



# ALESSANDRINO

THE THREAT OF PROMISE:  
TRANSPORTATION AND CONNECTIVITY  
IN A PERIPHERAL NEIGHBORHOOD

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# ABSTRACT

Alessandrino is a peripheral neighborhood of Rome located about ten kilometers east of the city center, inside the Grande Raccordo Anulare (GRA), along Via Casilina. This study of the *quartiere* combines both qualitative and quantitative analysis in order to examine the current character of the neighborhood and major changes influencing the area. This analysis also identifies opportunities for future development, especially taking into consideration the presence of the new Metro C line in the neighborhood, as well as proposals from the Comune di Roma for construction of new public spaces. Originally used as farmland, Alessandrino grew into a substantial Roman peripheral neighborhood in the 1950s and 1960s which then continued to develop until present day, transforming from an occupied area to a formalized neighborhood. Compared to surrounding peripheral neighborhoods Alessandrino is unique in that it has substantial public and private services and a strong neighborhood identity. Alessandrino is a community with shops, grocery stores, and schools. However the neighborhood is also facing issues related to street infrastructure, lost space, and poor connectivity. With complex demographic changes in recent years it seems Alessandrino is entering a new phase in identity as well as development. There are currently Comune di Roma plans for public space renovation in and around Alessandrino as well as ATAC plans for public transit changes. We conducted resident interviews, classified street and building typologies of the area and analyzed 2001 and 2011 Rome ISTAT data all in order to identify the strengths, weaknesses, threats and opportunities in urban development for Alessandrino. Appendices, found at the end of this book, offer supplementary materials that aided in the study of our neighborhood, including Lynch maps, resident interview transcripts, and an extensive case study of the Metro C line. After becoming familiar with the neighborhood and identifying opportunities and challenges we include a 'vision' for the future in which the themes and conclusions of our study can be incorporated into the current plans for redevelopment in Alessandrino.



# METROPOLITAN CONTEXT

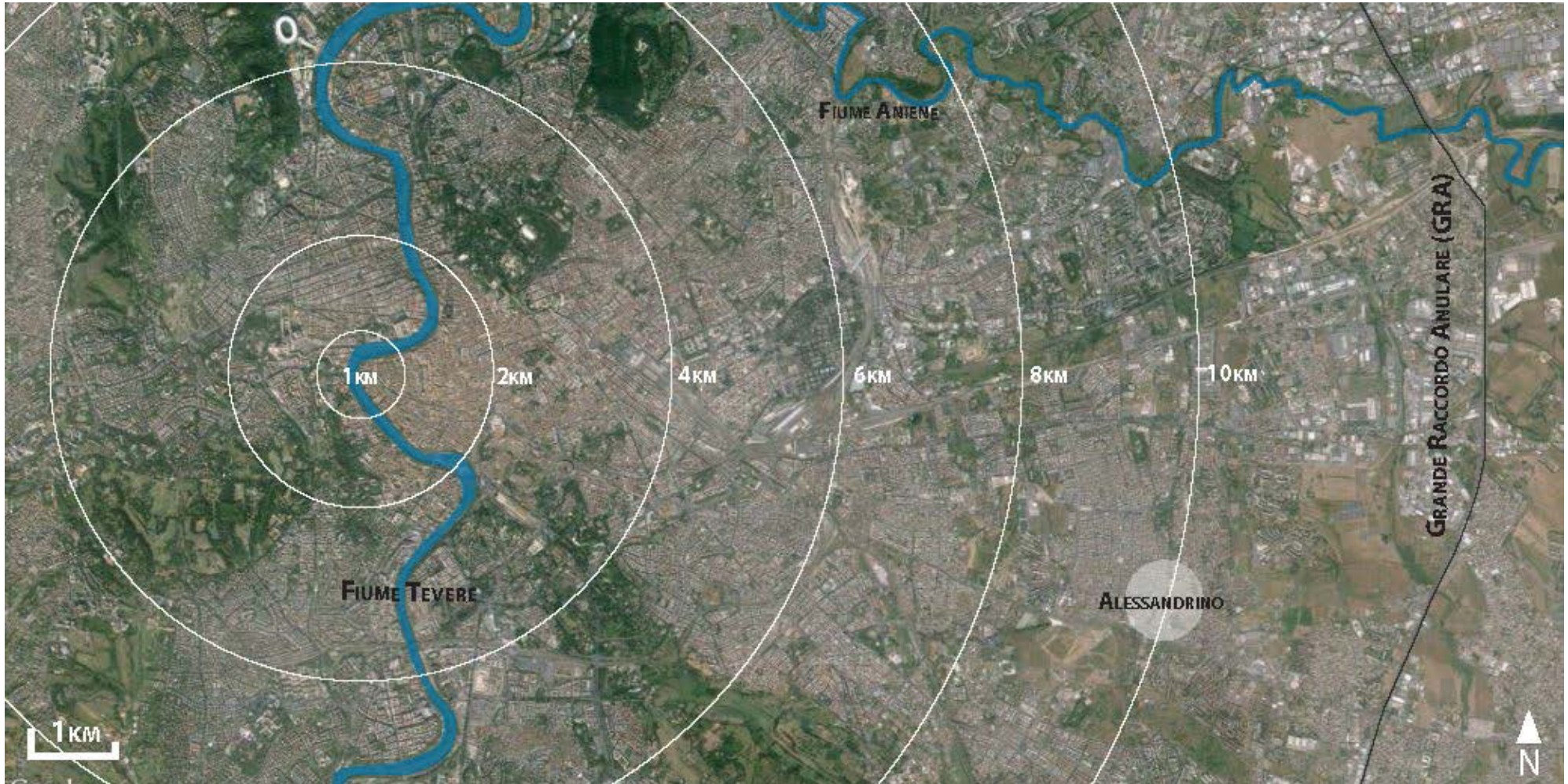


Figure 1. Alessandrino in relation to the metropolitan area of Rome



# REGIONAL CONTEXT



Figure 2. Alessandrino and surrounding neighborhoods in the Eastern periphery



# AREA OF STUDY



Our primary study area is defined by Viale Alessandrino, which runs through the core of the area. It is bounded on the north by the Alessandrino Aqueduct on Via degli Olmi and on the south by Via Casilina. The division between Alessandrino and Parco Tor Tre Teste defines the eastern edge, while the western edge ends at Via dei Salici. Our secondary area focuses on Piazza Mirti in Centocelle, neighbor to the west; Quarticciolo, north of the aqueduct; and Parco Tor Tre Teste. Piazza Mirti in Centocelle is a focus of construction and renovation for the Metro C line, which will have an impact on transportation in Alessandrino. Additionally, residents of Alessandrino use many services located in Centocelle.

Figure 3. Primary and Secondary study areas in the Alessandrino neighborhood



# HISTORICAL CONTEXT



Figure 4. Viale delle Mandriole 1960s, along Alessandrino Aqueduct



## EARLY ORIGINS AND CREATION OF LANDMARKS: AQUEDUCTS AND MEDIEVAL TOWERS

Under the reign of Emperor Settimio Severo (193-211 A.D), Rome began developing eastward, including the creation of a military center called *Centum-cella* (known today as Centocelle, just west of Alessandrino). The area boasts many significant monuments from this early history, including the mausoleum of Elena Augusta (Saint Helena), mother of Emperor Constantine the Great (312-337 A.D), and medieval watchtowers built by noble families during times of war; these include Tor Tre Teste, Torre Alessandrina, Torre Spacata, and Torre Maura (MASCI, 1990).



Figure 5. Mausoleum of Saint Helena in Torpignattara

Alessandrino's namesake originates from its location in the district of Alexandria, and the ancient aqueduct built by Emperor Alexander Severus in 226 AD. Near the barracks of the Roman Cavalry there was a village called *Vicus Alexandri*, where Viale Alessandrino is located today. This settlement was located between Via Labicana (today Via Casilina) and the Alessandrino aqueduct. The boundaries of this village are the approximate boundaries of our primary study area today.

These early occupations and construction established landmarks and lasting infrastructure in what would become Alessandrino. The most impactful and readily identifiable of these structures is the Alessandrino aqueduct which has gone through countless renovations and reuses, from main water source for Rome to skeleton for informal housing development.

## BORGATA ALESSANDRINA: GROWTH IN THE COUNTRYSIDE

In the beginning of the 20th century Alessandrino and the surrounding eastern border of Rome, known as the *Agro Romano*, was largely uninhabited except for shepherds from the Apennine Mountains seeking green pastures for their herds. The area was largely rural with scattered monuments and infrastructure including Torre di Centocelle, the Alessandrino aqueduct, and the Saint Helena mausoleum.



Figure 6. Alessandrino Aqueduct in 1940's

Ownership of the area during this time was split between the Torlonia family (I Principi Torlonia), the Italian state and the Capitol of Santa Maria Maggiore.

The first significant settlement of Alessandrino began in 1918 when the Torlonia family (Principi Torlonia) began to sell lots from their estate, which at the time was a substantial farm (MASCI, 1990).

The Borgata Alessandrina developed when in 1924 the Torlonia family again sold land to two building cooperatives. After subdividing the land the cooperatives tasked Domenico Milone to trace out the streets and lots. As a result of this new development the first true settlements arose as laborers moved to the work site, including Domenico Milone. It is recorded that Milone moved with his family into a prefabricated wood 'baracca' near the aqueduct (MASCI, 1990). Thus began the early pattern of settlement and self-built construction in Alessandrino.

The early roads were not named, but rather were given provisional numbers to facilitate orientation. The sale of lots was advertised in local newspapers and families moved in

quickly and constructed provisional houses. The original street structure established by Milone and these early settlements remain today.

While streets were traced out, the area had minimal urban infrastructure and lacked access to basic services, including food and water. In response, the community organized small family poultry farms, cultivated the land, and dug wells, beginning the agricultural tradition of the neighborhood.

In 1932 the majority of the streets were given botanically inspired names, a nod to the agricultural tradition of the neighborhood. Via del Campo is a reminder of the agricultural fields previously making up the *Afro Romano*, while Viale

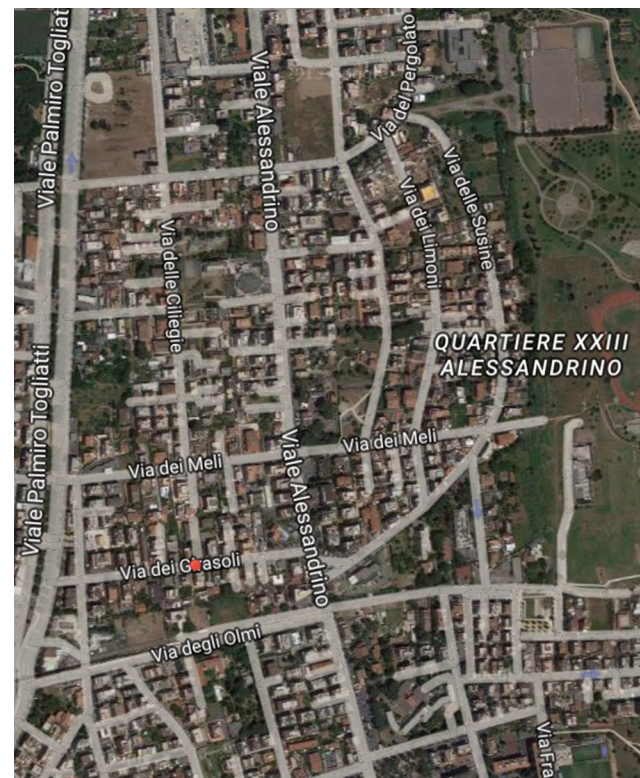
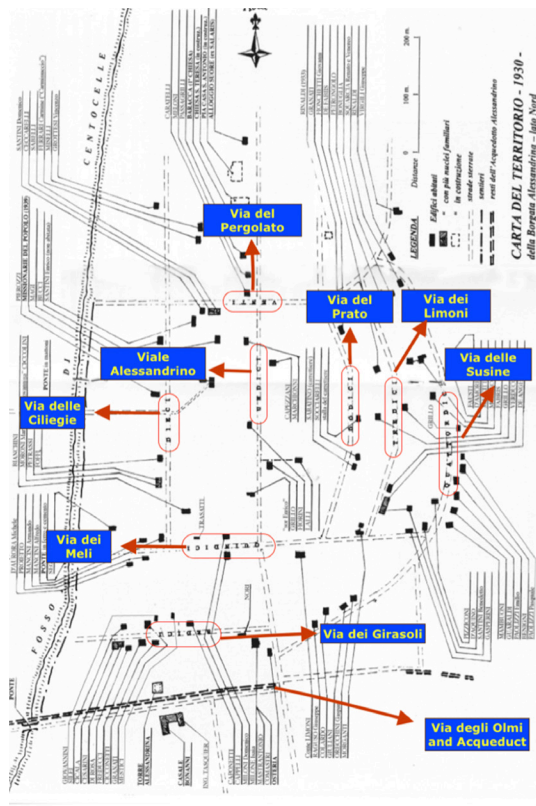


Figure 7. Maps comparing the initial street structure, designed by Domenico Milone with the current street structure.



Alessandrino was named after the aqueduct.

Early transportation between Alessandrino and the city center was difficult — the single tram station was more than a kilometer away, reachable via makeshift bridges and dirt roads. However this connection between peripheral area and city center meant that residents of the community had a mode of transportation to reach jobs outside of the neighborhood, and presumably in the city center.

The development of Alessandrino was distinct from neighboring peripheral areas, for example Quarticciolo which was formed by the Italian state to house families displaced by restructuring in the city center (MASCI, 1990). Quarticciolo was a comprehensively planned neighborhood equipped with services while Alessandrino was largely self-built.

## 1950S POST-WAR BOOM

The Alessandrino population increased dramatically in the post World War II Reconstruction period, most notably between 1951 and 1961. During this time many many new inhabitants collected building materials from the remnants of the old military barracks nearby and constructed new homes or renovated existing structures.

Despite the tracing out of formal plots and streets earlier in the 1920s and 1930s the aqueduct's arches were used, during World War II and from the 1950s onwards, by the homeless as shelter and spaces for shacks (*baracche*). These remained until the 1970s when they were cleared

for restoration of the aqueduct (Comune di Roma).

The 1950s proved to be the time during which Alessandrino really took form as more and more families settled in the area and constructed homes. In the 1960s there was accelerated and spontaneous development that changed the fabric of the neighborhood in a few short years. In his book on the development of Rome, scholar John Agnew describes this 1960s boom which was characterized by the construction of *villini*. The construction of *villini* rose from 14 percent of new construction in 1948-1951 to 34 percent between 1961-1964 (Agnew, 1995). These years are also considered as the time of “the rise of the *palazzine*” due to the popularization and construction of this building type during the 1960s in the eastern periphery and *Agro Romano*.



Figure 8. San Giustino church on Viale Alessandrino in 1980

“IN THE 20S AND 30S THIS AREA WAS A FIELD, THE CHURCH OF SAN GIUSTINO WAS CONSTRUCTED IN 1953 AND AFTER THIS PERIOD THERE WAS ACCELERATED URBANIZATION” – DON STEFANO, PRIEST OF SAN GIUSTINO CHURCH.

# TIMELINE

EARLY HISTORY :  
AQUEDUCTS AND  
MEDIEVAL TOWERS



226 AD Emperor Alexander Severus builds the aqueduct



1920S-30S: BORGATA ALESSANDRINA

1924 Torlonia family  
sells land to two  
building cooperatives  
that lot and fence  
the land in order to  
develop it.

1932: the majority  
of the streets in  
Alessandrino given  
botanically inspired  
names

1950S: POST WAR BOOM  
Rise in villini construction



1953: San Giustino Church  
constructed along Viale  
Alessandrino



1960S: RISE OF THE PALAZZINE



During this time the commune approved the renaming of Via della Borgate Alessandrina to Viale Alessandrino to remove the association with stigmatized "borgata"

LOOKING TO THE FUTURE

Comune di Roma Plans to redevelop Alessandrino: Strengthen Viale Alessandrino as a major connecting axis, and redevelop the aqueduct along Via degli Olmi as a green corridor.

2005: PIAZZA ROMANA DELL' ACQUEDOTTO ALESSANDRINO





# METHODOLOGY

## OVERVIEW

Our neighborhood study involved four distinct components: Statistical Analysis, Street Surveys, Resident Interviews, and Transportation Analysis. Using these different methodologies our five person group was able to gain an understanding of the history, the character and new trends in Alessandrino.

## STREET SURVEY

The Street surveys served to understand the built environment of the area as well as historical development patterns. We first defined a study area and mapped the streets, parcels and open spaces which would be the focus of our analysis. In order to cover the extent of our primary study area we divided the study area into sixteen sections based on block morphology. We then divided into two groups and visited these smaller sections within the neighborhood. As we walked through the neighborhood we recorded data on several main subject areas (see Appendix A. Neighborhood Survey Form).

For Building Typology we recorded material, setback, and architectural features and character; specifically number of floors and types of balconies. For Building and Parcel Use we observed each plot and used the general definitions: commercial,



Figure 9. Private property marker on a sidewalk in the neighborhood

residential, vacant, or community use (churches, schools, theater, recreation center, etc.)

For Road Typology we took into consideration amount of traffic, amount of parking, direction, and lane size. When observing Sidewalk Typology and Pedestrian Safety we recorded material, level of maintenance, continuity, and obstructions.

In order for each student to gain a complete understanding and perspective of the neighborhood each of us analyzed and recorded data for each subject area.

## STATISTICAL ANALYSIS

In order to establish a deeper understanding of Alessandrino, we used Rome ISTAT data for the years 2001 and 2011. Using Quantum GIS (QGIS) software our Italian speaking group members first translated the attribute table data information from Italian to English and then selected the data for census tracts contained in our primary and secondary study areas. Our goal was to establish an understanding of changes and continuities in the community over time and to then take that information and compare it to Rome as a whole. We identified several key sections of the ISTAT data which are essential for understanding Alessandrino: Immigrant Population as a Percentage of the Whole, Sex Ratio, Employment and Education, and Age Distribution.



Figure 10. A view of the southern edge of Alessandrino, looking south to Torre Spaccata

## RESIDENT INTERVIEWS

Our resident interviews consisted of informal encounters with residents on the street and three formal meetings with stakeholders in the community. Each time we went into the neighborhood we were accompanied by an Italian speaking professor or teaching assistant who assisted with conversations and translation. We drafted a questionnaire (Appendix B. Resident Questionnaire) which served as a guide for beginning informal interview on the street, after which we would ask follow-up questions to what the resident had explained or expressed. During these informal interviews we would also ask the resident to draw a Lynch Map on a letter size piece of paper. These drawings, based on Kevin Lynch's theory from his book *The Image of the City*, capture how residents perceive and experience their neighborhood and helped us better orient our study focus. We then set up formal meetings with a Priest from the local parish, the director of the Elementary School and an actor from a local theater operating in conjunction with the parish. Rather than record these interviews and then translate transcripts two of our team members who understand Italian took notes during the interviews and then summarized main themes and facts gathered during the interviews.

## TRANSPORTATION ANALYSIS

We combined qualitative and quantitative data in order to understand the current and future state of transportation to and within Alessandrino and bordering peripheral neighborhoods. We personally rode the various transit lines throughout the area and timed these routes. We also gathered a lot of anecdotal information about ridership and perceptions of public transit during our interviews. Specific information about funding, infrastructure, maintenance, public transit trends in Rome and future plans for development in our study area were gathered from scholarly articles, ATAC (the company responsible for Rome's public transit), and news sources.

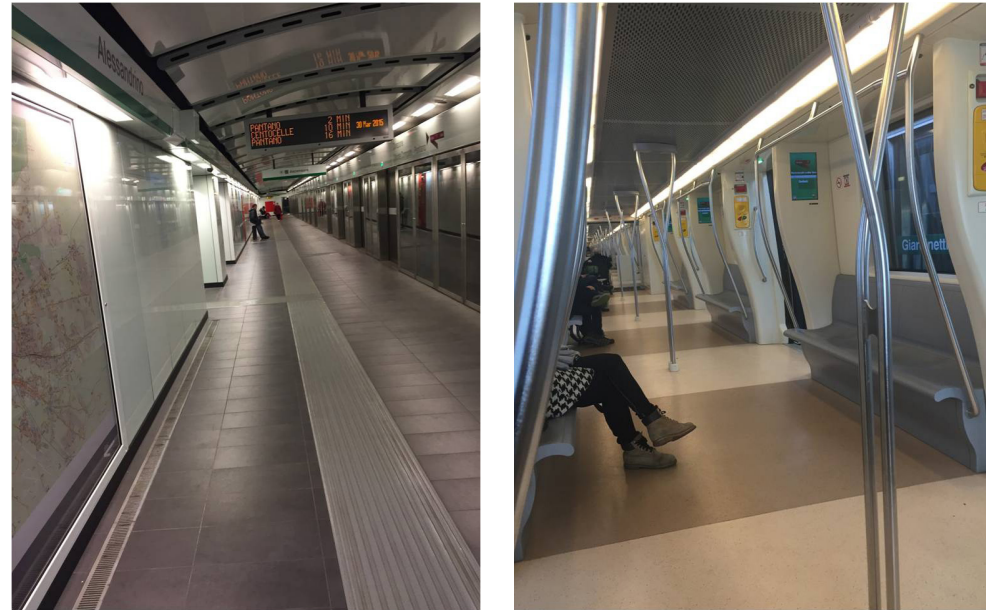


Figure 11. Photos of Metro C line taken during our transportation research

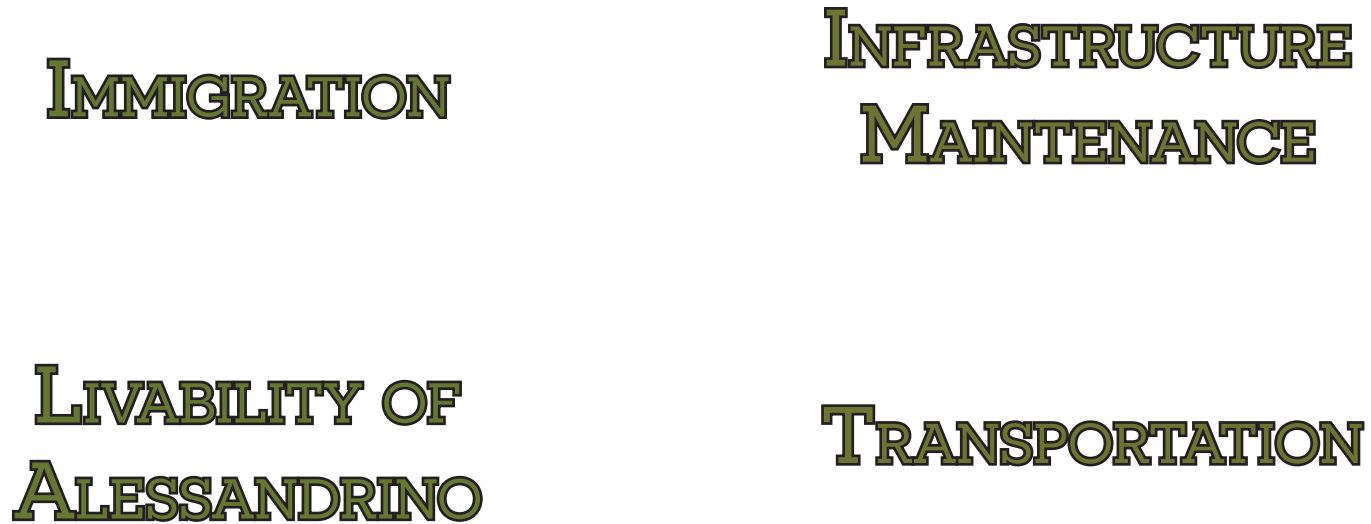


# INTERVIEWS AND LYNCH MAPS

## INTERVIEWS

Interviews were an invaluable piece of our neighborhood study which aided us in identifying main themes and issues in the area as well as reinforce our observations from street surveys. Detailed profiles of our interviewees and summaries of responses, as well as our questionnaire for interviews can be found in Appendix B. and Appendix C. When conducting informal interviews with residents on the street we asked what residents liked about their community and what aspects they would change.

Some main topics which arose in all of our conversations:



We found that these topics came up throughout our study and the interviews enriched every section of our analysis. Throughout the following neighborhood study we include information and quotes from these interviews which informed our understanding of the neighborhood and opportunities for the future.

## LYNCH MAPS

The Lynch maps we collected were effective in providing insight into the mental maps of community members, essential for the consideration of transit. Though we did not give any direct instructions for the boundaries or contents of the maps, the three that we collected showed similar patterns of movement and spatial reasoning. We describe our findings using Kevin Lynch's (1960) language of edges, nodes, paths, landmarks, and districts.

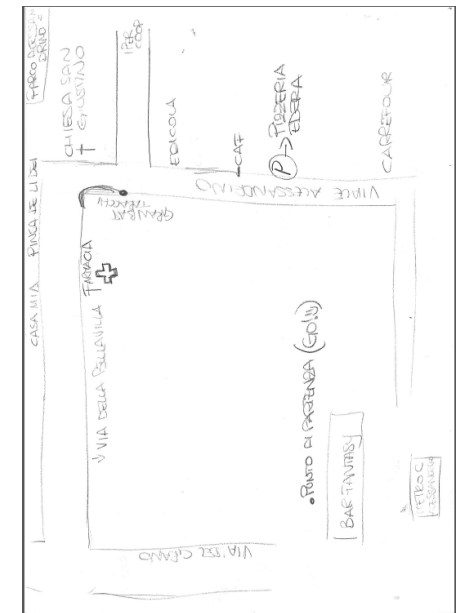
It is particularly of note that two of the three maps are nearly identical in their content. These maps were created by two men of similar age (in their mid-twenties), who both work in the neighborhood. The main paths they identified are Via Casilina and the perpendicular Viale Alessandrino. Via della Bella Villa and Via del Campo are also included on these maps. Both maps identify similar edges: Via Casilina to the south, the aqueduct to the north, as well as landmarks: the sports complex and park to the east. The Blue Ice Bar on Viale Alessandrino was identified as a main node.

Despite their similarities, these two maps have noticeable differences. Federico, who works in the art gallery *il Mondo dell'Arte*, oriented his map with Via Casilina to the west while Marco, who lives nearby in Torre Maura, placed Via Casilina to the south. In addition, Federico's map shows many streets to the west of Viale Alessandrino while Marco's map notes more streets to the east. The gallery where Federico works is located on Viale Alessandrino and the beauty salon which Marco's mother owns in Alessandrino is located on the eastern part of Casilina near Bar Fantasia.

Our third Lynch map stands out from the others in its simplicity. Created by Marta, the daughter of the owner of Bar Fantasia, the map includes more everyday elements than the other two: a pharmacy, two bars (including her workplace), and several supermarkets are present. Curiously, she is also the only person who included her own house on the map, along with a *convento di suore* (a nuns' residence).



Figure 12. Marta's Lynch Maps





An important finding from these maps is that citizens living both in and outside of the neighborhood agree on the borders of the neighborhood. The main study area we identified after our initial walk through Alessandrino is in line with how residents spatially define the neighborhood. Despite their native statuses and close ties to the neighborhood, none of our subjects included the homes of friends on their Lynch maps, and only Marta included her own. Instead they seemed to focus on meeting points outside the home, further evidence of the strong sense of community which we continually heard about in our interviews. In general main pathways were also similar and all of the Lynch maps included the Blue Ice Gelateria, a meeting place for young people.

**“ALL OF MY FRIENDS LIVE HERE, WHEN WE WERE YOUNG WE WOULD USUALLY MEET EITHER IN FRONT OF THE SAN GIUSTINO CHURCH OR AT THE BLUE ICE GELATERIA”**  
**- FEDERICO, ART GALLERY IL MONDO DELL’ARTE**

Public transit-related nodes or paths are largely excluded from the maps; even the brand new metro station near the Bar Fantasia frequented by Marco is absent from his map. This is further evidence of the car-centric narrative we gathered from resident interviews. Only Marta noted the presence of the Metro C line, as her mother chose to establish her bar in response to the new development. The missing presence of any mention of the Metro C in these maps would indicate that although the station is physically present is not operational in any way useful to citizens. While the area surrounding the Alessandrino Metro C station is not particularly well-trafficked at the moment, the owners of Bar Fantasia expressed their optimism and hope that business will increase when the line is completely connected and open.

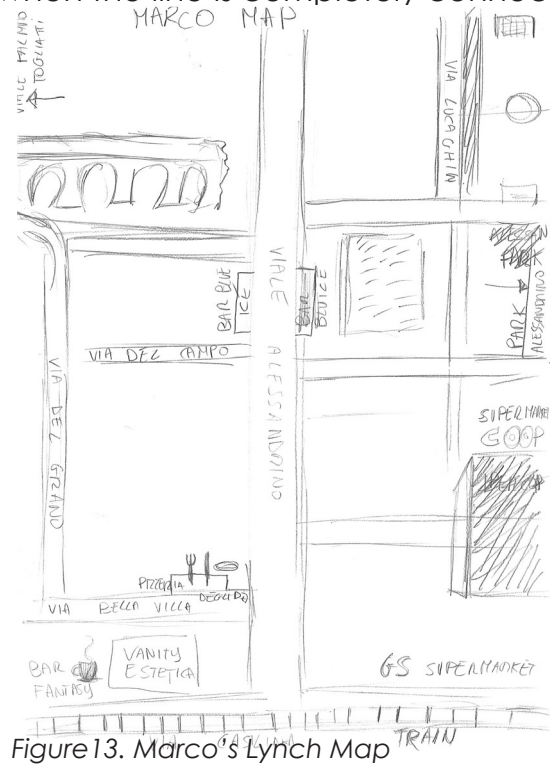


Figure 13. Marco's Lynch Map

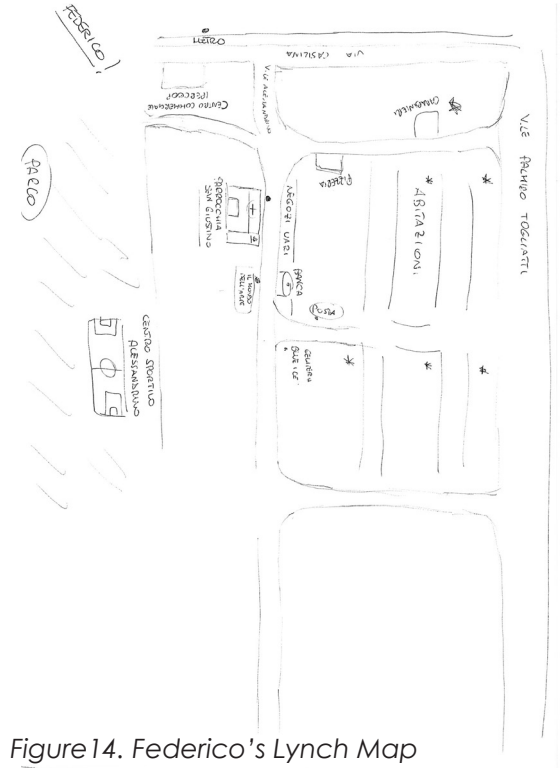


Figure 14. Federico's Lynch Map

# STATISTICAL ANALYSIS



Figure 15. Commercial space between Via Antonio Bottini and Via Giovanni Battista Delponte



## STATISTICAL ANALYSIS: IMMIGRATION AND DEMOGRAPHICS IN ALESSANDRINO

As illustrated in the history of Alessandrino, the neighborhood developed over the years with influxes in immigrants and migrants arriving and settling in the area. In recent years Alessandrino has again become a major destination for immigrant communities initially from Europe and later from parts of East Asia and North Africa. In particular we were interested in seeing the impact of immigration on the the demographics of the neighborhood as it had come up multiple times during our interview process. In order to establish a deeper understanding of Alessandrino, we used Roman census data (ISTAT) for the years 2001 and 2011. Our goal was to establish an understanding of changes and continuities in the community over time and to then compare that information to Rome as a whole. We identified three key sections of the ISTAT data which are key in understanding Alessandrino's social character and demographics:

1. Immigrant Population as a Percentage of the Whole
2. Sex Ratio
3. Age Distribution

### IMMIGRANT POPULATION

Alessandrino's foreign born population is 4 percentage points higher than the urban average at 13 percent of total population as opposed to 9 percent in greater Rome (ISTAT 2001). This high rate of immigration in Alessandrino has been visible for native residents who have talked about its impact on their community. In an interview with both a local priest and teacher, we found that the immigrant population has been expanding into the neighborhood in recent years. The teacher noted that 20 percent of children in the elementary school were the children of immigrants. According to Leonardis (Personal Interview, Appendix C), the director of Marconi

Elementary School, initial immigrants were primarily from Romania, Albania, Poland and Ukraine but now there has been a shift to immigrants from Southeast Asia, especially from India and Bangladesh. While some of these children are from Alessandrino others come from neighborhoods further out in the periphery of Rome and are dropped off by their parents on their way to work. Alessandrino then, can be seen as a destination for new migrant families.

When talking to Hamil, an immigrant owner of a fruit stand on Viale Alessandrino, he said he felt accepted by the community. He moved to Alessandrino five years ago with his family, this is proof that Alessandrino is seen as a destination for new migrant families. He has extended opening hours, which differentiate his business from the surrounding local businesses and is probably the reason why people in the community have accepted him, and many other immigrants known for having similar businesses.

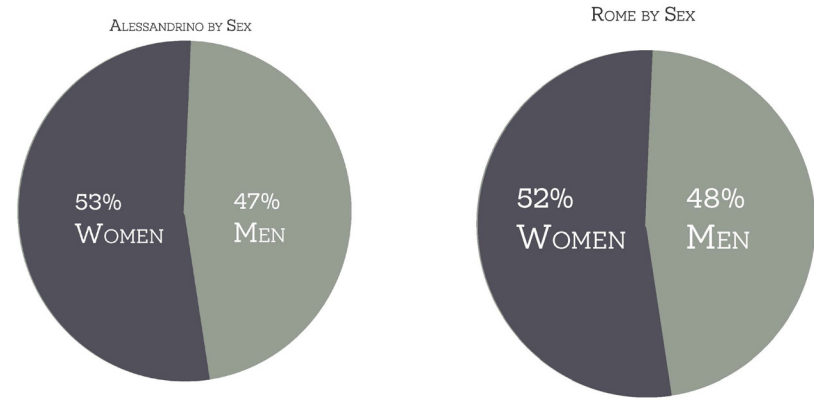
**“ OUT OF 134 CHILDREN ENROLLED IN CATECHISM COURSE, 33 ARE IMMIGRANTS”  
- DON STEFANO, PRIEST OF SAN GIUSTINO CHURCH.**

**“NOTHING HAS REALLY CHANGED IN THE NEIGHBORHOOD IN THE LAST 20 YEARS, EXCEPT FOR THE SOCIAL CONTEXT OF HIGHER IMMIGRANT POPULATION, WE ARE NOW SEEING SECOND AND THIRD GENERATION IMMIGRANTS”  
- CRISTINA LEONARDIS, MARCONI ELEMENTARY SCHOOL**

## SEX RATIO

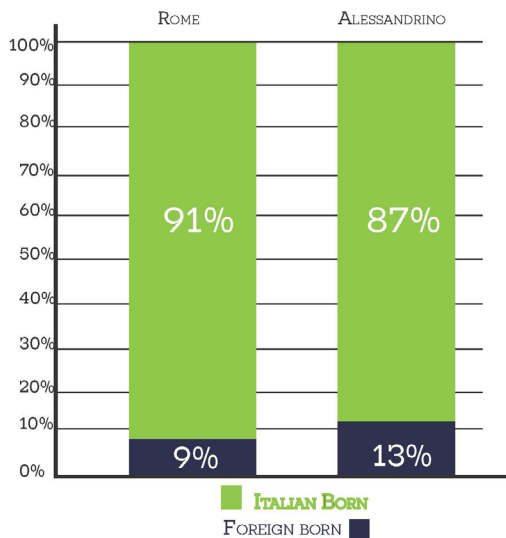
With such a high rate of immigration, we hypothesized that Alessandrino's population may comprise a high percentage of young to middle aged immigrant men than the rest of Rome. We also speculated that Alessandrino's sex demographics may be more equal due to an influx of family aged couples. To our surprise, Alessandrino's male to female ratio is slightly higher than the average with 53 percent women and 47 percent men in contrast to Rome's 52 percent women and 48 percent men respectively.

Of further interest is the role of women in the community in Alessandrino. Although Alessandrino has a higher percentage of women than men, only 41 percent of the workforce are women. This trend is also consistent with the Roman metropolitan area as only 44 percent of Roman women work on average even though they make up 52 percent of the population. This suggests that in Alessandrino and elsewhere in the Roman metropolitan area, women have a higher tendency to stay home, while men have a higher tendency to work.



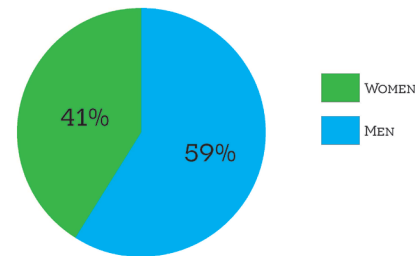
Graph 2.

ROME AND ALESSANDRINO IMMIGRANT POPULATIONS 2011

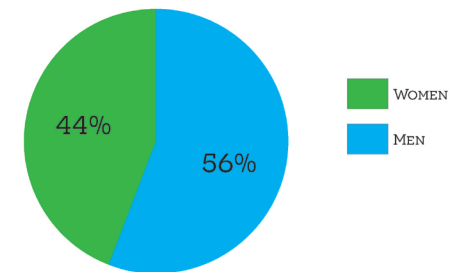


Graph 1.

ALESSANDRINO WORK FORCE PARTICIPATION BY SEX



ROME WORK FORCE PARTICIPATION BY SEX



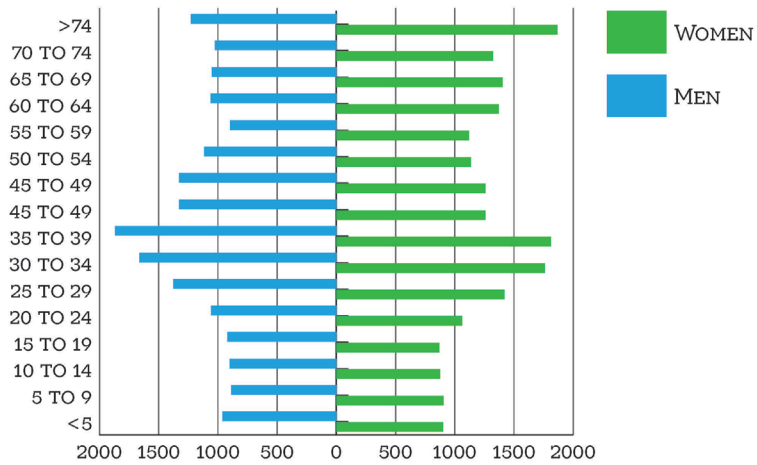
Graph 3.



## AGE DISTRIBUTION

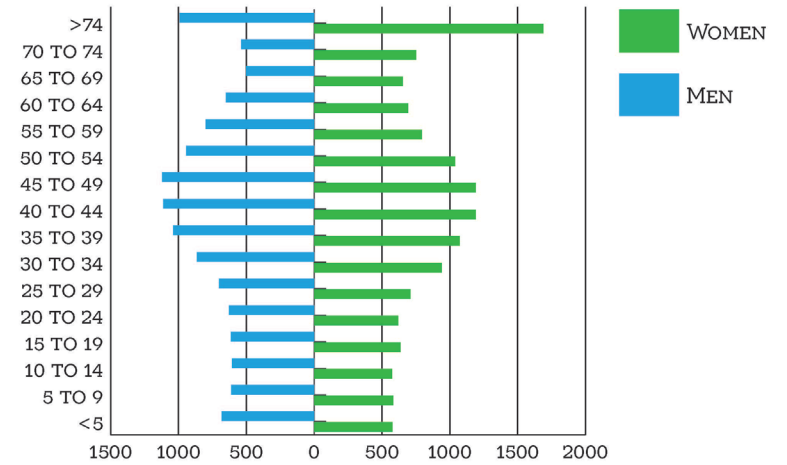
We were very interested to see the evolution of Alessandrino's age demographics over time. With a rising immigrant population, it was interesting to see if there was significant turnover in demographics and if Alessandrino's age distribution would vary significantly from Rome's. Surprisingly, we found that Alessandrino's age demographics follow Rome's very closely. In 2001 both Rome and Alessandrino had two peak ages: one in the range 35 to 39 and one in the range >74. Ten years later in 2011, the peaks still align at the age ranges of 40 to 49 and >74. In spite of Alessandrino's greater percentage of foreign born residents relative to Rome's average, it appears that the neighborhood is more representative of Rome as a whole than we previously expected.

### ALESSANDRINO AGE DISTRIBUTION 2001



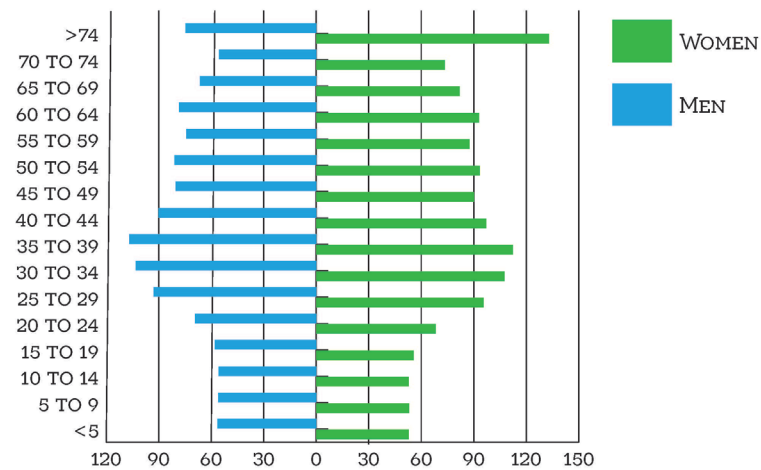
Graph 4.

### ALESSANDRINO AGE DISTRIBUTION 2011



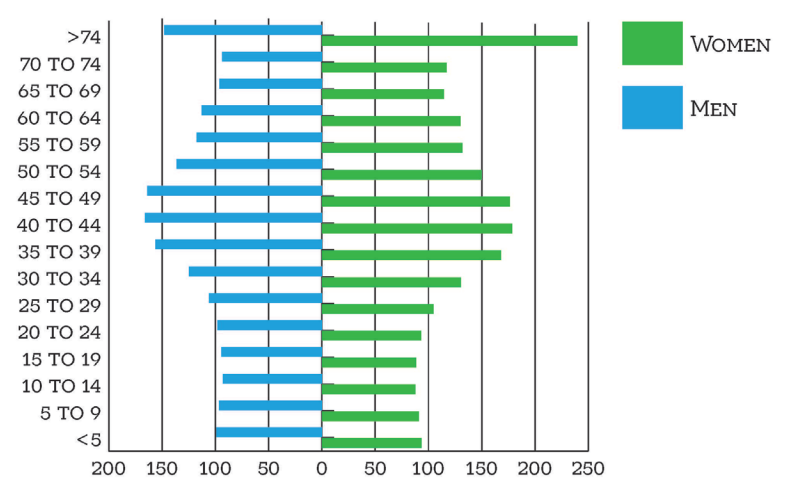
Graph 5.

ROME AGE DISTRIBUTION 2001 (IN THOUSANDS)



Graph 6.

ROME AGE DISTRIBUTION 2011 (IN THOUSANDS)



Graph 7.

### LESSONS FROM THE DATA

Due to its higher rate of immigrant settlement, we initially hypothesized that Alessandrino would yield statistics that differ from the Roman metropolitan area. Our assumption was that higher immigrant settlement rate may lead to a higher proportion of men living in the neighborhood as well as young immigrant families that would replace the aging native Italian population. To our surprise, Alessandrino closely reflects Rome's demographic mold and may be an excellent sample group of the metropolitan area. This comes as a particular surprise as Alessandrino has historically been stigmatized as a 'depressed' and dangerous neighborhood. This led us to examine economic data to determine how similar or different Alessandrino is from Rome as a whole.



## STATISTICAL ANALYSIS: EVALUATING STIGMA

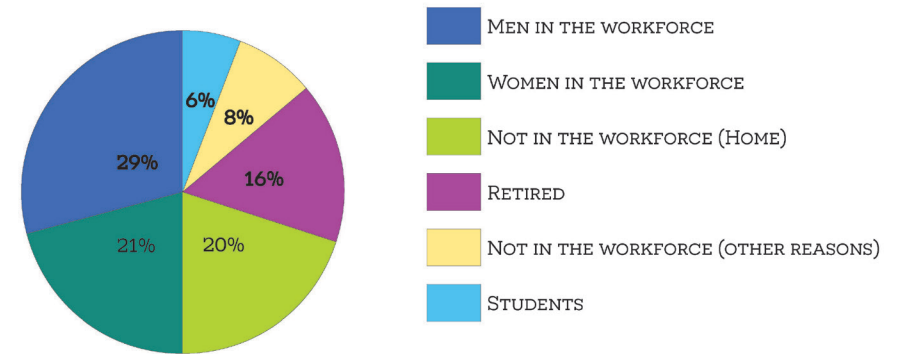
Historically, Alessandrino has been stigmatized as a dirty, unsafe, and above all, 'depressed' neighborhood. In our interviews the lack of jobs was a topic which was frequently mentioned and indicated there is a perceived problem of employment opportunities within the neighborhood, particularly for young people. During an interview with a priest at the local San Giustino church, he claimed that many young people in the community live off of their parents' and grandparents' pension plans and live at home until later ages than in the past. This is a familiar refrain in Italy with the rise of a national trend of fewer young adults able to find work and even fewer getting married and settling down. In this context, the question which emerges is as follows: are the economic conditions in Alessandrino worse than the average in the Roman Metropolitan Area and if so, is Alessandrino truly worthy of the stigma associated with it?

Using a combination of 2001 ISTAT data and resident interviews, we have attempted to evaluate the health of the community as an economic unit. In particular, we focus on Alessandrino's unemployment rate, educational attainment rate, and housing occupation rate relative to the rest of Rome.

### WORKFORCE PARTICIPATION

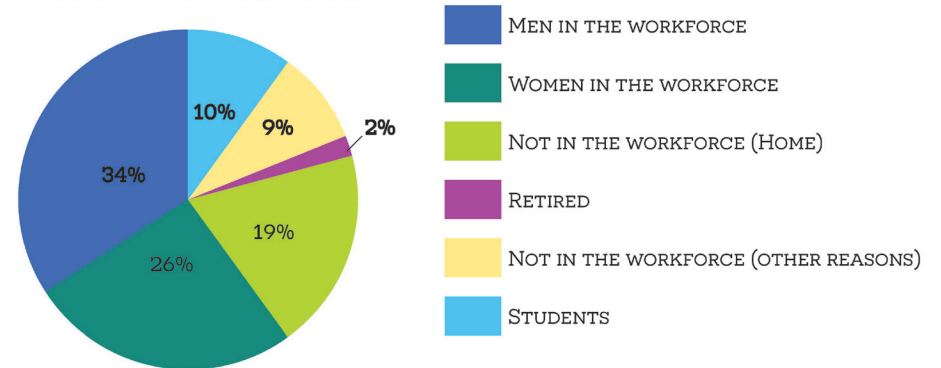
First, it is important to identify the details of Alessandrino's workforce and rates of workforce participation. Based on the data, only 50 percent of eligible work age residents in Alessandrino participate in the workforce. A further 28 percent of residents work at home or do not seek work. Finally, a mere 6 percent of residents do not seek work because they are students pursuing higher education.

ELIGIBLE WORKFORCE IN ALESSANDRINO



Graph 8.

ELIGIBLE WORKFORCE IN ROME



Graph 9.

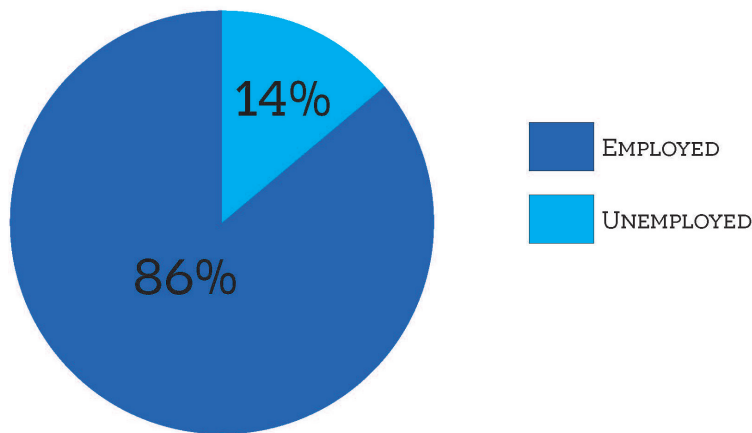
## EMPLOYMENT RATES

One of the more important economic indicators which we attempted to look at critically is Alessandrino's unemployment rate. As compared to Rome as a whole, Alessandrino does in fact have an unemployment rate higher than the Roman average. However Alessandrino's rate of 14 percent as compared to Rome's rate of 11 percent is not substantial enough to immediately classify it as significantly more depressed than an average neighborhood in Rome.

Employment in Alessandrino can be divided into three sectors: agriculture, industry, and services, with the majority of employed residents working in the service sector. Based on 2001 ISTAT data classifications, Industrial jobs include the following subsections: extraction and production of energy, manufacturing, and construction. Service jobs include commercial/repair, hotel and restaurant, transportation and communications, brokerage, and professional services. 78 percent of the employed labor force work service jobs, 20 percent work in the industrial sector, and only 2 percent work in agriculture.

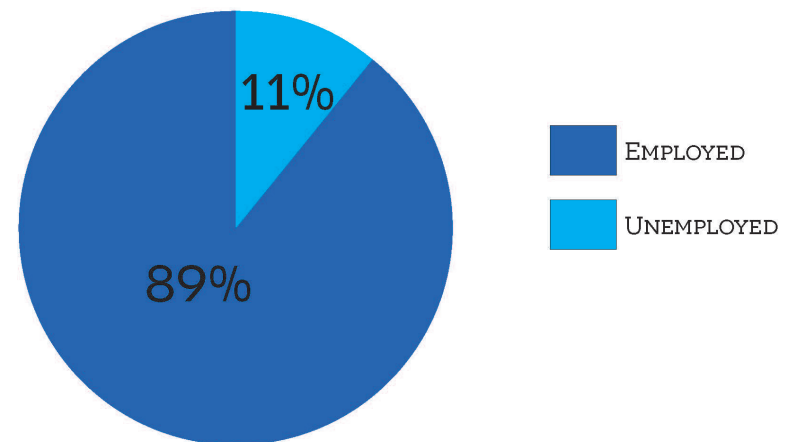
Another issue raised by Don Stefano, the priest of San Giustino church was the current economic crisis: "Young people have difficulty finding jobs and many live off their parents or grandparents pension, on top of that there are very few employment opportunities in Alessandrino apart from the basic services."

ALESSANDRINO UNEMPLOYMENT



Graph 10.

ROME UNEMPLOYMENT



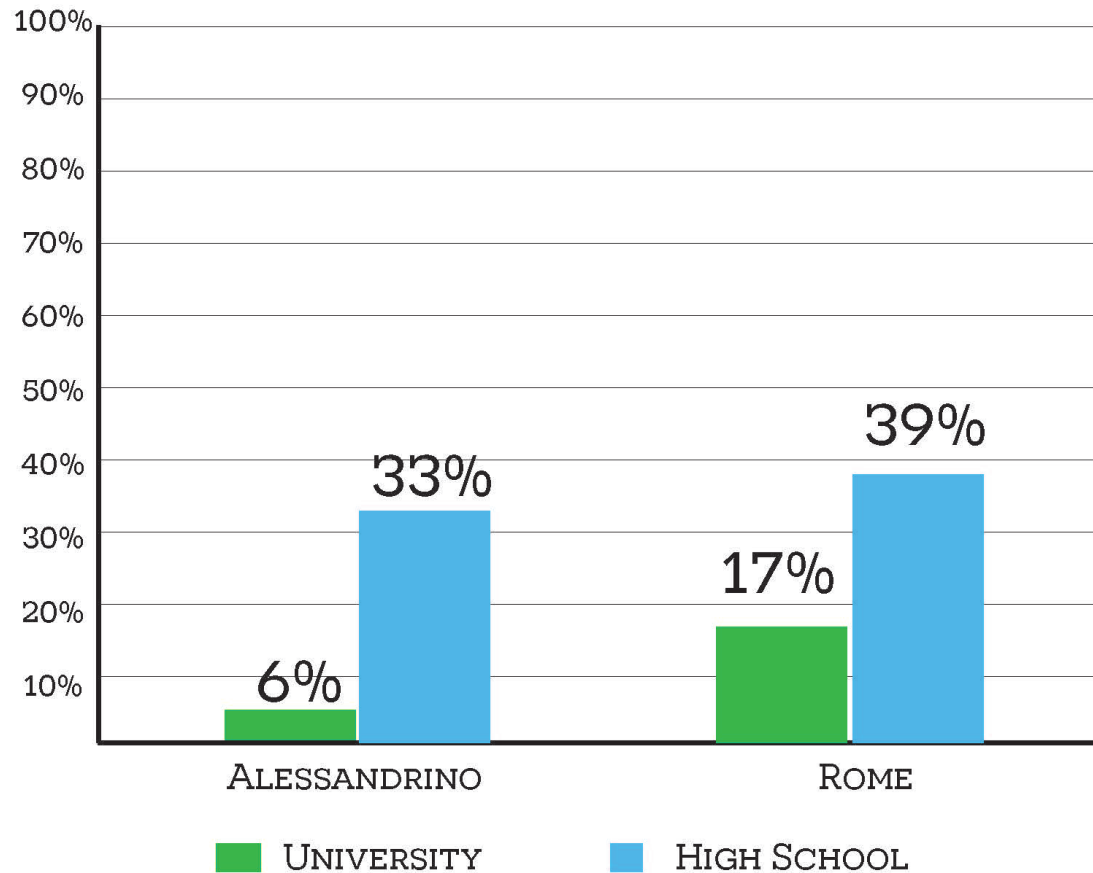
Graph 11.



## ALESSANDRINO EDUCATIONAL ATTAINMENT

As noted earlier, a small fraction of Alessandrino's eligible workforce are students - 6 percent. This connects closely with another indicator of Alessandrino's stigma as a depressed neighborhood - education. 2001 ISTAT data provides an insight into the highest rates of educational attainment in the community. The graph of Alessandrino education presents as a bell curve with the mode of residents achieving an intermediate level education and tapering off at the extremes of university education on one end and illiteracy at the other. By comparison, Rome's education graph shows a higher concentration in education than Alessandrino's with the mode of people attaining a high school education as opposed to a middle school education. Based on these statistics, Alessandrino appears to fall well below the city average.

EDUCATIONAL ATTAINMENT OF PEOPLE 20 YEARS AND OLDER IN ROME COMPARED TO ALESSANDRINO

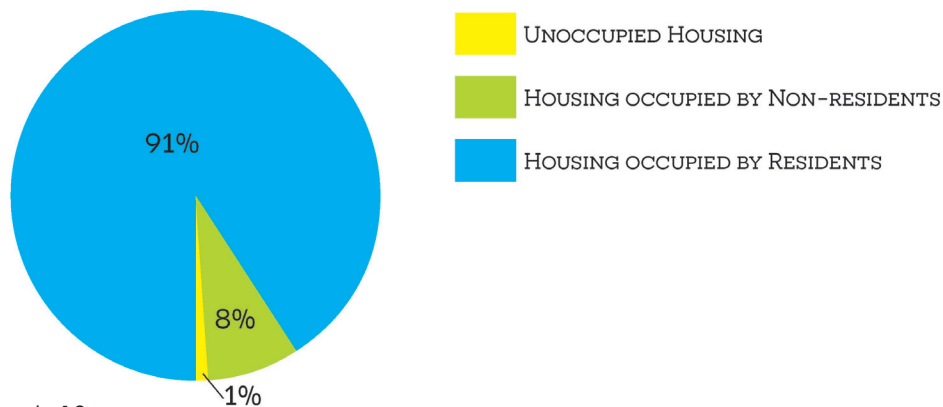


Graph 12.

## HOUSING OCCUPANCY

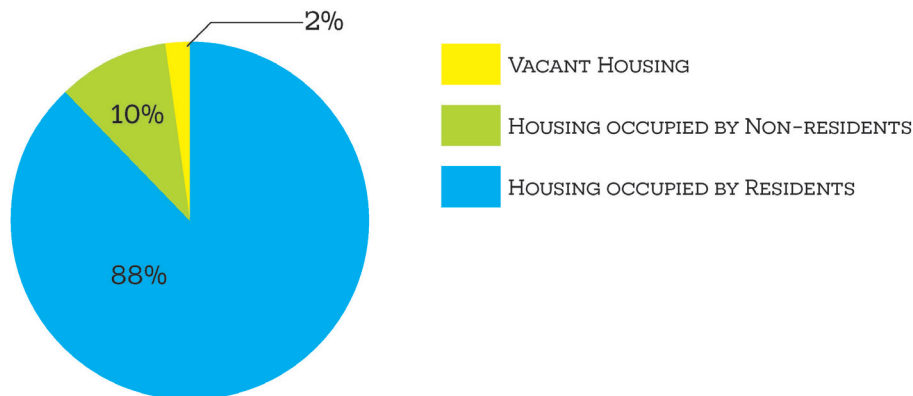
The final criterion for evaluating Alessandrino's economic health is its residence occupancy level relative to Rome's. 2001 ISTAT data provides statistics that place dwelling occupancy in Alessandrino at 92 percent, 91 percent of which is occupied by residents of the community. When compared to Rome, Alessandrino's rate of occupancy is slightly higher, with only 8 percent of housing unoccupied as compared with Rome's rate of 10 percent. While this is not substantially better, it does suggest that Alessandrino does not have a vacancy or emigration problem.

## ALESSANDRINO HOUSING OCCUPATION



Graph 13.

## ROME HOUSING OCCUPATION



Graph 14.

## ANALYSIS

Based on our comparison of Alessandrino with the Roman Metropolitan Area we see that Alessandrino has an unemployment rate 3 percentage points higher than that of the Roman average as well as a level of educational attainment well below the average. Statistics such as these indicate that Alessandrino may be disadvantaged as compared to an average Roman neighborhood. Alessandrino does however have notable strengths in its high levels of housing occupancy which suggests that it may have a high level of resident retention. It also suggests that housing prices and land values may be cheaper in Alessandrino than in Rome on average. Lower living costs may also significantly contribute to the pull factors that have made Alessandrino a major destination for immigrant populations.

This certainly ties into Alessandrino's history as a working class self-built settlement that later evolved into a small peripheral community of local landowners during the 1950s and 1960s.

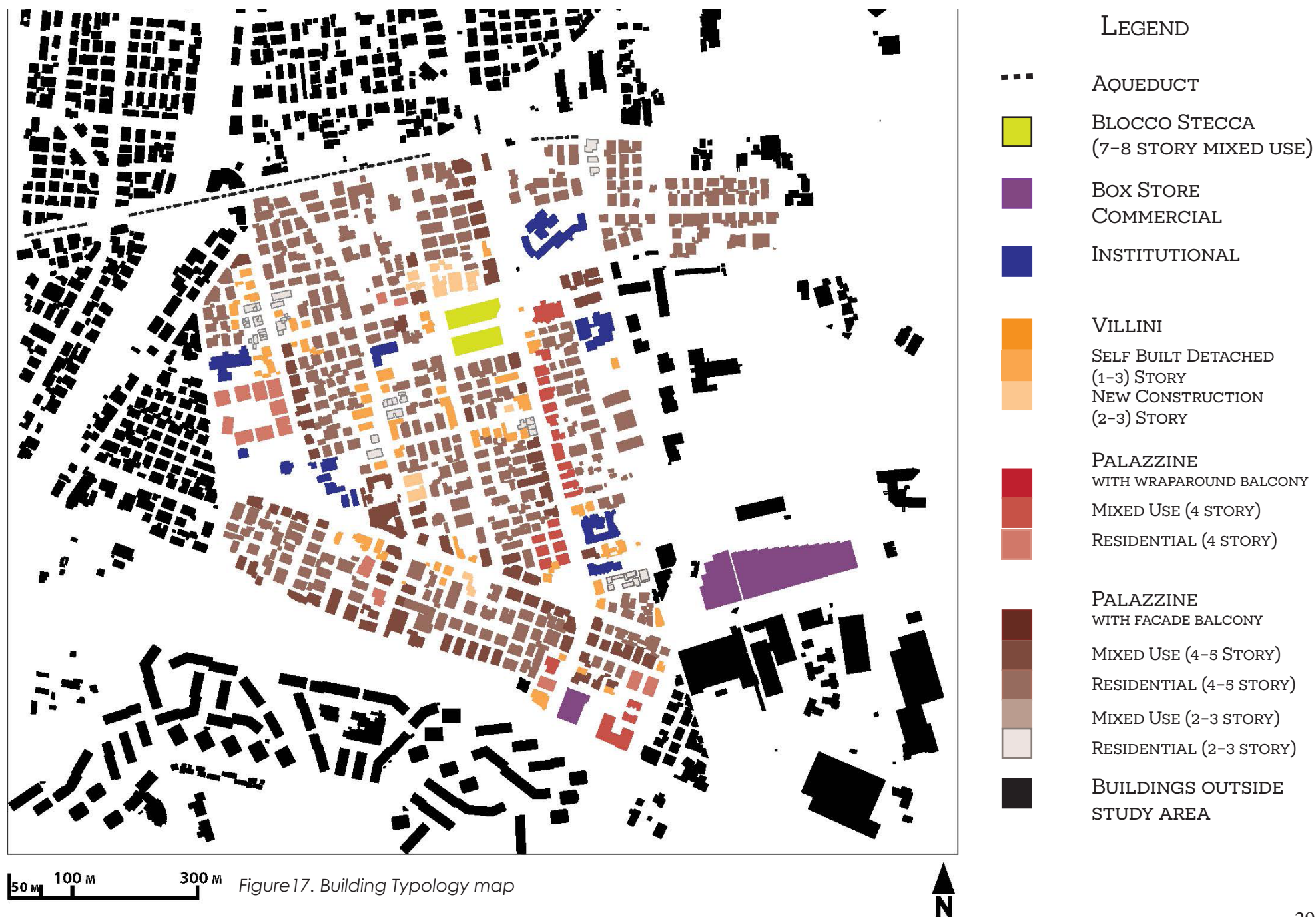




Figure 16. Looking north on Via delle Spighe



# BUILDING TYPOLOGY





# TYPOLGY INDEX

The history and multiple layers of Alessandrino can be most clearly seen in the building typology of the neighborhood. After surveying the neighborhood on foot as well as on Google and Bing map aerial views, we identified four main typologies which define the built environment of the neighborhood. In addition to several “Institutional Buildings”—church, school, retirement homes, and *centro anziani*—there are three main typologies in Alessandrino with some differentiations in each category.

## PALAZZINE



Mixed Use and Residential



WRAPAROUND PORCH | 4 STORIES FACADE PORCH ONLY | 4-5 STORIES FACADE PORCH ONLY | 2-3 STORIES

## BLOCCO STECCA



Mixed Use



7-8 STORIES | TWO FLOOR COMMERCIAL

## VILLINI



Residential



SELF-BUILT DETACHED | 1-3 STORIES

NEW CONSTRUCTION | 2-3 STORIES

# PRIVATE SPACE AND EXPERIENCE OF THE NEIGHBORHOOD

Alessandrino is also characterized by the prevalence of private, gated space; most notably clusterings of developer built palazzine with private access roads that are gated. In general the neighborhood has many of these interstitial spaces which creates a closed feeling. However the prevalence of greenery and gardens inside these private spaces, which is visible from the street, limits the harshness that could be possible with so many gated areas. In addition the pastel yellows, pinks, oranges, green and tuffa block colors of the buildings further create warmth.

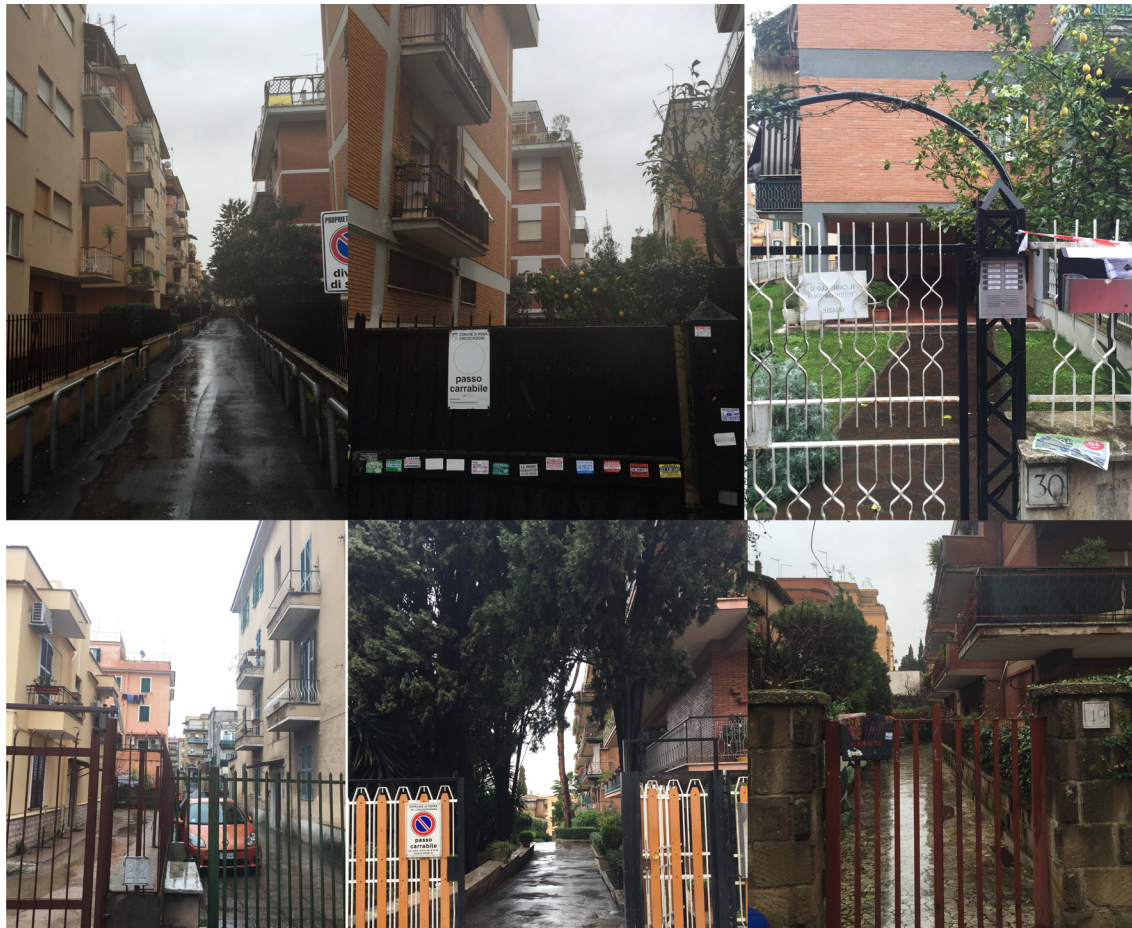


Figure 18. Gated spaces throughout Alessandrino



# PERIODIZING BUILDINGS

Unfortunately only having 2001 building data means that new buildings which may have been built in the fourteen years between 2001 and 2015 are not accounted for. In addition it is important to consider that older buildings dating to pre-1919 and into the 1940s are likely to not survive as long as other structures. However, this general overview of the percentage of buildings from each time period aligns with resident interview anecdotes; Alessandrino's built form took shape in the 1950s and grew outward from the original villini and San Guistino church on Viale Alessandrino—built in 1953 (Personal interview, March 2015). Moving into the 1960s and 1970s the construction of Palazzine took over and shaped the landscape that we now recognize as Alessandrino. Less than 1 percent of existing structures in the neighborhood were built before 1919, this number increases to about 8 percent built between 1919 and 1945. More than 50 percent of existing structures were built between 1946 and 1961

## MORE THAN 50% OF EXISTING STRUCTURES WERE BUILT BETWEEN 1946–1961

which reflects the growth which took place during this era. About 20 percent of buildings were built between 1962 and 1971, the second largest growth period in the neighborhood. Construction then began to slow with 5 percent of structures built between 1972 and 1981, 2 percent between 1982 and 1991, and 1 percent after 1991. Looking at a map of existing self-built villini we can see the dispersed location of these original structures located along the streets moving outward from Viale Alessandrino.

If we focus briefly on the villini we can see how these original, self-built structures shaped the neighborhood landscape and can be located today throughout the study area along the Alessandrino street grid.



Figure 19. Map showing location of self-built villini in Alessandrino

# STREET HIERARCHY

Streets were classified into main arterial highways, primary streets, and secondary streets according to our street typology categories (see Appendix A.).



Figure 20. Street Figure Ground of Alessandrino

Main arterial streets are the metropolitan connectors of Alessandrino to Rome City Center. Within our primary and secondary areas the main arterial streets are Via Casilina (south) and Viale Palmiro Togliatti (west). These streets have three car lanes and three lanes designated for parking. The tram goes along Via Casilina and has a stop in front of the Carrefour Supermarket , making Viale Alessandrino the main entryway to the neighborhood.

## MAIN ARTERIAL



VIALE ALESSANDRINO AND VIA CASILINA

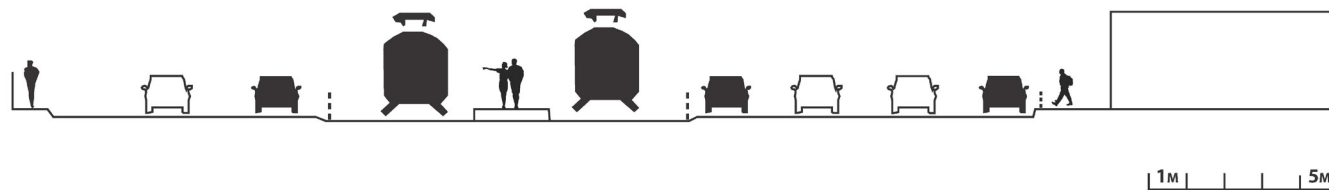


Figure 21. Main Arterial street section



Primary streets are equipped with two opposing traffic lanes and parking spaces on both sides of the street. The most important primary streets are Viale Alessandrino, Via degli Olmi (along the aqueduct) and Via della Bella Villa. These have been identified in the redevelopment plan as areas of future regeneration and development.

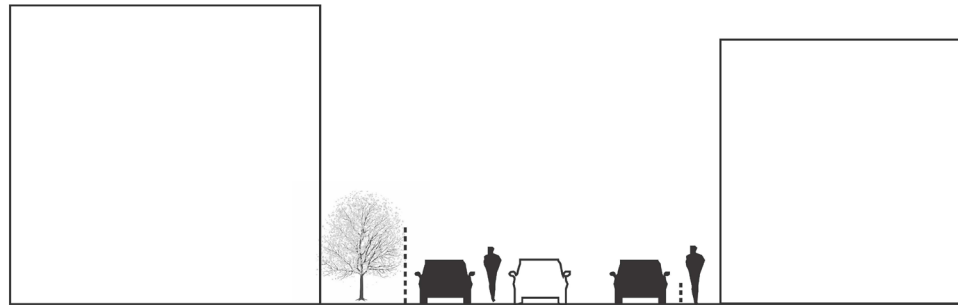
## TWO WAY STREET



Figure 22. Two way primary street section

Secondary streets have been divided into two categories: one way streets and dead end service streets.

## ONE WAY STREET



1m | 5m

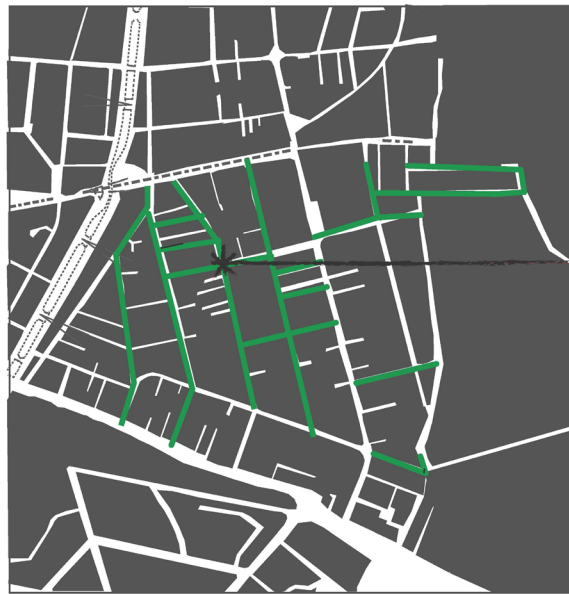


Figure 23. One way street section

Alessandrino is characterized by a very clear relationship between land use and street type. Primary streets function as corridors for mixed-use development and commercial activity and secondary one-way streets run through strictly residential areas. This creates a stark contrast between the east and west sides of our primary area. The mixed-use east, home to many businesses, schools, and sports complexes, is equipped with many more primary streets than the mostly residential west.

## DEAD END/GATED STREET



Figure 24. Dead end street section

The neighborhood is also characterized by the prevalence of dead end streets, both private and public. The public dead-ends, though technically open to all cars, serve as access roads for residential and commercial buildings. In one such example, Via delle Banane, a dead end street attempts to connect Viale Alessandrino to Via dei Fiori, but is blocked by a fence in the middle. In addition, private dead-end streets are indicative of the presence of gated communities, most of which have been developed within the past decade or so. This phenomenon is seen repeatedly in the residential areas of the neighborhood.



# LAND USE

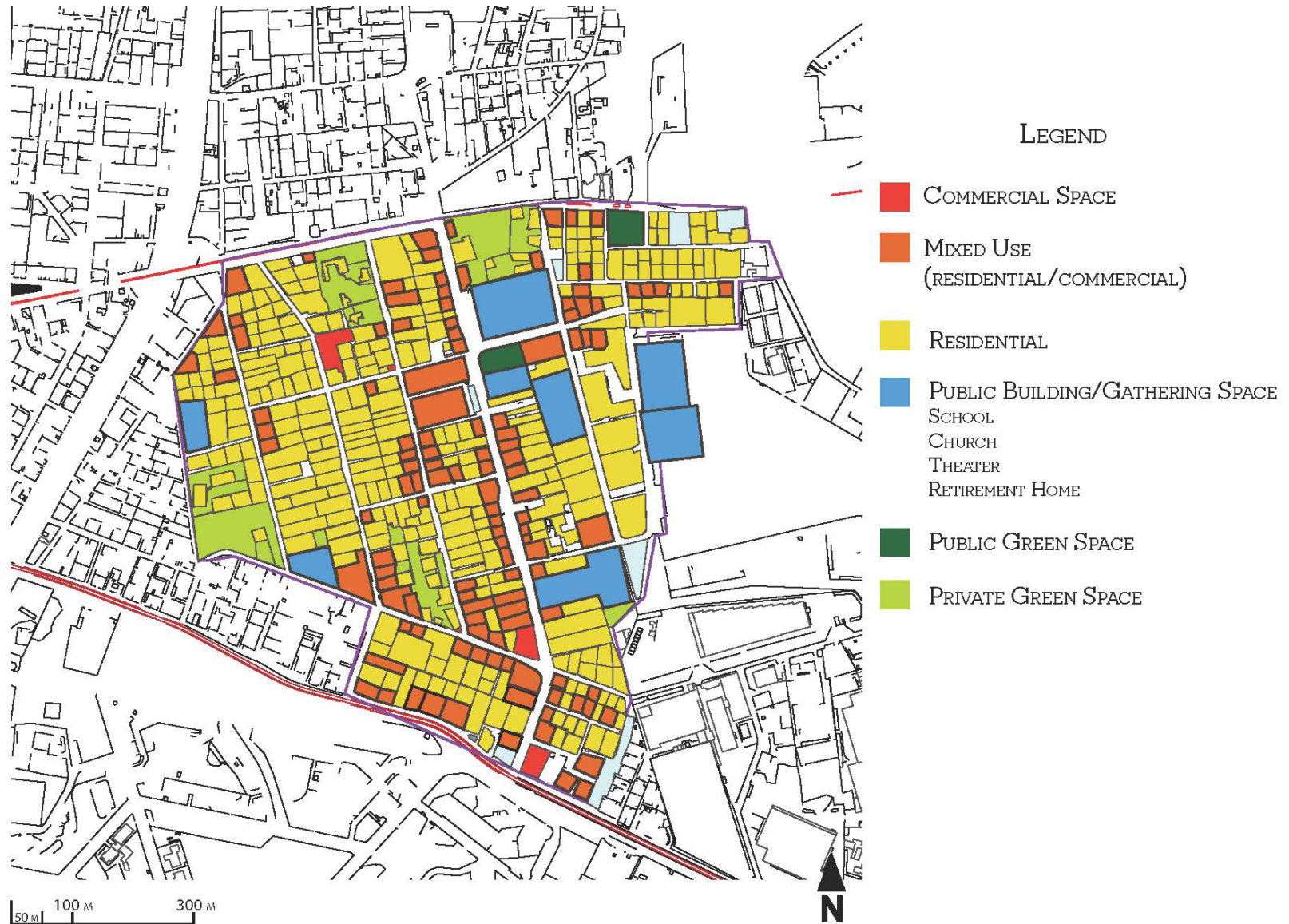


Figure 25. Land use map

## LAND USE

Alessandrino's land is largely divided between residential buildings (marked in yellow) and mixed use palazzini (marked in orange) which have ground floor commercial spaces and residential space above. Many of Alessandrino's mixed use buildings are located along major arterial streets such as Viale Alessandrino as well as Viale della Bella Villa and Via dei Fiori. Alessandrino sports a wide variety of commercial services including restaurants, cafes, bakeries, general stores, auto repair shops, and hairdressers. In addition there are a range of professional services such as orthodontics and law offices.

## EAST VERSUS WEST

During our street survey, we identified a number of differences between the eastern and western halves of Alessandrino. Using Via dei Fiori as a dividing line, we determined that the eastern half of the community hosts a number of commercial and community spaces (marked in red and blue respectively). The western half, by contrast, is comprised primarily of residential use buildings with sparse commercial activities. In addition to the wide number of shops and restaurants along Viale Alessandrino, the eastern half of the community also contains three of Alessandrino's four schools, as well as both of its public parks (marked in dark green) and its only major church. The east side of Alessandrino also borders the largest public green space in the area as well as the Fusolab - a major community center which

**“ALTHOUGH THIS IS THE PERIPHERY WE HAVE EVERYTHING WE NEED HERE IN THE NEIGHBORHOOD”**  
**-REDIENT**  
**INTERVIEWS**

provides recreational and educational services. By contrast, the west side of Alessandrino borders Viale Palmiro Togliatti - a major two lane boulevard which separates it from the northwestern extension of Centocelle.

## GREEN SPACE: PUBLIC VERSUS PRIVATE

A distinctive feature of Alessandrino's land use patterns is the establishment of gated communities surrounding large plots of private green space (marked in light green). While Alessandrino only has two public park spaces integrated into the urban fabric, there are five larger parcels of private green space hidden behind large gates. Although these spaces are largely inaccessible to the public, they conform to established public road systems and do not hinder the connectivity of the community. As previously stated, Via dei Fiori marks a dividing line between east and west Alessandrino. Upon the completion of our survey, we found that four out of the five major gated communities are located west of Via dei Fiori and leave the western half of the community without public space.



Figure 26. Private gated green space in Alessandrino



# LOST SPACE

While the eastern half of Alessandrino has the majority of public buildings and green space, it also has the majority of lost space in the community. Using Roger Trancick's definition, lost space is "unshaped" space in an urban landscape with no connections to other space (Trancick, 1986). Lost space in the case of Alessandrino takes a number of different forms including buildings, streets, and vacant land which are empty, disconnected or do not integrate into the neighborhood.

One such space is an abandoned mixed use apartment building at the intersection of Viale Alessandrino and Via Casilina; despite the high market value of this location, it remains unused. While residents noted this building has inattentive owners, it is possible that these owners are waiting for the right moment to redevelop the land.

Another lost area is Via Gino Cugini, a dead-end street which is gated on both sides and serves as informal parking to local residents; this is the case of many of the dead end streets that inhibit the connectivity of the neighborhood.

Lost space also takes the form of vacant lots, such as the two found vacant lots along Via Degli Olmi to the northeast and the fenced off space along Via della Bella Villa to the southeast. Via degli Olmi is a lost space that runs alongside the aqueduct and ends in a dead end street with residential access.

Immediately outside the primary area is a large triangular shaped abandoned lot just south of Via Casilina and the entrance to Viale Alessandrino. This space, gated on most of its sides, serves the informal function of a park space and is a barrier between Alessandrino to the north and Torre Spaccata to the south. Its function as a park space is further hindered by its inaccessibility as Via Casilina's multi-lane street and integrated tram system make for an impermeable park.



Figure 27. Lost Space map

Another lost space is located in the center of the neighborhood, along Viale Alessandrino up from the intersection with Via del Campo. There is a large area dedicated to parking and bus stops which is disorganized and difficult to navigate as a pedestrian.

With a few exceptions, most of the lost spaces in Alessandrino are located on the edges of the neighborhood.





Figure 28. Sidewalk and bus schedule along Viale Alessandrino



# MOBILITY

The organic and rapid growth of Alessandrino in the 1950s, when cars soared to new heights of popularity and accessibility, set the stage for the omnipresent car culture of modern Alessandrino. We observed the dominance of cars in the neighborhood on our first visit to Alessandrino and then further confirmed this trend in our interviews. However there seemed to be two perspectives on the issue: on the one hand young adults who expressed their need for cars to get to work on time since public transit is unreliable (Appendix C, Personal Interview Federico), and on the other young children and mothers, as well as other pedestrians, who must navigate narrow streets, fast traffic and inconsistent sidewalks.

Drivers also seem to blatantly ignore traffic rules. In the western, residential area of the neighborhood (specifically on Via delle Spighe and Via dei Salici), many cars accelerate to high speeds that can be dangerous for both drivers and pedestrians. In a conversation with an actor from the San Giustino theater, he recognized high speed driving as a significant problem in the neighborhood, noting that Italians never respect the rules.

“Il Italiano che non rispetta mai le regole”- Luca, Actor, San Giustino Theatre

“ I DON'T THINK THERE ARE PROBLEMS WITH PEDESTRIAN MOBILITY IN ALESSANDRINO, BUT RATHER THE STREETS ARE POORLY MAINTAINED AND I ALWAYS HAVE TO DODGE THE HOLES ON THE STREET WHEN DRIVING MY CAR” - FEDERICO, ART GALLERY IL MONDO DELL'ARTE

Not only are there concerns of mobility within in the neighborhood, but also of mobility between Alessandrino and the city center and between peripheral areas. Despite being conveniently located on the consular road Via Casilina, which leads straight into the city center, transportation is a time intensive process. In addition to a pedestrian evaluation our analysis looks at public transit and issues of mobility. This is especially relevant since a section of the new Metro C line has been constructed in the area with a stop in Alessandrino. While still not fully operational, this new public transport infrastructure is significant for the future of the neighborhood.



Figure 29. A resident walks a dog in the street

# PEDESTRIAN EVALUATION

The street survey exercise afforded us a first-hand pedestrian experience that presented two key issues: first, that pedestrian infrastructure in our primary area is severely lacking, and second that connectivity to public transit is unnavigable. Continuity is a non-entity in Alessandrino; it is nearly impossible to make any journey by foot without walking in the middle of a street. This problem is exacerbated by the demographics of the neighborhood; with an increasingly aging, decreasingly mobile population, this presents a situation that is inconvenient at best and dangerous at worst. We also heard in our interviews concerns about safety for children in the neighborhood who are at risk of being hit by cars.



Figure 30. An example of inconsistent sidewalks

## SIDEWALK TYPOLOGY

We decided to complete a sidewalk typology to further investigate the extent of this problem. Based on observations, we created three basic typologies: formal sidewalks, plain/setback sidewalks, and patched sidewalks, each increasingly informal in material, continuity, and implementation:

### FORMAL SIDEWALKS

- Elevated curb
- Width ranging 2m-5m with setback
- Poor maintenance
- All asphalt but patched and not continuous

### PLAIN /SET BACK SIDEWALK

- No elevated curb
- Varies depending on commercial space
- Has metal railing separating from street
- Approximate width is 3m (Setback)
- Variable setbacks

### PATCHED SIDEWALK

- On residential streets
- Sidewalk depends on the owner of the building it is in front of (privately owned)
- Different setbacks
- Different materials
- No sidewalk sometimes
- When sidewalk is present, width 1.5m



Many patterns emerged, most addressing the relationship between street typology and sidewalk infrastructure. Because the majority of buildings along the primary streets have commercial or mixed use, a continuous network of formal sidewalks are generally intact compared to other parts of the neighborhood. This is also true in the eastern part of the neighborhood which has many shops and is the more “public” part of Alessandrino. By contrast, secondary streets, which have a majority residential use, were equipped more often with plain or patched sidewalks.

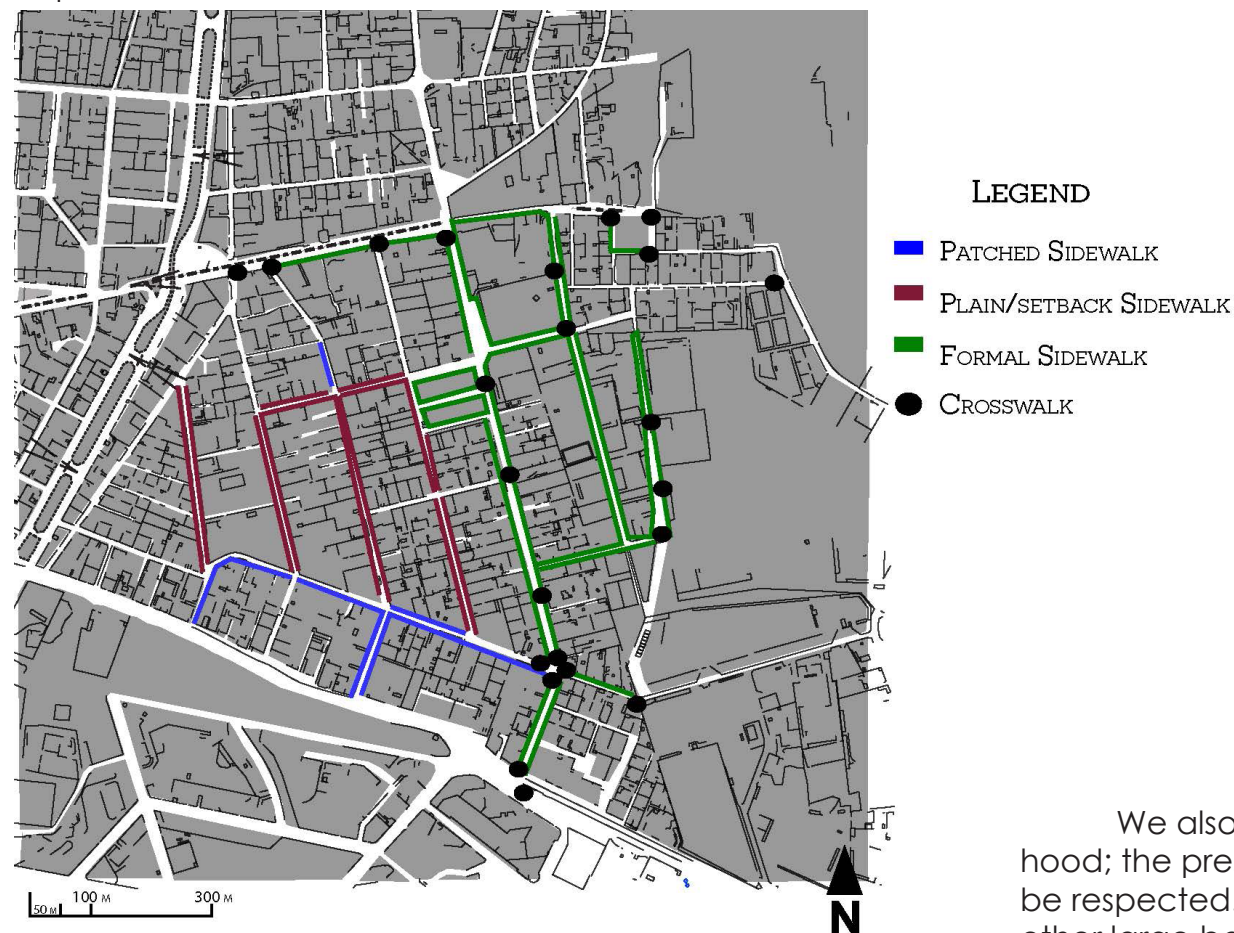


Figure 31. Sidewalk typology relationship with land use; location of crosswalks

## CROSSWALKS

Mapping crosswalks in the neighborhood also affirmed our hypothesis of the pedestrian infrastructure deficit. Again, we observed a divide between east and west. The east is equipped with many crosswalks to supplement the formal sidewalk infrastructure, while the west is left without any such safety features. In the context of the neighborhood, this makes sense; the eastern district is home to several schools and one of the largest public parks in the area.



Figure 32. An example of interrupted crosswalk

We also observed a disturbing truth of the neighborhood; the presence of a crosswalk does not ensure that it will be respected. Oftentimes, parked cars, trash vestibules, or other large barriers assume the curbside space of crosswalks, rendering them useless.



# PUBLIC TRANSIT

Public transportation in Alessandrino is currently going through a transition because of the arrival of a new metro, Metro Linea C. In a metropolitan context, service has slowly declined and deteriorated in anticipation of the new metro's completion. In a local context, the unreliability of bus service has caused most residents to prefer to drive. Residents are highly anticipating the completion of the Metro C, which they think will be the answer to their transit issues. Although the future seems promising, public transit in Alessandrino is not as strong as it could be at the moment.

In a local context, Alessandrino is generally well covered by bus routes. Stops are generally 250-300 meters apart and most residents live within 300 meters or 3-5 minutes away from a bus stop (Google Maps, 2015). However, the Eastern parts and the green spaces of the neighborhood, such as Parco Tor Tre Teste are not served by buses and require walks as long as 600 meters. There are 9 bus routes in total; the 105, 114, 213, 313, 451, 552, 554, and 556 provide day and evening service while the n12 provides service after midnight (ATAC, 2015) (see Figure 35. for a map of these existing routes). Some places served by these routes include Termini, Cinecittà, Ponte Mammolo, Torre Spaccata, and Centocelle. Most of these

routes run on the main arterial streets, Viale Alessandrino and Via Casilina. There is one route, the 114, that travels on several small residential streets and has several stops in front of houses. See our policy proposal and "vision" section for our proposed reroute of the 114 to serve the Eastern parts and green spaces of Alessandrino.

Despite its relatively good coverage, the bus system in Alessandrino is primarily used by schoolkids and the elderly. There are several reasons for this, as discussed in Appendix D. The main reason, however, is that residents regard the buses as unreliable. During interviews residents responded that buses do not run frequently and are often slowed down by traffic, making travel times inconsistent. This poor service has not been exclusive to Alessandrino; it is rather common throughout the peripheries of Rome.

As reported by a bus driver, bus service all across the peripheries of Rome have been restructured in recent years due to budget constraints. The extremely high cost of the Metro C has also forced service cuts, as discussed in the Appendix. Many lines have been cut while others were merged together. Some routes have also had their frequencies reduced. As a result, travel between peripheries has become

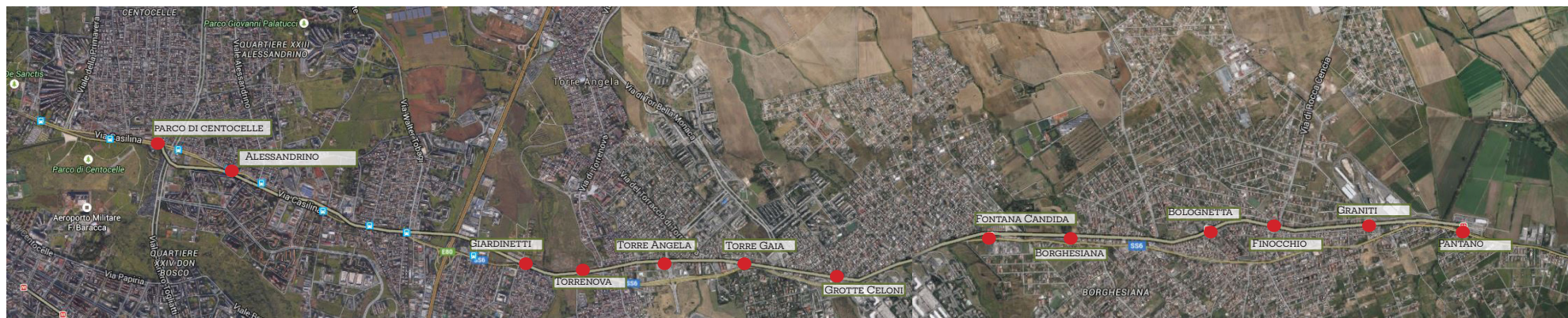


Figure 33. Map of current Metro C line going east out from the Centocelle stop (Google Maps). Metro stops are in Red



more difficult. Riders have been outraged by this. These cuts have become an issue for riders since demand for inter-periphery travel has increased.

According to the director of the elementary school who lives in the neighborhood and experiences the transit needs of families sending their children to school, more and more Romans are living deeper into the periphery. She described a trend in which the parents of her students are driving in from further peripheries and dropping their children off with their grandparents in Alessandrino. The grandparents drop off and pick up the children from school. The parents continue on to the city center, or closer peripheral areas for work and then return to pick up the children later on. It is rare that these parents work in Alessandrino.

As described by the director, as well as other residents and Don Stefano, the priest at San Giustino church, residents are opting to drive rather than use unpredictable and time intensive public transportation. Many local residents have told us that people anxiously work towards obtaining a

driver's license so that they can drive everywhere. This car culture is easily seen in Alessandrino by the lack of sidewalks, abundance of parking, and multiple cars parked within bus stops and crosswalks.

Although residents are largely pessimistic about bus service, many have expressed optimism about the service that the new metro, Metro Linea C, will provide. They see the metro as a more reliable and consistent form of travel than the buses and would provide transit service on a more metropolitan context. Many of them are also excited about the potential of the line, as property values and the amount of people traveling to the neighborhood are likely to increase. This includes a bar owner who now has a metro stop directly in front of her bar. She has called her bar a gold mine and expects a lot more people to traffic the area. She is even going to restructure her bar to accommodate more customers.

Despite this excitement for the potential of the new metro, the Metro C has been underutilized. There are several reasons for this, as discussed in the Appendix. However, the main reason is the line has been poorly integrated into the rest of the transit system. It lacks connections to the other metro lines because it does not reach the city center yet. In addition, it is duplicated by the 105 bus and Roma-Giardinetti tram, which, unlike the metro, brings riders from the Eastern peripheries to Termini in the city center. These factors combined have caused ridership to be lower than anticipated (Il Tempo, 24/11/2014).

A new express bus route called the 50 express was created to temporarily supplement the Metro C and bring riders to the city center, from the current terminal in Centocelle to Termini (ATAC, 2015). It makes express stops along Via Casilina, following the same route as the 105 and the Roma-Giardinetti. They are timed to depart from Centocelle immediately after a train arrives and are only in service during the hours the Metro C runs.



Figure 34. Metro C platform

Figure 35. Metro stop at Alessandrino

However, the 50 express has had more success supplementing the 105 and Roma-Giardinetti as an express route than encouraging Eastern periphery riders to transfer at Centocelle for the Metro C.

Because the Metro C is not completed and up to speed yet, it has failed to attract riders from competing services. People prefer the convenience of the one-seat ride provided by the 105 and Roma-Giardinetti over transferring in the Metro C + 50 express combination (Roma Today, 05/01/2015). The Roma-Giardinetti tram, also known as “the little yellow train”, is in particular, very much loved by riders and it has continued to outperform the new metro. According to an article about this literally titled “Romans Prefer the Old Railway” by the newspaper Il Tempo (24/11/2015), 35,000 people ride the tram per day in comparison to 12,000 on the Metro C. The tram runs much more frequently and reaches the city center much quicker than the Metro C + 50 express combination and the route 105. This was proven by several sample trips we have done using those routes, as discussed in the Appendix. Recently, the Metro C has gained a significant amount of ridership. This is because ATAC has enhanced service on the metro and reduced service on competing lines, in an attempt to make the service more attractive. The hours of the metro were extended later into the night to 21:00 (9pm) in March and to 23:30 (11:30pm) in April (ATAC, 2015). In addition, the route 105 bus was also made less frequent. These interventions have been working, with ridership on the metro increasing as much as 20%, according to ATAC (2015). Through our observations, we have seen that ridership on the 105 has in return decreased.

Despite the current decrease of ridership and service, the future of Alessandrino and nearby peripheries is promising. Once the Metro C has been completed and the transition

**“THE ROMA-GIARDINETTI TRAM, ALSO KNOWN AS ‘THE LITTLE YELLOW TRAIN’, HAS CONTINUED TO OUTPERFORM THE NEW METRO”**

finished, transit service will be drastically different.

Although soon ATAC will eliminate the 105 and Roma-Giardinetti to promote use of the Metro C, the Metro C will provide better service than these two services did. It will connect Alessandrino to many more peripheries as well as bring riders deeper into the city center to points such as the Colosseum, Piazza Venezia, and the Vatican. It will also feature connections to the Metro A and B lines (Roma Metropolitane, 2015). New tram routes on Viale Palmiro Togliatti and on Via Casilina along some converted trackage of the Roma-Giardinetti line will also enhance travel between peripheries, which is what the residents want (Agenzia Mobilita, 2012).

The process of transformation of transit service in Alessandrino and other eastern peripheries is in motion. Although it is inconveniencing riders right now, service will be much better once the transformation is done.



Figure 36. The Roma-Giardinetti tram, near Centocelle. (Photo by Claus Pusch from [http://urbanrail.net/eu/it/rom/fotos/G-Centocelle\\_1.jpg](http://urbanrail.net/eu/it/rom/fotos/G-Centocelle_1.jpg))



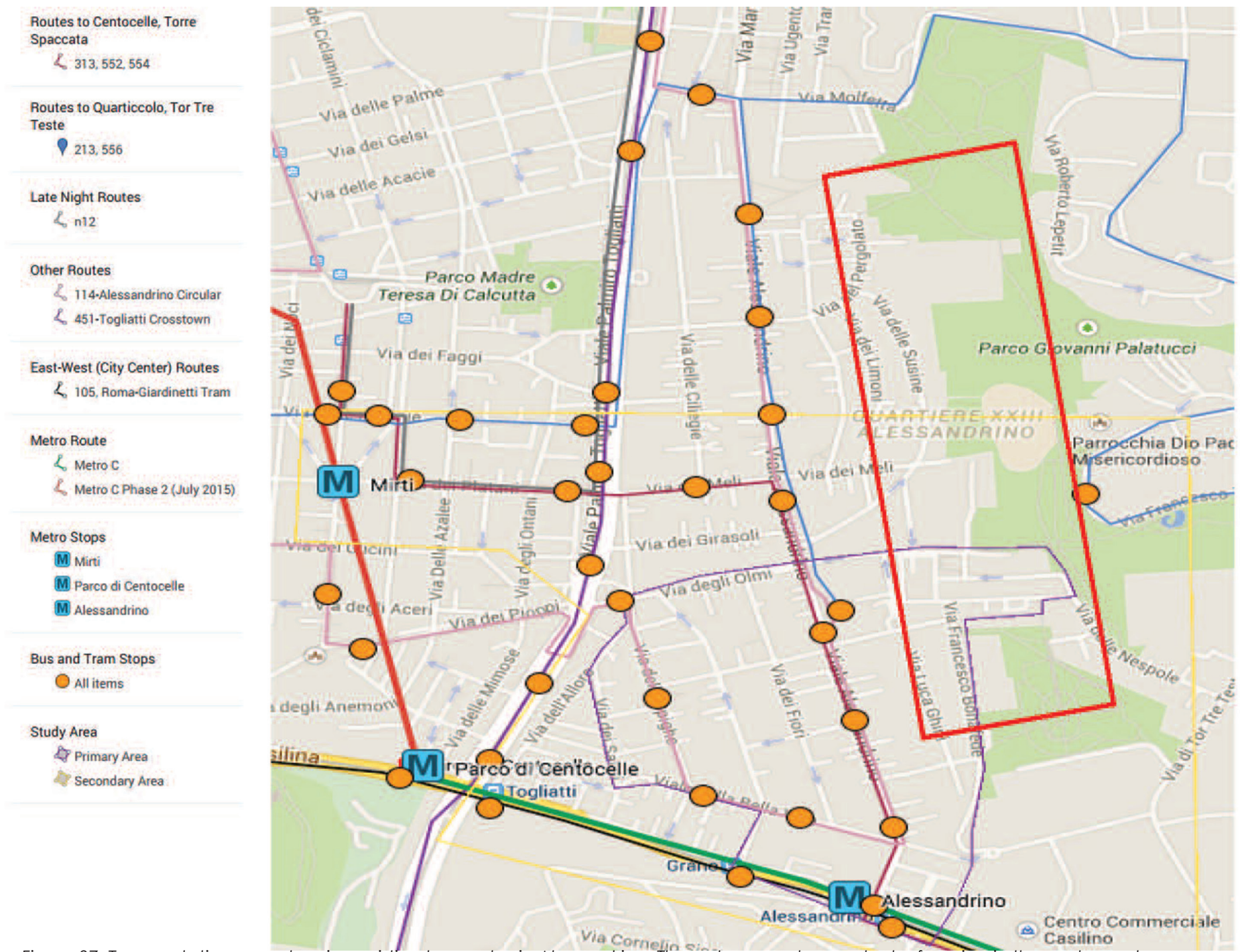


Figure 37. Transportation map showing existing bus routes in Alessandrino. The red square shows a lack of service in the eastern edge.



# LOST SPACE AND THE FUTURE OF PUBLIC TRANSIT

The Comune di Roma has established a plan for the redevelopment of many neighborhoods in the periphery, including Alessandrino (Comune di Roma, 2010).

Their main objectives for this project are as follow:

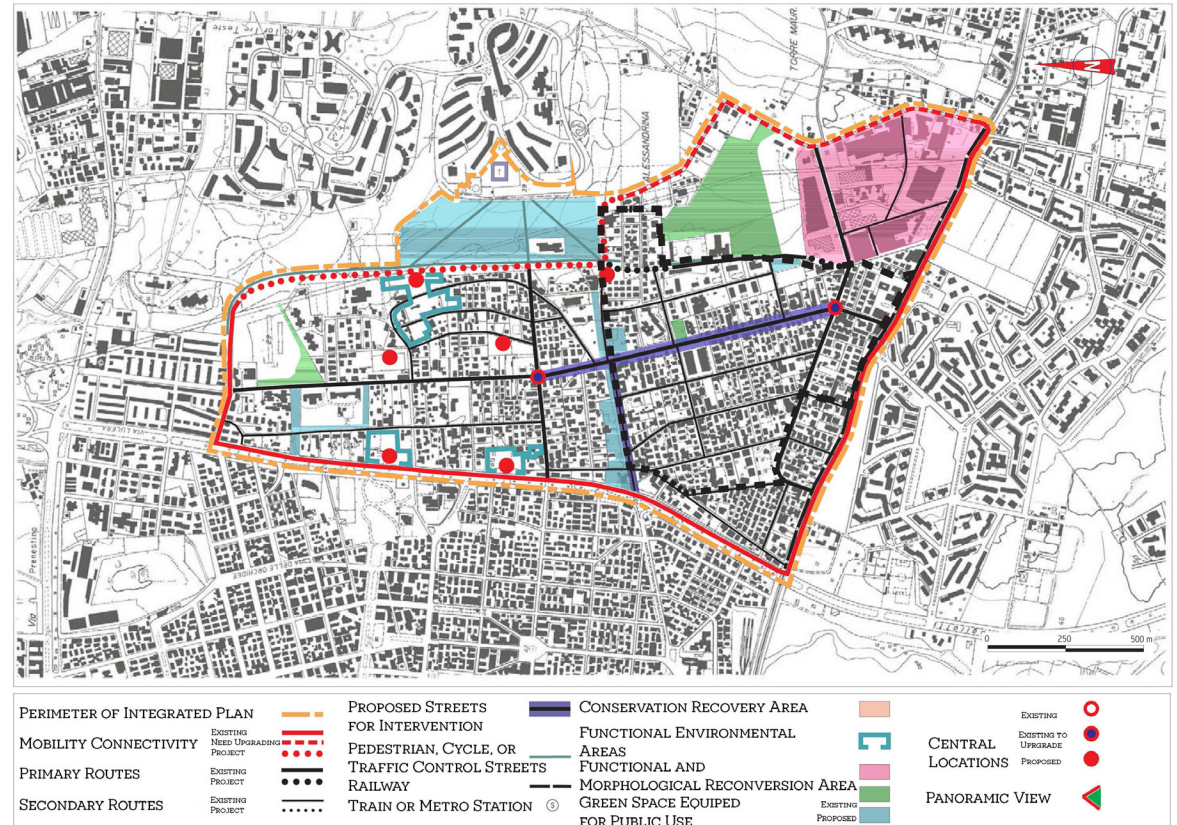
- Redevelopment of Viale Alessandrino as a central axis
- Identification of coordinated and hierarchical central and public places
- Adaptation of street structures to modern needs
- Densification of housing through specific interventions, including demolition and reconstruction projects

There are notable similarities between the Comune redevelopment locations and the lost space map completed during our street survey. For example, Via degli Olmi is identified as corridor for possible redevelopment, along with the aforementioned triangular parcel at the intersection of Via Luca Ghini and Via della Bella Villa on the eastern border of our primary area. They also highlighted a small stretch of pavement to the southeast of our primary area; this unsightly lot, which runs perpendicular to Via Casilina, currently functions as an informal parking lot, but we identified it early on as a location for redevelopment.

Through the creation of new public space along Viale Alessandrino, the Comune di Roma is increasing the potential for greater public transit connectivity.

These piazzas would be located at Viale Alessandrino's intersections with Viale della Bella Villa and Via dei Meli (north of primary study area). However, their efforts are centered mainly around the revitalization of central and east Alessandrino, isolating west Alessandrino and increasing their difficulty of access to these types of spaces.

See our 'vision' section, as well as design and policy proposal for more explanation about this plan and our proposal for additions to the plan.



CORNELL STUDY AREA

Figure 38. A Comune di Roma map outlining project proposal for Alessandrino redevelopment. Translation of legend by Angela Moreno-Long



# SWOT ANALYSIS

Based on our findings we organized a SWOT analysis in order to summarize the positive and negative factors and major themes impacting the neighborhood. This summary is helpful when thinking about projects and envisioning the future of the neighborhood.

## STRENGTHS

- Walking distance to basic needs inside the neighborhood- food, grocery, medical, recreation, bank etc.
- Good public community services: centro anciani, schools, theater
- Calm neighborhood and people are happy to live in it
- Lively neighborhood, there is a strong community feel, identity and loyalty

## OPPORTUNITIES

- Aqueduct is a major landmark that can and has been redeveloped
- New Metro C-line - reliable public transport system
- Few but well used green/public spaces

## WEAKNESSES

- Poor pedestrian infrastructure
- Parking and car dependent
- Absence of local fresh produce market
- Law prohibiting street market
- Incoming Big Box Stores
- Poor waste management and location
- Few public spaces
- Lost Space
- Low Tertiary Educational Attainment

## THREATS

- New Metro C-line: may be underutilized for a period of time, threat of creation of new lost space, risk of real estate price increase (pricing residents out), or neighborhood becoming a dormitory community
- Animosity between locals and immigrants (perception)
- Gated communities can diminish the sense of community for future generations

# VISION-CONCLUSION



Figure 39. An example of mixing of land uses in the neighborhood, on Via del Campo



After analyzing the community of Alessandrino over the past three months, we have identified its key opportunities, threats, strengths, and weaknesses. Alessandrino is a neighborhood with a strong identity and great potential for the development of future public space. In particular its major historical landmark the Alessandrino Aqueduct provides an opportunity for connecting the neighborhood to its surrounding areas, provides a space for citizen engagement and enhances local identity.

### ALESSANDRINO AQUEDUCT

The aqueduct appears on all of the Lynch Maps but is noted as a border of the neighborhood, not necessarily a key landmark or node. This indicates that it currently is not a significant area for residents. While there is a local collective memory of the aqueduct as a key part of the neighborhood, today it is poorly maintained and only serves as an edge marker for the neighborhood.

The plan presented by the Comune di Roma (2010) on requalification of the periphery offers a new vision for the aqueduct space in which the space is repurposed as a green corridor which includes a bike lane and garden space. This effort will also include renovating and repurposing identified lost space around Via Degli Olmi. Through the creation of this green corridor stretching from the city center, through the periphery, to the countryside, the Comune hopes to improve the livability and urban structure of neighborhoods surrounding the Aqueduct (Alessandrino, Tor Tre Teste and Quarticciolo) and value the cultural identity of the area. While this plan presents many inspired visions, it lacks specificity in regards to new uses for lost space. In addition, this plan will only impact the northern edge of Alessandrino. In the following pages, as well as in our policy and design proposal, we explore possible interventions which would expand on this Comune plan in order to enhance community identity through improved mobility, infrastructure and public space.

In order to activate lost space, strengthen connectivity within Alessandrino as well as on the edges of the neighborhood, and improve mobility we propose the repurposing of several lost spaces and also improving street and pedestrian infrastructure.

### PEDESTRIAN INFRASTRUCTURE

Through interviews, Lynch maps and our neighborhood analysis we identified several nodes in the neighborhood which are highly frequented:

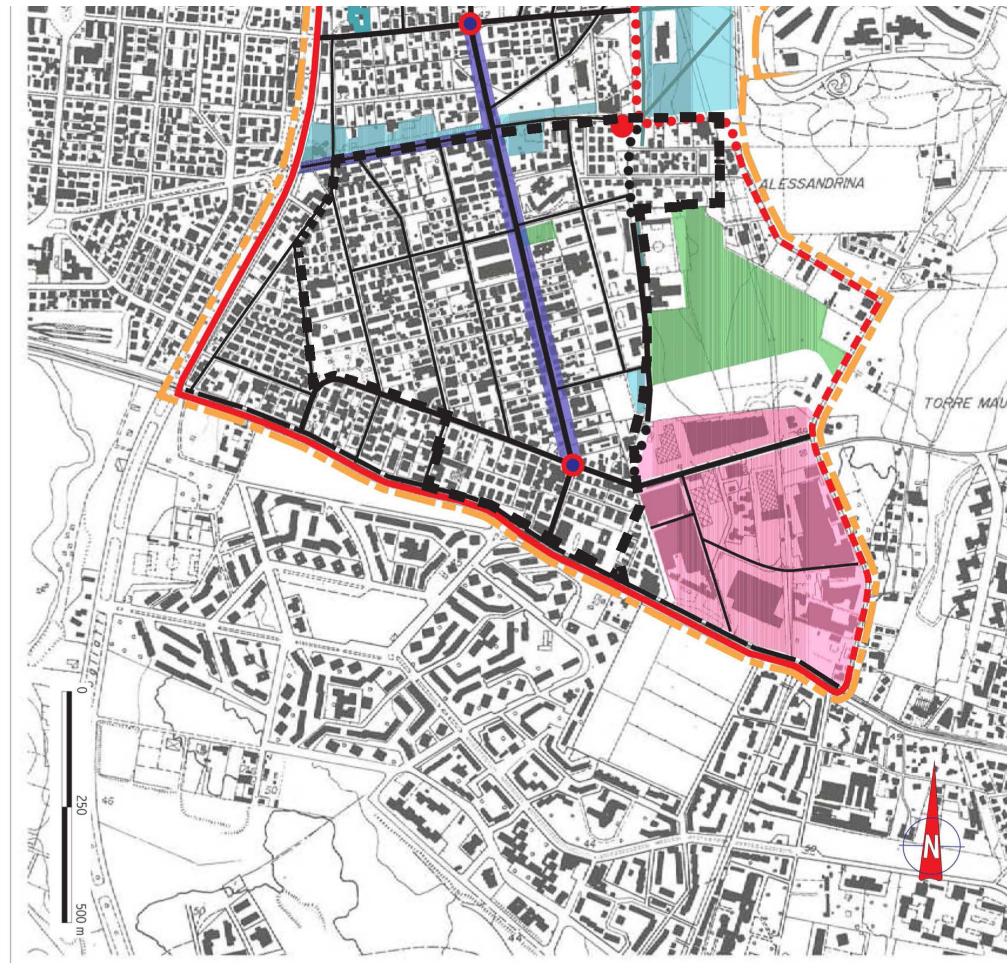
- Blue Ice (located at Viale Alessandrino and Via del Campo)
- San Giustino Church (on Viale Alessandrino)
- '-Centro Anciani' Park (Viale Alessandrino and Via del Campo)
- Tor Tre Teste Park
- Parco Centocelle (located in our secondary area)
- Piazza Alessandrino

We based our design proposal on pathways and networks which will increase mobility and reactivate lost space in relationship to these key nodes and landmarks.

Since its earliest establishment Alessandrino has been a neighborhood built incrementally, with changing populations and flows of people. Each phase of development has left its mark on the neighborhood, which we can see in the layering of ancient ruins, distinct street grids, and varied building typology. From this perspective we can think of Alessandrino as a resilient neighborhood which has preserved a strong neighborhood identity through the years. Moving forward there seems to be an exciting new phase for the periphery as transit connections are increased and previously abandoned spaces are incorporated into a new layer of the city.

# VISION: PEDESTRIAN MOBILITY AND GREEN SPACE CONNECTIVITY

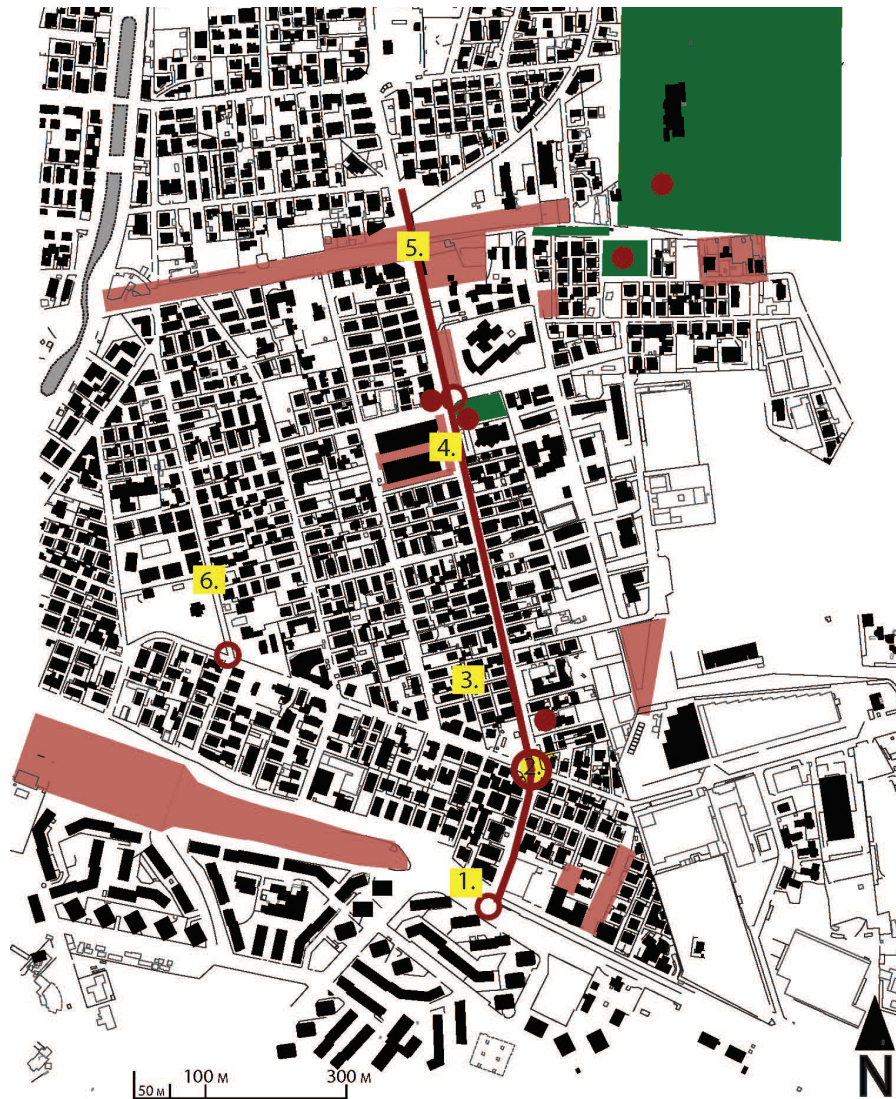
Figure 40. Comune di Roma map of proposed changes, and inventory of public space (cropped to focus on Alessandrino primary study area)



PERIMETER OF INTEGRATED PLAN		PROPOSED STREETS FOR INTERVENTION		CONSERVATION RECOVERY AREA		EXISTING	
MOBILITY CONNECTIVITY		EXISTING NEED UPGRADING PROJECT		FUNCTIONAL ENVIRONMENTAL AREAS		EXISTING TO UPGRADE	
PRIMARY ROUTES		EXISTING PROJECT		FUNCTIONAL AND MORPHOLOGICAL RECONVERSION AREA		PROPOSED	
SECONDARY ROUTES		EXISTING PROJECT		GREEN SPACE EQUIPPED FOR PUBLIC USE			
		RAILWAY					
		TRAIN OR METRO STATION					



The Comune di Roma plan has similar “existing central locations” to the central locations and intersections we have identified in our study. In addition the “proposed green space equipped for public space” overlaps in several places which we have identified as lost space; specifically the area around the aqueduct, and the triangle on the south-eastern edge of the neighborhood. The map below shows our identified central locations, and areas identified for interventions. We have outlined in the following pages 6 key design proposals.



1. PEDESTRIAN INFRASTRUCTURE ON VIA CASILINA
2. VIALE ALESSANDRINO SIDEWALK AND INTERSECTION INFRASTRUCTURE
3. LINK DEAD END STREETS
4. PEDESTRIAN “MALL”
5. MULTIPURPOSE COMMUNITY STRUCTURE ALONG AQUEDUCT
6. VIA DELLE SPIGHE TRAFFIC CALMING

GREEN SPACE EQUIPPED FOR PUBLIC USE  
 LOST SPACE CORNELL STUDY  
 CENTRAL LOCATIONS  
 MAIN INTERSECTIONS  
 DESIGN PROPOSAL

54 Figure 41. Lost space and central locations designated by Cornell study, design proposal locations

# 1. PEDESTRIAN INFRASTRUCTURE ON VIA CASILINA

## Problem:

Via Casilina is the primary road that connects the community of Alessandrino to the center of Rome. Already, Via Casilina supports a heavy volume of vehicle traffic and offers a tram service from Termini to the periphery. However, from our site survey, we observed that Via Casilina does not offer equal access to bicyclists or pedestrians. The lack of a committed bike lane or suitable sidewalk makes the street difficult to navigate or cross without a car.

## Solution:

While Casilina is currently filled to capacity, the new proposal to demolish the existing tram line in favor of the Metro C presents the opportunity to transform Via Casilina into a complete street with equal access for all forms of mobility. Complete streets is a design proposal for urban spaces with its origins in North American planning practice. It is a street design which incorporates provisions for pedestrian access, bicycle access, and transit access (Sears, 2014). With the new space open in Via Casilina, we propose two new directional committed bike lanes and a pedestrian path to provide greater mobility and safety to Alessandrino residents with different transportation preferences. This would also improve access to Parco Centocelle, which based on resident responses is a popular park destination.



Figure 42. Via Casilina as seen from the corner of Viale Alessandrino looking east

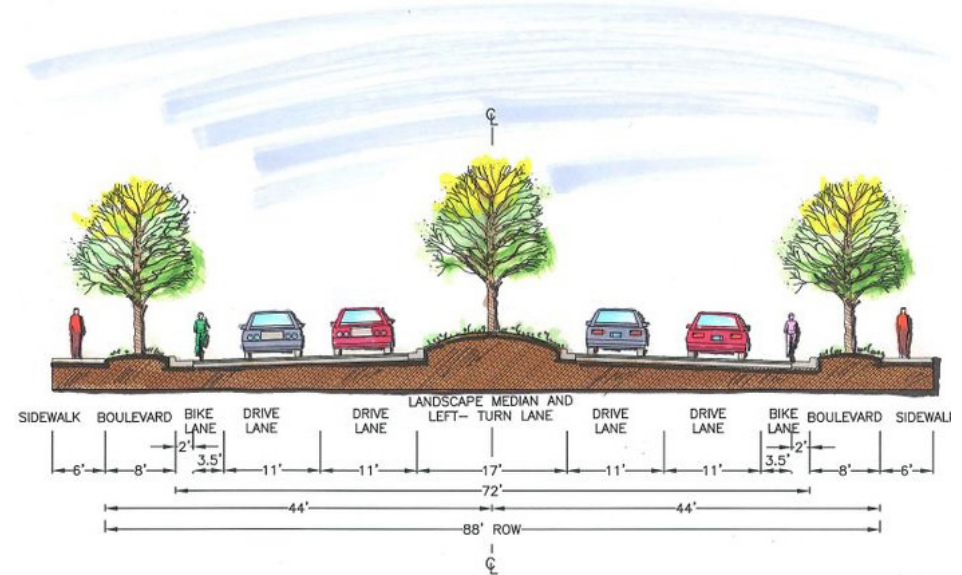


Figure 43. Example of a "complete street" proposal with committed bike lane and pedestrian area (Complete Street Photo Gallery, 2015)



## 2. VIALE ALESSANDRINO SIDEWALK AND INTERSECTION INFRASTRUCTURE

### **Context of Problem:**

Viale Alessandrino is the main spine and central axis in Alessandrino where the majority of the commercial activity takes place. Currently Viale Alessandrino has a curbed sidewalk on both sides, however it is poorly maintained and is not continuous in terms of the pavement materials. There are also several interruptions (tree roots, holes, etc.) which make walking difficult. Additionally, although there are 10 crosswalks covering 1 kilometer of Viale Alessandrino from Via degli Olmi and Via Casilina, they are not maintained as crosswalks.

### **Solution:**

Viale Alessandrino is one of the most important streets in terms of connectivity within and out of the neighborhood. It runs through the center of the neighborhood, contains most of the main nodes and meeting points, and is the major entry into Alessandrino from Via Casilina. In addition Viale Alessandrino intersects with Via degli Olmi and the aqueduct on the northern edge of our study area. We intend the street to be a pedestrian friendly “complete street” that has infrastructure for both motorized transit (buses and cars) and all pedestrians. The “complete street” Viale will serve as a main connector which allows for convenient and safe transit between the main nodes of the neighborhood.

We propose a continuous paved sidewalk that is 2.7 meters wide (approximately 9-10 feet) along Viale Alessandrino, between Via Casilina and Via degli Olmi, that is easy to maintain and can be accessed by disabled people. It will be important to create infrastructure which accommodates all citizens, especially the elderly population

in Alessandrino who walk throughout the neighborhood. We propose something similar to what the San Francisco Better Streets proposes for constrained streets.

Additionally we propose the redesign of the crosswalks and intersections along Viale Alessandrino. Crosswalks will be placed along every intersection of Viale Alessandrino and will be at least as wide as the sidewalk, per best practice for safe crosswalks (San Francisco Better Streets). These crosswalks will be made high visibility and visually extend pedestrian right of way into the street using special intersection paving. Special intersection paving can “break the visual monotony of asphalt streets, highlight crossings as an extension of the pedestrian realm, and announce key civic or commercial locations” (San Francisco Better Streets). This special paving can be poured concrete, stone, or concrete pavers. The special paving will be outlined with zebra or ladder pattern high-visibility stripes which are important for catching driver’s attention; drivers have a low approach angle which makes it difficult to view pavement markings. Every intersection will be disabled accessible and have appropriate landscaping in order to separate pedestrians and traffic.



Figure 44. (left) Intersection of Viale Alessandrino and Viale della Bella Villa. (right) Example of special intersection paving



Figure 46. Examples of interrupted crosswalks on Viale Alessandrino

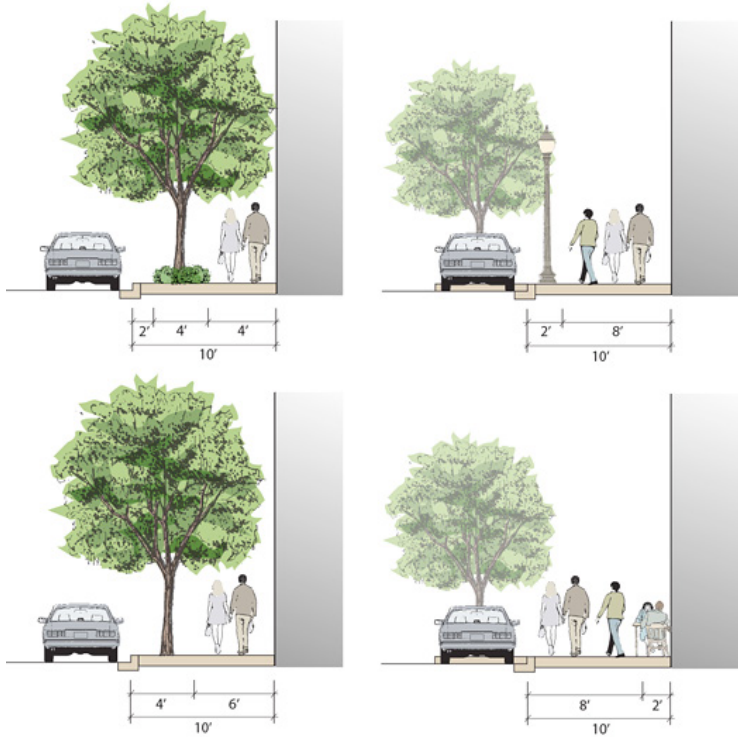


Figure 45. Sections depicting constrained sidewalks



### 3. LINK DEAD END STREETS

#### **Context of Problem:**

Alessandrino has many public dead-end streets, as well as private dead-end streets which serve as entrances to gated communities. These streets limit mobility within Alessandrino and are not pedestrian friendly. Public space, in this case public streets, should be accessible to all. In Alessandrino dead-end streets could be connected to main streets but are blocked by gates or walls. A clear example is shown in the photo of Via delle Banane that is supposed to connect Viale Alessandrino and Via dei Fiori but is blocked by a gate.

Many other dead end streets across the neighborhood have this problem and are inhibiting west-east mobility across the neighborhood. Dead end streets are lost space that could be utilized to provide very much needed pedestrian space in Alessandrino.



Figure 47. Via delle Bannane

#### **Solution:**

We propose the improved connectivity of dead end streets by removing the informally constructed gates and walls that block them and making them pedestrian friendly walkways. In accordance with the San Francisco Better Streets guidelines we want to convert these dead end streets into residential walkways and alleys that connect with main streets. We plan to remodel them using special landscaping indicating a clear continuous path with brick, or brick patterned concrete paving different from the asphalt pavement in the main street, this pavement will be easy to maintain and clean. Additionally lighting can be implemented either on the ground by installing them along the pathway or as small lamp posts.

The renovation of dead-end streets creates more pedestrian-dedicated space away from cars, and enhances connections across the neighborhood. Residents would be able to access the central nodes from western and eastern parts of Alessandrino.



Figure 48. Example of pedestrian friendly alley

## 4. PEDESTRIAN “MALL”

### Problem:

On Viale Alessandrino, just across the street from the popular centro anziani, located in front of the only Blocco Stecca buildings, there is a substantial area filled with parking which interrupts pedestrian flow. This lost space is located on the west side of the intersection at Viale Alessandrino and Via del Campo. Blue Ice, the important meeting place for young residents, and the well used park with the centro anziani are located at this intersection and pedestrian connection is key between these spaces. While we cannot remove parking spots, we propose transforming the small street between the two large buildings, which has commercial store-fronts, into an exclusively pedestrian area.

### Solution:

We propose to transform this lost space into a pedestrian-friendly public space on Alessandrino’s most well-trafficked street. As the San Francisco Better Streets (2010) initiative states, areas near popular local destinations should be equipped with proper infrastructure that is sensitive to the needs of those visiting the destinations. In this case, the Centro Anciani provides a wonderful opportunity as a hub for pedestrian access for the elderly population in Alessandrino. As part of our pedestrian network project, we propose the restructuring of the lost space and adjacent Blocco Stecca structure into a pedestrian mall, providing safe, continuous access via foot to the centro anziani and its surrounding areas.



Figure 49. Current parking area in front and between Blocco Stecca

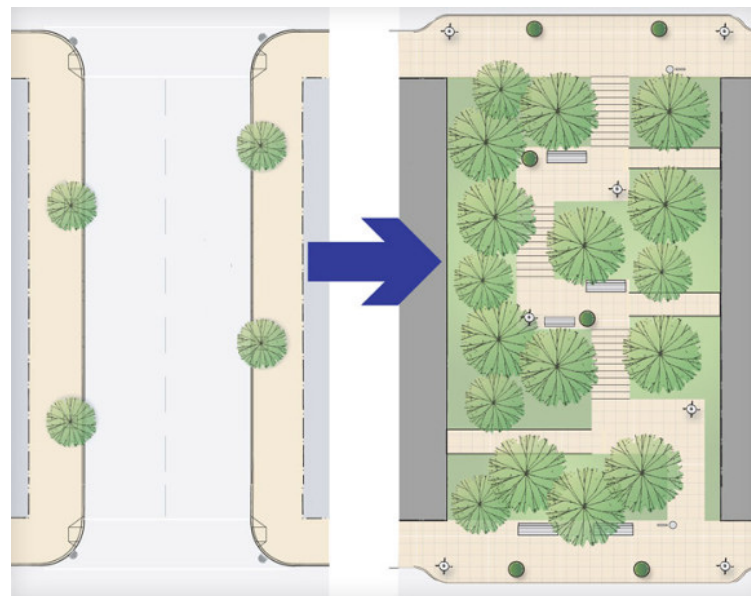


Figure 50. A possible transformation of the space between the two buildings (Blocco Stecca buildings)



## 5. MULTIPURPOSE COMMUNITY STRUCTURE ALONG AQUEDUCT

### Problem:

As we have discussed the Comune di Roma has plans for renovating the Alessandrino Aqueduct into a green corridor connecting periphery to center. The portion of the aqueduct running along Via degli Olmi leads east to the Piazza Alessandrino and then into Parco Tor Tre Teste. This proposed green corridor will be important in activating lost space along the aqueduct but this plan does not interact with the neighborhood to the south. There needs to be a connection between the aqueduct and Viale Alessandrino, a northern anchor or focal point which ties the neighborhood together.

### Solution:

We propose constructing a small structure with architectural features which recall the history of the aqueduct. We envision something similar to the urban center we visited as a class in Arezzo (see picture). The building could serve as a multi-purpose community space and would create a new node between Piazza Alessandrino, Blue Ice and the centro anziani park. The space would draw residents further north and activate what is currently lost space on the edge of the neighborhood.



Figure 51. The intersection at Viale Alessandrino and Via del Campo, looking west



Figure 52. Urban Center in Arezzo. Photo by Angela Moreno-Long

## 6. VIA DELLE SPIGHE TRAFFIC CALMING

### Context of Problem:

Via delle Spighe is located in the West of Alessandrino and is a long straight street approximately 500 meters long. It is classified as a secondary one way street in our street hierarchy, is predominantly residential, and has either patched or no sidewalks. In our fieldwork we noticed that cars along Via delle Spighe frequently break the speed limit of 50 km/h. Luca from the San Giustino theater commented that Italian drivers “never respect the rules and regulations.” These drivers present a safety threat for both pedestrians and other drivers.

### Solution:

We propose a physical intervention along Via delle Spighe using raised crosswalks to act as speedbumps. “Raised crosswalks make pedestrian crossing easier and safer for pedestrians by more overtly continuing the sidewalk across an intersection, not only making crossings more visible to drivers, but physically requiring them to slow.” (San Francisco Better Streets, 2010)

We propose elevated crosswalks in the following locations along Via delle Spighe:

The Intersection with Via delle Agavi

The Intersection with Via del Viburni

The Intersection with Via del Campo

150 meters South of Via del Campo ( In between Via del Campo and Viale della Bella Villa

The Intersection with Viale della Bella Villa

The reasoning behind the location of these elevated crosswalks follows Collarte’s (2012) work which states that traffic calming initiatives should be located less than 160 feet (approx 5 meters) apart from each other. As such, our intervening

elevated crosswalks will be spaced at intervals between 50 and 150 feet. The presence of these crosswalks will serve two functions; first it will significantly reduce traffic speeds along Via delle Spighe and second provide superior pedestrian access.



Figure 53. Via delle Spighe intersection with Via dei Viburni, looking south



Figure 54. Example of crosswalks for safer pedestrian mobility





# APPENDIX B. INTERVIEW QUESTIONNAIRE

## ALESSANDRINO INTERVIEW QUESTIONNAIRE

### General 'On-the-Street' Questions:

1. How long has resident/interviewee been in the neighborhood?
2. Where are they from and how they arrived to neighborhood?
3. What is one thing you like and one thing you would change in the neighborhood?
4. How does the resident think the neighborhood is perceived (from the outside)?
5. Where do people hang out, gather and recreate? (based on different demographics like age, background, etc)
6. How often do residents leave the neighborhood?
7. Where do they go and for what reasons and what types of transport do they use?
  - a. How do you move within the neighborhood?
  - b. How do you move out of the neighborhood?
  - c. Describe the use of transportation during the day?
8. Impact of the Ipercoop/mall on business and daily life in the neighborhood?

### Marconi Elementary:

1. Background of teacher: how long teaching? How long in Alessandrino? Is she from Alessandrino/live nearby?
2. Where are students coming from? (mostly from Alessandrino or surrounding neighborhoods?)
3. History of school?
4. Demographics in the school, have the demographics changed in the time you have been here and if so, how?
5. Have you taught at other schools before? What's unique about this one and this neighborhood?

### Don Stefano:

1. How long has he been at this parish?
2. In the time you have been here how have you seen the neighborhood change? (demographics, physical, relationship to surrounding areas?)
3. What are some positive changes in recent years and what are changes which you see as being a threat to the neighborhood?
4. What is the make-up of church attendees? Age wise, ethnicity? Is there a long tradition of many generations of the same family staying in the neighborhood?
5. Where are the church attendees coming from? Just Alessandrino or other neighborhoods as well?
6. Role of the church, and Don Stefano, in addition to religious activity are there social roles?

### San Giustino Theatre Director:

1. How long has the theater been operating? How did it begin (a brief history)
2. How does it operate? Funding?
3. What kind of events and programming are put on?
4. Who participates in the events of the theater?
5. Are these participants all from Alessandrino or are they coming from surrounding neighborhoods?
6. Goals of theater? (Role of theater or art in the community?)
7. Do you think drama/artistic representation is characteristic/important identity part of the neighborhood?
8. Upcoming events- to go in the evening?
9. Since the theater has been in the neighborhood has Alessandrino changed? If so, in what way? (Positive and something you would change?)



# APPENDIX C. INTERVIEWS

## INFORMAL CONVERSATIONS

During our fieldwork we engaged in many informal conversations in shops, bars, cafes, and on the street with a wide range of people. These dialogues were a helpful beginning to understanding the neighborhood and creating a framework for our formal interviews.

### **Hamil, Fruit stand owner**

“This is a very tranquil place, If I work well, people treat me very well and I have many friends in this neighborhood”

Opened his business 5 years ago along viale Alessandrino. Lives in Torre Angela, has 3 children, one is studying abroad in England and the other 2 are in middle school. Feels very welcomed by the community.

### **Don Luca, Priest at San Giustino Church (recent transfer to Parish)**

“Alessandrino is a working class neighborhood, we have new migrant families, but also an aging population, just this Saturday we had three funerals”

“ This church is not only a religious center, we welcome many immigrants into our community”

A sociologist who teaches in the local middle school. Believes the church of San Giustino has a social function and acts as a connector between different cultures. Talked about the Centro di Ascolta di Caritas which is a center for immigrants, they have food and clothes banks and give legal advice .

### **Federico, “ Il Mondo dell’Arte” Art Gallery**

“ I don't think there are problems with pedestrian mobility in Alessandrino, but rather the streets are poorly maintained and I always have to dodge the holes on the street when driving my car”

Is a 26 year old young man that grew up in Alessandrino. His art gallery has 2 store fronts, one in Alessandrino (founded in 1974) ,and another one in Rome City Center. Wants to continue living in the neighborhood, he has everything he needs. For going out at night he usually goes either to Centocelle or to the Rome city center and for shopping he goes to Via Toscolana and Roma Est. Thinks there is nothing wrong with pedestrian mobility in the neighborhood but rather complains about the poor road maintenance.

“Life is quiet here, but not dormant”

### **Marta, Daughter of Bar Fantasia owner**

Her mother owns the bar right next to the Metro C station. She thinks it will become a major development hub in the future with the new metro. Doesn't like the migrants from India or Bangladesh because she thinks they are not clean, and are used to littering the streets. Is friends with Marco and enjoys going out in Centocelle.

### **Marco, son of Vanity Estetica owner**

His mother owns a beauty salon near Bar Fantasia but is from Torre Spaccata. Grew in up in Torre Maura but works with his mom in the beauty salon.

## FORMAL INTERVIEWS

### **Cristina Leonardis, Marconi Elementary principal**

Has worked for over 20 years in the school of Alessandrino. She says the many children in Marconi school don't live in the area, but come to Alessandrino because of their grandparents. Parents live in the outer periphery of Rome and drop off kids on their way to work, then kids are picked up by grandparents in the afternoon while their parents are still at work. However, kids living in the neighborhood have priority in this school.

Says there is a problem with pedestrian mobility in the neighborhood and children are not safe when in the streets.

"nothing has really physically changed in the neighborhood in the last 20 years, except for the social context of higher immigrant population, we are now seeing second and third generation immigrants "

" Approximately 20% of the children are immigrants"

" 15% of the children have some sort of disability and we provide accommodations for them in this school"

Explained how at first immigrants came primarily from Romania, Albania, Poland and Ukraine but now there has been a shift to immigrants from India and Bangladesh.

### **Luca, Actor at San Giustino Theatre**

The theatre used to be church cinema that was abandoned and in 2005 was renovated into a theatre with 260 seats by Monica Fermi the leader of the theatre association. They currently have theatre courses, around 20 people are currently enrolled in theatre courses and their age ranges from 40-50 years old.

Not many immigrants participate in theatre activities but now they are trying to involve more with more events targeted

towards them. He considers theatre as a symbol of civiltà, and this is why want to engage more people in the community.

" I really like the Casilina area because its essence has remained the same since the 60's"

Believes there is a high speed driving problem in the neighborhood because Italians never follow the rules. "Italiano che non rispetta mai le regole"

He mentioned a really good restaurant in Centocelle that was currently advertised in a NYTimes article " What to do in 36 hours in Rome" ([http://www.nytimes.com/2015/03/08/travel/what-to-do-in-36-hours-in-rome.html?\\_r=0](http://www.nytimes.com/2015/03/08/travel/what-to-do-in-36-hours-in-rome.html?_r=0))

### **Don Stefano, Priest of San Giustino church**

"In the 20's and 30's this area was a field, the church of San Giustino was constructed in 1953 and after this period there was accelerated urbanization"

"Although this is the periphery we have everything we need here in the neighborhood"

In 1953 the church of San Giustino was constructed in Alessandrino. Don Stefano is currently working on a project trying to give a blessing to all the families and homes of the neighborhood, they offer the blessing in 4 different languages to try to include immigrants.

He believes Alessandrino is poorly connected to the city center and said that if he has to be in the city center at 9 am he has to leave Alessandrino by 6 am.

" Out of 134 children enrolled in catechism course, 33 are immigrants"

" Young people have difficulty finding jobs and many live off their parents or grandparents pension, on top of that there are very few employment opportunities in Alessandrino apart from the basic services".



# APPENDIX D. PUBLIC TRANSIT

Analysis by Jamel Simmons

Public transportation in Alessandrino is currently going through a process of restructuring. The arrival of the new 2 Billion Euro subway Metro Linea C has sparked a transformation of public transit service in Alessandrino and in the next 10 years, service will be drastically different. However, part of this transformation and restructuring has been the decline and deterioration of public transit in the neighborhood. Bus lines have had their service reduced or eliminated altogether and are continuing to be cut. A tram line that has been in service for 100 years has also been reduced in preparation for elimination. This among many other reasons, as well as the fact that the Metro C is not yet completed, has caused public transit service in the neighborhood to be underutilized. Although the future seems promising with the completion of the Metro C and the arrival of a new tram line, right now public transit in Alessandrino is at a low point. Looking at a map of bus routes in the neighborhood, one can see that Alessandrino is pretty well covered. The stops are generally 250-300 meters apart and most residents live within 300 meters or 3-5 minutes away from a bus stop (Google Maps, 2015). The eastern part of the neighborhood is not as well served, however, with residents living there generally living 500 meters or 6-8 minutes away from a bus stop. Altogether there are 9 bus routes that serve Alessandrino (ATAC, 2015). They are all run by ATAC, the main company that runs local public transportation services in Rome. The 105, 114, 213, 313, 451, 552, 554, and 556 provide day and evening service while the n12 provides service after midnight. Several routes, including the 552, 554, and 556 also have weekend variants that deviate from their normal weekday routes. The buses generally run on the main arteries of the neighborhood. Most of the peripheral routes to Centocelle, Quarticcolo, Tor Tre Teste, and Torre Spaccata run on Viale Alessandrino while the route 105 to Termini and the city center runs on Via Casilina. However, the route 114 travels the deepest of all the routes into the neighborhood, traveling on the small residential streets of Via Delle Spighe and Via Degli Olmi.

The 114 has several stops in front of houses on small residential streets and essentially brings residents from the residential areas of Alessandrino to the commercial stores and markets on Viale Alessandrino. Despite this convenient routing and it being designed for Alessandrino residents, with it even being designated as the Alessandrino circular route by ATAC, it provides the worst and most unreliable service of all the bus routes in the area. The most frequently it runs is every 20 minutes, during the peak hours of 8-10 and 14-17 (2-5pm) during the weekdays. (ATAC, 2015) All other times, it runs from every 30 minutes to as much as every hour. Because of this ridership is extremely low on this route and is only used by kids coming out of the several schools it serves and the elderly. Low frequency and sole use by schoolkids and the elderly is a pattern for bus service throughout Alessandrino, not just the 114. This among many other reasons, has made bus ridership low, despite the good coverage.

Bus ridership is low in Alessandrino for four main reasons. The first, as we have just discussed, is that the buses do not run very often. The buses generally run every 15-20 minutes during the day. Second, traffic and congestion make bus travel times inconsistent and therefore make the buses unreliable. Although this mostly applies to the route 105 to the city center, it is an issue for the other bus routes as well. The main artery Viale Alessandrino is only one lane in each direction and so it is easily able to be congested. The route 105 is slowed down by the small width of Via Casilina as well and also the high traffic and congestion around Termini.

Finally, there are few bus routes to other peripheries. More and more residents have moved out deeper into the periphery than before and as a result there is an increased demand for travel between peripheries. In fact, a teacher we interviewed at a local school told us that the parents of her students are driving in from further peripheries and dropping their children off with their grandparents in Alessandrino. The grandparents drop off and pick up the children from school. The parents continue on to the city center for work and then return to pick up the children later on. However, despite this increasing demand for this travel between peripheries, service other peripheries has been cut. This is due to recent budget cuts that have forced ATAC

to eliminate some bus lines and consolidate others. This is mostly to blame for the high cost of the Metro C, which will be discussed further later. The fourth reason is poor accessibility. Several factors make reaching or waiting at bus stops difficult and thus do not work in favor of bus use. One is the obstruction of bus stops. Many bus stops in Alessandrino are obstructed by trees, cars, garbage dumpsters, and several other objects. This not only prevents buses from pulling up to the curb like they're supposed to, but it also forces people to wait for the bus out in the street. There's been several times when we've seen the elderly and schoolkids wait in the middle of the street and close to oncoming traffic just to signal bus drivers that they are there. In the case of trees, it blocks the bus stop signage, preventing people from seeing what routes stop there and what other stops those routes are making. Another factor is the lack of sidewalks on the secondary and tertiary residential streets. This mostly applies to the route 114 as it's the only route to travel on such streets. The lack of sidewalks in these areas have resulted in bus stops that are placed in walls, next to residential garages, or simply in the street. This does not give riders a proper or safe place to wait for the bus. Finally, the abundance of dead end streets is also problematic. They increase the distance riders living on such streets have to walk in order to get to a bus stop. These riders have to walk as much as 200 extra meters, 200 more than if their street was a through street. (Google Maps, 2015). All of these factors combined have made using buses unattractive to residents. Our data and observations were further supported by residents. Several residents that we interviewed told us that they do not like to take the buses because they take too long to arrive and that they're slowed down by traffic and are therefore unreliable. They also said that because of this, people are anxious to obtain their driver's license so that they can buy a car and drive everywhere. We also interviewed a bus driver who told us that while the coverage provided by buses is good, only the elderly and schoolkids use them. He said that there needs to be more bus routes to other peripheries, especially since many of them have been cut recently. According to him, residents have been outraged by these cuts. As it was discussed earlier, more residents are traveling between peripheries. However, the current structure of bus routes poorly support this. Although there is overall aversion to buses by residents, many residents have told us that they would use the new metro line being built, Metro Linea C.

The Metro C is Rome's third and newest subway line. It just recently opened in November 2014. It is being funded by three parties: the Region of Lazio (12%), the Municipality of Rome (18%), and the State (70%). (Wordpress, 2013) The line is being built in four parts (Roma Metropolitane, 2015), of which only the first 2 are completed and 1 that is actually in service. Phase 1 is from Pantano to Centocelle and is currently in service. Phase 2 will bring the Metro C from Centocelle to Piazza Lodi in the summer of 2015 and San Giovanni Metro A station in 2016. The third phase will further extend the line to the Coliseum Metro B station in 2020. The fourth will bring the line through Piazza Venezia to the Vatican and possibly as far as the Olympic Stadiums by 2024. Currently, only phases 1-3 and up to Piazza Venezia are funded (Roma Metropolitane, 2015). Its construction is being overlooked by Roma Metropolitane and service is run by ATAC. The line is being constructed by a contractor called Metro C S.p.A. The line is late and extremely overbudget (Metro x Roma, 13/09/2013); the section from Centocelle to Lodi was supposed to be open by 2014 and the cost for phase 1 alone was 2 Billion Euro and it's costing 196 million Euro per kilometer. That is far above the European average of 175 million Euro per kilometer and is thus being called by many as the most expensive project in European history (Wordpress, 2013). In fact, several peripheral bus lines had to be cut to help fund the Metro C.

The high cost is mostly because it is going deep through the historical center, deeper than the other two existing metros. Because of this, there has been many political battles about the concern of the stability of the historical sites it will go through (Metro C SPA, 2015). Even though the contractor has taken several steps to make the line less disruptive of the sites it will go through, including making the stations as deep as 30 meters (Metro C SPA, 2015), there have still been concerns. There have also been several archeological discoveries along the route, including remnants of Emperor Hadrian's school at Piazza Venezia. In fact, a planned stop at Largo Argentina was cancelled because the area was too archeologically rich (Roma Metropolitane, 2015). Another reason for its high cost is its many modern features.

The Metro C is hypermodern and features amenities that not only enhances the experience of riders but also promotes safety and the protection of its riders and infrastructure. One modern feature of the Metro C is platform screen doors, which are doors that are placed on the platform and next to the tracks. They only open when there is a train within the station. This



prevents people from getting onto the tracks and into the tunnels, protecting both the riders and the infrastructure at the same time. A second feature is driverless trains. This allows the system to have more consistent frequency and travel times while also allowing the system to be opened and closed more efficiently. Although there are no personnel on board, the trains are still extremely safe. There are multiple cameras within the stations, trains, and tunnels and they are constantly monitored by a central communications center. The train interior is also completely connected, with passengers being able to walk from the first to the last car without leaving the interior of the train. This promotes safety because passengers are not able to fall into the tracks when moving between cars, unlike on some subway trains. There are also fire extinguishers in every car, further promoting safety. A third feature is countdown clocks, which are in every station. This allows passengers to know exactly when their train is arriving. A fourth feature is separate designated staircases and escalators for entry and exit. This improves the flow of passengers in and out of the station. Lastly, the Metro C features crystal clear automated announcements in both Italian and English. The announcements are also in text form on several screens located throughout the car. This allows passengers to clearly know where they are and where they are going. Unfortunately, despite all of these modern features, the line has not been able to make up for its huge price tag and is underutilized.

The Metro C has had a slow start and is underutilized for several reasons. One is that it is not connected to the rest of the metro system, lacking connections to the Metro A and B lines, and is therefore isolated. Another is that it has inconvenient service hours. Up until March 2015, the last train was at 18:30 (6:30pm). (ATAC, 2015) In addition, it has a relatively low frequency, especially when compared to the Metro A and B lines. Unlike those lines which run every 3-5 minutes during peak hours and no more than every 10 minutes other times, the Metro C runs every 12 minutes throughout the day. However, the main reason why the Metro C is underutilized is its competition with the route 105 bus and Roma-Giardinetti tram.

This competition between the three routes is because the Metro C does not serve the city center, while the other two do. This has made the transition of transit and the integration of the Metro C rough for riders. People prefer their old service over the current new service. The Roma-Giardinetti tram, aka. the little yellow train, in particular is very much loved by riders.

Also known as the “little yellow train”, the Roma-Giardinetti tram is a

former railway that was converted into a light rail run by ATAC and has been in service for almost 100 years. (Il Tempo, 2015) It currently operates between the Termini train station in the city center and the eastern suburb of Giardinetti, traveling on Via Casilina for the majority of its route. It is the most frequent service that Alessandrino has, running every 5-7 minutes during the day. (ATAC, 2015) It is also the most preferred of the three options to the city center because of its reliability and quick travel time to the city center. In fact, there is an article about this literally titled “Romans prefer the old railway” by the newspaper Il Tempo (24/11/2015) that discusses this. According to this article, 35,000 people ride the tram per day in comparison to 12,000 on the new Metro C. On the contrary of the route 105 and Metro C to 50 express bus options, which take an average 40 minutes to get to Termini during the day, the Roma-Giardinetti tram is able to cover the same distance in 25 minutes on average. This is partially because of the fact that it does not have to contend with traffic and congestion as much as the buses do, since it has its own dedicated tracks and space. All of these factors combined have allowed riders to overlook the fact that some of the trams in service on the line right now are as much as 80 years old. The only aspect of the line that we have observed could be better is the placement of the stop at Termini.

Unlike the routes 50 express and 105 which leave riders at the main entrance of Termini and Piazza dei Cinquecento, the surrounding hub which provides connections to numerous bus, tram, and metro lines, the Roma-Giardinetti tram leaves riders approximately 700 meters east of that, at the eastern entrance. The only connections riders have there are to the infrequent route 70 and 71 bus lines. We’ve seen that while the tram is the more desirable option to travel to and from Alessandrino, it’s also the most inconvenient coming from Largo Argentina and other points nearby. We ended up taking the route 105 the most often, despite its unreliability. However, other than this flaw, the line has proved to be successful and well used, so much in fact that it has become an issue for ATAC and the Metro C. This issue has caused ATAC to slowly reduce service on the line, in anticipation of eliminating it in the near future.

The Metro C has been losing its competition with the Roma-Giardinetti tram and 105 bus mostly because riders prefer their one seat ride to the city center. Rather than having to climb steps and escalators to reach the metro, only to have to get off again and take a bus, riders value the convenience

of just getting on one bus or tram. Currently, Metro C riders must get off at Centocelle, a peripheral neighborhood that borders Alessandrino to the west. There they then have to board the 50 express bus, which makes express stops on Via Casilina from the Centocelle station to Termini. ATAC created the 50 express to supplement the Metro C and bring riders to the city center, making up for the fact that the Metro C does not. (ATAC, 2015) In fact, the buses are timed to leave within a few minutes after a Metro C train arrives. However, despite this, the Metro C to 50 express combination heavily promoted by ATAC has failed to attract riders from the competing routes to Termini. This is a sharp contrast to how ATAC has marketed the combination, calling it “successful” and saying that it “significantly reduces travel time”. (ATAC, 2015) While this may be true for the extremely far east peripheries, this is not true for the line overall.

Another reason route 105 and Roma-Giardinetti are more attractive is because they run much more frequently than the Metro C, running on average every 5 minutes during peak hours compared to every 12 minutes on the Metro C. (ATAC, 2015) In addition, the 50 express does not save much time over the bus and tram because it is slowed down by congestion in the city center. The addition of more stops in January 2015 has further slowed the line down. In our three sample trips during the peak hours, the Metro C + 50 express took 35 minutes to reach Termini from Alessandrino. In comparison, the route 105 also took 35 minutes to cover the same distance and the Roma-Giardinetti was faster than both, clocking in at 22 minutes. Finally, riders find it much easier to farebeat on the bus and tram than on the metro. Unlike the bus and tram, the metro has turnstiles that restrict access until the passengers pay. On the bus and tram, passengers have tickets that are supposed to be checked by an officer but never are. Even the bus driver that we interviewed confirmed this. All of these factors combined have led the Metro C to be the most unattractive option to the city center. Stations along the section of the route that is duplicated by the bus and tram have significantly less ridership than those that are not. Riders are generally using the Metro C to travel between Centocelle and the Far East peripheries, the ones east of Grotte Celoni where the route 105 terminates. At the intermediate stations, such as Alessandrino, we have not observed any more than 5 people boarding the train.

The underutilization of the Metro C has been huge setback for ATAC.

While the system was designed for and expected to serve 12,000 passengers an hour, the system only actually saw 12,000 passengers a day (Roma Today, 05/01/2015). The underutilization could be blamed on a series of poor planning decisions on ATAC’s part. They did not properly integrate the new metro into the system. The route 105 and Roma-Giardinetti lines should have been rerouted or cut altogether the moment the new metro opened. It does not make sense to have three lines all going to the same place using the exact same route. So instead of their lines supplementing each other, they are all competing against each other. ATAC has realized this the hard way after losing lots of revenue and has taken steps to increase the attractiveness of the Metro C. And because of this, ridership is increasing.

ATAC has encouraged ridership on the Metro C by cutting service on its competition and enhancing service on the metro. In January 2015, the route 105 had its frequency reduced from every 5 minutes to every 12-15 minutes during peak hours (Roma Today, 05/01/2015). Stops were also added to the 50 express to make up for this. This has really hurt ridership and now the buses are no longer overcrowded as they once were. In March 2015, the service hours of the metro during the weekdays was extended to 21:00 (9pm). (ATAC, 2015) These factors have led to increased ridership on the metro. Whereas before when we first started studying the line in January 2015, we were the only people on board, now in April 2015, almost every seat on the train is taken. According to ATAC, ridership has increased by 20%. Ridership is only going to keep increasing, as ATAC plans to finally eliminate the route 105 and Roma-Giardinetti tram after phase 2 is completed.

Although public transit service right now is not the best, the future seems promising with the completion of the Metro C. When this transition is over, transit service will be drastically different. This includes the opening of 5 new metro stations, including another station accessible to Alessandrino, as part of the completion of phase 2 of the Metro C (Metro C SPA, 2015). It also includes the elimination of the Roma-Giardinetti tram, (Il Tempo, 25/01/2015) and the arrival of a new tram lines on Via Casilina and Viale Palmiro Togliatti. (ATAC Mobility Agency, 2012)

Phase 2 will finally bring the Metro C into the city center to Piazza Lodi in summer 2015. Although it will just barely miss a connection with the Metro A at San Giovanni and will still lack connections to the rest of the metro system, a headway increase to 6 minutes as well as an extension of service hours to 23:30 (11:30pm) to match the other metros can only mean great



potential for the line. Something significant to Alessandrino is the new station at Piazza dei Mirti in Centocelle opening as part of phase 2. This is significant because it is going to be closer than the current Alessandrino stop for Northern Alessandrino residents, which means increased accessibility to subway service. For those living north of Via dei Meli, the Mirti station is as close 900 meters away or 10-15 minutes away by walking.

The completion of phase 2 will also mark the end of the Roma-Giardinetti tram. (Il Tempo, 25/01/2015) Possibly as soon as 2016, the Roma-Giardinetti tram will no longer exist. The elimination will be the final nail in the coffin after years of reduction of service. The line used to run to the eastern suburb of Pantano, which is outside Rome and in the town of Monti Compatri. But in 2008, the section of the line between Giardinetti and Pantano was closed and converted into the new Metro C. (Wordpress, 2013) Soon, the tram line will be closed entirely and the Metro C will be the only rail service to the city center available to Alessandrino. There has been interest in converting some parts of the line into a more modern tram line. Guido Improta, a counselor for transport of Roma Capitale, told the newspaper Repubblica that "Su quel binario ammodernato ci possono mettere dei treni più moderni che da Termini vanno fino a Tor Vergata, deviando a Centocelle; il resto dell'attuale ferrovia potrebbe essere smantellato con un allargamento della Casilina o con un corridoio della mobilità, con autobus per servire i residenti della zona". (The track can be converted to a modern tram line that runs from Termini to Centocelle and Tor Vergata, with the rest being eliminated and replaced by buses. The elimination would also allow for the widening of Via Casilina.)

In more detailed plans, part of ATAC's 2012 presentation on their vision of a more interconnected transit system in the 2020s (ATAC Mobility Agency, 2012) a tram would run on the tracks between the current S. Elena and Centocelle stations and new tracks would connect it to the existing 5, 14, and 19 tram lines on Via Prenestina. It would then travel on that existing trackage to Termini. The current depot and storage facility for the line at Centocelle would also be converted into a new tram facility. Connections will also be available to another new tram line on Viale Palmiro Togliatti.

This line on Viale Palmiro Togliatti will run from Jonio to Cinecitta. It would replace the current route 451 bus, extend the tracks of the current 14 tram line and connect all three metro lines. Although the route 451 suffi-

ciently serves this corridor with its frequent 6 minute headways, this new tram route is still welcomed. It will be useful because it will feature track connections to several new and existing tram lines, presenting opportunities for other new tram routings and an overall enhancement of the tram network. One such connection is to a new tram line to Termini on the future converted tracks of the Roma-Giardinetti line at the intersection of Via Casilina and Viale Palmiro Togliatti. It would also provide enhanced service between the Eastern peripheries. The tram line would also fill a lost space in the median of Viale Palmiro Togliatti. The lost space has been slightly developed with the addition of a bike lane and a small pedestrian plaza. Otherwise, there has been no clear purpose for the space, with some people even parking their cars in the space.

Through studying transit in Alessandrino for three months, we have seen themes of decline and deterioration of service as well as riders preferring their old service over the new. Bus ridership is low and service has been and is continuing to be cut. The Roma-Giardinetti tram, Alessandrino's most reliable service to the city center, is going to be eliminated. All of this is due to the arrival of the new Metro C, which has been poorly integrated into the transit system. Despite its 2 Billion Euro price tag and multiple modern features, the line has had a slow start, mainly due to competition with lines that serve the city center. However, the future seems promising with the completion of the Metro C and the expansion of the tram network in the 2020s.

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