzo facilities on its edges.

Towards the interior of the informal settlement, the structural conformation is visible, mainly constituted by internal passages and corridors and by some avenues that cross it⁵¹ and connect with the surrounding environment.

⁴⁹ San Lorenzo Sports Club, Italian Club, Argentine Juniors Club, among others.

⁵⁰ Perito Moreno avenue, Riestra avenue, Varela avenue, Francisco Fernández de la Cruz avenue, Cobo avenue.

⁵¹ Colonel avenue. Esteban Bonorino, Pres. Torres y Tenorio, Riestra avenue

Barrio

Ramón

Carrillo

Photo 39. Aerial view of the 'Barrio Ramón Carrillo'.



Barrio Ramón Carrillo, Fátima & Lacarra

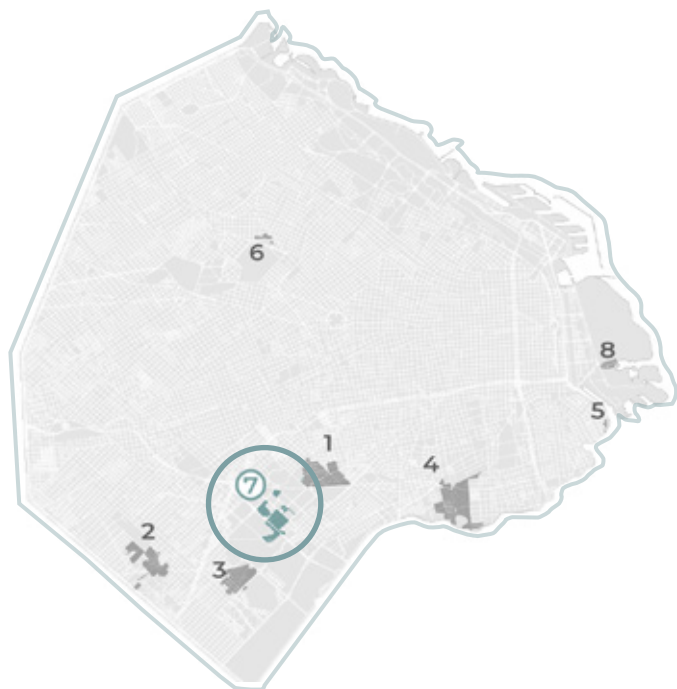
The informal settlement made up of the Ramón Carrillo, Lacarra and Fátima groups is known as Ramón Carrillo. Ramón Carrillo I was built in 1990 to relocate the families that lived in the former Warnes Shelter. Lacarra (or Ramón Carrillo II) was built in the year 2000 to relocate families that lived along the Campora highway.

The zone is an area of large urban voids where informal settlements and housing complexes are grouped. The urban fabric differs from one informal settlement to another: while Carrillo and Lacarra are more regular, in Fatima the fabric was not planned. **This commune is characterized by urban fragmentation that alternates residential, industrial and large recreational uses** such as the Indo-American Park, the Victorias Park, the Roca Park, the City Park or the Autodromo, among other properties belonging to clubs and associations. sports.

Currently the work of the IVC has as its purpose the environmental rehabilitation and self-management of the informal settlement. In addition, the actions include infrastructure works, comprehensive improvements to public space, re-functionalization of common areas, empowerment of community socio-cultural areas and ownership regularization actions.

Photo 40. Urban postcard of the 'Barrio Ramón Carrillo'.



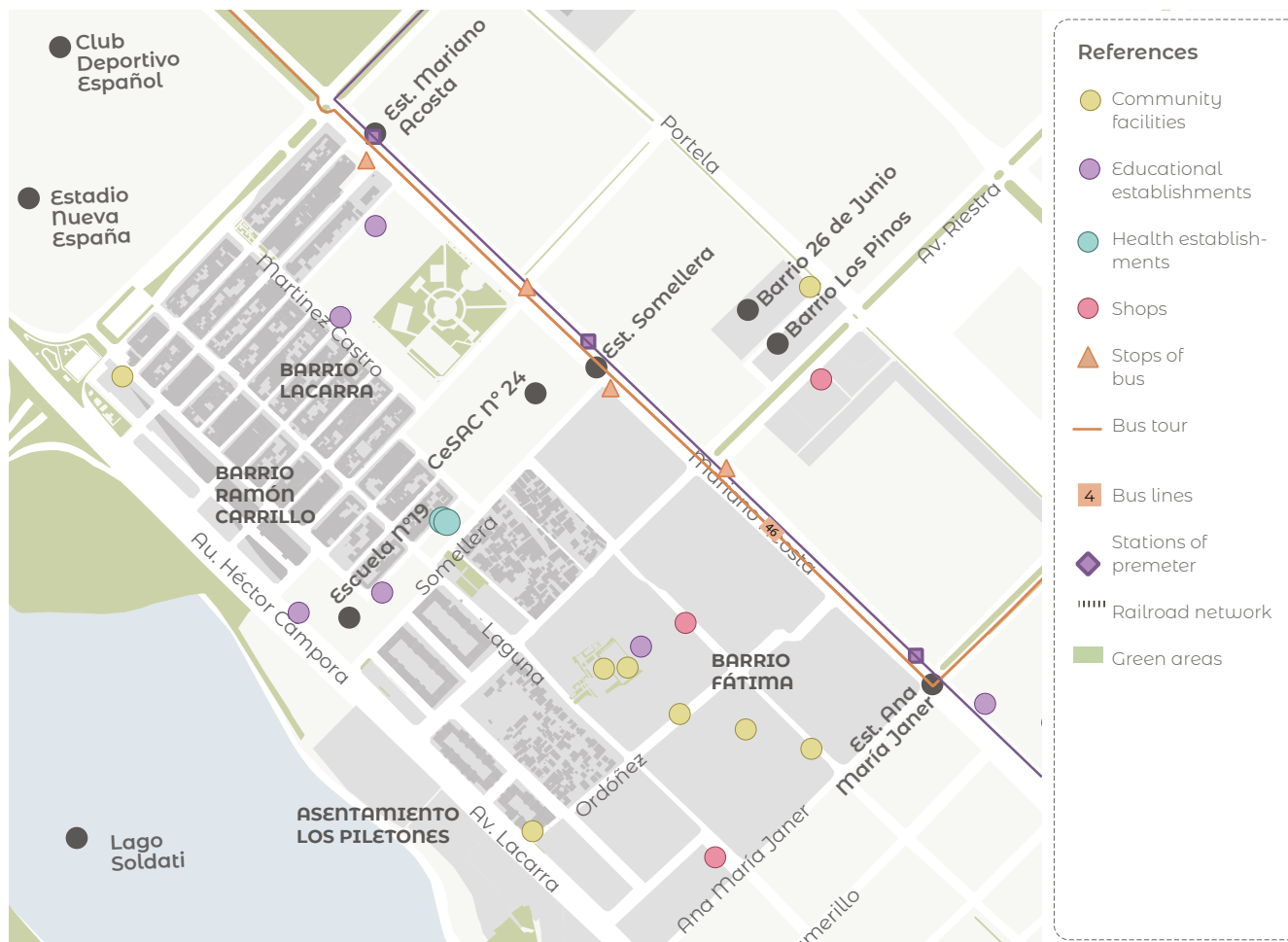


Sociodemographic data 'Barrio Ramón Carrillo and Lacarra'⁵²

Location: Villa Soldati | commune 8
 Inhabitants: 5,970 (5,028 Carrillo + 942 Lacarra)
 Families: 2035 (1751 Carrillo + 284 Lacarra)
 Dwellings: 947 (812 Carrillo + 135 Lacarra)
 Area: 11 hectares
 Density: 543 inhab/ha

Sociodemographic data 'Barrio Fátima'⁵³

Area: 17.1 ha
 Density: 58082 inhab/ha
 Families: 4400
 Dwellings: 4000



⁵² City Housing Institute (2017). Final Report Census 2016 'Barrio Ramón Carrillo' Buenos Aires: Department of Statistics and Censuses, Operational Management of Social Intervention and Habitat, Management of Housing Development.

⁵³ Census 2010; General Directorate of Statistics and Censuses (Ministry of Finance GCABA) on the basis of INDEC data. National Censuses of Population, Households and Housing. Source RENABAP (2022).

Map 42. Location of the 'Barrio Ramón Carrillo' in CABA. Transport network around the 'Barrio Ramón Carrillo', Lacarra and Fátima - Lines 46, 101, 114, 143 and 150 (Cruz Avenue Metrobus).

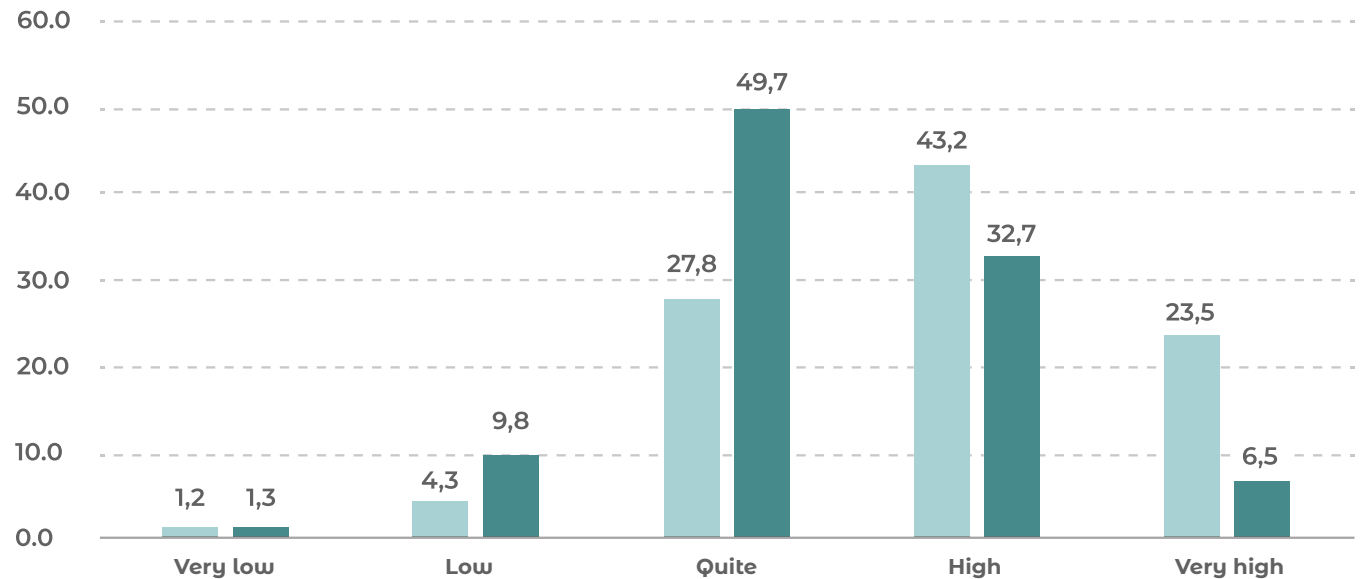
Phase I - Quantitative

Data collection of the daytime and nighttime urban environment | Safetipin Nite

Name of the informal settlement: 'Barrio Ramón Carrillo'
 Daytime Collection: 11-16-2021/ 5:10 p.m. to 6:40 p.m.
 Night Collection: 11-24-2021/ 6:00 p.m. to 8:05 p.m.
 KM collected (average): 20
 Audited stops: 4
 Collected Testimonials: 22
 Number of Daytime Photos: 288
 Number of Night Photos: 457

The composite safety index shows very high values inside the informal settlement and on Mariano Acosta avenue, the fundamental axis of the informal settlement since it concentrates commercial activities and the circulation of transport and people, as can be seen on the map. **To the west of the informal settlement, the points are located within the high values. On the edge of the highway**⁵⁴ next to the large green property, the values are mostly medium, due to the small number of people who circulate through these spaces, the scarce offer of services and the wall that divides the fabric of the highway layout. **In the immediate vicinity of the informal settlement**⁵⁵ and bordering the sports facilities⁵⁶ and the Indoamericano Park, the audit points obtained low and very low values in the safety composite index.

Safety index



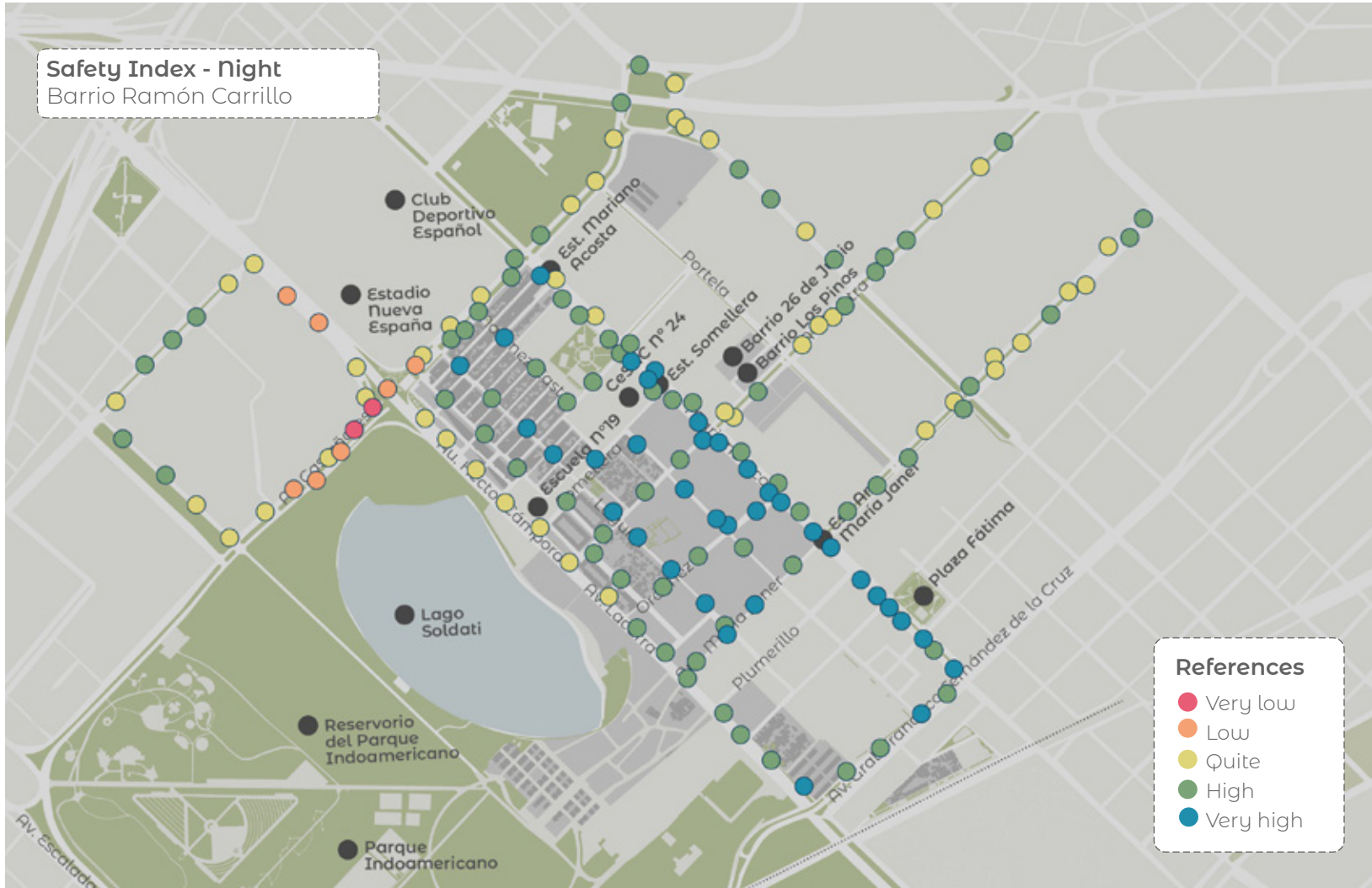
Graph 33. Day and night safety index of the informal settlements Ramón Carrillo, Fátima and Lacarra. Day Night

During the collection it was recorded that there are no lights in the vicinity of the highway. Due to the presence of large properties in the surroundings in this section, fewer people circulate than in the main streets and, at the same time, there is less lighting. **There is then a clear difference between the values towards the interior of the informal settlement and the edges, mainly in the areas where there are sports facilities and access to the highways.** With the increase in the supply of urban services, the circulation of people increases and with this the value of the composite safety index.



Photo 41. Cámpora Highway.

⁵⁴ Campora Highway
⁵⁵ On Castañares avenue
⁵⁶ Spanish Sports Club



Map 43. Night safety index of the 'Barrio Ramón Carrillo'.

Visibility - Day
Barrio Ramón Carrillo

Map 44. Visibility of the 'Barrio Ramón Carrillo', daily collection.



Visibility - Night
Barrio Ramón Carrillo

Map 45. Visibility of the 'Barrio Ramón Carrillo', night collection.



Public transport



In the vicinity of the neighborhood there is **1 bus line**⁵⁷ and the **Premetro**⁵⁸.

59 %

59% of the audit points in the analyzed area have public transport available within a **2-minute walk**.

18 %

18% of the audit points in the analyzed area have public transport available within a distance of **5 minutes or more on foot**.

23 %

23% of the audit points in the analyzed area have public transport available within a distance of between **2 and 5 minutes on foot**.

⁵⁷ Bus line 46

⁵⁸ Tram line 7.4 km long and 18 stations inaugurated.

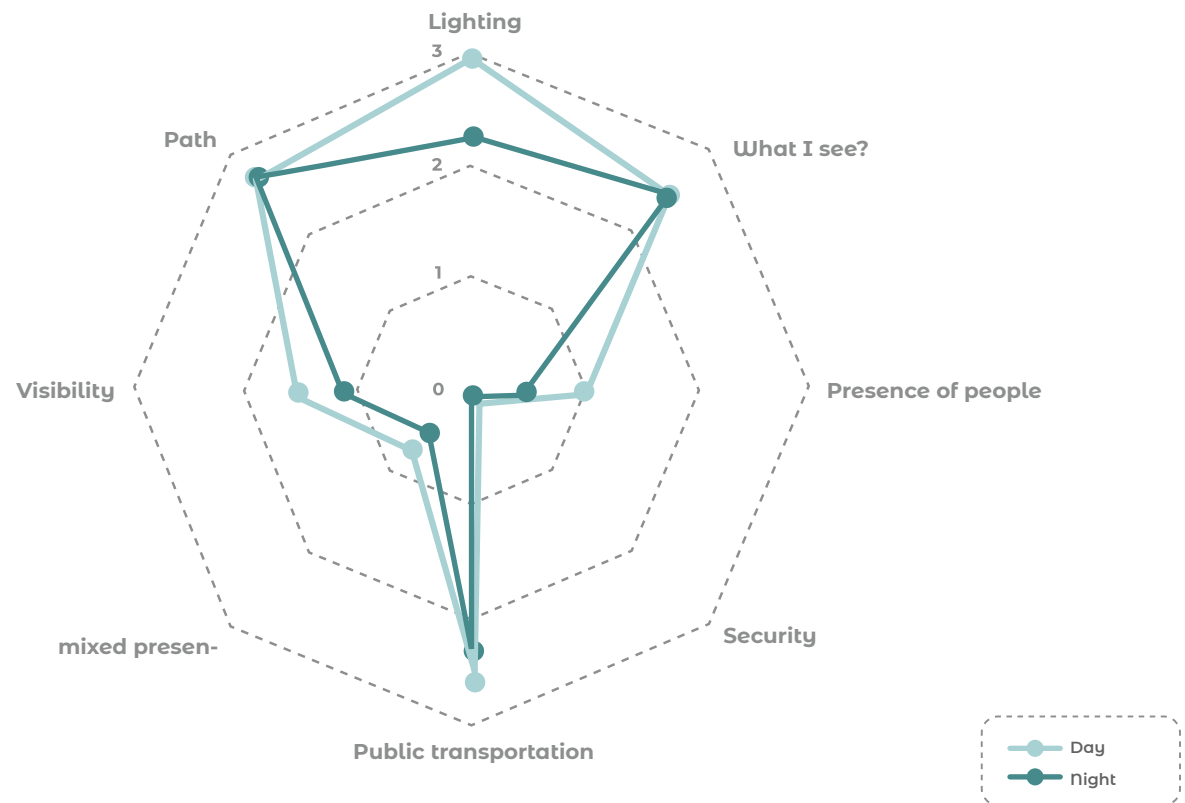
Graph 34. Data on the audits of the informal settlements Ramón Carrillo, Fátima and Lacarra.

The variables with the highest incidence in the difference between daytime and nighttime collections are lighting, presence of people and visibility. The lighting decreases for reasons related to the absence of natural light, although it is maintained with sufficient values. **The presence of people and visibility vary due to the fact that urban activity and the circulation of people decrease at night.** It is interesting to observe the way in which the distribution of mean visibility values is concentrated at night inside the informal settlement and in its immediate perimeter, while during the day they are located in a more limited way inside the informal settlement. It could be thought that during the night there is more activity in the existing houses on the edges of the informal settlement.

The graph below represents the average score obtained in the points collected during the survey with the quantitative methodology, according to each variable and time of collection, making visible the slight difference between both time ranges. **At first glance, it can be seen that all the variables behave in a similar way between day and night, with lighting, the presence of people and the mixed presence being the variables that present the greatest variation due to issues inherent to the urban rhythm.** These also present very low values compared to the other variables, which confirms the use of spaces in an overrepresented way by men.

Barrio Ramón Carrillo

Average value according to the variable



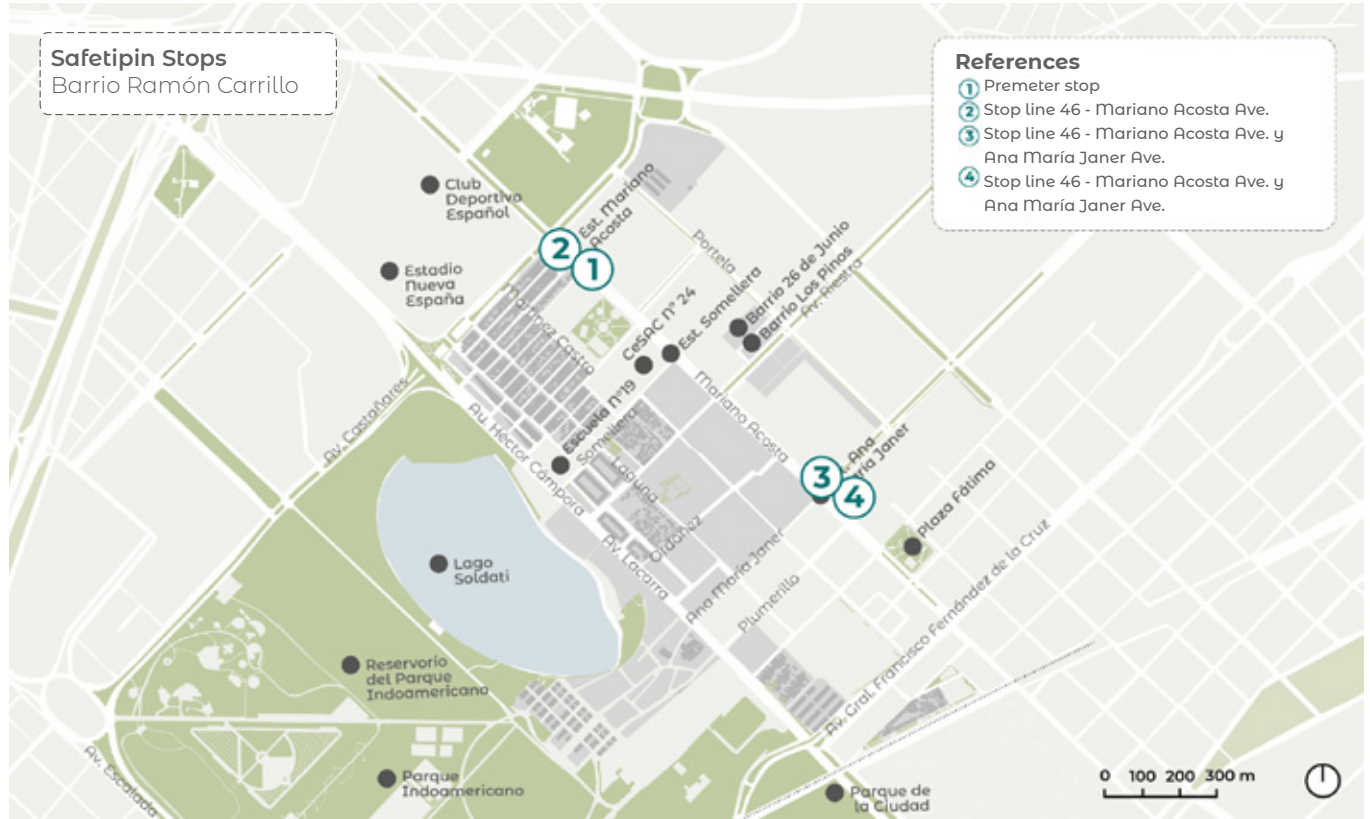
Graph 35. Average value according to variable of the informal settlements Ramón Carrillo, Fátima and Lacarra. Average value according to variable where 0 corresponds to very low and 3 to very high.

Phase I - Quantitative

Surveys and audits at public transport stops | Safetipin Site

Four stops were surveyed on Mariano Acosta avenue where 22 interviews were conducted with users of a bus line (line 46) and the Premeetro. These were selected from the SUBE transaction data and validated with territorial references as they are the most used by residents of the informal settlement.

The audit of public transport stops shows that the majority suffer from **deficiencies in relation to the available equipment, they do not have shelter, seats, and infrastructure with universal access**; Surveillance was not identified in them either. However, they have lighting, a key element in the users' perception of safety, although the testimonies collected in the surveys suggest that this would not be enough for women.



Map 46. Location of the bus stops in the 'Barrio Ramón Carrillo'.



Photo 42. Mariano Acosta avenue.

Bus stop audit

	Signaling	Shelter	Bench	state of the sidewalk	universal accessibility	obstacle	visibility	vigilance	lighting
1	✓	✓	✗	✓	✗	✗	✓	✗	✓
2	✓	✗	✓	✗	✗	✓	✓	✗	✓
3	✗	✗	✗	✗	✗	✓	✗	✗	✓
4	✗	✗	✗	✗	✗	✗	✗	✗	✗

Table 8. Audit of the bus stops in the Ramón Carrillo neighborhood.

Safety perception
in women

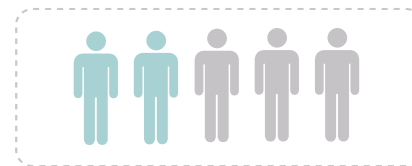


10 out of 15 women indicate that they always feel unsafe on the way to the bus stop, regardless of the time of day.



14 out of 15 women feel unsafe while waiting at the darkened autobus stop.

Safety perception
in men

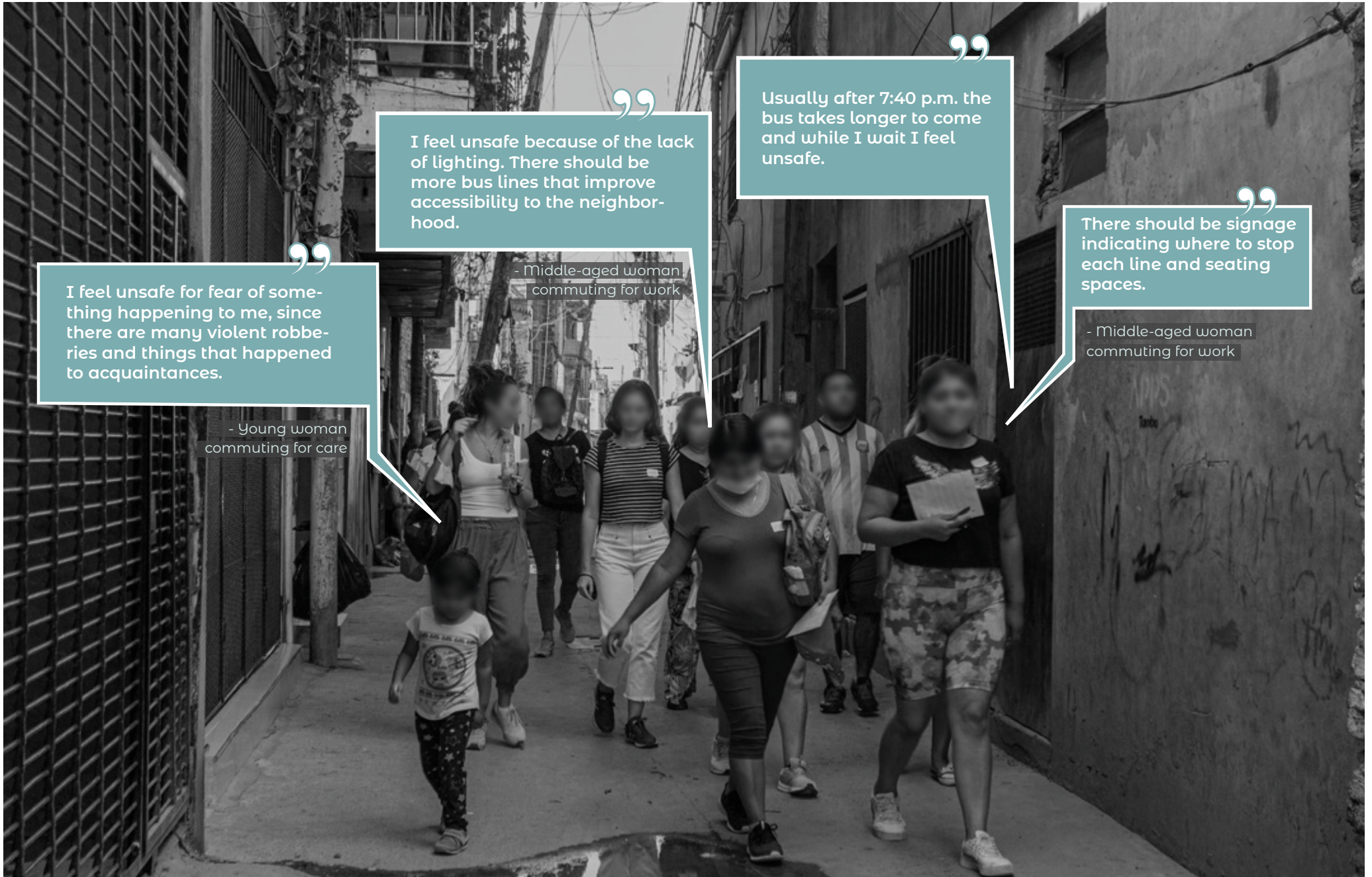


2 out of 5 men express that they always feel unsafe on the way to the bus stop.



No man said he felt unsafe while waiting at the bus stop.

Graph 36. Perception of insafety in the informal settlements
Ramón Carrillo, Fátima and Lacarra.



“
I feel unsafe for fear of something happening to me, since there are many violent robberies and things that happened to acquaintances.
”

- Young woman commuting for care

“
I feel unsafe because of the lack of lighting. There should be more bus lines that improve accessibility to the neighborhood.
”

- Middle-aged woman commuting for work

”
Usually after 7:40 p.m. the bus takes longer to come and while I wait I feel unsafe.
”

”
There should be signage indicating where to stop each line and seating spaces.
”

- Middle-aged woman commuting for work

Phase II - Qualitative

Participatory Mapping

Place: Community Educational Center (CEC) - Martínez Castro and Pasaje C
 Day and time: March 29, 2022 between 5:00 p.m. and 7:00 p.m.
 Call: by the IVC
 Duration: 120 minutes/ 2 hours
 Participants: 14 women between 20 and 65 years old
 Team present: 2 people from the IVC team, 3 people from SECTOP and 3 people from Cooperativa Cambalache.

The participatory mapping instance allowed the collection of qualitative data on the daily mobility experiences of women in the informal settlement and its surroundings. The collected information was reflected in five maps, which are presented below in a synthesis map:

- Daily practices
- Displacement out of the informal settlement
- Connections and forms of mobility
- Safety perception
- Mobility strategies and public space

The workshop was attended by a greater number of women from the Fátima neighborhood than from Ramón Carrillo, for which reason the results obtained during the activity do not necessarily respond to the complete reality of the informal settlement.



Map 47. Summary of the 'Ramón Carrillo neighborhood'.



Daily Practices

- The displacements are carried out mainly on foot.
- The preferred arteries and main commercial hubs are: Laguna, Martínez Castro, Ana María Janer and Lacarra avenues.
- A concentration of activities is identified in blocks 2 and 5: specifically community, sports and educational facilities. Other centralities were identified in Casa Fátima and Plaza Ramón Carrillo.
- Busiest facilities: health (CeSAC No. 24) and education (School No. 19 and Kindergarten No. 4).



Connection of the informal settlement with the environment

- The most used modes of transport are the bus (line 46) and the Premetro, both on Mariano Acosta avenue. It is important to take into account that Premetro does not work at night or on rainy days and line 46 has irregularities in its operation during certain days and times.
- The frequented stops are not signposted nor do they have lighting or shelter.
- Other less used bus stops: lines 101, 143 and 150 (Cruz Avenue Metrobus). Due to the distance to be covered on foot, it is the last option.
- There are no bus routes that cross the informal settlement.
- Remises from the informal settlement on Riestra avenue are used: mostly for exceptional cases where the other options are not enough.



Movements outside the informal settlement

- The displacements are made, to a greater extent, by bus or Premetro on Mariano Acosta avenue. To a lesser extent, the Metrobus on Cruz avenue or the bus stops on Escalada avenue are used.
- Private remises are used in emergency situations or during night hours.
- The main attractors outside the informal settlement are health facilities with better service and benefits than the health center within the informal settlement.



Safety perception and Mobility Strategies

- From 7-8pm the feeling of unsafety to wait for public transport increases due to the lack of lighting and the decrease in the frequency of transport. This was mentioned in relation to the public transport stops and the school bus on Mariano Acosta avenue.
- Theft situations were identified during the journey to the Metrobús on Mariano Acosta street.
- The presence of people who throw stones from the highway at those who move through the commercial area of Lacarra Avenue was noted.
- Block 5 of the Fátima neighborhood is one of the most frequented areas. A preference for circulation through the perimeter streets is identified due to the robberies that take place the first days of the month since, according to the people interviewed, they are dates of salary collection.
- The intersection of Somellera and Laguna streets where the health center is located⁵⁹ is identified as an area where acts of unsafety take place while waiting for appointments at dawn.
- Riestra avenue was identified, specifically at the access to the Los Pinos and 26 de Junio informal settlements, as an area with no night lighting and streets with little presence of people.
- The existence of police domes or the presence of the police or gendarmerie does not increase the feeling of safety.
- A preference for daytime trips over night ones was identified. In the case of the latter, women generally perform them accompanied by their partners or male children or in remis.
- The participants stated that they coordinate meeting points between neighbors to travel to the public transport stops or outside the informal settlement.
- They also mentioned the neighborhood organization to install private cameras in common areas of the informal settlement and the collaborative elaboration of maps of unsafe areas.

⁵⁹ CeSAC N°24

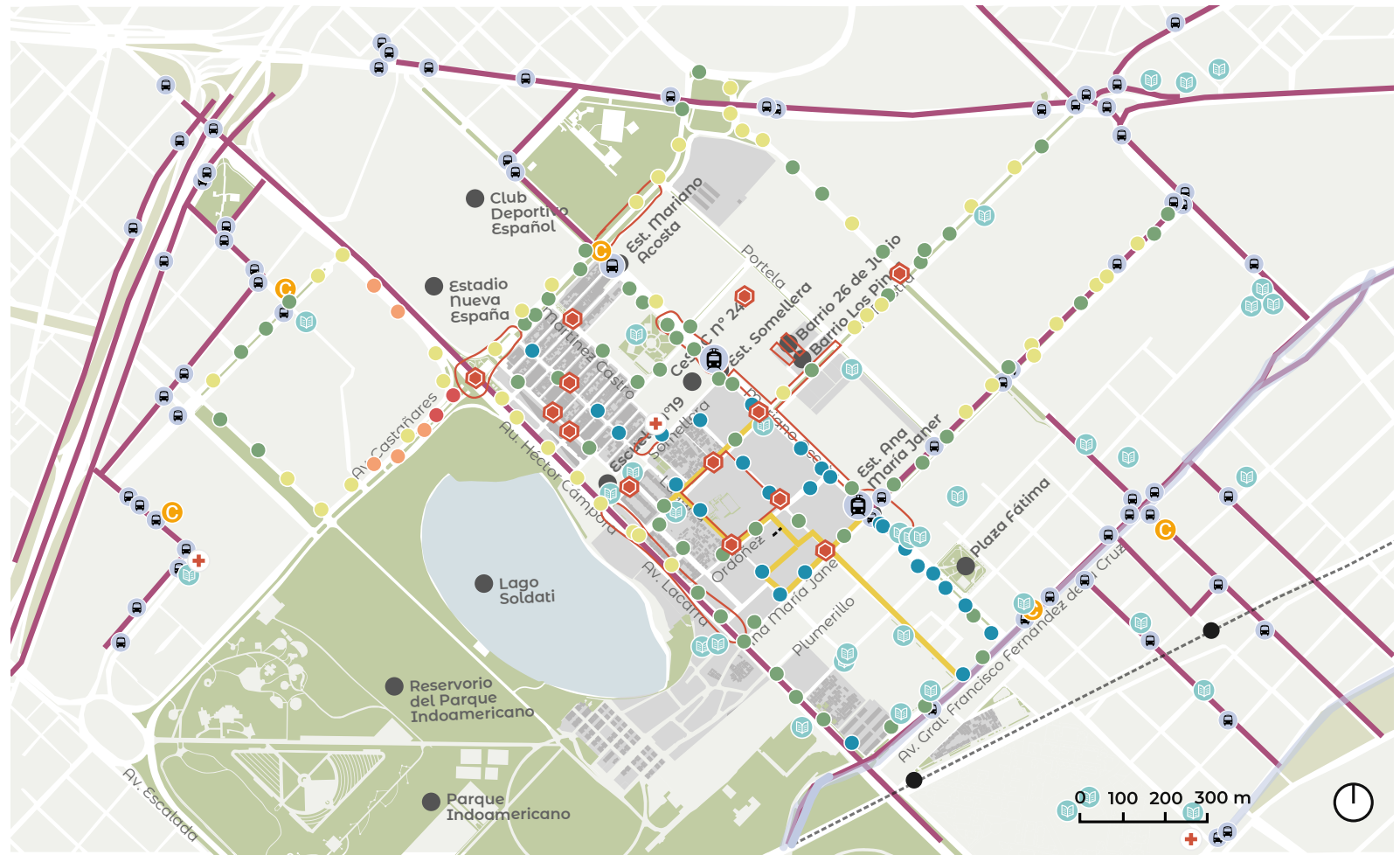
Findings

The map below shows the overlap between both methodologies that varies according to the areas of the informal settlement. On the one hand, areas where there are no coincidences between the two methodologies were detected: the testimonials from the workshops provide a perspective that contrasts with the information collected by Safetipin.

On the other hand, areas perceived as unsafe arise in participatory mapping that have not been surveyed with Safetipin. Finally, coincidences are verified in some points. Below are some conclusions.

Compared methodologies
Barrio Ramón Carrillo

Map 48. Comparative methodologies of Ramón Carrillo.



References			
<i>Safety index</i>		<i>Participatory Mapping</i>	
● Very low	⬡ Unsafe sites (perception)	Ⓜ Infrastructure and services	🚌 Transport
● Low	⬡ Unsafe areas	Ⓜ ATMs	🚇 Subway station
● Half	📍 Frequent tours	🎓 Schools	🚉 Railway
● High		🏥 Center for Health and Community Action	🚌 Bus tour
● Very high			🌿 Green areas
			🚇 Metrobus



Public transport

The measurement of the public transport variable gave medium and high values. The variable was calculated based on the existence of stops, since the application measures in relation to the existing infrastructure. However, the offer and frequency of services is scarce (Premetro and a bus line) and limits the possible connections with the rest of the city, especially at night. In order to access other bus lines, it is necessary to walk between five and ten minutes to the Metrobus on Fernández de la Cruz avenue that connects with other nodes in the City. However, this route is perceived as unsafe in different points and areas by the women of the informal settlement, even more so when there is no sunlight (early morning and in the evening).



Urban environment

Due to the environment in which it is inserted, where there are large properties surrounded by long walls, little pedestrian circulation is identified, which influences the perception of safety of the women participating in the mapping. Many of the sports clubs and private sports fields that border the informal settlement have private vehicular access, a situation that decreases not only the number of people walking on the streets but also using public transport.

In the mapping workshops, the women mentioned that they tend to avoid walking in the corridors. Other unsafe points identified inside have to do with the access to the informal settlement in the vicinity of the most frequented bus/metro stops or with the offer of services such as CeSAC.



Land Use and Urban Structure

The 'Barrio Ramón Carrillo' is surrounded by different informal settlements such as Barrio 1-11-14; Barrio 15 and Barrio 20. The fragmentation that alternates residential uses, industrial use and large recreational properties such as: Indo-American Park, Las Victorias Park, Roca Park, the City Park and the Autodromo, among other properties belonging to sports clubs and associations. The informal settlement is almost entirely surrounded by a large number of sports facilities with restricted access to the public (private), public green spaces and industries. It is also in a situation of isolation from other areas of the city, caused by the lack of continuity in the residential fabric.

Barrio

Rodrigo

Bueno

Photo 44. Aerial view of the Rodrigo Bueno neighborhood.



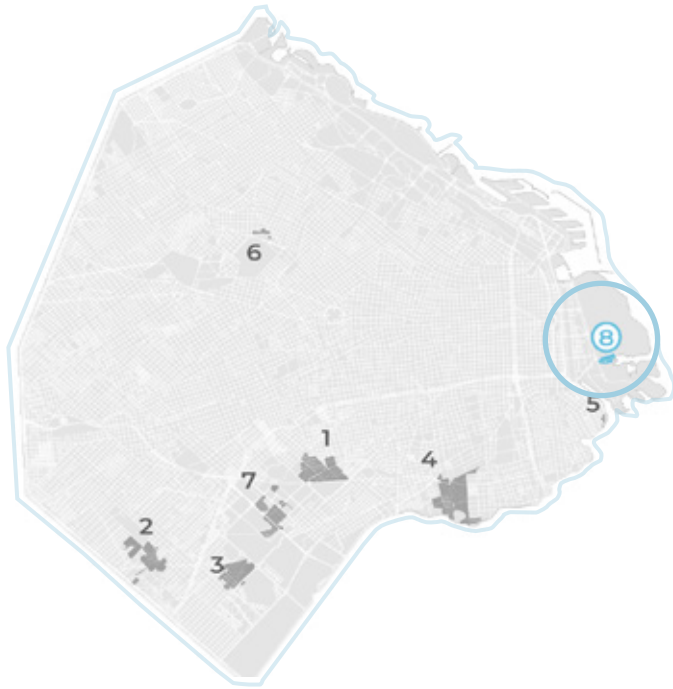
Barrio Rodrigo Bueno

Barrio Rodrigo Bueno

The Rodrigo Bueno neighborhood is located in Puerto Madero -one of the most expensive and exclusive informal settlements in the City and in Latin America- on the banks of the Río de la Plata. The first residents of the informal settlement settled in the late 1970s on land reclaimed from the river (product of the accumulation of debris from demolitions for urban highways) and which today they share with large green lungs. Its growth became notorious after the economic crisis of 2001 and its population has been growing exponentially in recent years.

Within the framework of the Comprehensive Redevelopment Program (PIRU) developed from the Redevelopment and Socio-Urban Integration Law (Law No. 5,798), the “Socio-Urban Integration Program: Villa 20, Villa Rodrigo Bueno and Villa Fraga” was designed. of the City of Buenos Aires”, partially financed with resources from the CAF - The Development Bank of Latin America and the Caribbean. This project contemplated the construction of 611 new homes arranged in 46 buildings, the provision of basic infrastructure, cultural and recreational spaces, as well as the opening of streets, the ownership regularization, the improvement of existing homes, the construction of urban equipment and intervention in the urban environment. In this line, the unoccupied houses were demolished to facilitate the swelling and opening of streets, paths and lungs of the block.

Photo 45. Urban postcard of the Rodrigo Bueno neighborhood.



**Sociodemographic data
Barrio Rodrigo Bueno⁶⁰**

Location: Puerto Madero | commune 1
 Inhabitants: 2665
 Women: 1306
 Males: 1359
 Families: 996
 Dwellings: 563
 Area: 3ha
 Density: 888 inhab/ha



⁶⁰ City Housing Institute (2016). Final Report Census 2016 Rodrigo Bueno. Buenos Aires: Statistics and Census Department, Social Intervention and Habitat Operations Management, Housing Development Management.

Map 49. Location of Barrio Rodrigo Bueno in CABA. Transport network around the Rodrigo Bueno neighborhood - Bus lines 2,4, 20, 25, 29, 33, 46, 53, 64, 86, 129, 152, 159, 168 and 195.

Phase I - Quantitative

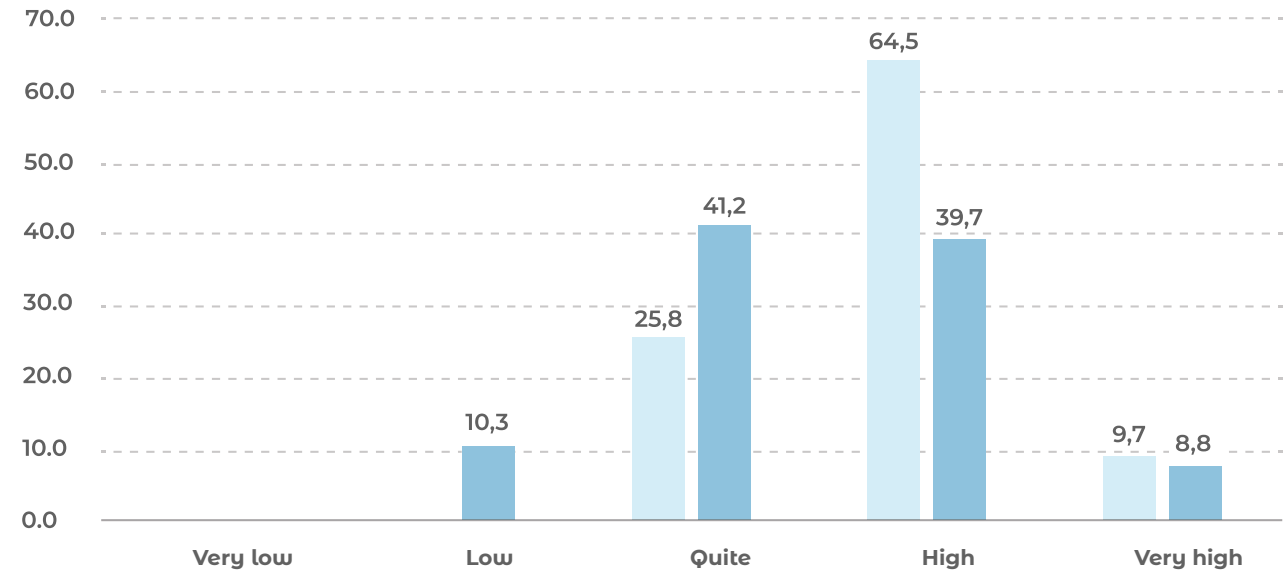
Data collection of the daytime and nighttime urban environment | Safetipin Nite

Informal settlement name: Rodrigo Bueno
 Daytime Collection: 11-30-2021/ 7:12 p.m. to 7:45 p.m.
 Night Collection: 11-30-2021/ 8:30 p.m. to 9:05 p.m.
 KM collected (average): 7
 Audited stops: 4
 Collected Testimonials: 12
 Number of Daytime Photos: 384
 Number of Night Photos: 367

The composite index of safety, both day and night, obtained higher values towards the interior of the informal settlement than in the surrounding areas. The greatest differences with respect to the environment occur in the variables of lighting, presence of people and visibility. Although few people and little mixture were registered, high visibility values were registered within the informal settlement, linked to the architecture of the new houses.

In the area of the informal settlement, the arteries that obtained the lowest values are España avenue and Calabria avenue. The first has a significant heavy traffic flow linked to the industrial uses of the southern end of the area, in addition, after the informal settlement there are many disused properties. Calabria avenue for its part is located between two large public green spaces that do not have much pedestrian flow.

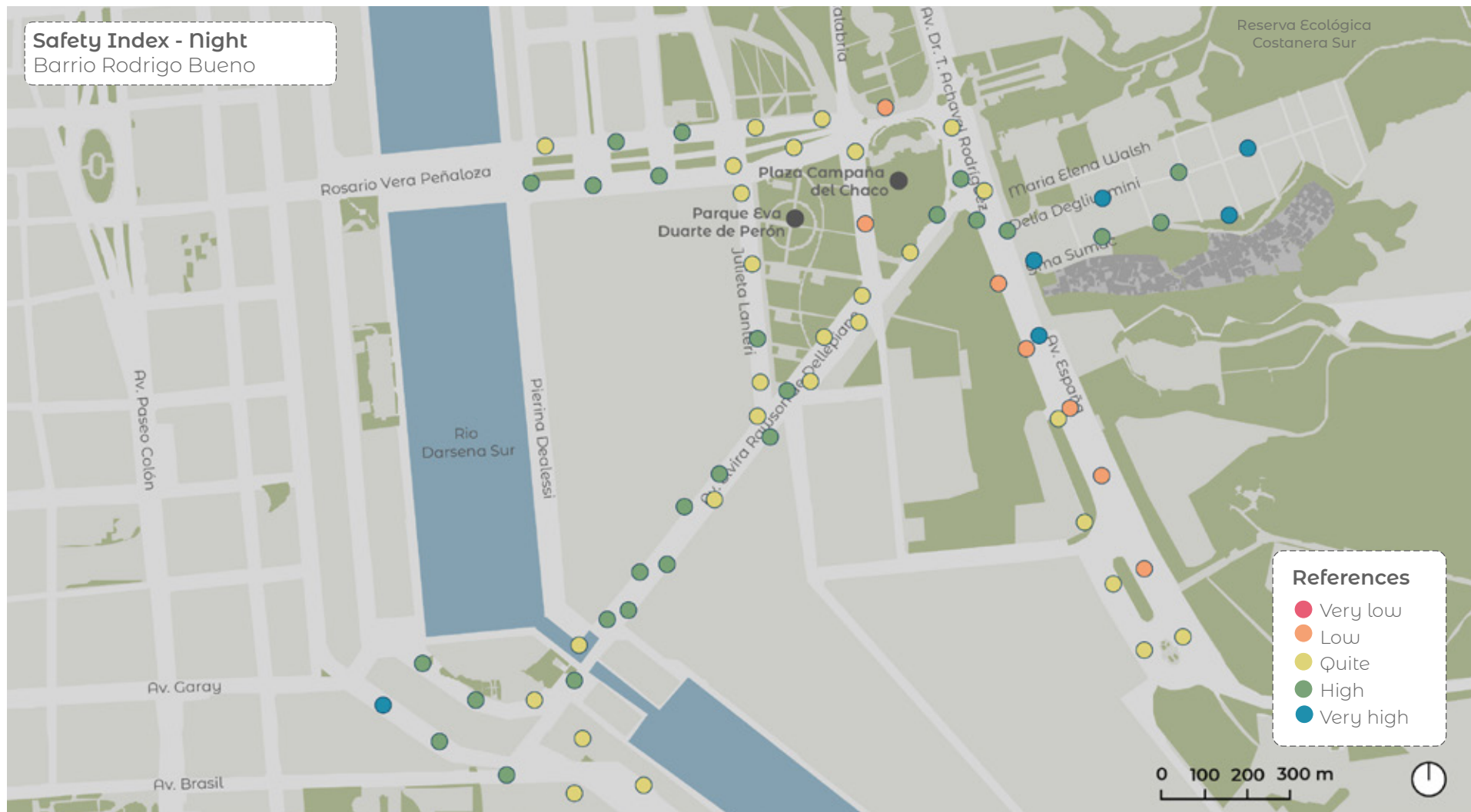
Safety index



Graph 38. Daytime and nighttime safety index of the Rodrigo Bueno neighborhood.

The average values are located at the end of Elvira Rawson avenue in Dellepiane, where there are a series of sports infrastructures and the Casino, which generates a regular flow of vehicles and pedestrians, and at Rosario Vera Peñaloza boulevard, where the residential fabric of Puerto Madero.

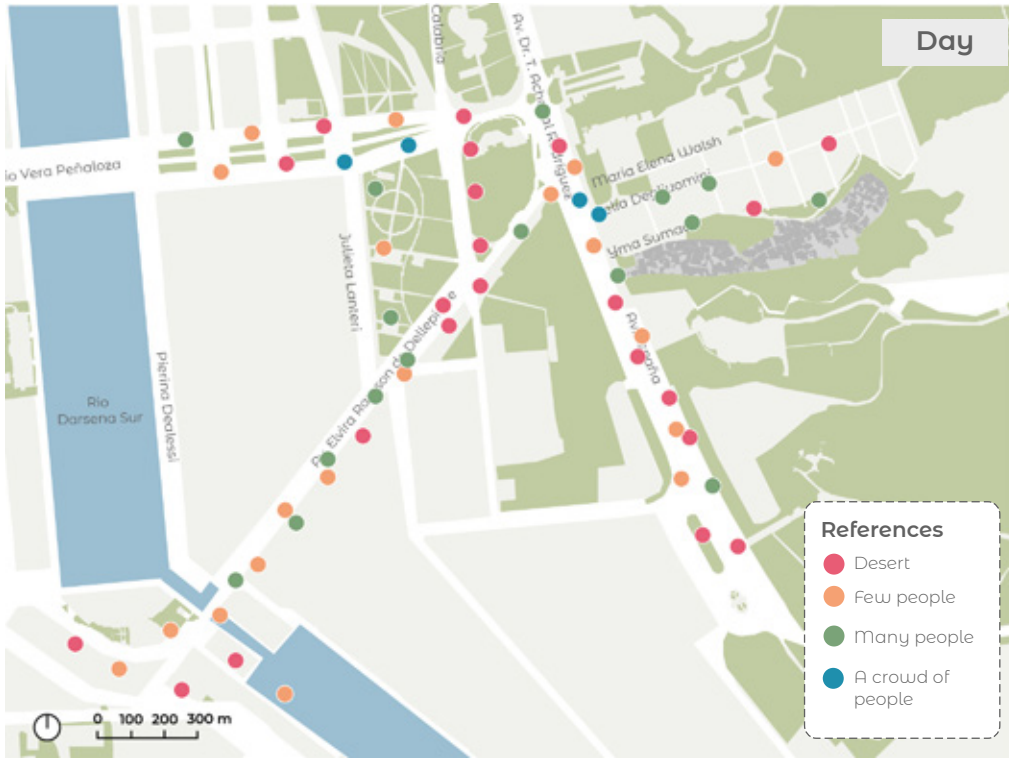
This informal settlement is characterized, unlike the other informal settlements studied, by the low supply of public transport and by the majority of buildings without a commercial ground floor, which could explain the low pedestrian circulation in that area.



Map 50. Night safety index of the Rodrigo Bueno neighborhood.

Presence of people - Day
Barrio Rodrigo Bueno

Map 51. Presence of people from Barrio Rodrigo Bueno, daily collection.



Presence of people - Night
Barrio Rodrigo Bueno

Map 52. Presence of people from Barrio Rodrigo Bueno, night collection.



Public transport



In the suburbs there are only **2 bus lines**⁶¹. No meanwhile, on Paseo Colón Ave. and its crossroads -1.3 km away- there are more than 20 lines.

85 %

85% two audit points in the analyzed area have public transportation available at a **2-minute walk**.



The town has **1 EcoBici station** and is connected to the bike lane network.

15 %

15% two audit points in the analyzed area have public transport available at a distance between **2 and 5 minutes by foot**.

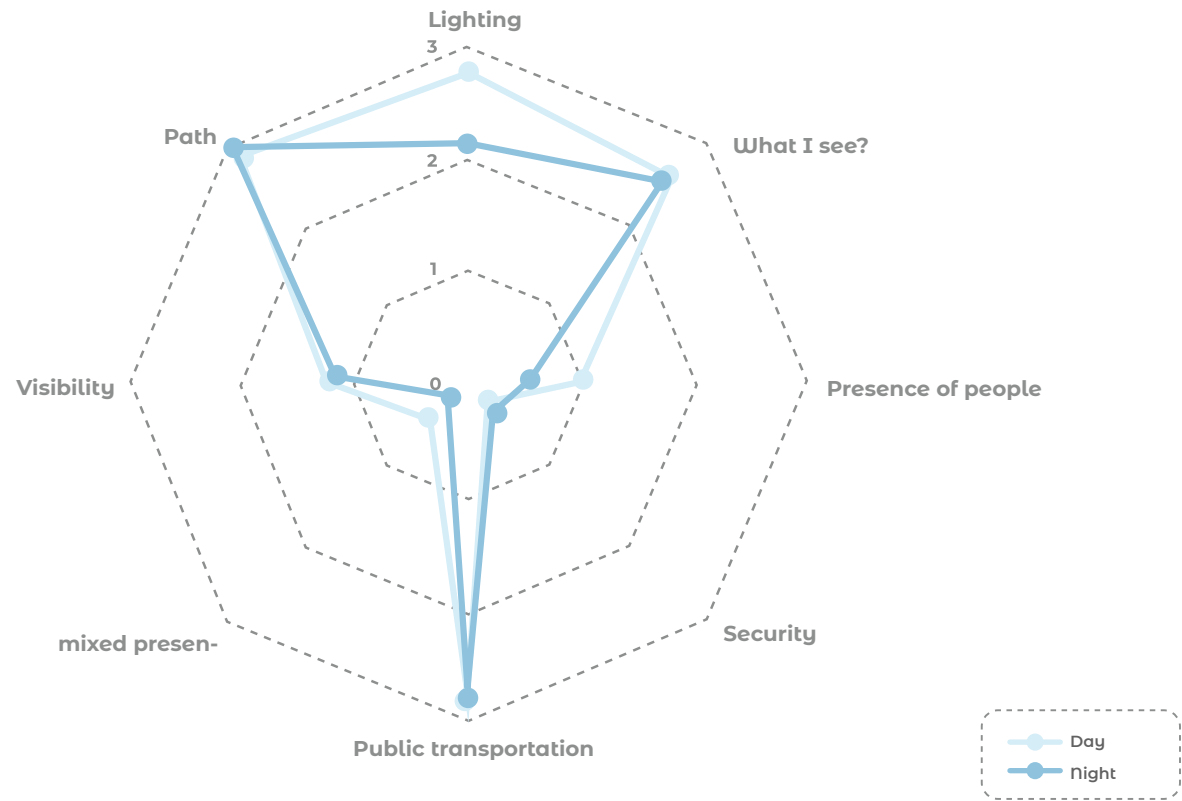
⁶¹ Bus lines 2 and 4.

Graph 39. Data on the audits of the Rodrigo Bueno neighborhood.

The variables with the highest incidence in the difference between daytime and nighttime collections were **lighting, presence of people and mixed presence**. The lighting decreases for reasons related to the absence of natural light, although it is maintained with sufficient values. The presence of people and mixture vary due to the fact that urban activity and the circulation of people decrease during the night. The presence of people is concentrated at both times of the day in those points that have more residential or commercial activity of some kind.

The graph below represents the average score obtained in the points collected during the survey with the quantitative methodology, according to each variable and time of collection, making visible the difference between both time ranges. At first glance, it can be seen that all the variables behave in a similar way between day and night, with lighting, the presence of people, and the mixed presence being the variables that present the greatest variation due to issues typical of the daily rhythm.

Barrio Rodrigo Bueno
Average value according to the variable



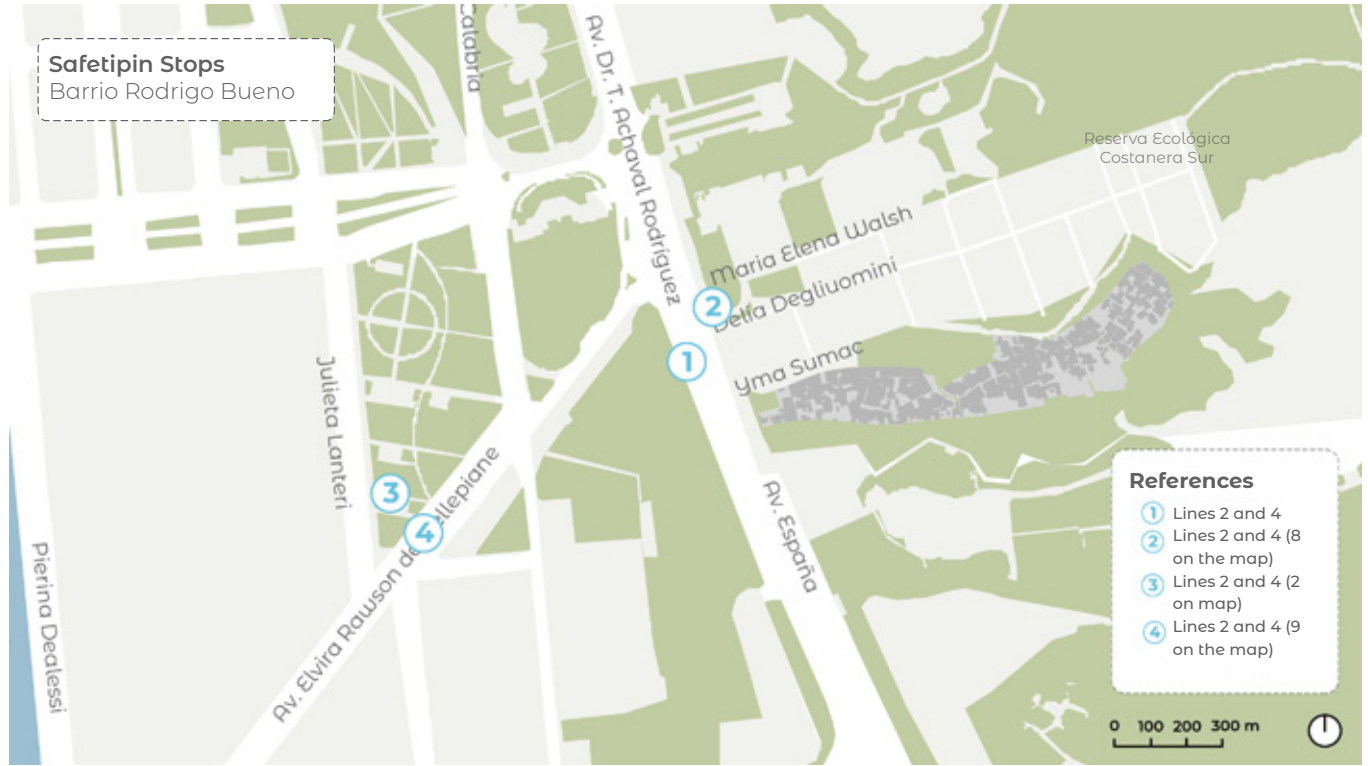
Graph 40. Average value according to the variable of the Rodrigo Bueno neighborhood. Average value according to variable where 0 corresponds to very low and 3 to very high.

Phase I - Quantitative

Surveys and audits at public transport stops | Safetipin Site

Four stops corresponding to bus lines 2 and 4 where 12 interviews with users were conducted. These were selected from the SUBE transaction data and, subsequently, validated with territorial references as they are the most used by residents of the informal settlement.

Of the audited public transport stops, those located in the vicinity of the informal settlement are signposted and have a good level of quality infrastructure available (shelters, seats, accessibility elements), surveillance and available lighting. The stops that are farthest from the informal settlement and consequently are less frequented, do not have a good quality of infrastructure. However, the people surveyed stated that beyond the good conditions of the stops they do not feel safe, indicating that there are other reasons beyond the physical environment that intervene in the perception of insafety.



Map 53. Location of the bus stops in Barrio Rodrigo Bueno.

Bus stop audit

	Signaling	Shelter	Bench	state of the sidewalk	universal accessibility	obstacle	visibility	vigilance	lighting
1	✓	✓	✓	✓	✓	✗	✓	✓	✓
2	✓	✓	✓	✓	✗	✗	✓	✓	✓
3	✗	✗	✗	✗	✗	✗	✗	✗	✗
4	✗	✗	✗	✗	✗	✗	✓	✗	✗

Table 9. Audit of the bus stops in the Rodrigo Bueno neighborhood.

Most of the people interviewed answered that they did not feel safe waiting for the bus, especially after dark. Many people emphasized the low frequency of bus circulation during peak hours and at night, which impacts the quality of the trip and the perception of safety, since they feel unsafe while waiting for the bus.

In numerous interviews, as a general comment, the existence of few public transport options in the area emerges. It was repeated in the interviews that in situations where there are many people waiting for buses, they avoid making their stop, that is, they do not stop to pick up passengers, which causes a delay in the daily activities that people carry out. In the interviews, the need to place a bus stop within the informal settlement arises since for people who accompany children in care tasks, elderly people, mobility is complex until the current stop.

Safety perception
in women



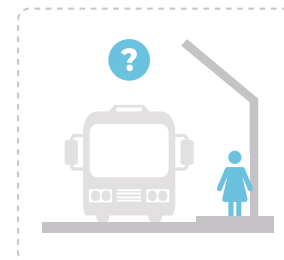
50% of the women interviewed reported feeling unsafe on the way to the bus stop and while waiting.



Some women highlighted the **fear of robberies** and lack of trust in the police.

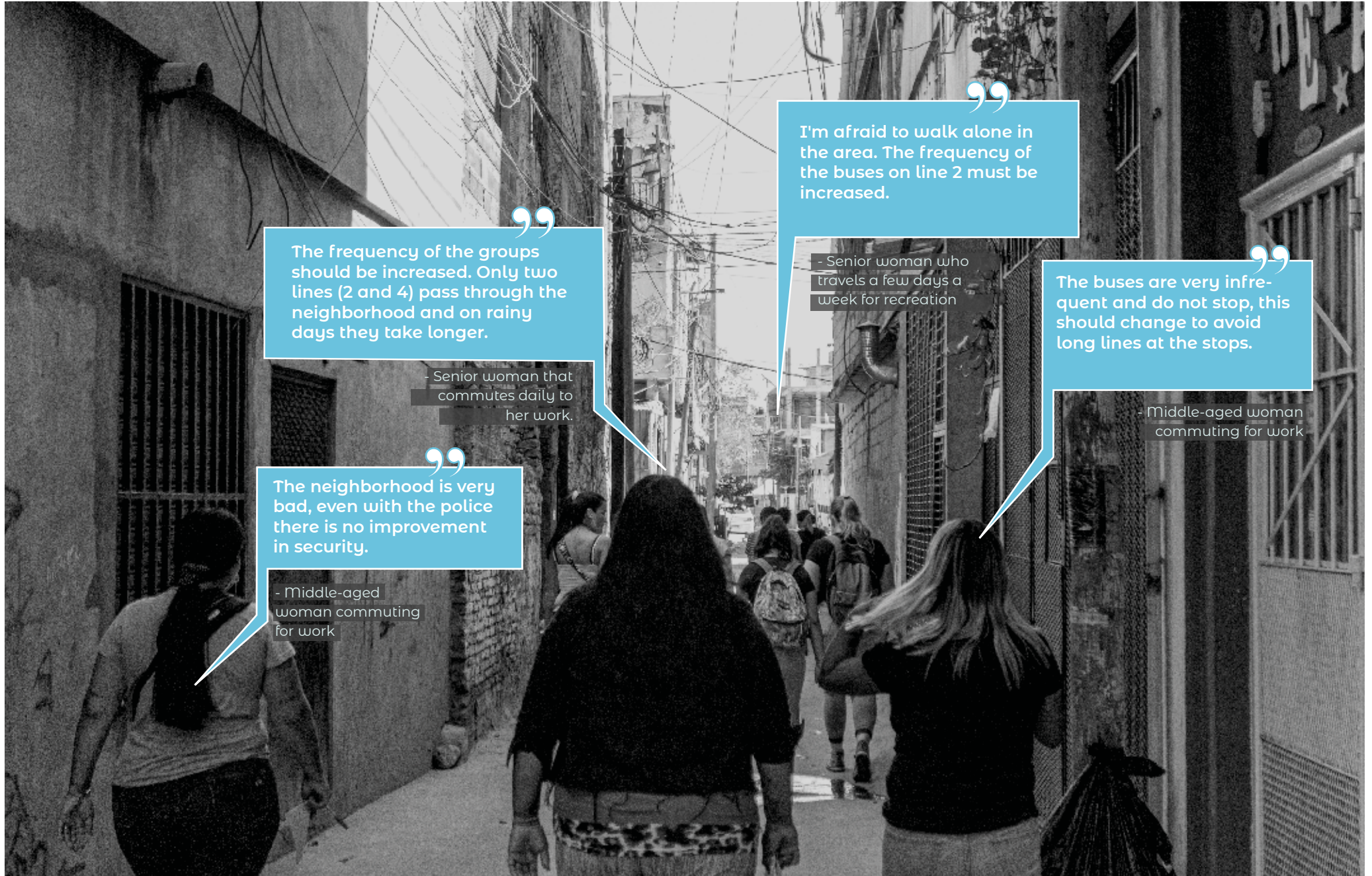


Most respondents said they **did not feel safe waiting for the bus**, especially after dark.



In numerous interviews, the **existence of few public transport** options in the region comes up as a general comment.

Graph 41. Perception of insafety in the Rodrigo Bueno neighborhood.



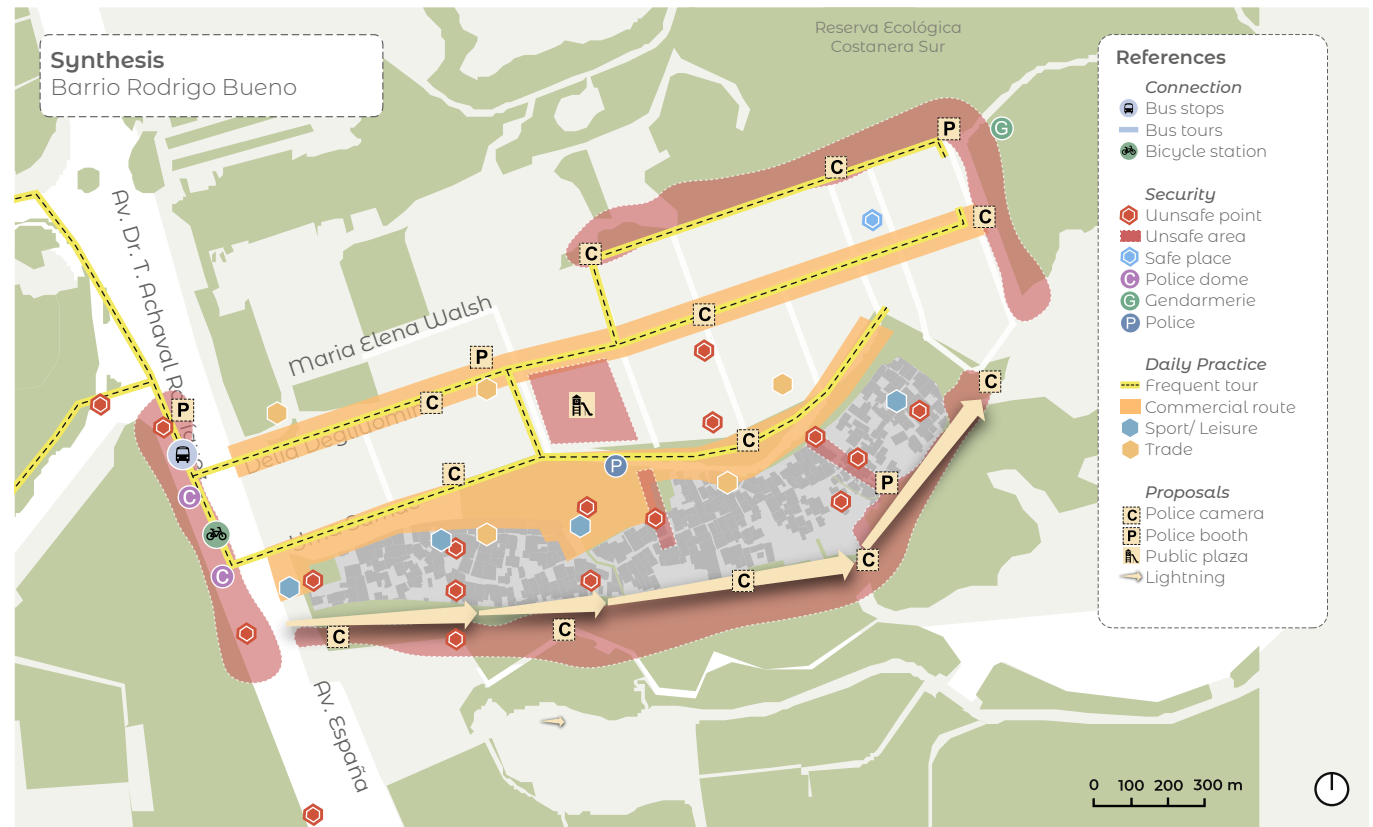
Phase II - Qualitative

Participatory Mapping

Location: IVC tent - Block 1 of the informal settlement Nuevo
Day and time: April 7, 2022 between 5:00 p.m. and 7:00 p.m.
Call: by the IVC
Duration: 120 minutes/ 2 hours
Participants: 13 women between 35 and 65 years old
Team present: 1 person from CAF, 4 people from the IVC team, 3 people from SECTOP and 3 people from Cooperativa Cambalache.

The participatory mapping instance allowed the collection of qualitative data on the daily mobility experiences of women in the informal settlement and its surroundings. The collected information was reflected in five maps, which are presented below in a synthesis map:

- Daily practices
- Displacement out of the informal settlement
- Connections and forms of mobility
- Safety perception
- Mobility strategies and public space





Daily Practices

- The informal settlement has a limited supply of educational, health and recreational facilities.
- Most of the women commented that they carry out their daily activities and work within the informal settlement.
- Movements within the informal settlement are carried out on foot.
- The main reasons for daily displacements respond to work activities, care and participation in community activities of informal settlement.
- Two main axes that concentrate shops and facilities were identified: Yma Sumac and Delia Degliuomini streets. These, in turn, structure the frequent routes due to the perception of safety.
- Yma Sumac is the preferred street for daytime tours mainly for convenience, since it constitutes the commercial axis that divides the new informal settlement from the Historic informal settlement. While, at night they prefer to walk along Delia Degliuomini, because this street has more lighting and they perceive it as safer.
- The women who participated in the activity do not recognize the internal street nomenclatures used by the GCABA: they indicated that the local reference system is structured according to their daily practices and the recognition of representative places in the neighborhood.



Movements outside the informal settlement

- The displacements outside the informal settlement respond to different activities such as carrying out care tasks, attending to health issues, taking their children to school or shopping.
- Other activities, such as recreational outings, are limited and it is more complex to put them into practice due to the disconnection from the informal settlement.
- The trips to the Argerich Hospital -1.7km- are made on foot since there is no bus line that connects it with the informal settlement. In emergencies, most of the opportunities for private services that enter the informal settlement are dependent.
- In urgent cases they resort to remises, a service that is normally provided by a neighbor of the informal settlement.
- Shopping inside the informal settlement is more expensive since there are only stores or small shops, which is why they tend to go to other areas to shop.
- A large part of these trips are made on foot, even though the distances are long, due to the lack of public and private transport, mainly at night.



Connection of the informal settlement with the environment

- Despite being close to the city center, the informal settlement is isolated and disconnected due to the limited availability of public transport.
- There is only one bus stop for lines 2 and 4 and serious problems in the frequency of the service, especially at night. In addition, the neighbors stated that when people accumulate at the bus stop, the buses stop to pick up people.
- Alternatives to using the bus: travel on foot, bicycle, motorcycle or through internal remises of the informal settlement. This last option in case of urgency and necessity.
- There is a relative proximity to the Paseo Colón Metrobus, but it implies traveling long distances on foot through areas that in some cases they recognized as dark and/or lonely, so this is not always a viable alternative.



Safety perception and Mobility Strategies

- Sites or routes perceived as unsafe are mostly associated with lack of lighting, the presence of men in public spaces, and border situations, that is, large expanses of walls or properties without a mix of activities.
- The boundary between the historic informal settlement and the existing watercourse is perceived as an unsafe area due to lack of lighting, low pedestrian circulation and demolished houses. This area is avoided at all times of the day due to the number of reported robberies.
- España avenue is an axis perceived as unsafe due to the lack of lighting, although the presence of people is continuous, both at the bus stop and in the bars. In this area, they refer to situations of robberies at bus stops, robberies of truckers, and riots and fights between people who frequent bars. It is an area that they tend to avoid mostly at night.
- On the side of the Costanera Sur Ecological Reserve, they recognize another conflictive and unsafe border, which they mostly associate with breaking the dividing fence to rob people who go to the Reserve. Likewise, this constitutes an escape route that generates unsafety among the neighbors of the informal settlement.
- Inside the informal settlement, the neighbors recognized unsafe corridors that are dimly lit (such as the Santa Rosa Corridor) and that directly connect the central street of the informal settlement with the canal, also associating them with situations of robberies.
- Areas where there is greater occupation of public space by men. In the vicinity of sports facilities, which women have difficulties accessing, or in the pool area of Manzana 4, where situations of abuse have been reported. They tend to avoid these spaces, mostly at night. The presence of groups of men in this informal settlement conditions and limits the use of the urban environment by women at certain times of the day.
- The participants highlighted the feeling of lack of police protection despite the presence of sentry boxes and gendarmarie personnel. They identified a single safe place in the IVC tent located on the main street of the new informal settlement.
- Preference for daytime movements, restriction of night movements to what is strictly necessary and the neighborhood organization to install particular safety elements.

Findings

The map below shows the overlap between both methodologies that varies according to the areas of the informal settlement. On the one hand, areas where there are no coincidences between the two methodologies were detected: the testimonials from the workshops provide a perspective that contrasts with the information collected by Safetipin.

On the other hand, areas perceived as unsafe arise in participatory mapping that have not been surveyed with Safetipin. Finally, coincidences are verified in some points. Below are some conclusions.

Compared methodologies
Barrio Rodrigo Bueno

Map 55. Compared methodologies of Rodrigo Bueno.



References		Infrastructure and services		Transport	
Safety index		Participatory Mapping		Bus stops	
● Very low	⬠ Unsafe sites (perception)	Ⓞ ATMs	Ⓜ Railway stations	Ⓜ Railway	Ⓜ Bus tour
● Low	⬠ Unsafe areas	🎓 Schools	Ⓜ Center for Health and Community Action	Ⓜ Green areas	Ⓜ Metrobus
● Half	— Frequent tours	🚓 Police stations			
● High					
● Very high					



Public transport

Although the Safetipin index indicates that the informal settlement has access to public transport between 2 and 5 minutes walking, both the surveys carried out at the stops and the results obtained during the participatory mapping show that this is not fully guaranteed. There are only two bus lines available in the vicinity of the informal settlement (2 and 4) that determine possible connections with the rest of the city. In addition, the fact that the frequency of circulation is low, particularly at night, and that many times in the face of long lines at the stops, the units stop to pick up passengers, repeatedly arose.

Access to more bus lines is on Paseo Colón avenue and this stretch becomes long and dangerous to be done on foot. These difficulties often force the residents of the informal settlement to limit their activities, allocate more time to a specific trip or, in an emergency, resort to more expensive means of travel.



Urban environment

Some points and areas identified as safe according to the Safetipin index were registered as unsafe by the neighbors during the participatory mapping.

The intersection of avenue Elvira Rawson de Dellepiane and Buenos Aires, La Plata - Highway registered medium and high points during the collection, and although there are public transport stops and a safety checkpoint, the neighbors said they felt unsafe since it is a lonely area where the highway works as a great urban barrier and in the one frequented by robberies.

Another similar area is the intersection of España avenue and Elvira Rawson de Dellepiane avenue. Although the index has high values and it is where the entrance to the informal settlement and the most used bus stops are located, the neighbors referred to an unsafe area where there are robberies and conflicts, especially at night.

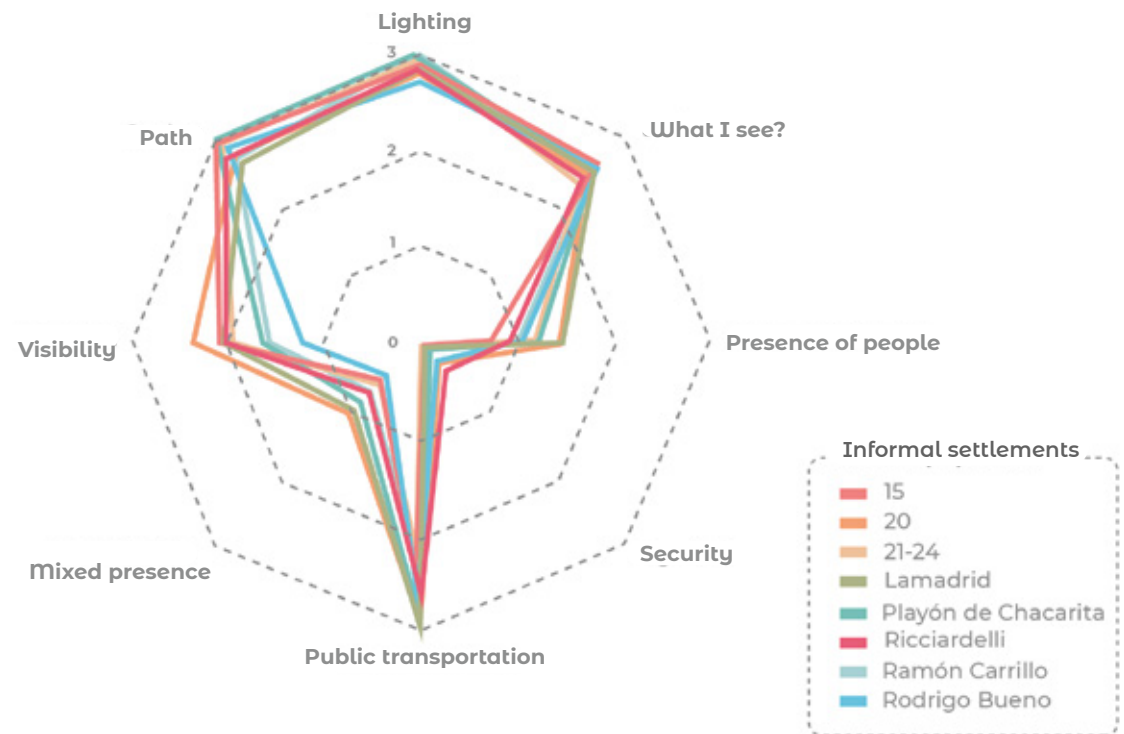
Likewise, some areas not surveyed during the collection emerged in the mapping, as a result of the fact that those sections were not surveyed. The border between the historic informal settlement and the existing canal is recorded as unsafe associated with the lack of lighting, the absence of people and the presence of demolished houses, as well as due to the number of robberies that are recorded.

Comparative analysis between informal settlements

The graph below shows the results of each of the variables that make up the composite index of daytime safety according to the informal settlement. Comparatively, it is observed that, for the most part, they have a similar behavior in all informal settlements, with the best scored variables being access to transport, the state of lighting, the state of the path and what do I see? and the lowest are the safety presence and the level of mixed presence. While the variables of visibility and presence of people register minor variations depending on the informal settlement.

The following graph shows the results of each of the variables that make up the Composite Night Safety Index. In general terms, the graph looks similar to the daytime index, which implies that the variables have similar behaviors between day and night. However, there are some specific variations regarding the daytime collection, mainly in the variables of presence of people and mixed presence that during the day vary between 0-1 depending on the informal settlement and at night both are at 0.

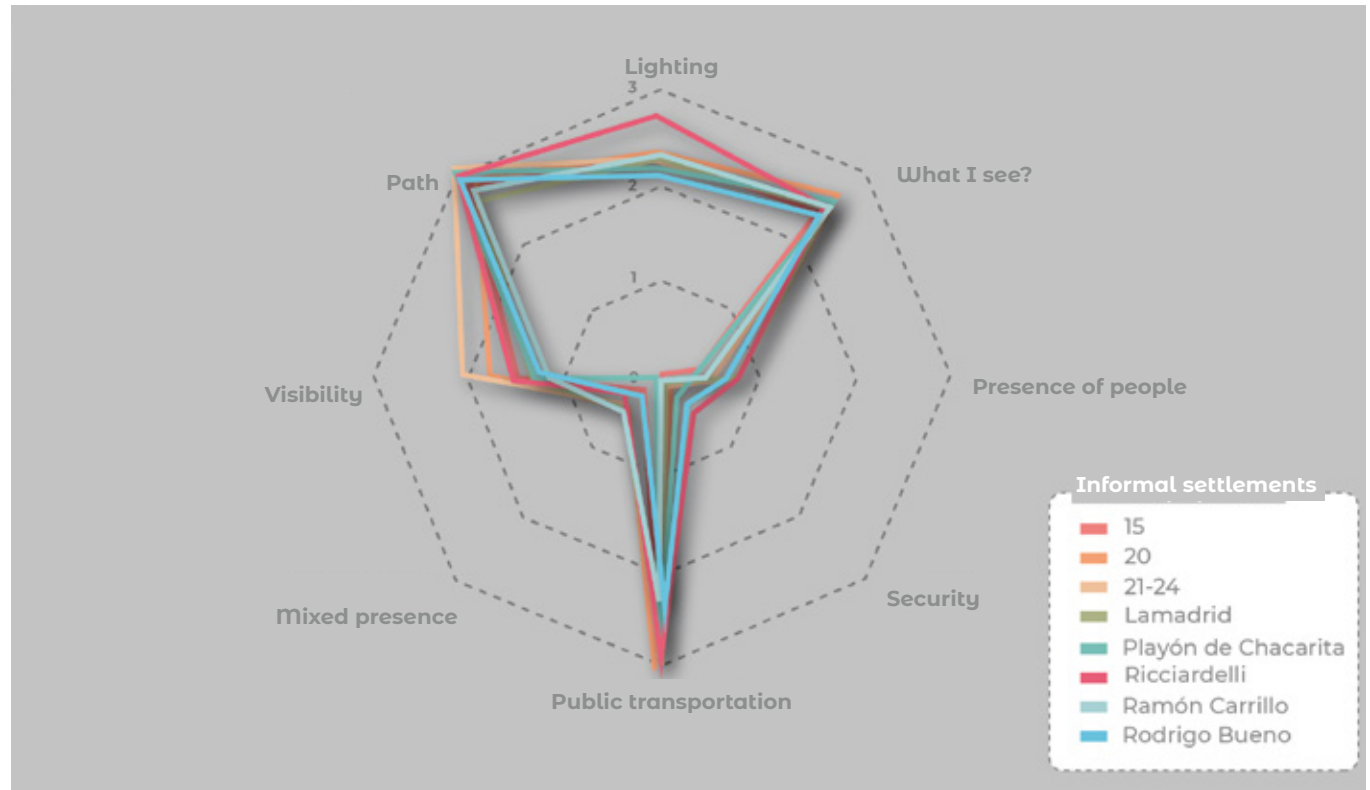
Average value according to the daily billing variable



Graph 43. Average variable according to the daily collection variable of all informal settlements. Average value according to variable where 0 corresponds to very low and 3 to very high.

Average value according to the nocturnal collection variable

By comparing the qualitative data obtained from the mapping workshops, it is possible to detect certain spatial patterns and similarities between the informal settlements, as well as some particularities. **Broadly speaking, we can recognize two main factors that seem to greatly influence the perception of safety in the mobility of women in these informal settlements.** On the one hand, a factor associated with the location and location within the city, that is, whether or not the informal settlement is integrated into the urban fabric or if, on the contrary, it forms an enclave between large properties. **The other influential factor in security and mobility dynamics is the connection or disconnection condition related to public transport.** Some common findings are grouped below according to the categorization used in the analysis broken down by neighborhood.



Graph 44. Average variable according to night collection variable of all informal settlements. Average value according to variable where 0 corresponds to very low and 3 to very high.



Daily Practices

- In all the informal settlements analyzed, similar daily practices or mobility patterns were identified in relation to the destinations they frequent the most: commercial areas, often located on main streets, educational, health, sports and community facilities. In most informal settlements, the daily mobility practices of some women also include going to workplaces within the informal settlement.
- There is a direct relationship between the location of informal settlements, the configuration of their environment and the way in which daily mobility practices are distributed. In informal settlements that function as enclaves such as Rodrigo Bueno, Ramón Carrillo and Barrio 1-11-14 or that are remote such as Barrio 20, the daily mobility of women is relatively limited and concentrated inside the informal settlement. In other informal settlements, with higher levels of integration into the urban fabric, such as Barrio 15, Barrio 21-24 and Playón de Chacarita, women's daily mobility practices exceed the perimeter of the informal settlement to a greater extent. However, all the informal settlements analyzed have at least some border situation on one of their sides that makes it difficult for these activities to extend over the territory, for example: bodies of water, a highway, or railroad tracks.



Movements outside the informal settlement

- In all the informal settlements, the main and most recurring reason for displacement outside the informal settlement was the need to access health centers with more complex services or larger supply centers than neighborhood businesses (wholesale supermarkets).
- In some cases, such as Barrio 21-24, Playón de Chacarita and Barrio 15, displacements to recreational or educational facilities are identified, both to accompany children and for the training of the participants themselves. These informal settlements are those that are linked in a more direct way with the environment. In the informal settlements whose operation is from enclaves such as Rodrigo Bueno, 1-11-14 and Ramón Carrillo, these practices seem to be resolved mostly inland, minimizing exits, only in case of need.
- An additional factor that can be attributed to this behavior is the level of connectivity of the informal settlement with other areas of the city. Those informal settlements that are more disconnected, either physically or through the public transport network, such as Rodrigo Bueno or Ramón Carrillo, have fewer exits outside the informal settlement for non-priority reasons. In case of wanting to make this type of displacement, women depend on other types of transport such as private remises.



Connection of the informal settlement with the environment

- Regarding the condition of connectivity, the different informal settlements analyzed show different degrees of integration into the city's public transport system. The optimal situation in terms of connection by public transport is in the Barrio Fraga - Playón de Chacarita, connected by a railway line, underground train and a wide range of bus public transport lines.
- In a less privileged situation regarding transportation we can locate the informal settlements 15, 21-24, Padre Ricciardelli (formerly 1-11-14) and 20. In all of them routes of various bus lines or various modes of transportation are identified. However, in these cases, despite the theoretical supply of transport not being scarce, women report difficulties when traveling at night, mainly due to the reduction or cut in frequency.
- Finally, the informal settlements whose situation of disconnection is most evident are the informal settlements Ramón Carrillo - Fátima and Rodrigo Bueno, since they are served by a very limited supply of transport services. In these two informal settlements, women find it difficult to get around not only at night, but also during the day. This situation sometimes forces them to travel long distances on foot to other modes of transport that are further away, a situation that is evident in the maps prepared from the pedestrian routes they take frequently.
- In relation to the situation of isolation or integration of informal settlements, the same logic seems to be repeated to a great extent. The informal settlements Rodrigo Bueno, Ramón Carrillo - Fátima and Barrio Padre Ricciardelli (formerly 11-1-14) are the most disadvantaged in this sense, since they function as enclaves. In the last two, their situation of physical isolation is clearly evident as they are surrounded by large properties that isolate them from the rest of the city. In the case of Barrio 20, although it does not constitute an enclave in its entirety, it is bordered to the south by large green spaces.
- Barrio 21-24, for its part, shows a greater possibility of integration with the urban fabric, although with connection problems. On one of the edges there is a body of water (the Riachuelo), in addition to finding lots of industrial use in the surroundings. Lastly, the Playón de Chacarita neighborhood (Villa Fraga) shows the best integration conditions due to its size and because it is inserted within the urban fabric. However, one of its edges faces the Urquiza Railway, constituting a more complex edge.



Security Perception and Mobility Strategies

- Among the main recurring unsafety factors in all the informal settlements, the women identified: the lack of lighting as the main factor (contrasting with the data obtained in the Safetipin application), the existence of lonely streets with no circulation of people and the lack of presence of safety forces (in agreement with the results of Safetipin). In some cases, such as the informal settlements 15, Barrio Padre Ricciardelli (ex 1-11-14), 21-24 and Rodrigo Bueno, **spaces with a large number of people (generally around transport stops) are also unsafe due to the high number of thefts.** On the other hand, **the presence of manufacturing properties in the surroundings of informal settlements 15, Padre Ricciardelli (ex1-11-14) and 21-24, were also identified as factors of unsafety as they evidenced less lighting and movement of people.**
- The situation of disconnection and lack of public transportation in the Rodrigo Bueno and Ramón Carrillo informal settlements, as previously mentioned, is also a factor **that the women identified as the cause of a low perception of safety.** It is worth noting some specific cases: in the Fraga neighborhood regarding the state of the space and the public thoroughfare; in Rodrigo Bueno in relation to the occupation of public space by men; and in the Padre Ricciardelli neighborhood (ex 11-1-14), an aspect unrelated to the urban environment, were citizen safety issues, such as the perceived territorial control of drug gangs.
- In all cases, the situation that aggravates the perception of safety most identified by the participants corresponds to robberies and thefts in the urban environment. To a lesser extent, they identified areas of drug consumption and sale, situations of sexual harassment and abuse, and even places where homicides had been committed. Another important factor that emerged to a large extent in many of the informal settlements refers not only to their own safety, but also to that of their children. Almost uniformly, all informal settlements show a difference between mobility dynamics and the perception of safety during the day and at night. Only in Playón de Chacarita (Barrio Fraga) nightfall does not appear as the main limitation when it comes to moving around the informal settlement.
- It is possible to recognize certain safety strategies that are repeated in all informal settlements, for example, the preference for daytime departures and the reduction of night movements. In several cases, such as in Barrio 15, Barrio 21-24, 'Barrio Ramón Carrillo' – Fátima and Barrio Rodrigo Bueno, neighborhood organization is one of the main safety strategies, either through the installation of private cameras and lights in public roads or by planning joint trips between neighbors. Likewise, in all the informal settlements analyzed, the women identified safety elements, such as sentry boxes and security cameras, although they stated that they do not contribute to the perception of safety, in fact, they point out in all cases the lack of police action.
- Throughout the workshops, it was very difficult for women to identify areas or places that they consider safe. In most cases, they stated that the informal settlement does not have safe spaces, but instead opts for certain routes over others, having no other option. They only identify safe places in the Rodrigo Bueno neighborhood, specifically indicating the IVC office in the informal settlement, in 'Barrio Ramón Carrillo' – Fátima to "El Refugio" – Civil Association of Women in Action and, in Barrio 20 to La Plaza de las Risas, recently intervened. It is important to emphasize that the first two informal settlements where they identify safe places are those that are in the most unfavorable situations regarding their conditions of isolation and disconnection. In both cases, the safe places refer to community facilities that, particularly in these informal settlements, seem to be of great importance in the day-to-day life of the women's groups.

06

Conclusions

The day and night safety indices not only highlight the existing gaps in the physical infrastructure but also evidence the low levels of women's appropriation of the built environment within the informal settlements analyzed. The study shows that, although most of the informal settlements analyzed have a good physical infrastructure in terms of lighting and footpaths, the use and appropriation of the urban environment, that is, the presence of people, especially women, boys and girls (presence mixed) in the streets, particularly during the evening/night, is low. This could largely be attributed to the low mix of activities: low commercial activity on the ground floors and the absence of vendors on the streets, making them unsafe for women to use, especially after dark.

Results from bus stop surveys show that basic items such as shelters and seats are not available at all bus stops surveyed. Only some could be identified with a line number. While lighting and walking paths were rated fair or good at most audited bus stops, infrastructure elements to promote universal access, such as curb ramps and tactile tiles, were unavailable or broken. or dashed around many stops. Traveler perception surveys suggest that more women than men feel unsafe at bus stops and expressed concerns about the availability and condition of physical infrastructure and the frequency of buses.

Foto 47. Diagnóstico a pie Barrio 20.

One might think that the perception of safety is not only determined by the physical structure; there are institutional, social, economic and cultural factors, among others, that make places be perceived as more or less safe for women. When measuring safe spaces in vulnerable territories with dynamics as particular and dissimilar as informal settlements, it would be necessary to include other dimensions of analysis. Participatory workshops with women from the informal settlements highlighted the safety concerns of the women as they walk the streets of the informal settlement. The findings further reinforce the importance of lighting, availability, and not just access, to reliable and safe public transportation, and police presence in shaping women's perceptions of safety.

In general, the study shows that a fragmented urban structure, the lack of adequate and well-maintained urban infrastructure together with unreliable public transport services are barriers to women's mobility and prevent them from freely accessing opportunities for growth and general well-being.

Urban structure

There are structural factors towards the exterior of informal settlements that contribute to the perception of safety, since they are associated with the condition of fragmentation and isolation produced by the large urban barriers between which most of the surveyed informal settlements are located and the most of the informal settlements in the CABA.

The large sports and industrial facilities located around the informal settlements, in combination with the dissections generated by highways, railways and train tracks, the large green spaces, both public (squares and parks) and private (clubs, sports centers, sports courts), hospitals, large commercial facilities, are part of the list of urban barriers presented by the Autonomous City of Buenos Aires. In this way, informal settlements tend to develop in these urban sectors far from residential areas, in places on the urban edge (internal or external), forming enclaves.

Another structural factor, but one that is visualized towards the interior of the informal settlements and that contributes to the perception of safety, responds to the fabric made up mostly of passages and corridors. In turn, the size of the informal settlement also contributes to it, since the smaller informal settlements (Rodrigo Bueno and Playón de Chacarita) are perceived as "safer" compared to the perception of women in other informal settlements. Either because its residents get to know each other more easily, because they have fewer corridors/passages, or because fewer families inhabit it and solidarity bonds are created, with "more neighborly" relationships.

Public transport

The difficulty of access to public transport is a factor that contributes to the increased perception of safety in informal settlements. Many times the existence of coverage and infrastructure nearby does not necessarily imply access to the service. Being located in historically marginalized areas of the city, enclave areas between urban barriers; the limited supply of public transport in and around informal settlements is very common. This is visualized in four aspects:

1. **The distance that must be traveled from the informal settlements to the bus stops in most cases exceeds 10 blocks of walking**, a complex route to walk for women who facilitate the mobility of others such as children, older people, or with reduced mobility and perform tasks such as grocery shopping. It is also complex to get access to a variety of transport services and in the particular case of buses, in some informal settlements it is difficult to get access to different lines that run to central places in the city that allow generating favorable connections.

2. **The frequency of the bus lines at sunset decreases much more than in other parts of the city**, even in some informal settlements. After 8:00 p.m. the buses change their route, avoiding circulation in the informal settlement and its surroundings, breaching the agreements of service, this action not being validated with the competent authorities.
3. **It is very frequent that the bus stops most used and/or frequented by the neighbors were highlighted as points or areas perceived as unsafe**; This is aggravated by situations of long waits for services and the perceived unsafety while traveling on foot to them. This situation, which is widespread in informal settlements, is further enhanced in the case of women, as was mentioned during the mapping.
4. **A pattern identified is that in most of the informal settlements surveyed**, the areas perceived as unsafe are those with access to some facilities such as schools, health centers or public transport. This could be related to the dynamics of access to these services, such as accompanying boys or girls to school or getting an early morning shift, activities carried out mostly by women⁶².

Security Perception

The participants identified a large number of unsafe areas and points, both inside and around the informal settlements they inhabit. The main factors associated with the perception of safety respond to the lack of lighting and the existence of lonely streets without the circulation of people. It is worth noting that the survey carried out by Safetipin identifies the level of the lighting variable as adequate, while the low presence of people emerged as one of the factors that could negatively affect the perception of safety.

In general, there is a great adoption of safety strategies carried out individually or through the neighborhood organization, such as traveling in the company of other people. In many cases, they stated that they did not have the possibility of choosing safe routes, but opted for less dangerous. This happens in contrast to the lack of confidence in safety elements and the actions of safety forces, elements also identified by Safetipin as part of dangerous environments.

⁶² In the City of Buenos Aires, the latest time use survey reveals that women spend 5:29 hours a day on these tasks, almost two hours more than men spend daily (CABA Time Use Survey, 2016).

07

Roadmap

It is essential to sustain and broaden the incorporation of the gender perspective into the planning and design of mobility and transportation systems, as the Ministry of Transportation and Public Works has been doing for some years now with the support of its strategic partner CAF.

The Guide to Daily Mobility with a Gender Perspective published in 2021 presents a series of steps to follow for a comprehensive approach in this field. The fundamental instance is the one that constitutes the diagnosis of the territory on which transformations are going to be proposed. This paper addresses for the first time in the City of Buenos Aires the mobility of women in informal settlements in order to understand the difficulties and barriers they encounter in their daily mobility. Here are some possible action points:

Photo 48. Participatory Mapping and Diagnosis on foot Barrio 20.

Develop and deepen other data collection tools

The Safetipin Nite and Safetipin Site applications allowed obtaining data to know the infrastructure, the material urban environment and its use and appropriation. Although these aspects are key to continue with the efforts of public entities to provide quality urban infrastructure and equipment, complementary tools are necessary to have a better understanding of the possible improvements in relation to women's mobility. For example, in some cases the values reached by some variables contrast with the comments obtained during the surveys at bus stops of people who frequent these spaces and with the information collected during the instances of participatory mapping with residents of informal settlements. The participatory workshops were key to delving into the barriers that persist in mobility. Due to the non-representative sample with respect to the universe of residents of informal settlements, it is advisable to identify ways to expand the methodology and its scope in the future and also focus on the mobility of childhoods and diversities.

Improve the supply and frequency of public transport services

Informal settlements are territories that historically were not considered a priority in urban planning processes. Although the informal settlements studied are close to public transport networks, numerous issues related to service access

were recorded: low frequencies -especially at night-, service interruptions and lack of connections to key destinations in the rest of the world. from the city. First and last mile connectivity must be strengthened to improve access and encourage the use of public transport.

The governance of bus services in the City of Buenos Aires is not entirely in the hands of the City Government, the vast majority of aspects of transportation planning and management are in the hands of the National Government. It is important to continue advancing in joint efforts with the competent bodies to improve real accessibility through better monitoring and oversight of the service.

Improve public transport stops

The study showed that there are waiting infrastructures of all kinds. It is necessary to continue transforming and incorporating shelters with seating and signage, integrating the mobility of informal settlements to that of the rest of the City. In addition, universal accessibility to these points must be guaranteed, as well as adequate levels of lighting quality.

Improve access to real-time information on public transport services

It was identified during the study that the possibility of knowing the arrival times of public transport services constitutes not only a fundamental tool for women to plan based on their time, but also a safety strategy to reduce the time they spend exposed in environments that are perceived as unsafe.

It is important to incorporate predictive signaling at stops in informal settlements -which already exist in some parts of the city-, as well as improve the systems together with transport service providers and competent agencies and disseminate the existence of mobile applications that provide this information.

Redesign mobility spaces within and in the vicinity of informal settlements.

With the socio-urban integration processes that are carried out in the informal settlements of the City of Buenos Aires, the immediate urban environment of the informal settlements had significant improvements in terms of lighting, accessibility - condition of the sidewalks and ramps - and quality of the same. . As verified during the study, recently intervened spaces or those with greater lighting, accessibility, and amenities generate greater adherence, which leads to a greater sense of safety for those who live and move around the informal settlement. Work must continue on the design of a quality and accessible urban environment.

Improve visibility

During the study, the positive relationship between the presence of more people and the perception of safety of women when choosing where to travel was revealed. It would be constructive to promote this citizen surveillance in the streets based on campaigns with merchants and neighbors to generate safer preferential routes that connect the main attractors within the informal settlement and the main connection points of the informal settlement with the rest of the city. This point is closely linked to the promotion of mixed uses, an essential condition to encourage pedestrian flow in informal settlements and their surroundings.

Promote community initiatives

Numerous strategies adopted in the informal settlements by the neighbors as a group were recorded during the participatory mapping. From organizing to carry out certain group routes, to installing surveillance cameras. Strengthening these initiatives, appealing to a broader call, as well as favoring dialogue between civil society and the government agencies involved, is a strategy to improve the mobility experience of women in informal settlements.

Dissemination of findings

Disseminate the results achieved with both methodologies in each informal settlement, mainly among the SECTOP and IVC teams, as well as with other relevant government areas -Unit for Gender Equality, Ministry of Security, Secretary of Urban Development, among others. - so that they are immediately incorporated into the design and planning of projects.

Security

Throughout the participatory instances, the perception of unsafety was repeatedly mentioned as one of the main determining factors when planning trips, seeing limited mobility and access to more and better opportunities. Beyond the presence of the police and safety elements such as cameras, the women do not feel safe. It is key to go deeper, beyond the provision of infrastructure, into other types of interventions and strategies that promote the appropriation of public spaces by women, girls and other diversities and work together with the areas involved to improve the perception of safety, which It is a determinant in the mobility of women.

08

Glossary

Editor's N.: The following Glossary corresponds to the glossary prepared for the 2030 Sustainable Mobility Plan by the Undersecretary of Mobility Planning of the Government of the Autonomous City of Buenos Aires.

GLOSSARY ACRONYMS

IVC: City Housing Institute

AFD: French Development Agency

AMBA: Metropolitan Area of Buenos Aires

BADATA: Buenos Aires Data

CABA: Autonomous City of Buenos Aires

CAF: The Development Bank of Latin America and the Caribbean

CTyT: Transit and Transportation Code

CU: Urban Code

ENMODO: Household Mobility Survey

FFCC: Railways

GBA: Gran Buenos Aires

Foto 49. Playón de Chacarita.

GCABA: Government of the Autonomous City of Buenos Aires

MεPeHU: Ministry of Public Space and Urban Hygiene

MTB: Metrobus

PBA: Province of Buenos Aires

PIRU: Comprehensive urbanization project.

SECTOP: Secretary of Transportation and Public Works

STPB: Public Bicycle Transport System

SUBE: Unique Electronic Ticket System

A

Accessibility

Mobility accessibility: Different conditions that allow the movement of people to carry out activities or obtain services. It contemplates both the possibility of making a trip and the ease of making the journey to the destination. The level of accessibility depends on several factors, among which the transport offer (quantity and diversity), the available infrastructure, network connectivity and the possibility of payment stand out.

Universal accessibility: Condition that must be met by all environments, products and services in order to guarantee their access safely and in the most autonomous way possible for all people, under equal conditions. Therefore, it is a facilitating condition in the interaction between the subject and the environment, in an inclusive context that contemplates the heterogeneity that characterizes the conformation of human groups.

Economic accessibility: Economic conditions that allow accessibility to transport. Transportation represents one of the main household expenses and, for this reason, the fare policy has a central impact on its affordability.

Active mobility

Ability to mobilize using the body as a motor, that is, moving on foot, in a wheelchair, by bicycle, on skates or skateboards, etc.

Affordability

In the case of transport, it refers to how affordable the transport fares are for the majority of citizens. The number of trips is usually measured as a percentage of the minimum wage, etc.

Autonomy

Have the capacity and concrete conditions to freely make decisions that affect their lives. It contemplates economic autonomy, in decision-making, physical and their interrelation (OIG, 2019).

B

Bike path

Spaces located on the sidewalk for the exclusive circulation of bicycles, marked by horizontal and vertical demarcation.

Bikeway

Part of the road network intended for the exclusive circulation of bicycles. This is generally delimited from the rest of the road with paint and/or some separating physical element.

C

Careful

Goods and activities that allow people to feed themselves, educate themselves, be healthy and live in a suitable habitat. It encompasses both material care that implies a job, financial care that implies a cost, and psychological care that implies an affective bond (Batthyany, 2004).

Connectivity

Ability to place goods, services, information and people in the required spaces, in accordance with the demands of the different areas of impact of national interest, efficiently, that is, by minimizing costs and travel times and optimizing of the solution chosen among different alternatives that can fulfill this function (Rozas, Jaimurzina and Pérez, 2015).

D

Distribution routes

They are classified into main and complementary. The main ones predominantly channel internal long-distance movements (through traffic), provide connection to points not reached by trunk roads and distribute urban and interurban traffic to complementary and local distribution roads. The complementary ones channel, predominantly, internal movements of intermediate distance and distribute the traffic from the main distributors to the local roads.

E

Eco-bike

Public Bicycle Transport System with automatic stations 24 hours a day, every day of the year.

G

Guided transportation

That transport that uses a guide rail where it circulates, for example the subways, the railway, the trolleybus, etc.

H

Hike

The walk is the mode of transport carried out by the pedestrian and is part of active mobility. In the transport system, walking has a fundamental role, being responsible for the integration between the different services or modes. Positive externalities are attributed to it in terms of health, safety, environment, culture and local economy.

I

Informal settlements

Vulnerable informal settlements in which at least 8 grouped or contiguous families live, where more than half of the population does not have title to land ownership or regular access to two or more basic services (red of running water, electricity network with home meter and/or sewer network).

Intermodality

It is about the integration for the connection between the different means of transport that would facilitate the use of more efficient and collective means for people to optimize more fluid routes and destinations. It seeks to reduce the use of private vehicles and stimulates public transport and non-motorized transport.

Intermodal node

They are spaces where people circulate to carry out modal exchanges. These can be organized or spontaneous. These articulation spaces play an essential role, since they allow the network to be strengthened, take better advantage of the advantages offered by each mode and achieve economies of scale when designing solutions. The nodes, especially if they offer services adapted to the needs of the users, can also act as integrators and economic and social activators of the urban space where they are located. In the city they were classified into three categories: Regional, Metropolitan and Informal Settlements.

J

Journey

Movements made by a person to go from one point (origin) to another (destination) to carry out an activity (reason for travel). A trip can have several stages using one or several modes (walk-walk or walk-subway, for example).

L

Last Mille

In urban logistics, the last mile or last kilometer is understood as the trip made by a product to its final destination. The rise of electronic commerce changed the structure of this logistics and requires specific regulations to limit the negative impacts, particularly on the environment and road safety.

Local roads

They integrate the streets of access or local service, the passages, the streets of coexistence and the pedestrian streets. They predominantly channel short internal movements of a local nature with little or no through traffic (access to frontage). A particular characteristic of the distribution and local networks of the CABA is their mostly one-way operation.

m

Main roads

(highways and express avenues)

These predominantly channel long-distance metropolitan and interurban movements. They fulfill functions of connection and distribution of incoming, outgoing or through trips that cross the City without stopping.

Metrobus

Exclusive circulation infrastructure and bus stops for ascents and descents, physically segregated from the general circulation, which makes it possible to reduce travel times and improve the comfort and accessibility of the stops. Located on trunk roads of the City, the metrobuses connect the main transfer centers, promoting intermodality. The system has great growth potential, especially in transversal corridors and metropolitan corridors.

Mobility

Understood here as a basic and generic right of all human beings, as a condition and means of access to other fundamental rights. It is essential to make use of most of the goods and services; conditions access to housing, work, education, culture, and personal and collective development.

Mobility pattern

Orderly succession of trips built following a range of destination needs. The sequence is the repetition of the pattern. They are usually cataloged in pairs such as "Work - Study", "Care - Work", "Worship and family- Study", "Care - Study", or in longer chains depending on the daily activities of each individual. In South American cities, women, because they are in charge of more domestic or care activities, tend to have more complex travel patterns than men.

Modal choice

Conscious or unconscious choice of mode of transport to make a trip. It is related to multiple factors, some individual, linked to the geographical situation, the socioeconomic level of the households and personal preferences or possibilities; other external ones, such as the offer, the predictability, the level of service, the costs of each one of them, among others.

Modes of transport

They correspond to all the ways in which people move. They can be classified into public-collective and private. Also in motorized and non-motorized modes of transport. In the non-motorized ones, active displacements in the modalities of walking and cycling should be considered.

P

People with reduced mobility (PRM)

They are those people who have permanently or temporarily limited their ability to move without external help. It considers both those users with a disability related to mobility (paraplegia, tetraplegia, bone problems, etc.) and those who have difficulties for other reasons (elderly, pregnant, people with small children, etc.) (ODECU and SE-TRAM, 2015).

Public transport

It covers formal urban transportation, including buses, subway, metro, metropolitan trains, Metrobus, shared bicycle system, and taxis. It is distinguished from the automobile and motorcycles that constitute private transport.

R

Remises

Rental car not subject to a predetermined itinerary that makes door-to-door trips, with a fixed rate for the total route, used for full occupancy of the vehicle with prior reservation. Unlike the taxi, they do not have a distinctive color, do not have a meter and do not take or leave passengers on public roads.

S

Suburban/ Metropolitan area

Región que comprende una serie de aglomerados urbanos que, a partir de un paulatino crecimiento y en ausencia de regulación que lo contenga, se fusionan.

T

Taxis

Individual service regulated by the State. Contrary to remises, busy taxis have the possibility of circulating in exclusive bus lanes, saving travel time at peak hours. This service works in the traditional way, with stops on request on public roads, through Radiotaxi services (phone calls) or application solutions.

Transshipment center

Place where modal exchanges are concentrated. In the City, decree 530/007 formally identifies the main transshipment centers (Constitución, Retiro, Flores, Federico Lacroze, Liniers, Alem, among others) with the aim of making transfers more efficient and improving their quality conditions.

Travel stages

It is the stretch of travel that is carried out in a mode of transport. A trip can have several stages using one or several modes (walk-walk or walk-subway, for example).

u

Urban barriers

Obstacles that make vehicular or pedestrian circulation impossible or complex. This may be due to physical issues (large properties, large public spaces with limited access and road infrastructure) or immaterial (lack of maintenance, poor lighting, unsafety, etc.). When barriers accumulate, they can disconnect an informal settlement from the rest of the city. Among the most serious but least visible impacts, the maintenance or increase of the social and gender gap can be mentioned.

w

Walkability

It is an indicator of social integration and urban dynamism. People walking through the streets often give vitality and safety to a city. Its presence has a direct relationship with the use of public space and with the transitions between spaces of permanence and spaces of transit. An adequate walkability depends, among other factors, on the degree of accessibility, the type of land use, the level or perception of road and citizen safety, the patrimonial or tourist potential of an area.

09

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10

Annexes



Photo 51.Barrio 20.

Safetipin Collection Tokens

Collection Data	
Informal settlement	Barrio 15
Daytime Collection	12-16-2021 / 4:10 p.m. to 5:50 p.m.
Night Collection	12-17-2021 / 10:10 p.m. to midnight
Km collected (average)	26
Audited stops	4
Collected Testimonials	21
No. Photos Daytime	1.190
Nocturnal photos	750

Table 10. Data from the daytime and nighttime Safetipin collection from Barrio 15.

Collection Data	
Informal settlement	Barrio 20
Daytime Collection	01-12-2021 / 6:16 p.m. to 7:53 p.m.
Night Collection	01-12-2021 / 9:45 p.m. to 10:12 p.m.
Km collected (average)	14,5
Audited stops	4
Collected Testimonials	17
No. Photos Daytime	244
Nocturnal photos	624

Table 11. Data from the daytime and nighttime Safetipin collection from Barrio 20.

Collection Data	
Informal settlement	Barrio 21-24
Daytime Collection	11-23-2021 / 5:27 p.m. to 6:19 p.m.
Night Collection	11-23-2021 / 8:08 p.m. to 9:05 p.m.
Km collected (average)	26
Audited stops	4
Collected Testimonials	11
No. Photos Daytime	697
Nocturnal photos	641

Table 12. Data from the daytime and nighttime Safetipin collection from Barrio 21-24.

Collection Data	
Informal settlement	Barrio Lamadrid
Daytime Collection	12-21-2021 / 6:53 p.m. to 7:06 p.m.
Night Collection	12-21-2021 / 8:37 p.m. to 8:50 p.m.
Km collected (average)	3
Audited stops	4
Collected Testimonials	12
No. Photos Daytime	113
Nocturnal photos	119

Table 13. Data from the daytime and nighttime Safetipin collection from Barrio Lamadrid.

Collection Data	
Informal settlement	Fraga - Playón de Chacarita
Daytime Collection	02-12-2021 / 5:52 p.m. to 6:33 p.m.
Night Collection	11-02-2021 / 8:30 p.m. to 9:28 p.m.
Km collected (average)	6.50
Audited stops	4
Collected Testimonials	22
No. Photos Daytime	390
Nocturnal photos	52

Table 14. Data from the Safetipin day and night collection from the Playón neighborhood of Chacarita.

Collection Data	
Informal settlement	Barrio Ramón Carrillo
Daytime Collection	11-16-2021 / 5:10 p.m. to 6:40 p.m.
Night Collection	24-11-2021 / 6:00 p.m. to 8:05 p.m.
Km collected (average)	20
Audited stops	4
Collected Testimonials	22
No. Photos Daytime	288
Nocturnal photos	457

Table 15. Data from the Safetipin daytime and nighttime collection of the 'Barrio Ramón Carrillo'.

Collection Data	
Informal settlement	Rodrigo Bueno
Daytime Collection	11-30-2021 / 7:12 p.m. to 7:45 p.m.
Night Collection	11-30-2021 / 8:30 p.m. to 9:05 p.m.
Km collected (average)	7
Audited stops	4
Collected Testimonials	12
No. Photos Daytime	384
Nocturnal photos	367

Table 16. Data from the Safetipin day and night collection from Barrio Rodrigo Bueno.

Collection Data	
Informal settlement	Padre Rodolfo Ricciardelli
Daytime Collection	07-12-2021 / 5:52 p.m. to 6:48 p.m.
Night Collection	07-12-2021 / 8:28 p.m. to 9:15 p.m.
Km collected (average)	15
Audited stops	4
Collected Testimonials	21
No. Photos Daytime	695
Nocturnal photos	608

Table 17. Safetipin day and night collection data from the 'Barrio Padre Rodolfo Ricciardelli'.

Collection of images by Safetipin

n°	Image Collection Date	Informal Settlement Name	Day (images)	Day (km)	Night (images)	Night (km)
1	23-Nov-21	Barrio 21-24	697	16.1 Km	641	16.5 Km
2	24-Nov-21	Ramón Carrillo	912	18.2 Km	847	19.1 Km
3	30-Nov-21	Rodrigo Bueno	384	7.65 Km	367	7.97 Km
4	01-Dic-21	Barrio 20	887	15.3 Km	624	13.7 Km
5	02-Dic-21	Playón de Chacarita	390	4.7 Km	288	4.5 Km
6	08-Dic-21	Barrio 1-11-14	699	15.93 Km	608	16.5 Km
7	16-Dic-21, 4-Feb-22	Barrio 15	1102	25.1 Km	1216	27.2 Km
8	21-Dic	Barrio Lamadrid	133	3.07 Km	119	2.97 Km
Total			5204		4710	

Table 18. Collection of images by Safetipin.

Rubric for Grading Parameters (Bus Stops)					
Clasificación	1	2	3	4	5
Lightning	None	It does not work	Little	Enough	Bright
	No street or other lights.	There is lighting but it doesn't work (turned off/vandalized).	When the lights can be seen but not clearly.	Lighting allows clear visibility.	The area is very well lit.
Openness	Zero visibility	Poor visibility	Partially visible	Quite conspicuous	Full visibility
	The corners or obstacles do not allow the visibility of the environment and the general panorama.	It allows an overview but the nearby area and surroundings are not clearly seen.	You can see a little ahead and the surroundings.	You can see in almost all directions.	You can see clearly in all directions.
Visibility	They do not	Few look	Some look	Many look	Highly visible
	No window or entrance to shops or residences overlooks this point.	Fewer than 5 windows or entrances face the point.	Between 5-10 windows or entrances face the point.	More than 10 windows or entrances face the point.	More than 20 windows or entrances face the point.
Security presence	None	Minimum	Moderate	Good	Maximum
	There are no security guards or police nearby.	Private security is available nearby.	The neighborhood seems safe or has police stations.	Police available at call distance.	Police personnel can be seen.
Pathway	None	Poor	Fair	Good	Excellent
	There is no path available (non-existent pavement).	There are roads but they are in very poor condition (broken sidewalks, no tiles, holes).	You can walk but it is not possible to run as there are obstacles.	Easy to walk briskly or run. Pavement free of obstacles and well maintained.	Good accessibility in a broad sense: ramps for people with reduced mobility instead of steps or side streets.
Availability of public transport	Not available	From distance	Near	Very close	Very accessible
	Walking 1,200 meters or more you can find some means of transportation and a stop.	Walking 800 meters you can find some means of transport and a stop.	Walking a distance between 400 and 800 meters you can find transport and stop.	Walking less than 400 meters you can find public transport and a stop.	Walking less than 100 meters you can find a transport stop.
Crowdedness	Desert	Few people	Some people	A lot of people	A crowd of people
	No one in sight.	Less than 5 people in sight.	5-10 people in sight.	10-20 people in sight.	More than 20 people in sight.
Presence of women	no people	There is no diversity	there is little diversity	There is some diversity	there is diversity
	No one in sight.	Men only.	Most are men, some women or children.	Men, women and children almost equal.	More women and children than men.

Table 19. Rubric for score parameters.

Survey and Audit Form at Public Transport Stops

Collection Data	
Informal settlement	Barrio 15
Daytime Collection	12-16-2021 / 4:10 p.m. to 5:50 p.m.
Night Collection	12-17-2021 / 10:10 p.m. to midnight
Km collected (average)	26
Audited stops	4
Collected Testimonials	21
No. Photos Daytime	1.190
Nocturnal photos	750

Collection Data	
Informal settlement	Barrio 20
Daytime Collection	01-12-2021 / 6:16 p.m. to 7:53 p.m.
Night Collection	01-12-2021 / 9:45 p.m. to 10:12 p.m.
Km collected (average)	14,5
Audited stops	4
Collected Testimonials	17
No. Photos Daytime	244
Nocturnal photos	624

Table 20. Survey form and audits at public transport stops.

Collection Data	
Informal settlement	Barrio 15
Daytime Collection	12-16-2021 / 4:10 p.m. to 5:50 p.m.
Night Collection	12-17-2021 / 10:10 p.m. to midnight
Km collected (average)	26
Audited stops	4
Collected Testimonials	21
No. Photos Daytime	1.190
Nocturnal photos	750

Collection Data	
Informal settlement	Barrio 20
Daytime Collection	01-12-2021 / 6:16 p.m. to 7:53 p.m.
Night Collection	01-12-2021 / 9:45 p.m. to 10:12 p.m.
Km collected (average)	14,5
Audited stops	4
Collected Testimonials	17
No. Photos Daytime	244
Nocturnal photos	624

Audit Form at Public Transport Stops

Collection Data	
Informal settlement	Barrio 15
Daytime Collection	12-16-2021 / 4:10 p.m. to 5:50 p.m.
Night Collection	12-17-2021 / 10:10 p.m. to midnight
Km collected (average)	26
Audited stops	4
Collected Testimonials	21
No. Photos Daytime	1.190
Nocturnal photos	750

Collection Data	
Informal settlement	Barrio 20
Daytime Collection	01-12-2021 / 6:16 p.m. to 7:53 p.m.
Night Collection	01-12-2021 / 9:45 p.m. to 10:12 p.m.
Km collected (average)	14,5
Audited stops	4
Collected Testimonials	17
No. Photos Daytime	244
Nocturnal photos	624

Table 21. Audit form at public transport stops.

Collection Data	
Informal settlement	Barrio 15
Daytime Collection	12-16-2021 / 4:10 p.m. to 5:50 p.m.
Night Collection	12-17-2021 / 10:10 p.m. to midnight
Km collected (average)	26
Audited stops	4
Collected Testimonials	21
No. Photos Daytime	1.190
Nocturnal photos	750

Collection Data	
Informal settlement	Barrio 20
Daytime Collection	01-12-2021 / 6:16 p.m. to 7:53 p.m.
Night Collection	01-12-2021 / 9:45 p.m. to 10:12 p.m.
Km collected (average)	14,5
Audited stops	4
Collected Testimonials	17
No. Photos Daytime	244
Nocturnal photos	624

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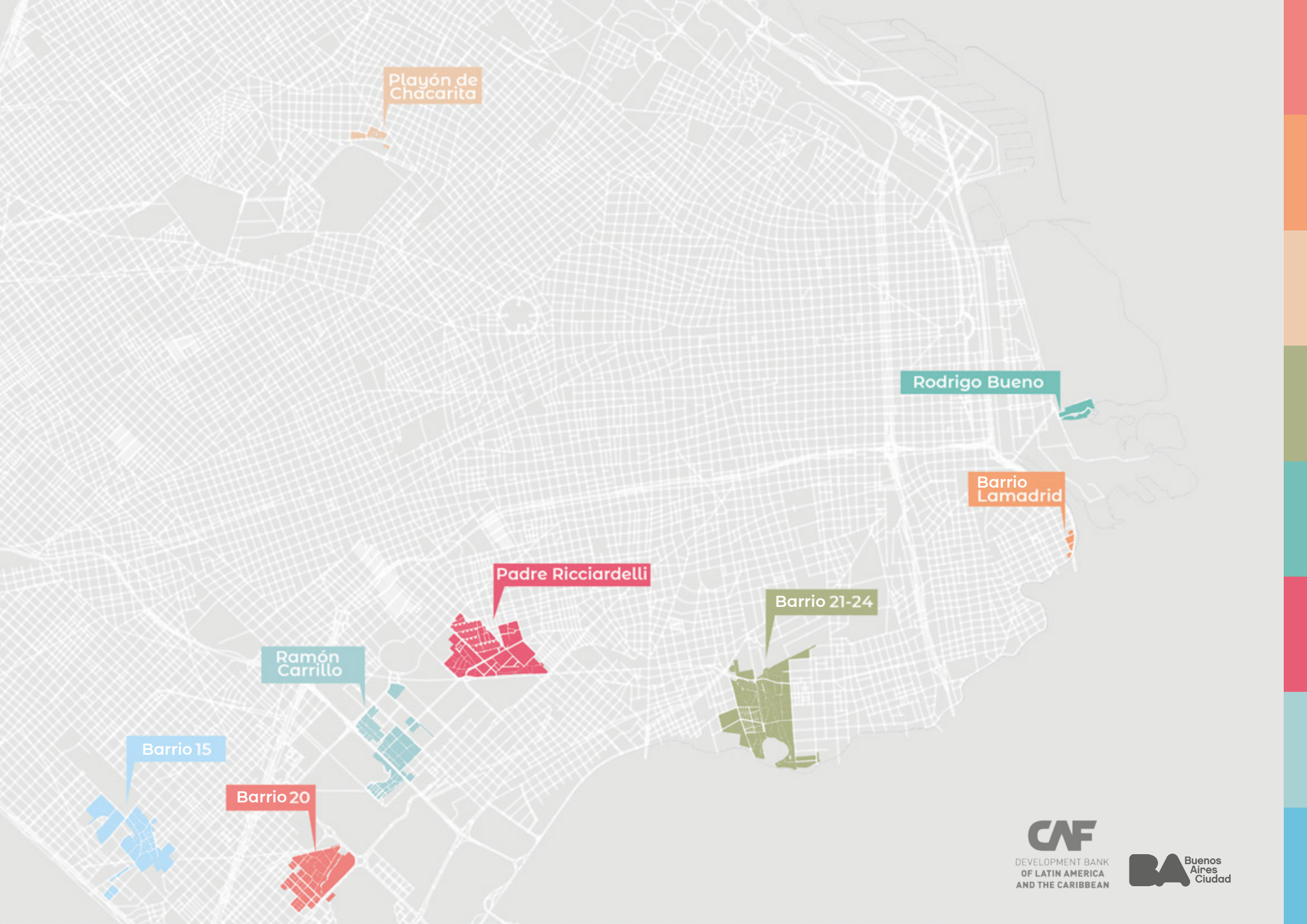
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Playón de Chacarita

Rodrigo Bueno

Barrio Lamadrid

Padre Ricciardelli

Barrio 21-24

Ramón Carrillo

Barrio 15

Barrio 20