DESIGNED TO DISPLACE

How The 606 Trail, A Large Green Infrastructure Project In The City Of Chicago, Has Displaced Low-Income Residents Due To Rising Housing Costs

by

Dolly Sehr

B.Arch., Illinois Institute of Technology, 2014

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF

MASTER OF ADVANCED STUDIES IN ARCHITECTURE

in

The Faculty of Graduate and Postdoctoral Studies

(Architecture)

THE UNIVERSITY OF BRITISH COLUMBIA
VANCOUVER

May 2021

© Dolly Sehr
DESIGNED TO DISPLACE
How The 606 Trail, A Large Green Infrastructure Project In The City Of Chicago, Has Displaced Low-Income Residents Due To Rising Housing Costs

Submitted by Dolly Sehr in partial fulfilment of the requirements for the degree of Master of Advanced Studies in Architecture in Architecture

Examining Committee Members:

Sara Stevens, Assistant Professor and Chair, Urban Design. School of Architecture and Landscape Architecture, UBC
Supervisor

Cynthia Girling, Professor. School of Architecture and Landscape Architecture, UBC
Supervisory Committee Member

Lynsey Sorrell, Principal, Bureau Gemmell Architects
Supervisory Committee Member
Abstract

The research in this thesis aims to understand the direct impact of The 606 trail, a large green infrastructure project in the city of Chicago, on rising housing costs in the blocks directly adjacent to the project. The research is conducted by analyzing the current policies in place to protect affordable housing, conducting a comparative block study of four blocks to identify issues with current policies that are not working to limit gentrification, and finally delivering policy guidelines to help mitigate future gentrification and displacement. This approach was selected to understand how housing typologies are changing and to identify the loopholes being used to avoid providing affordable units in new construction developments. By focusing on the block by block impacts, patterns that would otherwise be missed were revealed as trends in gentrification. The resulting guidelines aim to provide more protections for multi-family 2 to 4 flats, eliminate loopholes in providing affordable units in new construction developments, and make adjustments to the new accessory dwelling unit policy for its pilot program to be more equitable.
Large Green Infrastructure Projects and their associated gentrification are causing low-income residents to experience residential displacement. The existing policies to protect affordable housing around The 606 project in the city of Chicago have not been successful and need to be adapted to help combat the wave of gentrification that is moving westward along the trail. This research aims to understand through analysis of urban form and public policy the direct impact of The 606 project on rising housing costs in the blocks directly adjacent to the project, analyze the current policies in place to protect affordable housing, identify issues with the current policies to protect affordable housing, and deliver both policy and design guidelines to help mitigate future gentrification.
This thesis is an original, independent, and intellectual product of the author, Dolly Sehr.
Contents

Abstract...................................................................................................................................iii
Lay Summary............................................................................................................................iv
Preface.......................................................................................................................................v
Contents.....................................................................................................................................vi
List of Tables............................................................................................................................vii
List of Figures...........................................................................................................................viii
Acknowledgements....................................................................................................................xi

1 Introduction.................................................................................................................................1
  1.1 Background...........................................................................................................................2
  1.2 The Purpose of this Research..............................................................................................6
  1.3 Significance..........................................................................................................................7
  1.4 Report Structure................................................................................................................8
  1.5 Literature Review..............................................................................................................10

2 Research Methodology..............................................................................................................20
  2.1 Methodology.......................................................................................................................21
    2.1.1 Literature Review.........................................................................................................21
    2.1.2 Comparative Block Study Analysis...........................................................................21
    2.1.3 Data Analysis...............................................................................................................22
    2.1.4 Policy Development....................................................................................................22
  2.2 Scope of Research................................................................................................................24

3 The 606 Project in the City of Chicago......................................................................................25
  3.1 A Brief History of The Bloomingdale Line.........................................................................25
    3.1.1 Historical Timeline....................................................................................................28
  3.2 The Planning of The 606 Rails to Trails Project....................................................................32
  3.3 Gentrification Post Completion of the Project.....................................................................34

4 Existing Strategies to Limit Gentrification and Displacement..............................................38
  4.1 The Affordable Requirements Ordinance (ARO).................................................................39
  4.2 The Moratorium on Demolition Permits.............................................................................41
  4.3 Anti-Deconversion Ordinance..............................................................................................43
  4.4 606-Pilsen Demolition Permit Surcharge Ordinance..........................................................45
  4.5 The Accessory Dwelling Unit (ADU) Pilot Program..............................................................46

5 Block Study Analysis................................................................................................................50
  5.1 Block Study No.1................................................................................................................52
  5.2 Block Study No.2................................................................................................................64
  5.3 Block Study No.3................................................................................................................74
  5.4 Block Study No.4................................................................................................................88

6 Recommendations....................................................................................................................98
  6.1 Recommendation #1 Provide Protections for Multi-Unit 2 to 4 Flats................................101
  6.2 Recommendation #2 Adjustments to the Affordable Requirements Ordinance (ARO) to Produce More Affordable Units in New Construction Developments..............................................................102
  6.3 Recommendation #3 Adjustments to the ADU Pilot Program.........................................103

7 Conclusion...............................................................................................................................104

Bibliography...............................................................................................................................107
List of Tables

Table 1. Approaches to Bridging Park Equity.................................15
List of Figures

Fig 1. Activists block Chicago’s The 606 trail in 2016 to protest gentrification and displacement ........................................................................................................... 2
Fig 2. Traditional 3-flat building captured with the Google Street View History function (2020) ...................................................................................................................... 3
Fig 3. New construction along The 606 trail .............................................................................................................................. 3
Fig 4. Multi-Lot Single Family home captured with the Google Street View History function (2020) ........................................................................................................ 4
Fig 5. Luxury housing development captured with the Google Street View History function (2020) ........................................................................................................ 4
Fig 6. Diagram representing the changing housing typologies directly adjacent to a new large green infrastructure project ............................................................................ 5
Fig 7. Structure of the research report ........................................................................................................................................ 9
Fig 8. Photographs documenting the changes in housing typologies post the implementation of the 606 trail. The Google Earth Street View History function is used to capture snapshots of homes in both 2007 and in 2020 ........................... 23
Fig 9. Pedestrians traversing an unprotected at-grade rail crossing along Bloomingdale Avenue, c. 1912 .................................................................................................... 28
Fig 10. Excerpt from Chicago Tribune in 1874 highlighting the citizens’ anger with the at-grade rail line ........................................................................................................................................ 28
Fig 11. The City Council mandates railroads to elevate their tracks in 1893 .................... 29
Fig 12. Cover of Logan Square Open Space Plan ............................................................ 30
Fig 13. Map of the moratorium on demolition permits .................................................. 31
Fig 14. Map indicating the divide of The 606 East from The 606 West ....................... 35
Fig 15. Price trends along The 606 ................................................................................ 35
Fig 16. Map highlighting the location of the moratorium zone ..................................... 42
Fig 17. Diagram illustrating the Anti-Deconversion Ordinance ........................................ 44
Fig 18. Diagram illustrating the locations of the ADU pilot program ......................... 47
Fig 19. Diagram illustrating ADU size constraints ......................................................... 49
Fig 20. Map indicating the locations of all four block studies ....................................... 50
Fig 21. Site plan diagram of block study # 1 ................................................................. 53
Fig 22. Bird’s eye view diagram of block study # 1 .................................................. 53
Fig 23. Plan diagram representing housing stock in 2007 in block #1 ......................... 54
Fig 24. Plan diagram representing housing stock in 2020 in block #1 ........................... 55
Fig 25. Axon diagram representing housing stock in 2007 in block #1 ......................... 56
Fig 26. Axon diagram representing housing stock in 2020 in block #1 ......................... 57
Fig 27. Axon diagram representing housing stock in 2020, highlighting 1736 N Honore . 58
Fig 28. Elevation diagrams documenting changes in number of units at 1736 N Honore 59
Fig 29. Changes in housing stock from 2007 to 2020 in block #1 ................................. 61
Fig 30. Diagram of typical Chicago 3-Flat ..................................................................... 63
Fig 31. Site plan diagram of block study # 2 ................................................................. 65
Fig 32. Bird’s eye view diagram of block study #2 ....................................................... 65
Fig 33. Plan diagram representing housing stock in 2007 of block #2 ......................... 66
Fig 34. Plan diagram representing housing stock in 2020 of block #2 ......................... 67
Fig 35. Axon diagram representing housing stock in 2007 of block #2 ......................... 68
Fig 36. Axon diagram representing housing stock in 2020 of block #2 ......................... 69
Fig 37. Axon representing housing stock in 2020, highlighting 1713 N Campbell ............ 70
Fig 38. Elevation diagrams documenting changes in # of units at 1713 N Campbell ....... 71
Fig 39. Changes in housing stock from 2007 to 2020 of block #2 ................................. 73
Fig 40. Site plan diagram of block study #3 ................................................................. 75
Fig 41. Bird’s eye view diagram of block study #3 ....................................................... 75
Fig 42. Plan diagram representing housing stock in 2007 of block #3 ......................... 76
Fig 43. Plan diagram representing housing stock in 2020 of block #3 ......................... 77
Fig 44. Axon diagram representing housing stock in 2007 of block #3 ......................... 78
Fig 45. Axon diagram representing housing stock in 2020 of block #3 ......................... 79
Fig 46. Axon diagram representing developments narrowly avoiding providing affordable units .................................................................................................. 80
Fig 47. Case studies developments narrowly avoiding providing affordable units........ 81
Fig 48. Axon diagram representing luxury rental developments all owned by the same developer ........................................................................................................ 82
Fig 49. Case studies of luxury rental developments ..................................................... 83
Fig 50. Changes in housing stock from 2007 to 2020 of Block #3 ............................... 85
Fig 51. Diagram of a luxury development .................................................................... 87
Fig 52. Site plan diagram of block study #4 ................................................................. 89
Fig 53. Bird’s eye view diagram of block study #4 ....................................................... 89
Fig 54. Plan diagram representing housing stock in 2007 of block #4 ......................... 90
Fig 55. Plan diagram representing housing stock in 2020 of block #4 ......................... 91
Fig 57. Axon diagram representing housing stock in 2020 of block #4............................. 93
Fig 58. Axon diagram representing housing stock in 2020, highlighting 1700 + 1702 N Whipple.........................................................................................................................94
Fig 59. Elevation diagrams documenting changes in number of units at 1700 + 1702 N Whipple........................................................................................................................................95
Fig 60. Changes in housing stock from 2007 to 2020 of block #4 .................................... 97
I’d like to express my sincere appreciation to my committee members. My supervisor, Sara Stevens, for always pushing me to think more critically and for propelling me out of my comfort zone in the best way possible. Lynsey Sorrell, for your breadth of knowledge on Chicago and for your immense support connecting me to so many resources. Cynthia Girling, for all your knowledge of greenways and rigorous attention to detail.

And to my husband Tim – I simply couldn’t have done this without you, special thanks.
Chapter 1

Introduction
1.1 Background

Large green infrastructure projects such as urban parks, greenways, waterways, and active transportation corridors are proving to have impactful effects on their surrounding communities. They stimulate private development by connecting people to destinations and increase local access to much-needed green space. Their associated gentrification is causing low-income communities to experience residential displacement (Smith et al. 2016). Ultimately, the process of providing green amenities increases local property values and attracts wealthier residents to previously disenfranchised neighborhoods. These projects aim to provide essential green spaces to park-poor locations in urban environments, and in recent decades, these green spaces have been developed to add resilience to cities as they are adapted to combat the impacts of climate change.

The success of these projects can be measured in different ways, ranging from public health benefits to the project’s ability to attract new investment and increase the city’s tax base. However, recent trends in gentrification are
adding to a growing concern about the role of these projects in accelerating housing market change, reducing affordable housing options, and displacing existing residents. Figure 1 is a photograph from a protest in 2016, just one year after the opening of The 606 greenway project. In this photograph, a resident protesting gentrification and displacement holds a sign that reads, “Now that the neighborhood is nice, why do I have to move?”. Often these new green infrastructure projects attract people living outside the neighborhood to relocate. This increases the demand for certain types of housing, which can lead to rising housing costs. As a result of an influx of new more affluent residents, the existing housing stock is upgraded, and new developments are built. While adding new units to the housing stock can at times ease some demand pressure, these new units are not likely to be affordable to low-or moderate-income households (Smith et al. 2016).

Research from the Institute for Housing Studies at Depaul University finds, “A growing-demand market can also lead to rising rents. Landlords may choose to invest more in their property to appeal to new, higher-income residents or they can increase rents in response to increased market demand. Further, as demand grows in a neighborhood, it can attract outside investors seeking to take advantage of relatively low acquisition costs and anticipated growth in demand from higher-income households.”
Specifically, the research in this thesis examines the changes in housing stock after the completion of The 606 trail. It documents the demolition of multi-unit 2 to 4 flat buildings, a source of unsubsidized affordable family-sized units. Figure 2 shows a photograph of a traditional 3-flat building. These buildings are razed to make way for single-family homes that are marketed to new more affluent residents. Figure 3, a photograph from 2020, documents the new construction of a single-family home along The 606 trail at North Campbell Ave.

The research in this thesis also documents the introduction of multi-lot mansion homes, a new typology reducing the overall density of neighborhoods adjacent to the trail. Figure 4, a photograph taken from the Google Streetview history function, documents the elaborate facade of one of the multi-lot mansion homes. And finally, the research in this thesis also documents the introduction of luxury housing developments. These projects are marketed directly at high-earning residents and often find ways to skirt the requirements to provide subsidized affordable units. Figure 5 documents one of these new luxury developments. These new housing typologies are also described in figure 6, a diagram that illustrates the specific changes to the housing stock around The 606.

The following sections in this chapter describe the purpose of this research, discuss its significance, explain the report structure, and finally, the chapter concludes with a literature review.
Figure 6. Diagram representing the changing housing typologies directly adjacent to a new large green infrastructure project (Source: Diagram by Author)
Large green infrastructure projects in North America have led to rising housing costs and the displacement of low-income residents in surrounding neighborhoods. The existing policies to protect affordable housing around The 606 project in the city of Chicago have not been successful and need to be adapted to help combat the wave of gentrification that is moving westward along the trail. Adjustments to the existing affordable housing policies and practices in Chicago are also necessary to prevent future projects from causing such devastating gentrification in the first place.

These large green infrastructure projects aim to provide essential green spaces to park-poor locations in urban environments. In recent decades these green spaces have been developed to add resilience to cities as they are adapted to combat the impacts of climate change. Specifically, in the city of Chicago, the addition of more green spaces will be necessary to help reduce the number of extreme heat days in the summer months (Hayhoe et al. 2010) as well as increase permeable surfaces that will reduce runoff and flooding during stormwater events. Therefore, researching new affordable housing strategies to be implemented close to large green infrastructure projects was identified as the primary area of research for this thesis, which provided a compelling opportunity to contribute to the growing body of scholarly knowledge.

The research in this thesis aims to understand the direct impact of The 606 trail on rising housing costs in the blocks directly adjacent to the project, analyze the current policies in place to protect affordable housing, identify issues with the current policies to protect affordable housing, and deliver both policy and design guidelines to help mitigate future gentrification. These guidelines aim to provide more protections for multi-family 2 to 4 flats, eliminate loopholes in providing affordable units in new construction developments, and make adjustments to the new accessory dwelling unit policy for its pilot program to be more equitable.
1.3 Significance

This research strives to be a resource and a discussion point for architects, developers, and planners in the City of Chicago. As we continue to develop large green infrastructure projects to provide healthy and resilient green spaces in our cities we need to also address the ramifications of these actions. Displacement due to green gentrification is not a new story and the lessons we’ve learned from The 606 project make it clear that we need more protections in place to help prevent rapid changes to housing prices that ultimately force existing residents to relocate.

The current moratorium in place on demolition permits in the neighborhoods surrounding The 606 has created a unique and rare opportunity to reexamine the policies that have failed to limit gentrification and displacement. Along with adapting the current policies to slow the wave of gentrification westward along the trail, there is also an opportunity to learn from the impacts of The 606 and apply the lessons to future large green infrastructure projects in the city of Chicago.

Architects, developers, and planners are incredibly influential in creating equitable urban environments. We’re at a crucial transition point in our cities as we begin to prepare and adapt them to combat the ramifications of climate change. This transitional moment gives us a rare opportunity to rethink our urban environments; it would be unfortunate if we let it go to waste.
1.4 Report Structure

This research report is split into 7 sections as noted in figure 7. The report starts with section 1, Introduction, which provides background information on the area of study, discusses the purpose of the project, and identifies the significance of the research. Section 2, Research Methodology, follows by describing the specific methodology adopted to conduct this research and the overall scope of the project.

Section 3, The 606 Project in the City of Chicago, gives a brief history of the Bloomingdale rail line. It describes all the players in the planning process of the new “rail to trails” project. It discusses the award-winning community engagement strategy and addresses the gentrification post the completion of the project.

Section 4, Existing Strategies to Limit Gentrification, dives into the current strategies in place to limit gentrification and displacement around the 606, as well as addresses the new Accessory Dwelling Unit (ADU) pilot program. It provides background information on why these policies and ordinances were enacted and also critiques their impact on providing and retaining affordable housing options.

Section 5, Block Study Analysis, is an in-depth analysis of four separate blocks directly adjacent to the trail. These studies explore the vast changes in housing typologies from 2007 to 2020. This research identifies the rampant demolitions of multi-family homes that were converted to single-family homes, it identifies the emergence of multi-lot mansion homes that reduce neighborhood density, and it also identifies the emergence of luxury rental developments that skirt the requirements to provide affordable housing.

Section 6, Recommendations, provides revisions to the Affordable Requirements Ordinance (ARO), gives recommendations for a policy to protect multi-unit buildings, and finally, suggests adjustments of the Accessory Dwelling Unit (ADU) pilot program.

Finally, the report ends with section 7, Conclusion. It discusses the limitations of this research and the future research areas.
1. INTRODUCTION

2. RESEARCH METHODOLOGY

3. THE 606 PROJECT IN THE CITY OF CHICAGO

4. EXISTING STRATEGIES TO LIMIT GENTRIFICATION AND DISPLACEMENT

5. BLOCK STUDY ANALYSIS

6. POLICY RECOMMENDATIONS

7. CONCLUSION

Figure 7. Structure of the research report
(Source: Diagram by Author)
1.5 Literature Review

Literature Review of Climate Change Gentrification with a Focus on Large Green Infrastructure Projects and their Impacts on Residential Housing Prices

INTRODUCTION

Cities in North America are increasingly adopting green interventions meant to enhance their resilience to climate change. These interventions and strategies are intended to create more resilience in urban environments, however, a knock-on effect of this green infrastructure is a form of climate injustice. Climate Change Gentrification (CCG) is the concept that green climate infrastructure and its associated gentrification is causing low-income communities, people of color, and migrant communities to experience residential and social displacement. Ultimately, the process of providing green amenities increases local property values and attracts wealthier ‘sustainability class’ residents to previously polluted or disenfranchised neighbourhoods. The theory of CCG is relatively new and few studies have been undertaken in this field of research. In order to study this concept this literature review has two major parts. It will begin by discussing current research on the general topic of Climate Change Gentrification. Secondly, it will focus on research surrounding one specific large green infrastructure project, The 606, a 2.7-mile elevated rails-to-trails project in the city of Chicago that has seen unprecedented levels of rapid gentrification in the neighborhoods surrounding the project.

PART 1 - CLIMATE CHANGE GENTRIFICATION (CCG)

Part 1 Introduction

Urban low-income communities are the most likely to experience residential and social displacement in both the short and mid-term from green climate infrastructure and its associated gentrification risks (Anguelovski et. al. 2019). As mentioned above, North American cities are increasingly adopting green interventions meant to enhance their climate resilience capacity. These plans and interventions mark the emergence of a new type of climate planning: green climate resilience (Anguelovski et. al. 2019). This new type
of planning is resulting in large green infrastructure project initiatives to combat the negative effects of climate change. These projects are essential for our future cities, however, the planning of these projects often overlook or minimize negative impacts for low-income residents.

While the concept of CCG is relatively new, the call to address social injustices in environmental planning is not a new idea. In the mid-1990s, planning scholars such as Scott Campbell called for the integration of social theory into environmental thinking in order to help planners properly address economic and environmental injustices (Campbell 1996). This call is all the more relevant today as environmental gentrification seems to penetrate many branches of sustainability planning and to pose complex challenges as we adapt the design of our urban environments in preparation of climate change.

**Gentrification**
Gentrification has been described as an inescapable phenomenon in today’s cities. In his book, Newcomers, *Gentrification and its Discontents*, Matthew Schuerman states that “while its most recognizable symptoms are diminished social diversity and transformed commercial strips, the true causes and effects of gentrification lie below the surface.” Schuerman goes on to simply define gentrification as “the process by which a low-income neighborhood becomes a wealthy neighborhood.” He describes that higher rents and fewer people of color are all ancillary effects of gentrification (Schuerman 2014). Part 1 of this literature review will focus on a specific aspect of gentrification, the displacement of low-income communities due to the influx of large green infrastructure. The concept of climate change gentrification is also described as climate gentrification, green gentrification and environmental gentrification in the literature. All of these terms have a similar definition which is essentially the influx of wealthy residents to historically disenfranchised neighborhoods due to newly created green spaces or green infrastructure (Rigolon and Nemeth 2018).

**Displacement Due to Large Green Infrastructure Projects**
In the anti-displacement handbook, *Displacement, how to fight it*, Hartman, Keating, and LeGates, define displacement as “what happens when forces outside the household make living there impossible, hazardous, or unaffordable” (Hartman, Chester W., Richard T. LeGates, and W. D. Keating,1982). The literature discussed in this section focuses on displacement due to the influx of large green infrastructure projects and a large amount of research papers on this specific topic are being produced by the Barcelona Laboratory for Urban Environmental Justice and
Sustainability (BCNUEJ). The research coming out of this lab explores how environmental gentrification processes lead to new forms of locally unwanted land uses, how municipalities protect vulnerable communities from climate risks and inequality, and the initiatives and obstacles to transitioning towards a low-carbon economy.

In the paper, *From Toxic Sites to Parks as (Green) LULUs? New Challenges of Inequity, Privilege, Gentrification, and Exclusion for Urban Environmental Justice*, Anguelovski argues that as marginalized neighborhoods benefit from cleanup and environmental amenities often brought by municipal sustainability planning, recent trends of land revaluation, investments, and gentrification are posing a conundrum and paradox for environmental justice activists. She states that, “over time, community mobilization has helped historically distressed neighborhoods gain new green and recreational spaces, urban gardens and farmers’ markets, green and healthy housing, and improved waste management. However, environmental justice in cities is now at a crossroads: as neighborhoods get cleaned up and benefit from new environmental goods, they start to revitalize and become valued again by private investors.” Her research finds that after decades of disinvestment and abandonment, we are now seeing developers buy degraded buildings and transform them into high-end residences. Increasingly, wealthier residents are moving in and enjoying new associated amenities for which long-term residents fought for over many decades and in return, low-income residents and people of color are often displaced because they cannot afford to stay (Anguelovski 2016).

*The Merits and Inequities of Green Infrastructure*

Green infrastructure and urban greening projects are essential to help protect our cities from the impacts of climate change. Some of these measures include improved stormwater management and mitigation of flooding hazards as well as strategies to reduce urban heat island effect (Anguelovski et. al. 2019). Green infrastructure is defined as projects that use natural systems including forests, trees, wetlands and soils that provide additional benefits for human well-being, such as flood protection and climate regulation. Gray infrastructure is defined as structures such as dams, seawalls, roads, pipes or water treatment plants. Many green infrastructure projects often produce solutions at a lower cost than gray infrastructure projects, which is causing them to be approved and implemented at a faster rate because in the eyes of public officials it is a “no regrets solution”(Mees et. al. 2011).
Anguekovski discusses that in addition to serving as an adaptation measure, “urban greening is portrayed as accruing economic and social value and benefits. For instance, new green spaces contribute to increased property values, economic growth, and business investment while offering recreational access, environmental learning, tighter social ties, strengthened civic networks and social capital, and overall improved health.” They go on to state that, “recent research suggests that green infrastructure planning for climate change is rooted in a green and resilient city orthodoxy that integrates nature-driven solutions into urban sustainability policy.” Their research suggests that this orthodoxy either overlooks or minimizes the negative impacts for socially vulnerable residents while selling a new urban brand of green and environmentally resilient 21st-century city to investors, real estate developers, and new sustainability-class residents (Anguekovski et. al. 2019).

Inequity in Health Benefits of Urban Green Space
Some of the literature focused on the connection of health and the benefits of access to green space but also acknowledged that due to gentrification only wealthier classes benefit from the addition of new green spaces in our cities. This concept is addressed In the essay, Are Green Cities Healthy and Equitable? Unpacking the Relationship between Health, Green Space and Gentrification. In this essay Cole et. al. propose a Green Gentrification and Health Equity model which intends to provide a framework for understanding and testing whether gentrification associated with green space may modify the effect of exposure to green space on health (Cole et. al. 2017). They state that, “while new or improved green spaces benefit residents by providing opportunities for physical activity, improving social cohesion and reducing air pollution, accompanying gentrification may result in contentious local social relations, and may actually exacerbate inequities in health and other outcomes by determining who benefits from these amenities, and who does not, transforming these new green amenities into what we call GreenLULUs (Green Locally Unwanted Land Uses).”

The Green Gentrification and Health Equity model that they propose provides a framework for understanding and examining whether gentrification associated with green space may modify the effect of green space on the health of specific groups of people. They make it clear that they do not wish to discourage the creation or improvement of green space in cities, but rather help improve access to these green spaces to all people because urban green spaces are known to improve the environment and health. Their intention is to promote complex and nuanced thinking regarding urban physical and social environments, and to understand how
such interventions may be supported by policies to ensure equitable and sustainable benefits for all.

The Urban Institute produced a report in July of 2019 titled, *Investing in Equitable Urban Park Systems*. This report warns of the risks of green gentrification, where public investment in green spaces can raise property values, attract development and wealthier residents, and price existing residents out of the area. “Recent research finds that by potentially denying access to park amenities, green gentrification can perpetuate poverty and reduce health benefits for low-income neighborhoods and communities of color.” The report suggests that proactive strategies are required, particularly affordable housing planning and collaboration with community members on park design and programming (Eldridge et. al. 2019).

The report discusses the opportunities for increasing park equity through local approaches. It states, “Unlocking the value of park assets is critical for encouraging investments and can catalyze improved opportunities and quality of life for residents of low-income neighborhoods. Several promising approaches from across the country are recognizing parks’ potential to create value for the community and aim to engage communities in strategic decision making on park resources”. Table 1 from this report lists five different models to bridge park equity, potential champions of these models, placemaking considerations and also states current successful examples.

**Keeping Diversity in our Neighborhoods**
The literature also discusses the importance of neighborhood level social diversity. Specifically, Emily Talen’s research looks at what architectural and planning decisions impact or predict an increase in social diversity. In the paper, *Neighborhood-Level Social Diversity - Insights from Chicago*, Talen looks at the patterns of diversity in the City of Chicago, focusing in particular on the economic diversity of census block groups to draw several conclusions. Talen finds first “that different types of neighborhood-level social diversity have different spatial patterns, and thus may require different supportive planning strategies. Second, an increase in density predicts an increase in social diversity, but only up to a point. Third, providing varied housing unit types is an important means for promoting diversity, but offering a variety of housing values and choice between renting and owning is also important. Fourth, older urban and pre- World War II suburban areas are the most socially diverse places in the Chicago area.”
Table 1. Approaches to Bridging Park Equity
(Source: Eldridge et. al. 2019)

<table>
<thead>
<tr>
<th>Model</th>
<th>Potential champions</th>
<th>Placemaking considerations</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopting equity frameworks to guide park investment and priorities</td>
<td>City government and agencies</td>
<td>Equity frameworks can also be used as instruments to measure park equity and indicate where there can be improvements</td>
<td>Miami-Dade County's park access and equity strategy</td>
</tr>
<tr>
<td>Using participatory tools to encourage park equity</td>
<td>Park departments, park advocates, and community stakeholders</td>
<td>Drafting strategies collaboratively engages the community voice and targets community needs</td>
<td>Minneapolis's community advisory committee process</td>
</tr>
<tr>
<td>Using economic impact assessments to value the benefits of parks</td>
<td>Park departments, advocates, foundations, and third party assessment partners</td>
<td>Identifying the economic benefits of parks can encourage community development investment in traditionally disinvested communities</td>
<td>Dallas' impact assessment of the value of the park system</td>
</tr>
<tr>
<td>Integrating park development priorities into master planning efforts</td>
<td>City government, park and planning departments, community stakeholders</td>
<td>Coordinated city planning efforts can identify overlapping priorities and offer the opportunity to consider needs of community residents</td>
<td>Los Angeles's Master Plan for Sustainable Parks and Recreation</td>
</tr>
<tr>
<td>Launching park campaigns for political and community buy-in</td>
<td>Mayors, city government, park advocates, and community stakeholders</td>
<td>Creates thoughtful partnerships to improve equitable access to parks across cities. Can leverage community voice for local action</td>
<td>Denver and the 10-Minute Walk campaign</td>
</tr>
</tbody>
</table>
Talen states that our understanding of the socially diverse city seems underdeveloped and we lack a clear understanding of the conditions that are associated with a diverse place (Talen, 2006). She also argues that insights about the factors underlying the existence of diverse places is important because many policymakers are engaged in the attempt to create more of them. She goes on to state that “It should be possible to propose programmatic and physical interventions that are based on a solid understanding of their existing conditions, and what is needed to support them.”

**Part 1 Conclusion**
Overall, the literature acknowledges the connection that urban green infrastructure has led to rising housing prices and ultimately the displacement of low-income residents. The literature also acknowledges that these urban green spaces that are becoming more prevalent due to planning strategies to combat climate change are essential to the health and well-being of city dwellers. However, it also acknowledges that green infrastructure projects have had disproportionately positive health impacts for the higher income population and negative impacts for the low-income population. Research in the literature has found that by denying access to green spaces, the associated gentrification can perpetuate poverty and reduce the health benefits for low-income neighborhoods. Moving forward, more research is required to study strategies to prevent displacement due to the influx of urban green space.

**PART 2 - THE 606 TRAIL IN THE CITY OF CHICAGO**

**Part 2 Introduction**
The 606 Trail, formerly known as the Bloomingdale Trail is a 2.7-mile (4.3 km) elevated rails to trails project that runs east-west on the northwest side of Chicago. In 2015, the City of Chicago converted the former Bloomingdale Rail Line into the elevated greenway. This elevated park passes through the Chicago neighborhoods of Logan Square, Humboldt Park, Bucktown, and Wicker Park. Much of the current research on the impacts of this large green infrastructure project categorizes the surrounding areas into two separate areas, the 606 East which includes Bucktown and Wicker Park, and the 606 West which includes Logan Square and Humboldt Park (Smith et al. 2016). These neighborhoods surrounding the 606 have seen unprecedented levels of displacement which has led the city of Chicago to place a moratorium on demolition permits in the 606 West area to help curb the rapid gentrification and displacement of lower-income residents. This section of
the literature review explores current research on the planning of The 606 trail as well as research regarding the impacts of the project on surrounding housing costs post the completion of the project.

**The Non-Profit Planning Process of The 606**

In the paper, *"We’re not in the business of housing:” Environmental gentrification and the nonprofitization of green infrastructure projects*, Rigolon and Nemeth focus on Chicago’s 606 trail and its role in displacing long-term low-income residents. They discuss the idea that environmental gentrification is currently considered to be an important environmental justice issue, however, most of the research is focused on quantifying whether large green infrastructure projects have indeed led to gentrification in surrounding neighborhoods and little research has been done on how planning processes can shape project outcomes (Rigolon and Nemeth, 2018). This subtle but key difference in how the research on environmental gentrification has been approached has resulted in a critical oversight. Many of the large green infrastructure planning processes are led by nonprofits and the research by Rigolon and Nemeth discusses the concept that nonprofits as a governance model have led to important equity concerns (Rigolon and Nemeth, 2018).

Rigolon and Nemeth argue that “environmental gentrification is not just an ‘unintended consequence’ of poor planning; instead, public agencies with the support of the development community are deliberately establishing new green spaces in underserved areas with depressed property values to exploit rent gaps and attract well heeled new-comers.” They go on to argue that new green spaces provide cities with capital through increased property tax revenues and developers can charge substantial premiums for real estate located in close proximity to new green spaces (Rigolon and Nemeth, 2018).

Rigolon and Nemeth also state that “A key finding emerging from our interviews is that putting a nonprofit agency that is ‘not in the business of housing’ in charge of a redevelopment project ultimately created a situation wherein connections between park development and affordable housing were further fissured, and park planning and public health concerns took precedence over the gentrification concerns raised by many neighborhood advocates and local residents.” Ultimately they come to the understanding that while there is no panacea to address environmental gentrification, they demonstrate in their study that stronger coordination between parks and housing is a key starting point and that the nonprofitization of planning processes might limit such coordination. In addition, municipal planning
agencies must reassume a stronger role to integrate projects across sectors and prioritize policies that advocate for development without displacement (Rigolon and Nemeth, 2018)

**Gentrification and Displacement Surrounding The 606 Trail**

In a report produced by the Institute for Housing Studies at Depaul University titled, *Measuring the impact of the 606: Understanding how a large public investment impacted the surrounding housing market*, Smith et. al. find that in the two years before and after the 606 opened, the neighborhoods surrounding the trail have seen a significant influx of capital. This resulted in the loss of naturally occurring affordable rental units (older buildings with two to four apartments), many of which have been demolished to make room for new single-family homes (Smith et al., 2016). Thus, several properties located near the 606 were downzoned - that is, they now include fewer residential units than before redevelopment - and the resulting shortage of housing units seems to have contributed to displacing low income residents (Vance, 2017).

Smith et. al. broke down their research into two separate geographical categories along The 606 trail, the 606 East which includes Bucktown and Wicker Park, and the 606 West which includes Logan Square and Humboldt Park. The two areas have very different demographic and housing dynamics. Their report states that The “606 East is characterized by higher incomes, a predominantly white population, smaller households, and high levels of homeownership. The housing market is of high value, largely condominiums, and was only slightly affected by the foreclosure crisis. Conversely, 606 West is lower income, has a large Latino population, higher share of larger households, and is primarily a renter community. The housing market is lower value, made up predominantly of small two- to four-unit rental properties. The foreclosure crisis affected the western area more than in the east, and it has a higher share of properties purchased by investors.”

Their research finds that since 2012, prices have risen dramatically in 606 West while remaining stable in 606 East. Their report states that “changing house prices provide a key indicator of demand for housing and potential rising costs that may affect affordability for lower-income households”. Their report concludes with the message that as Chicago considers future high-profile projects like The 606, proactive and targeted policies are necessary to preserve neighborhood affordability and limit the potential displacement of lower-income residents (Smith et al., 2016).
Part 2 Conclusion
Overall, the research in this section finds that many factors have contributed to why The 606 had such a large impact on rising housing prices in the adjacent neighborhoods to the trail. The analysis by Rigolon and Nemeth on the planning process of this project makes it clear that future large green infrastructure projects need to prioritize policies that advocate for development without displacement. Understanding the complex differences of demographic and housing dynamics is also essential to forecast how housing prices may change post the completion of these urban green spaces. In their report, Smith et al. make a clear case that proactive and targeted policies will be necessary to help preserve neighborhood affordability as we continue to implement more large green infrastructure projects.
Chapter 2

Research Methodology
2.1 Methodology

This research was conducted in four stages which included a literature review, a comparative block study, data analysis, and finally, the development of policy recommendations. The methodology relies heavily on a granular, graphic study of the massing and density changes at the street level rather than numerical, abstract data. Each phase is described in detail in the paragraphs that follow.

2.1.1 Literature review

Stage one consisted of a literature review (see section 1.5) that focused on climate change gentrification and green gentrification. It also reviewed current research surrounding rising housing prices directly adjacent to The 606 project. This stage provided information on the existing research and gaps in knowledge of green gentrification surrounding large green infrastructure projects.

2.1.2 Comparative Block Study

In stage two, a comparative block study of four blocks directly adjacent to The 606 was conducted to identify issues with current policies that are not working to limit gentrification. This approach was selected to understand how housing typologies are changing and to identify the loopholes being used to avoid providing affordable units in new construction developments. By focusing on the block by block impacts, patterns that would otherwise be missed were revealed as trends in gentrification.

Four blocks were selected based on their location along The 606. The 2.7-mile long trail runs east-west along Bloomingdale avenue and passes through four distinct neighborhoods. The Institute for Housing Studies at DePaul University identified three separate regions along the trail in their research (Institute for Housing Studies - DePaul University 2020). These regions consist of:

1. The 606 East, an area that has been identified as already gentrified and no longer at risk for future gentrification
2. The 606 West Not Vulnerable, an area that has very recently been gentrified and is currently in the process of significant change that is no longer at risk of future gentrification

3. The 606 West Vulnerable, an area in the process of gentrifying and in need of preventative policy measures

Block No. 1 is located in the 606 East region, Block No. 2 is located in the 606 West Not Vulnerable region, Block No. 3 teeters on the edge of both the 606 West Vulnerable region and the 606 West Not Vulnerable region, an area currently in the process of significant change. And finally, block No. 4 is located in the 606 West Vulnerable region.

The blocks were documented and analyzed in both plan and axon with housing data from 2007 and 2020 to document the changes in housing typologies both prior to and post the implementation of The 606 trail. The changes in housing typologies were identified by plan analysis through Google Earth History, elevation analysis through Google Street View History, and specific property data through Zillow and other public sources. Figure 8 depicts the side by side comparison of Google Street View History photos from 2007 and 2020

2.1.3 Data Analysis

Data analysis was conducted by combining the information obtained from the block studies and data from the literature to identify where improvements in affordable housing policy could be made. The outcome of the analysis led to informing the development of policy guidelines and recommendations.

2.1.4 Policy Development

Finally, the research concludes with the development of policy recommendations that relate directly to the analysis of the block studies.
Figure 8. Photographs documenting the changes in housing typologies post the implementation of the 606 trail. The Google Earth Streetview History function is used to capture snapshots of homes in both 2007 and in 2020.
(Source: Streetview Data, Google, 2007/2020)
2.2 Scope of Research

This research aims to address the gaps that exist in current policies to protect both subsidized and unsubsidized affordable housing directly adjacent to The 606, a large green infrastructure project in the city of Chicago.

The following areas are included in the scope of this research:

- Reviewing the literature on climate change gentrification with a focus on large green infrastructure projects and their impacts on residential housing prices
- A comparative block study of four blocks directly adjacent to The 606 Trail to identify changes in housing typologies post the completion of the greenway project
- Analysis of the current policies in place to protect affordable housing options
- Development of recommendations to adapt policies to better serve lower-income residents at risk of displacement

The following are excluded in the scope of this research and may be considered as future research topics:

- A restructuring of the planning process of large green infrastructure projects to make equity a stated research topic in impact studies. This will embed the need to study displacement projections before the design and construction of large green infrastructure projects.
3.1 A Brief History of the Bloomingdale Line

The Bloomingdale line has been a contentious project since day one of its construction in the City of Chicago. In 1872, just after the Great Chicago Fire, the city permitted the Chicago and Pacific Railroad to lay down tracks directly in the middle of Bloomingdale avenue on the northwest side of the city. The introduction of this railway helped to connect goods from outlying rail ports to the Chicago river and supported the burgeoning industrial growth of the time (Banich 2012).

With the construction of the line at street level, the citizens of the surrounding residential neighborhoods angrily protested the railways’ intrusion into their communities. Residents voiced their concerns about the Bloomingdale Line’s negative impact on their property values as well as the safety concerns that the street-level rail created. Pedestrians regularly traversed unprotected at-grade rail crossing along Bloomingdale Avenue. Ultimately, many injuries and deaths were caused by the line’s trains passing through unguarded crossings (Banich 2012). In response to the concerned residents, the city passed an ordinance in 1893 which required 140 miles of railway, including the 2.7 mile stretch along Bloomingdale Avenue, to be elevated (Chicago Department of Transportation 2012).
In the ordinance, the City council mandated that railroads must elevate their tracks within six years. The Bloomingdale Line was one of the last to conform to the new rules, beginning work to elevate the tracks in 1910 and completing in 1914 (Banich 2012). To accomplish this task, embankments, or essentially enormous concrete bathtubs filled with soil, stones, and other drainage materials were constructed. The design for the elevation of the tracks was a feat of remarkable ingenuity and was featured in contemporary professional engineering journals. The line was raised 16 feet above street level and each section of the rail line is connected to the next one by a bridge that allowed for the street grid to remain clear and pass under the elevated railway (Engineering News 1914).

For nearly a century, the elevated rail remained in use, serving a small manufacturing district across the city’s Northwest side. In the 1980s the train traffic slowed to a trickle and by the mid-1990s, the few trains that used the Bloomingdale corridor were re-routed and all freight service ceased altogether (Banich 2012). The elevated tracks were ultimately abandoned and the land lay vacant for the next two decades.

In 1998, a report titled, The City Scape Plan determined that the Logan Square neighborhood had the highest open space need in the entire city (City of Chicago 1998). Residents began to see the abandoned rail corridor as an opportunity and in 2003, a group of residents formed a nonprofit organization called the Friends of the Bloomingdale Trail. The acknowledgment of the limited green space in the area also spurred additional research and in 2004, the Logan Square Open Space Plan identified the Bloomingdale rail right-of-way as an opportunity for more park space in the neighborhood (City of Chicago 2004). Interest in converting the abandoned rail line to a linear park and active transportation corridor continued to grow slowly with the Chicago Architecture Club producing the design exhibition, “Envisioning the Bloomingdale” in 2007 (Chicago Architecture Club 2007). Although conversations about converting the rail line into a public park had been underway for more than a decade, the project really took off when it became a priority of Mayor Rahm Emanuel in 2011. Through a combination of federal transportation funds, local funds, and private donations, the City announced in March 2012 that it was ready to begin work on the project. The project broke ground in August 2013, and the elevated greenway opened to the public in June 2015 (Smith et al. 2016).

Beyond creating much needed public green space for neighborhood residents, The 606 also more strongly connected a set of four diverse
neighborhoods. On the east side of the line, Wicker Park and Bucktown are relatively affluent White areas ($94,386 and $95,825 median household incomes; 66% and 73% Non-Hispanic White). To the west, Logan Square and Humboldt Park are lower-income majority-Latino neighborhoods that began experiencing advanced gentrification post the completion of The 606 ($59,216 and $32,073 median household incomes; 47% and 52% Latino; data from the 2012–2016 ACS). Less than a year after its opening, in May 2016, hundreds of protesters marched along the trail to fight against the massive increases in rents and other major changes to the character of the neighborhoods along The 606. Several more protests followed, all demanding that the City adopt more regulations to help long-time residents avoid displacement due to rent and property value increases (Rigolon and Nemeth 2018).

Rampant gentrification continued in the neighborhoods adjacent to the trail and ultimately intense action was taken in February of 2020 when Alderman Roberto Maldonado of the 26th ward and Alderman Carlos Ramirez-Rosa of the 35th ward sponsored an ordinance that aimed to provide a temporary halt to gentrification in the area. The ordinance prevents property owners from obtaining demolition permits within an area in the western half of The 606. This one year moratorium on demolition permits is intended to halt the trend of people buying existing affordable multi-family homes and replacing them with luxury housing that is pushing out working class and middle class families from the area.
3.1.1 Historical Timeline

1872. /

The Bloomingdale Line is Established

Just after the Great Chicago Fire, the City Council gave permission for the Chicago & Pacific Railroad to lay tracks down the middle of Bloomingdale Ave. on Chicago’s Northwest side.

1873-92. /

The Community Rails Against the Bloomingdale Line

The citizens angrily protested the railway’s intrusion into their communities.

Figure 9: Pedestrians traversing an unprotected at-grade rail crossing along Bloomingdale Avenue, c. 1912 (Source: Chicago History Museum)

Figure 10: Excerpt from Chicago Tribune in 1874 highlighting the citizens anger with the at-grade rail line (Source: Chicago Tribune, June 8, 1874, pg. 5)
The City Council passed an ordinance mandating that railroads elevate their tracks within six years.

The embankments created by elevating the line are essentially large concrete bathtubs filled with soil, stones, and other drainage material (Banich 2012). The walls of the elevated track are seven feet thick at the base and have proved sturdy for 100 years. They form a firm foundation for the centerpiece of The 606 Trail.

**Figure 11:** The City Council mandates railroads to elevate their tracks in 1893 (Source: Chicago Daily Tribune, Oct. 21, 1900, pg. 8)
1998. /  
**Lack Of Open Space Identified In The Neighborhood Of Logan Square**

The Logan Square community area is determined to have the highest “open space need in the “Cityspace” plan.

2004. /  
**The Bloomingdale Railroad Identified as location for future greenway**

The Bloomingdale railroad right-of-way is identified as an open space opportunity in the Logan Square Open Space Plan.

*Figure 12: Cover of Logan Square Open Space Plan (Source: City of Chicago (2004))*
2015. /  
June 6th, 2015, The first phase of The 606 Trail Opens to the Public

2020. /  
Moratorium on Demolition Permits Due to Extensive Gentrification
An ordinance aimed at slowing gentrification and displacement by halting residential demolition around the western portion of The 606 cleared the city’s Committee on Housing and Real Estate and full City Council.

Figure 13: Map of the moratorium on demolition permits (Source: Map Data, Google, 2020)
3.2 The Planning of The 606 Rails to Trails Project

The 606 project was designed with the intent to address real, documented needs and address an utter lack of access to public green space and active transportation corridors. The beginning stages of the planning of The 606 originated from the communities surrounding it. Along with the Logan Square Open Space Plan, additional plans that included the Logan Square Quality of Life Plan and the Humboldt Park Quality of Life plan were all produced by local equity-minded organizations (City of Chicago 2004; LISC Chicago 2005b). In these plans, residents of the surrounding neighborhoods called for the conversion of the abandoned rail line into a bicycle and pedestrian transportation corridor that would “create a major greenway and recreation facility for residents [to] help address the neighborhoods’ documented need for more open space” (LISC Chicago 2005a).

In 2010, the Chicago Park District brought on the Trust for Public Land (TPL) to be the lead private partner for the project (The Trust for Public Land 2010). The TPL is a national environmental nonprofit that works to establish new green space in urban regions and to preserve natural open space for recreational and ecological purposes across the U.S. (The Trust for Public Land 2018). Specifically, the park district in the City of Chicago delegated the TPL a series of tasks including organizing fundraising efforts, conducting community outreach, acquiring land on behalf of the city, and coordinating more than 50 public and private agencies involved in the project (The Trust for Public Land 2010).

As the project gained more traction, the TPL led a robust community engagement process between 2011 and 2014, including activities to draft a final plan for the trail in 2013 (The Trust for Public Land, n.d.). At one of the community engagement events a “post-it” exercise was done where community members were asked to write down their thoughts and place them on an eight-foot-tall satellite image of The 606 and surrounding neighborhoods. The TPL was essential in helping secure $95 million in the form of a large federal grant and private donations, which allowed construction on the project to begin in 2013. Relying on the TPL to coordinate this project had benefits related to community outreach and fundraising success, however, this reliance fragmented groups concerned with environmental improvement from those concerned with preserving affordable housing in the area simply because housing was never part of their agenda.

In the paper, “We’re not in the business of housing:” Environmental gentrification and the nonprofitization of green infrastructure projects,
Rigolon and Nemeth focus on Chicago’s 606 trail and its role in displacing long-term low-income residents. Rigolon and Nemeth state that “A key finding emerging from our interviews is that putting a nonprofit agency that is ‘not in the business of housing’ in charge of a redevelopment project ultimately created a situation wherein connections between park development and affordable housing were further fissured, and park planning and public health concerns took precedence over the gentrification concerns raised by many neighborhood advocates and local residents.”

In one of the interviews conducted by Rigolon and Nemeth a Logan Square community organizer and long-time resident lamented the paradox of environmental gentrification:

“The irony is that we empowered community members in the 2000s in a Quality of Life plan for Logan Square...Research at the time showed that Logan Square had the lowest amounts of green space in the city. We had young people in our community going door-to-door to survey people and say ‘What issues are you concerned about and how can we address those?’ The irony today is that the families at the time said ‘Well there is an abandoned rail line down the street that has become a hub for crime and we feel unsafe. Can the city transform that into a green space for our families?’ We couldn’t foresee at the time that today, in 2017, [the 606] would be the amenity that would actually be displacing us – something that we fought so hard for.”

Ultimately, a reliance on park nonprofits to coordinate a project of this scale increased fragmentation between efforts to develop parks and initiatives to preserve affordable housing. Although the TPL has good intentions and is increasingly concerned with park equity and environmental justice issues, the organization was simply not equipped to handle concerns regarding affordable housing or housing in general (Rigolon and Nemeth, 2018).
3.3 Gentrification Post Completion of the Project

In the two years before and after the 606 opened, the neighborhoods surrounding the trail have seen a significant influx of capital (Rigolon and Nemeth, 2018). Many 2 to 4 flat multi-unit buildings have been demolished to make room for new single-family homes (Smith et al. 2016). This has resulted in many properties located near the 606 being down zoned, meaning they now include fewer residential units than before redevelopment. This has resulted in a shortage of housing units and has contributed to displacing low-income residents (Vance 2017).

In a report from the Institute for Housing Studies at DePaul University published in 2016 titled, *Measuring the impact of the 606: Understanding how a large public investment impacted the surrounding housing market*, Smith et. al. break down their research on gentrification in the neighborhoods adjacent to the trail into two separate geographical categories, The 606 East which includes Bucktown and Wicker Park, and the 606 West which includes Logan Square and Humboldt Park. Figure 14, a map that illustrates the two geographical regions, shows Western Avenue (the dividing line) in red. The two areas have very different demographic and housing dynamics. Their report states that The “606 East is characterized by higher incomes, a predominantly white population, smaller households, and high levels of homeownership. The housing market is of high value, largely condominiums, and was only slightly affected by the foreclosure crisis. Conversely, 606 West is lower-income, has a large Latino population, higher share of larger households, and is primarily a renter community. The housing market is of lower value, made up predominantly of small two- to four-unit rental properties. The foreclosure crisis affected the western area more than in the east, and it has a higher share of properties purchased by investors.” Their research finds that Since 2012, prices have risen dramatically in 606 West while remaining stable in 606 East. Their report states that “changing house prices provide a key indicator of demand for housing and potential rising costs that may affect affordability for lower-income households”.

Figure 15, a graph illustrating changes in quarterly price trends for single-family homes within ½ mile of The 606 from 2000 to 2016, indicates the differences between The 606 East and The 606 West. Smith et. al.’s research finds that the “606 East has consistently been a strong and stable market, while 606 West has had a much more volatile history with much larger peaks and valleys during the boom and bust years. House prices in 606 East peaked in early 2009 and experienced some modest declines during the housing crisis and modest appreciation during the recovery. As of the second quarter of 2016, house prices in 606 East are at their highest point since 2000. Conversely, prices in 606 West continued to fall until the
Price trends along The 606
Quarterly price trends for single family homes within 1/2 mile of The 606, 1997 to 2016 1Q

**Figure 14.** Map indicating the divide of The 606 East from The 606 West (Source: Map by Author)

**Figure 15.** Price trends along The 606 (Source: DePaul Institute on Housing Studies IHS COOK COUNTY HOUSE PRICE INDEX 2016 1Q)
second quarter of 2012, and the strong recovery since has largely coincided with the development and opening of The 606 trail. Since breaking ground on the trail, prices in 606 East have increased by 13.8 percent and by 4.3 percent since the trail opened in the second quarter of 2015. Conversely, prices in 606 West have increased by 48.2 percent since breaking ground, and by 9.4 percent since the trail opened.” This research indicates that The 606 West region is at the precipice of substantial change.

The Institute for Housing Studies at DePaul University created a follow-up report to the previously discussed research in January of 2020. In the report, *Displacement Pressure in Context: Examining Recent Housing Market Changes Near The 606*, they focus their research on 1 to 4 unit buildings. Instead of geographically dividing the neighborhoods adjacent to the greenway into two separate categories they chose to split the region around The 606 into three separate categories (Institute for Housing Studies - DePaul University 2020). These areas consist of:

1. The 606 East, an area that has been identified as already gentrified and no longer at risk for future gentrification

2. The 606 West Not Vulnerable, an area that has very recently been gentrified and is currently in the process of significant change that is no longer at risk of future gentrification

3. The 606 West Vulnerable, an area in the process of gentrifying and in need of preventative policy measures

The report from the Institute for Housing Studies at DePaul University discussed four key findings:

1. They found that prices for 1 to 4 unit buildings in the vulnerable portions of the western half of The 606 have increased by nearly 344 percent since 2012.

2. In The 606 West Vulnerable area rising prices have hit 2 to 4 unit buildings particularly hard. The median sales price for a 2 to 4 flat was $97,000 in 2012, jumping to $340,000 in 2016 and $462,000 by 2018.
3. They found there is a shift from a housing market that used to be dominated by 2 to 4 sales selling for less than $300,000; 84.4 percent of properties sold for less than $300,000 in 2012; 35.8 percent sold for less than $300,000 in 2016; and 17.6 percent sold for less than $300,000 in 2018.

4. Finally the found that as this relatively lower-cost stock disappears, opportunities or robust interventions to preserve affordability near The 606 are also fading. However, beyond the small geography of The 606, in moderate-cost Hermosa, Humboldt Park, and west Logan Square prices for 2 to 4 unit buildings are relatively more affordable, and finding properties that sell for less than $300,000 is more common.

Overall, the research on The 606 trail has revealed that post the completion of the project, the housing market has seen significant changes. The DePaul Institute for Housing Studies research clearly indicates the vulnerability of The 606 west area. It also clearly makes the point that time is running out to preserve affordable housing options in this area. Robust policy interventions are needed to protect the limited supply that does remain.
Chapter 4

Existing Strategies to Limit Gentrification and Displacement

This chapter dives into the current strategies in place to limit gentrification and displacement around the 606, as well as addresses the new Accessory Dwelling Unit (ADU) pilot program. It provides background information on why these policies and ordinances were enacted and also critiques their impact on providing and retaining affordable housing options. It will address the following measures:

- **The Affordable Requirements Ordinance (ARO)**  
  *Adopted in 2007, Revised 2015, Major revision to come in 2021*

- **The Moratorium On Demolition Permits**  
  *Enacted February 1st of 2020, Expired April 1st of 2021*

- **Anti-Deconversion Ordinance**  
  *Enacted April 1st of 2021*

- **606-Pilsen Demolition Permit Surcharge Ordinance**  
  *Enacted April 1st of 2021*

- **The Accessory Dwelling (ADU) Unit Pilot Program**  
  *Approved in December of 2020, Enacted May 1, 2021*
The ARO was enacted to provide much needed affordable units in new developments dispersed across the City of Chicago. Instead of constructing large developments dedicated solely to affordable housing, the goal of this program was to mix market-rate housing with a percentage of affordable units. Eligibility for affordable housing is defined as households earning up to 60% of the Area Median Income (AMI) and rental units are required to remain affordable for a term of 30 years.

The ordinance was first adopted in 2007, last revised in 2015, and is undergoing a significant revision in 2021 (City of Chicago 2021). It requires residential developments in the City of Chicago that receive City financial assistance, involve a zoning increase, or City-owned land to provide a percentage of units at affordable prices (City of Chicago 2021). Specifically, the ARO applies to residential developments with ten or more units and requires that developers provide 10 percent of their units at affordable prices to low- to moderate-income families. This can be accomplished by either offering them on-site or paying an “in-lieu” fee, the amount of which varies by neighborhood into the Affordable Housing Opportunity Fund (AHOF). Half of the funds in the AHOF are used for the construction, rehabilitation, or preservation of affordable housing or may be used for other housing programs. To date, the funds have helped to create and preserve approximately 2,700 units of affordable rental housing in 31 developments citywide. The other half of the funds in the AHOF are distributed to the Chicago Low Income Housing Trust Fund, which meets the needs of approximately 2,700 low-income residents through annual rent subsidies (City of Chicago 2021).

Between 2017 and 2018, the City of Chicago added five ARO Pilot Zones to increase the number of affordable units in new developments in areas being impacted by rapid increases in housing prices. The pilot zones have higher affordability requirements, ranging from 15 percent to 20 percent affordable units (Sebastian Arias and Gore 2020). The neighborhoods adjacent to The 606 fall into the Milwaukee Corridor pilot area and applicable new developments in this area must provide 20 percent of their units at affordable prices.

The ARO is intended to act as a tool to help create more affordable units in new developments dispersed across the city, however, the developer-friendly loophole in the law that allows the “in-lieu” fee instead of on-site units have resulted in very few units families can afford. In November of 2019, the Chicago Department of Housing responded to criticism that the ARO lacked transparency by publishing a new interactive dashboard making data on units produced through the ARO available to the public.
The dashboard provides information on where units have been built since the policy was enacted and also shows where funds generated through the ARO have been allocated. The data on the dashboard revealed that the ARO has only created 444 affordable units since 2007. Most of these units are studios or one-bedroom apartments, only 22 units were three bedrooms (Sebastian Arias and Gore 2020).

The 444 units produced by this policy feel minuscule when you compare it to the over 120,000 Chicagoans that are currently cost-burdened, in need of affordable housing because they spend more than 30% of their income on their rent or mortgage (Sebastian Arias and Gore 2020). In response to the AROs limited success, Mayor Lori Lightfoot’s administration introduced a revised ARO to the City Council in March of 2021. A press release from the mayor’s office states, “Mayor Lori E. Lightfoot today introduced a revised Affordable Requirements Ordinance (ARO) designed to address the city’s systemic patterns of segregation citywide. The revised ARO expands off-site options that target Chicagoans in the greatest need for affordable rental housing while also focusing on anti-displacement measures that allow long-time residents to remain in their communities and benefit from redevelopment. The revised ARO will encourage the production of more affordable and family-sized units, while also maintaining much-needed funding for current programs that support thousands of low-income renters.” (City of Chicago 2021).

If implemented, the revised ARO has promising components, however, it still allows developers to opt-out of providing units on-site if they pay “in-lieu” fees. In the past, the option to opt-out has produced limited success with the ordinance. The revised ARO is currently under review and will be implemented later this year.
4.2 The Moratorium on Demolition Permits

In direct response to the rapid gentrification and displacement happening in the neighborhoods adjacent to The 606, Ald. Roberto Maldonado (26th) and Ald. Carlos Ramirez-Rosa (35th) sponsored an ordinance that placed a halt on demolition permits in the western portion of The 606 that is aimed to halt gentrification in the area while the city studies more nuanced long-term solutions. Specifically, the area of the moratorium is bounded by North, California, Armitage, and Kostner avenues, and Hirsch and Kedzie streets. The ordinance prevents property owners from obtaining demolition permits within the specified area near The 606. This ordinance intends to halt the trend of people buying existing unsubsidized affordable multi-family homes and replacing them with luxury housing that is pushing out working class and middle class families from the area. Home prices have skyrocketed since the popular greenway was completed in 2015, forcing many longtime residents to relocate to more affordable neighborhoods.

In a study conducted in 2020 by the DePaul Institute for Housing Studies, researchers found that property values for buildings with four units or less in the western portion of the 606 rose 344%, from an average of $97,000 in 2012 to $430,500 in 2018 (Institute for Housing Studies - DePaul University 2020). The rise in property values is also reflected in the listed rent prices.

On February 1st of 2020, the moratorium was put in place for 6 months, it was then extended due to the Covid-19 pandemic that slowed the process of studying possible long-term solutions to curb gentrification. The goal of this moratorium is to give the city time to come up with policy solutions that will protect the multi-unit unsubsidized affordable housing stock. In an interview on January 15, 2020, for CBS News, Ald. Roberto Maldonado stated, “We hope that within these next six months, we can come up with an ordinance that will truly address how those lots would be built, so that the developments would be sensitive with the needs of the long-time residents, and somehow slow down the gentrification and the displacement of people of color by people that are not of color and that are much more affluent than the working families that live in those areas.”

The moratorium (Fig. 16) is set to expire on April 1st of 2021. It is yet to be determined if this moratorium provided enough time to truly develop more nuanced long-term solutions to the rapid gentrification impacting the area but in response to the conclusion of the moratorium, the city has two additional ordinances that they plan to implement on April 1st of 2021. Information regarding these policies is outlined in the following sections of this chapter.
Figure 16. Map highlighting the location of the moratorium zone
(Map by Author)
4.3 Anti-Deconversion Ordinance

The first ordinance that was created in response to the moratorium on demolition permits is designed to reduce the displacement of low-to moderate-income residents and maintain the existing character of the housing stock. Passed in January of 2021, this ordinance will apply to RS3 and RS3.5 districts within the area bounded by Armitage Avenue, Western Avenue, North Avenue, Kedzie Avenue, Hirsch Street, and Kostner Avenue (City of Chicago 2021 b). The goal of this zoning ordinance is to specifically protect two- to eight-unit buildings, that often provide naturally occurring affordable housing units.

Under the current zoning regulation, new construction buildings are not required to be of comparable density as the building(s) being replaced, which can cause a reduction in the number of units provided in the replacement housing and thus reduces the overall density of the neighborhood. The Anti-Deconversion ordinance outlaws single-family homes without a zoning change on blocks where more than 50 percent of the lots have lawfully established multiple-unit buildings (City of Chicago 2021 b). To understand how this new policy would function it is easiest to relate it to an existing block. For example, on the east side of the 1700 block of North Talman Avenue, there are currently 10 multi-unit buildings and 13 single-family homes, in this instance, single-family homes would still be permitted because less than 50 percent of the lots have lawfully established multiple-unit buildings. In another example, on the north side of the 3500 block of West Mclean Avenue, there are currently 8 multi-unit buildings and only 6 single-family homes, the construction of new single-family homes would be blocked. Figure 17 diagrams this new rule showing single-family homes in red and multi-unit buildings in gray.

The intention of preserving this essential housing typology is a step in the right direction, however, the decision to implement the new rule depending on the makeup of existing buildings on the block feels convoluted and confusing. If we project what impacts this policy will have we can see a future where a free-for-all could happen on some blocks and a stasis could result on others.
**BLOCK EXAMPLE #1**

13 - SINGLE FAMILY HOMES  
10 - MULTI-UNIT BUILDINGS  
- THE CONSTRUCTION OF NEW SINGLE FAMILY HOMES IS PERMITTED

**BLOCK EXAMPLE #2**

6 - SINGLE FAMILY HOMES  
8 - MULTI-UNIT BUILDINGS  
- THE CONSTRUCTION OF NEW SINGLE FAMILY HOMES IS BLOCKED

---

*Figure 17. Diagram illustrating the Anti-Deconversion Ordinance  
(Source: Diagram by Author)*
4.4 606-Pilsen Demolition Permit Surcharge Ordinance

This Ordinance places a surcharge on permits for the demolition of buildings with residential units in the area surrounding The 606 and Pilsen Pilot areas (City of Chicago 2021c). This ordinance follows the Anti-Deconversion Ordinance that was mentioned in the previous section of this chapter. In a press release from Mayor Lightfoot’s office on March 24th, 2021, Mayor Lori Lightfoot states, “Chicago’s proud neighborhoods and communities serve as the homes to thousands of proud families and small businesses, many times for generations. This proposed ordinance builds on our previous measures aimed at welcoming the changes that mark the constant evolution of our city’s history, but doing so in a way that prevents the displacement of long term residents, particularly our low to moderate-income community members.” With this action, the City of Chicago is setting a priority to prevent the displacement of low to moderate-income residents in neighborhoods that are currently undergoing significant change.

The ordinance that goes into effect on April 1st, 2021 places a $15,000 or $5,000 charge per residential unit, whichever is greater. The Funds generated will support the Chicago Community Land Trust (CCLT), which provides working individuals and families with opportunities to purchase homes at affordable prices (City of Chicago 2021c).

This ordinance is intended to provide solutions to housing displacement, unit loss and as stated by the City of Chicago, “ensure that the appropriate density in each neighborhood is maintained.” Again, the intention and lofty goals of this ordinance are coming from a good place but with the option to pay a fee to replace multi-unit buildings the success of it maintaining the multi-unit housing stock in specific locations seems dismal.
4.5 The Accessory Dwelling Unit (ADU) Pilot Program

In May of 2020, the City of Chicago, under the leadership of Mayor Lori Lightfoot, introduced the new ADU pilot program. A press release from the Mayor’s office stated that this “Innovative measure creates equitable opportunities for thousands of new moderate-cost rental units while creating new income streams for building owners”. The innovative ordinance was introduced to expand housing access to thousands of residents across Chicago permitting accessory dwelling units (ADUs), such as attics units, basement units, and coach houses to become moderate-cost rental units. For decades, policy decisions limited the construction of ADUs in Chicago, however, the proposed ordinance would amend the City’s Municipal Code to lawfully permit ADUs. The City’s vision is that this policy will ensure more equitable access to housing options across Chicago’s communities and provide financial stability for homeowners with existing ADUs (City of Chicago 2020). The details of how equitable access will be ensured are unclear and the proposed pilot program only allows the construction of ADUs in 5 specific areas in the city. These 5 pilot regions can be seen in figure 18. Currently, The 606 cuts directly through the North West ADU Pilot area, the easternmost and westernmost portions of the trail are excluded from this pilot area and therefore cannot take part in constructing ADUs at this time.

The city has stated that the goal of this new policy is to “create equitable opportunities for thousands of new moderate-cost rental units” however the current pilot areas only allow certain neighborhoods to benefit from this new program and the ADU policy itself has many restrictive elements that may limit its success. Some of the restrictive measures include:

- Coach houses cannot be built on a property with an interior ADU
- ADUs can not be listed on short term and vacation rental websites
- Interior ADUs can only be added to buildings that are 20 years old or older
- Bulk and density limitations are 700 s.f. maximum, 22 feet tall
- West, South, Southwest zones: Only two ADUs per block per year would be permitted.

The restrictions to ADUs may prove to be too limiting and may ultimately dissuade residents from partaking in the opportunity to construct these dwellings. Specifically, the rule that coach houses cannot be built on a property with an interior ADU (an attic or basement unit) limits the number of units you can build on a lot which will, in turn, reduce the supply of
Figure 18. Diagram illustrating the locations of the ADU pilot program
(Source: Diagram by Author)
moderately priced rental units. The rule that only allows interior ADUs to be added to buildings that are 20 years old and older will further dissuade new developments from providing more units. This feels like a step in the wrong direction since the city is currently grappling with the loss of many multi-unit buildings in gentrifying areas. And finally, the bulk and density limitations (see fig. 19) that cap coach houses at 700 s.f. maximum and don’t allow structures to be taller than 22’ will result in a supply of only studio and 1 bedroom units. Chicago is in short supply of affordable to moderate cost family-sized units, the multi-unit 2 to 4 flats that traditionally provide that supply are being demolished and replaced with single-family homes. If this policy intends to produce thousands of new moderate-cost rental units, then it needs to reevaluate its restrictive rules that prohibit increased density and suitable unit sizes.
Figure 19. Diagram illustrating ADU size constraints
(Diagram by Author)
Figure 20. Map indicating the locations of all four block studies (Source: Diagram by Author/ Earth Data, Google, 2020)
Documenting Physical Changes to the Urban Form at a Block Level

The existing research on gentrification surrounding The 606 Trail does an excellent job of documenting the proof of rising housing costs in the blocks directly adjacent to the project. The graphs and charts that show housing costs skyrocketing off the page don’t however depict the physical changes to the urban form at a block level. For the research in this thesis, four blocks were selected based on their location along The 606. The Institute for Housing Studies at DePaul University identified three separate regions along the trail in their research (Institute for Housing Studies - DePaul University 2020). These regions consist of:

1. The 606 East, an area that has been identified as already gentrified and no longer at risk for future gentrification
2. The 606 West Not Vulnerable, an area that has very recently been gentrified and is currently in the process of significant change that is no longer at risk of future gentrification
3. The 606 West Vulnerable, an area in the process of gentrifying and in need of preventative policy measures

Figure 20 shows a map that highlights all four selected blocks in red. The analysis of these blocks will start in the easternmost region and move westward along the trail. Block No. 1 is located in the 606 East region, Block No. 2 is located in the 606 West Not Vulnerable region, Block No. 3 teeters on the edge of both the 606 West Vulnerable region and the 606 West Not Vulnerable region, and finally, block No.4 is located in the 606 West Vulnerable region.

The following pages diagram the changing housing typologies in both plan and axonometric views. From that data, specific properties are identified and then studied in more detail to highlight components often overlooked by other forms of research.
Location:
N. Honore | N. Wood | N. Hermitage

Time of Study:
2007 and 2020

The first block study in this research is located in the 606 East region. Located in the Bucktown neighborhood, this area has been acknowledged as already gentrified and no longer at risk of future gentrification (Institute for Housing Studies - DePaul University 2020). This location is a relatively affluent White area with median household incomes of $95,386 and 73% of the population is Non-Hispanic White (2016 ACS). Figure 21 documents the location of this study area with a gray box, showing its proximity to The 606. The following diagram, Figure 22, is a bird’s eye view satellite image that highlights the study region with a red bounding box. This diagram helps to visually understand both the density and tree canopy coverage in this location.

The following pages of this study document the changes in housing typologies by expressing the existing housing conditions in both 2007 (prior to the completion of The 606) and 2020 (post the completion of The 606). The block is studied first in plan, visually representing the changes in the housing stock from multi-family homes to single-family homes, as well as documenting the introduction of multi-lot mansion homes. The block is then studied in an axonometric view, which allows for a better understanding of the changes in buildings’ heights and massings.

Finally, in the individual lot analysis, one specific lot within the block was identified to study in more detail. This allowed for an in-depth analysis that studied the change in density on the lot as well as documenting the price history of the property both pre and post the completion of The 606.
Figure 21. Site plan diagram of block study #1
(Source: Diagram by Author/Earth Data, Google, 2020)

Figure 22. Bird's eye view diagram of block study #1
(Source: Diagram by Author/Earth Data, Google, 2020)
Plan Analysis
2007

Single-Family (41%)
Multi-Family (59%)

23. Plan diagram representing housing stock in 2007 in block #1
(Source: Diagram by Author)
Plan Analysis
2020

- Single-Family (63%)
- Multi-Family (34%)
- Multi-Lot Single Family (3%)

24. Plan diagram representing housing stock in 2020 in block # 1
(Source: Diagram by Author)
Axon Analysis

2007

Legend

- Single-Family (41%)
- Multi-Family (59%)

25. Axon diagram representing housing stock in 2007 in block #1
(Source: Diagram by Author)
Axon Analysis
2020

Legend
- Single-Family (63%)
- Multi-Family (34%)
- Multi-Lot Single Family (3%)

26. Axon diagram representing housing stock in 2020 in block #1
(Source: Diagram by Author)
Individual Lot Analysis

1736 N Honore

Price History
9/16/2011 - Sold - $775,000
11/16/2012 - Sold - $2,674,000 (+247% Increase)
12/19/2015 - Sold - $3,650,000 (+36% Increase)
(Source: Public Records + Zillow Data)

27. Axon diagram representing housing stock in 2020, highlighting 1736 N Honore
(Source: Diagram by Author)
2007

2020

28. Elevation diagrams documenting changes in number of units at 1736 N Honore (Source: Diagram by Author/ Streetview Data, Google, 2007/2020)
Overall Analysis of Block No. 1

From 2007 to 2020, there was a significant change in the overall housing typologies in block study number 1. In 2007, 59% of the housing stock was multi-unit 2 to 4 flat buildings and 41% was single-family homes. In 2020, just five years after the completion of The 606 trail, the housing stock shifted to be 34% multi-unit 2 to 4 flat buildings, 63% single-family homes, and 3% multi-lot single-family homes.

The analysis of this block clearly shows the rampant demolitions and de-conversions of 2-flat, 3-flat and 4-flat buildings which are Chicago's most naturally occurring affordable units (Smith et al., 2016). They are being replaced by luxury single-family homes and in three instances in this block study, multi-unit buildings were replaced by multi-lot single-family homes. This transition in housing typologies significantly reduced both the supply of naturally occurring affordable rental units as well as the overall population and density of the neighborhood.

The reduction in neighborhood density is important to note because there are many knock-on effects to this change. Specifically, in 2017 High Schools in the Chicago Public School system saw enrollments plummet in neighborhoods surrounding The 606 trail (Perez and Richards 2018). As mentioned before, 2 to 4 flat multi-unit buildings make up the majority of Chicago's naturally occurring affordable units, one key detail about these buildings is they provide family-sized units. When they are removed from the housing stock families with school-aged children are displaced and enrollments plummet at local public schools. This can lead to budget cuts and ultimately school closures. In August of 2017, CPS students lined The 606 trail with 24 desks in protest of reckless budget cuts. The protesters, all members of the Logan Square Neighborhood Association, lined both sides of the trail near the Humboldt Boulevard entrance and held signs that read, “No more excuses, Fund our schools” (Bloom 2017).

Two lots were identified in this block study to explore the reduction in density in more detail. Located at 1736 N Honore, Figure 28 shows both the google street view photo of this site as well as elevations that highlight the number of units on the site in both 2007 and 2020. In 2007, a total of 4 units existed in the form of two 2-flat brick buildings. By 2020, those multi-unit buildings were demolished and replaced with one massive single-family home. In this specific instance, a total of 3 family-sized units were lost. This lot also saw significant changes in the price that it sold for. In September of 2011, the 2 lots were joined and sold for $775,000. The two multi-unit buildings were then demolished and replaced with a single-family home. Just one year later in November of 2012, the property was sold again for $2,674,000, a 247% increase in value (which includes the new house). Three years later, in December of 2015 after the opening of The 606 trail, the property was sold again for $3,650,000, a 36% increase in value.
Legend

- Single-Family
- Multi-Family
- Multi-Lot Single Family

29. Changes in housing stock from 2007 to 2020 in block #1
(Source: Diagrams by Author)
Major Takeaways from Block No. 1

The analysis of block study number one taught us the following things:

1. Multi-unit 2-4 flats are being demolished and are being replaced by single-family homes.
   - This is important to note because this building type makes up the majority of the unsubsidized affordable housing units in the City of Chicago.
   - These units are often two to three-bedroom family sized units, when they are removed there is no other abundant supply of family sized affordable units. Figure 31 shows a typical three-bedroom unit in a three-flat building.

2. From 2007 to 2020 the overall housing stock of the neighborhood has transitioned from being majority multi-unit residences to now being majority single family residences.
   - This has resulted in the overall block losing housing density.

3. Typical Chicago lots are being joined to create very large mansion homes

4. Home values have increased exponentially post the completion of The 606 trail
Diagram of typical Chicago 3-Flat
(Source: Diagram by Author)
5.2 Block Study No. 2

**Location:**
N. Campbell Ave. + W. Wabansia

**Time of Study:**
2007 and 2020

The second block study in this research is located in the 606 West Not Vulnerable region, an area currently in the process of significant change. A recent increase in higher incomes in this area makes the population that currently lives here “not vulnerable” to displacement according to the IHS Mapping Displacement Pressure Analysis (Institute for Housing Studies - DePaul University 2020).

Figure 31 documents the location of this study area with a gray box, showing its proximity to The 606. The following diagram, Figure 32, is a bird’s eye view satellite image that highlights the study region with a red bounding box. This diagram helps to visually understand both the density and tree canopy coverage in this location.

Similar to the previous block analysis, the following pages of this study document the changes in housing typologies by expressing the existing housing conditions in both 2007 (prior to the completion of The 606) and 2020 (post the completion of The 606). The block is studied first in plan, visually representing the changes in the housing stock from multi-family homes to single-family homes. The block is then studied in an axonometric view, which allows for a better understanding of the changes in buildings heights and massings.

Finally, in the individual lot analysis, one specific lot within the block was identified to study in more detail. This allowed for an in-depth analysis that studied the change in density on the lot as well as documenting the price history of the property both pre and post the completion of The 606.
31. Site plan diagram of block study # 2
(Source: Diagram by Author/ Earth Data, Google, 2020)

32. Bird’s eye view diagram of block study #2
(Source: Diagram by Author/ Earth Data, Google, 2020)
Plan Analysis

2007

Plan diagram representing housing stock in 2007 of block #2 (Source: Diagram by Author)
Plan Analysis
2020

Plan diagram representing housing stock in 2020 of block #2
(Source: Diagram by Author)
Axon Analysis

2007

35. Axon diagram representing housing stock in 2007 of block # 2
(Source: Diagram by Author)
Axon Analysis

2020

36. Axon diagram representing housing stock in 2020 of block #2
(Source: Diagram by Author)
Individual Lot Analysis

1713 N Campbell Ave

Price History
10/20/2009 - Sold - $50,000
7/29/2010 - Sold - $780,000 (+1460% Increase)
04/12/2021 - Estimate - $1,259,390 (+61.4% Increase)
(Source: Public Records + Zillow Data)

37. Axon diagram representing housing stock in 2020, highlighting 1713 N Campbell
(Source: Diagram by Author)
38. Elevation diagrams documenting changes in number of units at 1713 N Campbell
(Source: Diagram by Author/ Streetview Data, Google, 2007/2020)
Overall Analysis of Block No. 2

Similar to block study number 1, the second block study in this research also had significant changes in the overall housing typologies from 2007 to 2020. In 2007, 61% of the housing stock was multi-unit 2 to 4 flat buildings and 39% was single-family homes. In 2020, just five years after the completion of The 606 trail, the housing stock shifted to be 42% multi-unit 2 to 4 flat buildings and 58% single-family homes (fig. 39). This block did not contain any multi-lot single-family homes, instead, multi-unit buildings are being replaced with more modest single-family homes that do not extend past the traditional 25 foot by 125 foot Chicago lot size.

The analysis of this block identifies demolitions and de-conversions of 2-flat, 3-flat and 4-flat buildings and also documents the introduction of single-family homes being built on previously vacant lots. One lot was identified in this block study to explore the reduction in density in more detail. Located at 1713 N Campbell, figure 38 shows both the google street view photo of this site as well as elevations that highlight the number of units on the site in both 2007 and 2020. In 2007, a total of 2 units existed in the form of one 2-flat wood frame building. By 2020, the multi-unit building was demolished and replaced with one single-family home. In this specific instance, a total of 1 family-sized unit was lost. This lot also saw significant changes in the price that it sold for. In October of 2009, the lot was sold for $50,000. Just one year later in July of 2010, the property was sold again for $780,000, a 1460% increase in value (which includes the new house). At this time in 2010, the Bloomingdale rail line had already been identified as the location for a future greenway and real estate speculation had begun to take off. The house value in 2021, six years after the opening of The 606, is appraised at $1,259,390, a 61.4% increase in value.
39. Changes in housing stock from 2007 to 2020 of block #2
(Source: Diagrams by Author)
5.3 Block Study No. 3

**Location:**
N. California Ave. + W. Cortland St.

**Time of Study:**
2007 and 2020

The third block study in this research is located in both the 606 West Vulnerable region and the 606 West Not Vulnerable region. The 606 West Not Vulnerable region has very recently been gentrified and has been identified as no longer at risk of future gentrification and the 606 West vulnerable region is an area currently in the process of gentrifying (Institute for Housing Studies - DePaul University 2020). The neighborhoods of The 606 West have many characteristics associated with a high risk of lost affordability and displacement. This area is immediately adjacent to the strong real estate market of The 606 East and the property values in The 606 West are also much lower than The 606 East. A recent history of foreclosures and distressed sales have created potential investment opportunities in the area and many of these properties are not rent-subsidized. This leaves them vulnerable to conversions in a rising market because landlords are not bound by subsidy agreements to keep rents affordable (Smith et al. 2016).

The Logan Square neighborhood in general is a lower-income majority Latino neighborhood with median household incomes of $59,216 and 47% of the population identifies as Latino (2014-2016 ACS). Figure 40 documents the location of this study area with a gray box, showing its proximity to The 606. The following diagram, Figure 41, is a bird’s eye view satellite image that highlights the study region with a red bounding box. This diagram helps to visually understand both the density and tree canopy coverage in this location.

Similar to the other block studies in this chapter, the following pages of this study document the changes in housing typologies by expressing the existing housing conditions in both 2007 (prior to the completion of The 606) and 2020 (post the completion of The 606). The block is studied first in plan, visually representing the changes in the housing stock from multi-family homes to single-family homes, as well as documenting the introduction of luxury rental developments. The block is then studied in an axonometric view, which allows for a better understanding of the changes in buildings’ heights and massings.
40. Site plan diagram of block study #3
(Source: Diagram by Author/ Earth Data, Google, 2020)

41. Bird’s eye view diagram of block study #3
(Source: Diagram by Author/ Earth Data, Google, 2020)
Plan Analysis
2007

Legend

- Single-Family (36%)
- Multi-Family (64%)

---

42. Plan diagram representing housing stock in 2007 of block #3
(Source: Diagram by Author)
Plan Analysis
2020

Legend
- Single-Family (30%)
- Multi-Family (24%)
- Luxury Development (46%)

43. Plan diagram representing housing stock in 2020 of block #3
(Source: Diagram by Author)
Axon Analysis

2007

Legend

- Single-Family (36%)
- Multi-Family (64%)

44. Axon diagram representing housing stock in 2007 of block #3
(Source: Diagram by Author)
Axon Analysis

2020

Legend
- Single-Family (30%)
- Multi-Family (24%)
- Luxury Development (46%)

45. Axon diagram representing housing stock in 2020 of block #3
(Source: Diagram by Author)
Analysis of Luxury Rental Developments

Legend

:*:* Developments Narrowly Avoiding Providing Affordable Units

46. Axon diagram representing developments narrowly avoiding providing affordable units
(Source: Diagram by Author)
Case studies developments narrowly avoiding providing affordable units
(Source: Diagram by Author/ Streetview Data, Google, 2020)

1. Case Study #1
   - Received a Zoning Change From B3-1 to B2-3 that increased project density
   - Constructed 14 Residential Units
   - Opted for an “in-lieu” fee instead of providing units on site
     - Provided 0 Affordable Units

2. Case Study #2
   - Avoided zoning change by constructing 3 separate buildings but marketed property as one development.
   - Constructed 4 units per building.
   - 12 units total.
     - Provided 0 Affordable Units

3. Case Study #3
   - Avoided zoning change by constructing 3 separate buildings but marketed property as one development.
   - Constructed 4 units per building.
   - 12 units total.
     - Provided 0 Affordable Units

47. Case studies developments narrowly avoiding providing affordable units
Analysis of Luxury Rental Developments

Legend

Legend

Luxury Rental Developments all Owned by the Same Developer

48. Axon diagram representing luxury rental developments all owned by the same developer
(Source: Diagram by Author)
Case Study #1
2805 W CORTLAND
6 UNIT DEVELOPMENT
3 BED 2.5 BATH UNIT RENTED FOR $2,800 USD PER MONTH (2020)

Case Study #2
1808-1812 N CALIFORNIA
12 UNIT RENTAL DEVELOPMENT
2 BED 2 BATH RENTS FOR $2,400 USD PER MONTH (2020)

Case Study #3
1803 N CALIFORNIA
6 UNIT RENTAL DEVELOPMENT
2 BED 2 BATH RENTS FOR $2,400 USD PER MONTH (2020)

Case Study #4
1825-27-29 N. CALIFORNIA
12 UNIT RENTAL DEVELOPMENT
2 BED 2 BATH RENTS FOR $2,400 USD PER MONTH (2020)

49. Case studies of luxury rental developments
(Source: Diagram by Author/ Streetview Data, Google, 2020)
Overall Analysis of Block No. 3

From 2007 to 2020, similar to the previous block studies, there was a significant change in the overall housing typologies in block study number 3. In 2007, 64% of the housing stock was multi-unit 2 to 4 flat buildings and 36% was single-family homes. In 2020, just five years after the completion of The 606 trail, the housing stock shifted to be 24% multi-unit 2 to 4 flat buildings, 30% single-family homes, and 46% luxury developments.

The analysis of this block clearly shows the introduction of a new type of housing in the area, the luxury apartment development. Since 2007, 13 of these projects have been constructed along the 1800 block of North California Ave. Of those 13 projects, 10 of them were developed to be rental apartments. Currently, the median rent for a 2 bedroom apartment on this block is $2,400 per month and a 3 bedroom apartment is $2,800. In comparison, the median rent in Chicago for a 2 bedroom apartment as of April 2021 is $1,750 and a 3 bedroom apartment is $2,200 (Gerstein 2021).

An analysis of these luxury rental developments discovered that none of the 13 new developments provided any affordable units. As mentioned in chapter 4, the Affordable Requirement Ordinance (ARO) was enacted to provide much-needed affordable units in new developments dispersed across the City of Chicago. It requires residential developments in the City of Chicago that receive City financial assistance, involve a zoning increase, or City-owned land to provide a percentage of units at affordable prices (City of Chicago 2021). Specifically, the ARO applies to residential developments with 10 or more units and requires that developers provide 10 to 20 percent (depending on location) of their units at affordable prices to low- to moderate-income families.

All of the developments on this block found ways to avoid providing affordable units on site. Figure 47 identifies three case studies to explore how these developments avoided providing affordable units.

Case Study #1.
This development received a zoning change that increased the allowable density on-site and provided more than 10 new units. According to the ARO, this development is required to provide affordable units, it chose to pay an “in-lieu” fee instead of providing any affordable units on site.

Case Study #2 + Case Study #3
Both of these developments, owned by the same developer, chose to avoid a zoning change by choosing to construct 3 separate buildings side by side on 3 separate lots but marketed them as one development. By keeping them as three separate buildings they are also able to keep the number of
them as three separate buildings they are also able to keep the number of units per building below 10, however, they marketed the development as containing 12 units with shared amenities.

In addition to the three case studies, other developments on this block that received zoning changes to increase their density chose to keep the number of units just below 10. This decision was made to avoid triggering the ARO requirement of providing a percentage on affordable units in developments with 10 or more new units.

---

50. Changes in housing stock from 2007 to 2020 of Block #3
(Source: Diagrams by Author)
Major Takeaways from Block No. 3

The analysis of block study number 3 revealed that luxury developments are finding creative has to avoid providing affordable units on site. They are doing so in the following ways:

1. By paying a “in-lieu’ fee instead of providing affordable units which is currently allowed by the ARO

2. Avoiding a zoning change by choosing to construct separate buildings side by side on separate lots but marketing them as one development with shared amenities

3. Requesting a zoning change to increase density but constructing developments just below 10 units to avoid triggering the ARO requirement to provide a percentage of affordable units. Figure x shows a diagram representing new luxury developments, this specific example has a total of 6 units and therefore would not be required to provide affordable units based on the current ARO rules
Diagram of a luxury development
(Source: Diagrams by Author)
5.4 Block Study No. 4

**Location:**
N. Whipple St. + W. Wabansia Ave.

**Time of Study:**
2007 and 2020

The fourth and final block study in this research is located in the 606 West Vulnerable region, an area in the process of gentrifying and in need of preventative policy measures. The 606 West, as mentioned in the previous section of this chapter, has nearly all the characteristics associated with a high risk of lost affordability and displacement risk. It is immediately adjacent to the strong real estate market of The 606 East and is now more directly connected to it via the new greenway. Property values in this area are much lower than that of The 606 East area and a recent history of foreclosures has created investment opportunities. Additionally, the housing market in this area is predominantly small two-to-four-unit rental properties, which research shows provide unsubsidized lower-cost housing (Smith et al. 2016).

Figure 52 documents the location of this study area with a gray box, showing its proximity to The 606. The following diagram, Figure 53, is a bird’s eye view satellite image that highlights the study region with a red bounding box. This diagram helps to visually understand both the density and tree canopy coverage in this location.

Similar to the previous block analysis, the following pages of this study document the changes in housing typologies by expressing the existing housing conditions in both 2007 (prior to the completion of The 606) and 2020 (post the completion of The 606). The block is studied first in plan, visually representing the changes in the housing stock from multi-family homes to single-family homes. The block is then studied in an axonometric view, which allows for a better understanding of the changes in buildings’ heights and massings.

Finally, in the individual lot analysis, one specific lot within the block was identified to study in more detail. This allowed for an in-depth analysis that studied the change in density on the lot as well as documenting the price history of the property both pre and post the completion of The 606.
52. Site plan diagram of block study #4
(Source: Diagram by Author/ Earth Data, Google, 2020)

53. Bird’s eye view diagram of block study #4
(Source: Diagram by Author/ Earth Data, Google, 2020)
Plan Analysis
2007

Legend
- Single-Family (29%)
- Multi-Family (71%)

54. Plan diagram representing housing stock in 2007 of block #4
(Source: Diagram by Author)
Plan Analysis

2020

Legend

- Single-Family (37%)
- Multi-Family (60%)
- Luxury Development (6%)

Plan diagram representing housing stock in 2020 of block #4
(Source: Diagram by Author)
Axon Analysis

2007

Legend

- Single-Family (29%)
- Multi-Family (71%)

56. Axon diagram representing housing stock in 2007 of block #4
(Source: Diagram by Author)
Axon Analysis
2020

Legend

- Single-Family (37%)
- Multi-Family (60%)
- Luxury Development (6%)

57. Axon diagram representing housing stock in 2020 of block #4
(Source: Diagram by Author)
Individual Lot Analysis

1700 + 1702 N. Whipple St.

1700 N. Whipple St.
Price History
5/17/2012 - Sold - $155,000
1/8/2014 - Sold - $479,000(+209% Increase)
(Source: Public Records + Zillow Data)

1702 N. Whipple St.
Price History
11/22/2013 - Sold - $474,615
10/31/2020 - Sold - $725,000(+53% Increase)
(Source: Public Records + Zillow Data)

58. Axon diagram representing housing stock in 2020, highlighting 1700 + 1702 N Whipple
(Source: Diagram by Author)
Elevation diagrams documenting changes in number of units at 1700 + 1702 N Whipple
(Source: Diagram by Author/ Streetview Data, Google, 2007/2020)

2007

0 UNITS TOTAL
ZONED TO ALLOW
MULTI-UNIT BUILDINGS

2020

1 UNITS

2 UNITS TOTAL

59. Elevation diagrams documenting changes in number of units at 1700 + 1702 N Whipple
(Source: Diagram by Author/ Streetview Data, Google, 2007/2020)
Overall Analysis of Block No. 4

Similar to the previous block studies, the fourth and final block study in this research also had significant changes in the overall housing typologies from 2007 to 2020. In 2007, 71% of the housing stock was multi-unit 2 to 4 flat buildings and 29% was single-family homes. In 2020, just five years after the completion of The 606 trail, the housing stock shifted to be 60% multi-unit 2 to 4 flat buildings, 37% single-family homes, and 3% luxury multi-unit developments. This block did not contain any multi-lot single-family homes, instead, multi-unit buildings and vacant land are being replaced with more modest single-family homes that do not extend past the traditional 25 foot by 125 foot Chicago lot size. While this block did see a significant change in the housing stock it is the first block in this research to maintain multi-unit 2 to 4 flat buildings as the majority housing typology. This indicates that this area is still in the process of gentrifying and in need of preventative policy measures.

The analysis of this block identifies demolitions and de-conversions of 2-flat, 3-flat and 4-flat buildings and also documents the introduction of single-family homes being built on previously vacant lots. Two lots were identified in this block study to explore in more detail. Located at 1700 + 1702 N Whipple, Figure 60 shows both the google street view photo of this site as well as elevations that highlight the number of units on the site in both 2007 and 2020. In 2007, a total of 0 units existed on these sites. By 2020, the vacant land was replaced with two single-family homes. This lot also saw significant changes in the price that it sold for, see figure x for more details.

The Individual lot analysis revealed that additional density was added to this block when two vacant plots of land were developed to hold two single-family homes. This density, however, does not add to the supply of naturally occurring affordable family-sized units. These single-family home developments are being built on lots that are zoned to allow more density. This addition to the housing stock is not an affordable option for the current residents of this area and is thus leading to more displacement. them as three separate buildings they are also able to keep the number of units per building below 10, however, they marketed the development as containing 12 units with shared amenities.
Changes in housing stock from 2007 to 2020 of block #4
(Source: Diagrams by Author)
Chapter 6

Recommendations
The analysis of existing literature on green gentrification, research on the planning process of The 606, the study of the current policies in place to limit displacement, and the block studies that analyzed the physical changes to the urban form revealed the following:

1. Large green infrastructure projects such as urban parks, greenways, waterways, and active transportation corridors stimulate private development by connecting people to destinations and increase local access to much-needed green space. Their associated gentrification is causing low-income communities to experience residential displacement (Smith et al., 2016)

2. A reliance on park nonprofits to coordinate The 606, a project of a significant scale, increased fragmentation between efforts to develop parks and initiatives to preserve affordable housing. Although nonprofits have good intentions, the organizations are not equipped to handle concerns regarding affordable housing or housing in general (Rigolon and Nemeth, 2018)

3. The ordinances that have resulted from the moratorium on demolition permits have positive elements, but their positive impacts have yet to be seen.
   - Specifically, the Anti-Deconversion Ordinance’s decision to implement the new rule to protect multi-unit buildings depending on the make-up of existing buildings on the block feels convoluted and confusing. This policy could result in a free for all on some blocks and a stasis on others.
   - The 606-Pilsen Demolition Permit Surcharge Ordinance relies on fees to deter developers from demolishing existing multi-unit buildings. In the past, these fees have not prevented developers from constructing luxury developments.

4. Multi-Unit 2 to 4 flat buildings are being demolished at an alarming rate and are being replaced primarily by single-family
homes and at times in the most gentrified areas by multi-lot single-family homes.

5. The reduction of multi-unit buildings are limiting the supply of naturally occurring affordable units, many of which are family-sized units.

6. New construction luxury developments are narrowly avoiding the need to provide affordable units. Many of these projects are luxury rental developments and have higher rents than the market average in Chicago.

7. Vacant lots in the less gentrified neighborhoods adjacent to the trail are being developed into single-family homes.

These observations led to 3 major recommendations that are discussed in the following sections of this chapter.
6.1 Recommendation #1
Provide Protections for Multi-Unit 2 to 4 Flats

As mentioned previously in this thesis, the multi-unit 2 to 4 flats are a traditional housing typology in Chicago that makes up the majority of the unsubsidized affordable housing supply (Smith et al., 2016). The units in these buildings are typically 2 to 3 bedrooms making them an excellent source of family-sized dwellings. When they are demolished, low-income families are forced to relocate. The displacement of families also has negative knock-on effects, specifically, when density is reduced in residential neighborhoods, enrollment at local public schools plummets, thus reducing much-needed school funding. Many properties near The 606 are being downzoned, meaning they now include fewer residential units than before redevelopment (Vance, 2017). All of these observations that were gleaned through the research led to the following recommendation:

1.1 Require conversions and new construction homes to retain the number of dwelling units that exist on the current lot.

This recommendation intends to simply preserve the existing density of the neighborhood. The previously allowed downzoning has contributed to the displacement of low income residents. By retaining current density, the goal of this policy is to keep a supply of unsubsidized affordable units.
6.2 Recommendation #2
Adjustments to the Affordable Requirements Ordinance (ARO) to Produce More Affordable Units in New Construction Developments

The intention of the ARO was to provide affordable units in new developments dispersed across the city of Chicago instead of constructing significant developments dedicated solely to affordable housing. The policy’s success has been limited due to options to opt-out of providing units on-site, limited required percentages of affordable units, a large unit threshold before the ARO is triggered, and finally, a lack of requirement to provide family-sized units. These observations led to the following recommendations:

2.1 Eliminate the option for in-lieu fees

2.2 Increase the requirement from 20% to 30% affordable units in new developments in neighborhoods identified as vulnerable to gentrification

2.3 Reduce the Threshold to Provide Affordable Units from 10 to 5 units

2.4 Add requirements to diversify affordable unit types to include family-sized options.
   - This would require developers to provide a percentage of affordable units based on the unit make-up of the building. If a development is primarily 2 or 3 bedroom units, a percentage of those units would need to be affordable. This is intended to eliminate the ability for developers to only build studio sized affordable units.
6.3 Recommendation #3
Adjustments to the ADU Pilot Program

The current ADU pilot program has the lofty goals of creating equitable opportunities for thousands of new moderate-cost rental units while creating new income streams for building owners. However, the restrictive rules that limit the amount of density you can add to a site and the minimal overall size limitations cast a shadow on the potential success of this pilot program. As stated previously in this research, the neighborhoods adjacent to The 606 are seeing the loss of multi-unit buildings. This is reducing the number of units on individual lots and eliminating the supply of naturally occurring affordable family-sized units. For this program to be truly equitable, adjustments need to be made to allow for multiple units on one lot and allow family-sized units. The following recommendations aim to improve the ADU pilot program to directly benefit neighborhoods adjacent to The 606.

3.1 Extend the Northwest Region to Include all blocks directly adjacent to The 606

3.2 Allow backyard houses to be built on a property with an interior ADU

3.3 Don’t restrict interior ADUs to only be added to buildings that are 20 years old or older. Allow them in new construction.

3.4 Increase bulk and density limitations to accommodate family-sized units. 1,200-1,500 SF
Chapter 7

Conclusion
Developing policy recommendations to limit displacement near large green infrastructure projects is just one crucial aspect of creating more equitable urban environments as we adapt them to combat the impacts of climate change. Architects, developers, and city officials have a significant role in ensuring low-income residents remain in gentrifying communities. We need to reevaluate and restructure the planning of these projects to make equity a stated research topic in impact studies and edit current policies to limit displacement in areas that are experiencing significant change.

Specifically, the research in this thesis highlighted the need for policy interventions in the blocks adjacent to The 606 to prevent residents from being priced out of the western portion of the trail that is changing at an astonishing rate. The moratorium on demolition permits was a huge statement that called attention to an issue that should be a concern of all residents in Chicago. The addition of more green infrastructure projects is essential to improve the quality of life for city dwellers, and improved policy solutions are necessary to protect low-income residents from the displacement associated with these projects.

**Contribution**

The granular, graphic study in this thesis of changes in housing typologies of four blocks adjacent to The 606 contributed to a growing body of scholarly knowledge by creating a different understanding of how the urban form is evolving. Instead of numerical, abstract data, this approach was able to highlight the evolution of the neighborhood at a street level. It revealed a compelling story of immense change in a minimal period of time. It showed that Chicago is losing its supply of the multi-unit 2 to 4 flat buildings, a staple in its residential vernacular. It exposed new developments of finding every possible loophole to avoid providing affordable units on-site, replacing unsubsidized housing options with luxury rentals marketed to new high-earning residents. And finally, it documented the addition of high-priced single-family homes being built on vacant lots in the western portions of the trail. The houses are being built on lots zoned to accommodate more density, leading to a reduction in the possible overall density of the area.

In addition to the graphic block studies, the contribution of policy recommendations were also created. In direct response to the analysis of existing literature on green gentrification, research on the history and planning process of The 606, the study of the current policies in place to limit displacement, and of course, the block studies that analyzed the
physical changes to the urban form, policy recommendations were created with the aim to limit future displacement in the area.

Limitations

The research in this thesis focuses on documenting changes in housing typologies within a specific window of time, but it only briefly touches on adapting the initial planning of these projects to consider their impacts on surrounding housing prices. The block studies themselves document the changes in the housing from 2007 to 2020 in only four specific locations along the trail. Additional block studies could help to give a more robust understanding of the change happening in this area as well as the change happening in blocks in other neighborhoods dispersed across the city. Finally, there is also an opportunity to extract more data from these block studies by documenting the specific change in the number of residential units.

Further Research

There is an opportunity to research the restructuring of the planning process of large green infrastructure projects to make equity a stated research topic in impact studies. This will embed the need to study displacement projections before designing and constructing large green infrastructure projects. By doing so, future gentrification and displacement could be mitigated before it starts.
Bibliography


