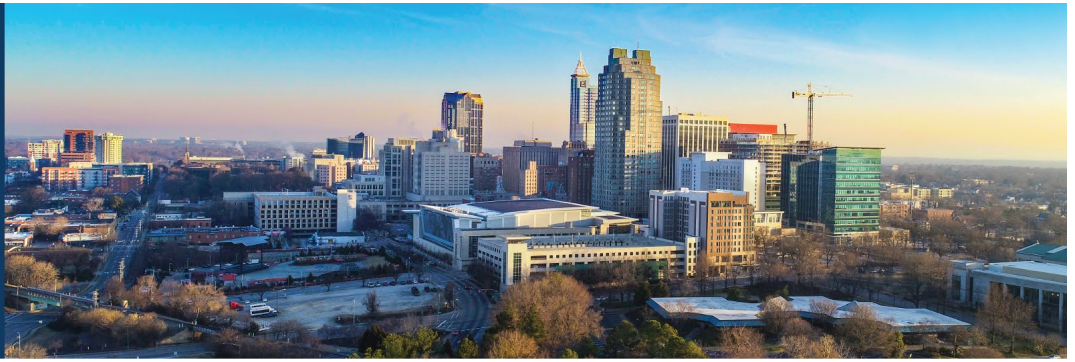


Manager's Update

raleighnc.gov



Issue 2025-42

October 24, 2025

IN THIS ISSUE

Missing Middle Study -- Final Digital Booklet
Weekly Digest of Special Events

Council Follow Up Items

History & Current Utilization of the GoRaleigh R-Line

INFORMATION:

City of Raleigh Missing Middle Study -- Final Digital Booklet

Staff Resource: Justin Bucher, Planning & Development, 996-2234, justin.bucher@raleighnc.gov

The *Voices on Housing* report, prepared by the Pappas Real Estate Development Program at North Carolina State University in partnership with the City, evaluates the early impacts of the city's Missing Middle Housing policies. Findings from the report show that most new units are being used as permanent housing and are concentrated near transit, parks, and schools, supporting Raleigh's goals for walkable, transit-oriented growth. According to the study, residents generally support the increased housing choice but emphasized the importance of maintaining quality, affordability, and neighborhood character. The report recommends pairing zoning reforms with affordability tools, continued data tracking, and ongoing community engagement to ensure these policies result in equitable and sustainable outcomes. Included with the *Update* materials are the full report and a staff memorandum summarizing key findings and takeaways from the report.

(Attachment)

Weekly Digest of Special Events

Staff Resource: Sarah Heinsohn, Office of Special Events, 996-2200, sarah.heinsohn@raleighnc.gov

Included with the *Update* materials is the special events digest for the upcoming week.

(Attachment)

Council Member Follow Up Items

Follow Up to the September 23 Economic Development and Innovation Committee Meeting

History & Current Utilization of the GoRaleigh R-Line

Staff Resources: Het Patel, Transportation, 996-5120, het.patel@raleighnc.gov

During the meeting, Committee Members requested that staff provide information on the history and current utilization of the GoRaleigh R-Line and possible reprogramming options. Included with the *Update* materials is a staff memorandum detailing the requested information.

(Attachment)

To	Marchelle Adams-David, City Manager
Thru	Niki Jones, Assistant City Manager
From	Patrick O. Young, AICP, Director
Department	Planning and Development
Date	October 24, 2025
Subject	Missing Middle Housing Report

Purpose

This memorandum summarizes key findings and takeaways from the *‘Voices on Housing – A Qualitative Study of the Impacts of Raleigh’s Missing Middle Policies’* report prepared by the Pappas Real Estate Development Program at NC State University in collaboration with the City of Raleigh Planning and Development Department. The report evaluates early outcomes of Raleigh’s Missing Middle Housing policies, which expanded housing options through text changes to the Unified Development Ordinance (UDO).

Background

Raleigh is experiencing rapid population growth, rising housing costs, and increasing pressure on housing availability. Despite strong housing production, the market has struggled to meet demand—especially for smaller, affordable homes located near jobs and amenities. Beginning in 2020, Raleigh adopted a series of text changes (e.g., Accessory Dwelling Units, Cottage Courts, Missing Middle Housing reforms) which sought to promote housing choice, address housing affordability, and increase residential density in areas planned for high-frequency transit service.

This report aimed to:

- Assess whether Missing Middle-enabled units are being used as permanent housing.
- Understand the experiences of residents living in these new housing types and the impacts on nearby neighbors.
- Explore “chain-of-moves” effects—whether the creation of new units frees up existing housing elsewhere.
- Identify policy opportunities and areas for further study.

Key Findings

1. Early Uptake and Use as Permanent Housing

Field observations show that about 85% of newly constructed Missing Middle units are occupied, with 89% used for permanent housing (as opposed to short-term housing). This indicates that the program is successfully adding to the city's effective housing supply.

2. Concentration in Central Neighborhoods

The report's spatial analysis of Missing Middle permits reveal the geographic spread of Missing Middle-enabled permits to be primarily inside, or closer to the I-440 Beltline as compared to all Residential Permits during the same period. Despite this pattern, a large percentage of Missing Middle permits originate from discrete projects that are located outside the beltline. These projects appear to be greenfield development sites, as opposed to infill projects located in existing neighborhoods.

Additionally, the Missing middle enabled permits tend to be located in higher-density, residential zoning districts (R-10, R-6). These units are generally close to public transit, parks, schools, and other amenities—supporting Raleigh's transit-oriented development goals and promoting walkability. Additionally, preliminary analysis shows that the proportion of Missing Middle enabled housing in Low-Income and Low-Access census tracts is approximately 1.6 times higher than its proportion across the full study area. These aforementioned census tracts are primarily located in Southeast Raleigh.

3. Resident Priorities: Affordability & Quality

In addition to preliminary quantitative findings, Residents stressed that affordability should not come at the expense of quality. They expressed support for continued zoning reforms but emphasized:

- Developer accountability – ensuring promised features and quality are delivered.
- Affordability and inclusion – addressing rising property taxes and potential displacement.
- Balanced growth – protecting neighborhood character while accommodating density.

4. Evidence of “Chain-of-Moves” Effects

Most residents who moved into Missing Middle enabled housing came from within Raleigh or Wake County, vacating other units and potentially increasing availability elsewhere. While this suggests Missing Middle policies may ease regional housing pressures, the study notes that quantifying this effect requires more data over time.

5. Mixed Perceptions on Affordability Impact

While many study respondents praised the additional housing options, several questioned whether “missing middle” homes are truly affordable for middle-income households, particularly in high-demand neighborhoods. Concerns about gentrification and displacement remain salient.

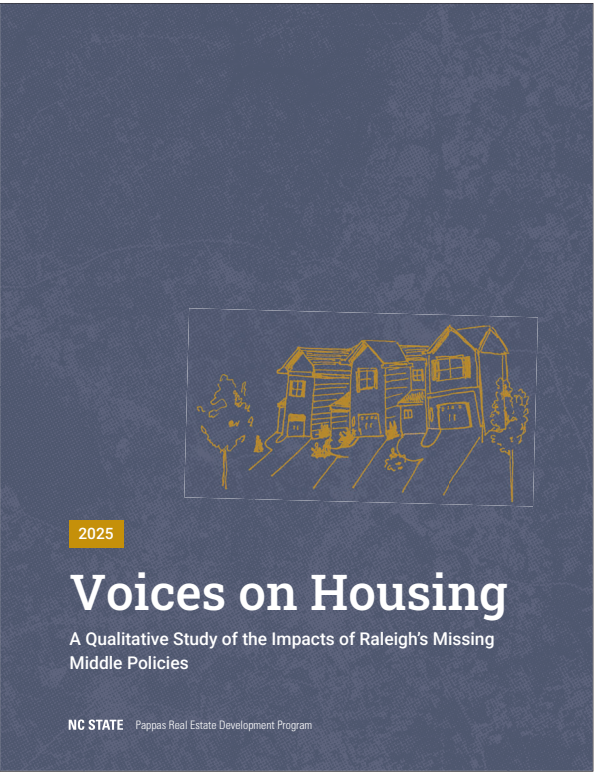
Recommendations & Policy Implications

The study recommends that Raleigh:

- Continue advancing Missing Middle policies to diversify housing stock and support gentle density.
- Pair zoning reform with affordability strategies, including property tax relief and municipal funding for low- and moderate-income households.
- Streamline permitting processes to encourage additional production of missing middle units.
- Enhance public communication and engagement to address misconceptions concerning neighborhood change.
- Monitor long-term impacts through ongoing data collection on affordability, displacement, and housing mobility.

Conclusion

The report indicates that Raleigh’s Missing Middle policy reforms show promising results by adding new housing options and supporting more compact, transit-accessible growth. However, affordability and displacement concerns should remain central to policy considerations moving forward. Investing in continued data collection, public engagement, and complementary affordability measures will help ensure that Missing Middle policies create equitable, inclusive, and sustainable outcomes for Raleigh’s residents.



VOICES ON HOUSING

3

5

Introduction

6

Framing the Issue of Housing in Raleigh

13

Outcomes of Missing Middle Housing Policy

19

Geospatial Data + Analysis

44

Study Scope and Research Methods

48

Data Analysis

50

Key Findings

61

Recommendations and Further Study

64

References

67

Appendices

Table of Contents

5

Introduction

This report summarizes Phase One of a collaborative project between the Pappas Real Estate Development Program at NC State University and the City of Raleigh's Planning and Development Department. It supports the City's efforts to evaluate the impacts of Missing Middle housing and guide future planning. The research addresses four areas:

1

Resident experiences living in Missing Middle Housing

2

Broader "chain-of-moves" effects on the regional housing market

3

Perceptions of nearby residents

4

Preliminary distribution patterns by use (permanent housing), location, and building type

As part of a portfolio of housing strategies, text changes to the city's Unified Development Ordinance that encourage Missing Middle housing have the potential to be an effective tool for addressing Raleigh's housing challenges by expanding choices within neighborhoods. As a new program, the influence on affordability and chains-of-moves within the city is not yet clear. However, initial data suggests that most units completed under the text change are currently in use as permanent housing. The personal stories shared by new missing middle residents – about families finding homes they can afford and young professionals staying in the city rather than moving away – connect zoning reform to real lives. Concerns were also shared – such as the complexity of micro-homeowners associations and the inability of realtors to explain the long term values of their homes – point to opportunities for more robust research and public information.

Even though there was limited data due to the fact that the Accessory Dwelling Unit and Missing Middle text changes are relatively new, it was important to do this study now – to assess the outcomes to date and identify any trends in case they indicate the need to make adjustments. More importantly, this study sets the stage for future studies that will benefit from more robust data.

Manager's Update

VOICES ON HOUSING

7

Framing the Issue of Housing in Raleigh

7

Rapid Growth, Rising Costs: Raleigh's Housing Landscape

9

Raleigh's Strategies: Addressing Housing Needs

Raleigh is one of many cities in the US experiencing significant growth (US Census Bureau). There are many factors driving Raleigh's growth including employment opportunities in its nationally prominent tech and medical companies and area universities. Equally important are its quality of life and lifestyle attractions. It is consistently ranked as one of the best US cities to live in for its culture, affordability, and job opportunities (City of Raleigh, 2024). Raleigh's newer residents fit the profile of mobile workers who choose to live in particular cities because of the housing, cultural institutions, and amenities they offer (City of Raleigh, 2024).

Despite substantial housing production, Raleigh is struggling to keep pace with demand. Rising prices and development patterns that have tended to focus on low and mid-rise apartment complexes and single family homes have resulted in few housing choices. National experts argue that healthy housing system must balance supply and demand, offer diverse options, and ensure access to quality homes in inclusive communities. They argue that cities benefit from pursuing reforms that increase the types, locations, and price points of housing available within neighborhoods. As Ezra Klein and Derek Thompson have put it, "cities should reform their zoning laws to make it easier to build homes and apartments of all sizes" (Klein & Thompson, 2023, p. 215).

The aim is to increase the supply of modest-sized and multi-unit housing in established neighborhoods by introducing new options for added density. Because these strategies are relatively new, local evaluation is essential to understand how specific community factors shape their outcomes. The goal is to encourage private sector actors – such as individual property owners, realtors, architects, and developers – to reconsider housing value in ways that reflect the social and economic realities of municipal growth. At the same time, the changes seek to discourage housing commodification, or speculative investment that keeps homes vacant to restrict supply artificially.

Wake County is growing by 66 people per day

1.2 M

1.1M

1M

0.9 M

0.8 M

0.7 M

2000

2005

2010

2015

2020

Source: United States Bureau of Economic Analysis, 2024; United States Census Bureau, <https://www.census.gov/quickfacts/fact/table/wakecountynorthcarolina,US/PST045244PST045224> and Growth and Population Trends, 2024; Wake County, <https://www.wake.gov/departments/government/planning-development/inspections/planning/census-demographics/growth-and-population-trends>

Page 6 of 23

October 24, 2025

8

FRAMING THE ISSUE OF HOUSING IN RALEIGH

RALEIGH'S HOUSING LANDSCAPE SUMMARY

Top Housing Market

In 2022, the Raleigh-Durham area was ranked the 6th hottest housing market among 300 U.S. metropolitan areas, signaling high demand and competitive pressures (Rouse, Hinchings, Graham, 2024).

Mismatch Between Supply and Demand

Although Raleigh is building a significant volume of housing, it is not sufficient to meet growing demand—especially for smaller, more affordable units in desirable neighborhoods.

Expert Framework for Solutions

Increase overall supply to better meet growing demand in fast-growing cities like Raleigh

Add housing in established, high-opportunity neighborhoods where access to jobs, schools, and amenities is strong

Introduce a range of modest-sized, multi-unit housing types (e.g., duplexes, triplexes, townhomes) that fill the gap between single-family homes and large apartment buildings

Support greater affordability and inclusion by providing more options for low- and middle-income households within well-resourced areas.

Zoning Impacts

Historic zoning practices have constrained housing diversity and contributed to patterns of economic and racial segregation, limiting who can live where.

Rising Prices, Shrinking Affordability

Housing costs in Raleigh have risen sharply while the number of homes affordable to low- and middle-income residents has decreased (Howard, 2024).

National Housing Crunch Reflected Locally

The city is not immune to the national housing supply and affordability crunch, shaped by:

- Lagging supply of available housing units (Colburn et al., 2024).
- Lack of alternative housing types (e.g., duplexes, triplexes, accessory dwellings).
- Limited buildable areas due to zoning and land use restrictions (Gardner, 2024).

VOICES ON HOUSING

9

To meet its moment of growth, Raleigh has pursued strategies to diversify housing types, improve affordability, and encourage development in high-demand areas.

Raleigh's Strategies: Addressing Housing Needs

Raleigh is among the fastest-growing cities in the United States (Zwick, 2023). This growth draws a young, mobile population seeking well-connected communities and contributes to rising demand in an already strained housing market. In 2022, the National Association of Realtors ranked Raleigh-Durham as the 6th hottest housing market in the country (Rouse et al., 2024).

This rapid growth presents both opportunities and trade-offs. City officials and planners must navigate the complex task of expanding housing options while sustaining the qualities that new and old residents value—affordability, neighborhood character, access to green space, and a strong sense of community. Growth-related changes often raise valid questions about sustainability, equity, landuse, and green space. Residents' concerns about these changes reflect deep attachments to place, and it is essential to engage with those concerns respectfully and transparently.

In response to ongoing housing shortages—characterized by a limited supply of units, narrow range of housing types, and few locations where new housing is allowed—Raleigh has made targeted updates to its Unified Development Ordinance (UDO). These changes are part of a broader trend among U.S. cities and states to modernize land use policies in ways that support diverse housing options. In 2020, the city legalized Accessory Dwelling Units (ADUs) and cottage

courts by right city-wide (TC-16-19 and TC-6-18). Subsequent text changes (TC-5-20, TC-20-21 and TC-6-21) expanded the allowance for various forms of Missing Middle housing in many residentially zoned areas. These include duplexes, town homes and tiny homes. We define TC 05-20 as Missing Middle Policy One (MM1).

Raleigh, like many U.S. cities, operates within a unique landuse framework in which most of the zoning decisions are made locally, rather than at state or national levels (Hirt, 2024). This broad power is only limited in specific instances—North Carolina's local governments, for example, have no power to regulate "building design elements" for structures subject to the North Carolina Residential Code (N.C. Gen. Stat. Section 160D-702, 2023). While this authority gives municipalities like Raleigh significant power to shape the built environment, it also places them at the center of public debates about growth and change. Community members—especially long-term residents and neighborhood advocates, play an essential role in shaping these discussions. However, cities across the country have found that opposition to zoning reform, often from well-organized "home voters" or "neighborhood defenders," sometimes stall needed housing solutions (Elmstein, Glick, Palmer, 2020). In many cases engagement with these groups can reveal assumptions in policy proposals that need to be tested. However, prolonged and misdirected conflict sometimes leads to maladaptive growth that erodes the financial, cultural, and environmental resources the groups set out to protect (Wicki et al., 2022).

Systematic research early in the implementation of new zoning can help address community concerns. This information is vital to a public process that address resident's fears that changes

FRAMING THE ISSUE OF HOUSING IN RALEIGH

10

threaten the stability, affordability, or identity of their neighborhoods. Some risks are real—such as displacement pressures or loss of tree cover—while others may be based on misperceptions or a lack of clear information. For example, recent studies find a high percentage believe that increased housing supply increases housing prices, (Been, 2018; Nall, Elrendorf, and Oklobdzija, 2022), others that new housing risks gentrification and displacement though the correlation has not been established (Pennington, 2021).

Unlike many European countries, where a mix of housing types is seen as compatible and expected, the U.S. has a long history of exclusionary zoning that discourages diversity in the built environment (Hirt, 2014). In the U.S., the single-family detached house has long been a symbol of autonomy, success, and financial stability. For many, homeownership—especially in a single-family home—represents both personal identity and wealth accumulation. Any perceived threat to that investment, such as new or unfamiliar housing

Adopted Text Change Timeline

1/18/2020	7/22/2020	8/5/2021
TC-6-18 Cottage Courts "An ordinance to modify regulations for the cottage court housing pattern."	TC-16-19 Accessory Dwelling Units "Raleigh Unified Development Ordinance allowing accessory dwelling units on lots with existing detached or attached houses."	TC-05-20 Missing Middle Housing "An ordinance to increase housing options by expanding the allowable building types, adjusting minimum yards, lot, and site areas, and removing unit per acre density restrictions in most residential zoning districts."

Source: City of Raleigh Planning Department. (n.d.). Adopted text changes. City of Raleigh. <https://raleighnc.gov/planning/services/adopted-text-changes>

FRAMING THE ISSUE OF HOUSING IN RALEIGH

11

types, may feel like a risk to one's future security. In high-demand neighborhoods near city centers, these concerns are amplified, often making them flashpoints for zoning debates—and Raleigh is no exception.



Adopted Text Change Timeline

3/7/2022	8/8/2022
TC-6-21 Tiny Houses "An ordinance to facilitate the creation of "tiny homes" within the city of Raleigh."	TC-20-21 Missing Middle Housing 2.0 "An ordinance to increase housing options by expanding the allowable building types, adjusting minimum lot and site dimensional standards across residential zoning districts allowing higher density development near high-frequency transit."

14

OUTCOMES OF MISSING MIDDLE HOUSING POLICY CHANGE

Outcomes of Missing Middle Housing Policy Change

14 What is Missing Middle Housing + Incremental Development?

16 Reconciling Public Preferences with Market Realities

MISSING MIDDLE HOUSING TYPES

Attached ADU

Detached ADU

Duplex

Town houses

Addition ADU

14

OUTCOMES OF MISSING MIDDLE HOUSING POLICY CHANGE

What is Missing Middle Housing + Incremental Development?

Missing Middle Housing refers to a range of modest-scale, multi-unit housing types—such as duplexes, triplexes, fourplexes, townhouses, and accessory dwelling units (ADUs)—that historically played an important role in American neighborhoods. These housing types remain visible in many older Raleigh communities but have largely disappeared from new development due to decades of restrictive zoning (Hirt, 2014). Until recently, zoning regulations in Raleigh made it illegal or very difficult to build these types of homes. Recent text changes to the Unified Development Ordinance (UDO) have begun to reverse this trend by allowing a broader range of housing options in residential districts.

This shift aligns with a national zoning reform movement aimed at expanding housing choice to better meet the needs of a diverse and changing population. As housing scholar Jenny Schuetz explains, "A diverse housing stock is essential to supporting an economically and demographically diverse population" (Schuetz, 2022). Missing

Missing Middle contributes to that diversity by accommodating a wide range of household types, income levels, and life stages—from young professionals and small families that need more space to retirees hoping to downsize and age in place.

KEY CHARACTERISTICS AND BENEFITS

Location Matters: Missing Middle Housing is particularly effective in high-demand areas—such as urban cores and first-ring suburbs—where it can increase access to jobs, services, and transit without dramatically altering neighborhood character.

Gentle Density, Compatible Scale: These housing types offer a "gentle density" that blends into existing neighborhoods, preserving community feel while increasing housing supply.

Economic and Local Impact: Often built and financed by small, local developers, these homes contribute to local economies and offer ownership

and equity-building opportunities.

Affordability and Flexibility: By adding smaller units and shared living options, Missing Middle Housing can help moderate housing costs. Options like ADUs, cottage courts, and live-work units support intergenerational living and economic resilience.

Environmental Benefits: Smaller units and shared walls reduce energy use. Their walkable scale supports public transit, decreases car dependency, and helps limit urban sprawl. The U.S. EPA has found that neighborhoods with compact, diverse housing types use significantly less energy and water (Garcia et al., 2022).

A RESPONSE TO MARKET DEMAND AND DEMOGRAPHIC CHANGE

"The types of homes Americans need simply don't exist" (Demas, 2024).

The need for housing types that fit today's families

is growing. As the U.S. population ages and household sizes shrink, more people are looking for smaller, more flexible homes. Yet, as journalist Jerusalem Demas notes, "The types of homes Americans need simply don't exist". Missing Middle Housing helps close that gap—especially when integrated into walkable, transit-rich "Complete Communities" that support racial and socioeconomic inclusion (Montgomery Planning).

Despite strong public interest—more than half of Americans say they would prefer to live in Missing Middle-style homes near local shops and services (Argonni & Parolek, 2024)—most housing in Raleigh is single-family and suburban.

VOICES ON HOUSING

15

MISSING MIDDLE HOUSING TYPES

Attached ADU

Detached ADU

Duplex

Town houses

Addition ADU

Reconciling Public Preferences with Market Realities

Many residents support the idea of more diverse, affordable, and environmentally sustainable housing—particularly when it supports local businesses, enables aging in place, and offers options for smaller households. Yet, proposals to allow Missing Middle Housing in predominantly single-family neighborhoods often generate strong push back. Residents may fear changes to neighborhood character, loss of control, or the arrival of unwanted density. These concerns are deeply rooted in cultural norms and economic anxieties.

Adding to the complexity, housing in the U.S. serves both as a place to live and as a financial asset. While Missing Middle housing needs to be constructed, it also must be used as a permanent residence—not treated solely as a commodity. Housing stock cannot quickly adjust to changes in demand due to long construction timelines. At the same time, most housing is produced by private developers. Federal or state housing projects contribute only a minute portion. As a result, the system often struggles—especially in high-demand cities like Raleigh—to deliver diverse housing options (Schwartz, 2022). This disconnect between housing preferences, community needs, and what is actually available highlights the ongoing need for zoning reform, public engagement, and targeted investment in housing diversity.

MARKET REALITIES AND POLICY CONSTRAINTS

Raleigh, like most American cities, depends heavily on the private market to finance and build new



housing. Federal and state housing subsidies are limited, and local governments have relatively few tools to directly address affordability challenges. Zoning reform is one of the few mechanisms available to increase supply, support affordability, and guide more inclusive growth.

Missing Middle Housing fits this context by providing:

Affordability by design (smaller unit sizes at lower construction costs)

Gentle Density compatible with existing neighborhood scale

Local economic benefits by enabling small-scale, often local, developers
Increased access to desirable areas near jobs, schools, and transit

CORRECTING MISCONCEPTIONS WITH EVIDENCE AND ENGAGEMENT

Despite growing evidence supporting housing supply as a key factor in reducing overall housing costs, public misconceptions persist. Many believe that new housing increases prices and causes displacement. However there is evidence to suggest that adding market-rate units through

infill, especially in high-demand areas, can relieve pressure in the market (Pennington, 2021). In Finland, Missing Middle housing sparked “moving chains” that ultimately freed up units for lower- and middle-income households (Bratu, Harjunen, & Saarimaa, 2021). Similar trends have been observed in U.S. cities, where zoning reforms that increase housing supply have been associated with improved affordability over time (Stacy et al., 2023).

Missing Middle Housing can reconcile community desires for affordability, sustainability, and inclusion with the realities of how housing is

financed, built, and regulated. In Raleigh, recent text changes to the Unified Development Ordinance reflect this promise:

ADUs were legalized citywide with the goal of expanding options while preserving neighborhood scale.

Missing Middle text changes aim to support transit-oriented development and increase housing choice for a broader range of residents.

By acknowledging and addressing the cultural and economic roots of public concerns—and by backing reforms with data, transparency, and meaningful community engagement—Missing Middle Housing offers a grounded, realistic, and inclusive response to Raleigh’s evolving housing needs.

The following sections present the research goals, methods, and findings from this study, which combines both quantitative evidence and qualitative perspectives to inform future planning efforts.

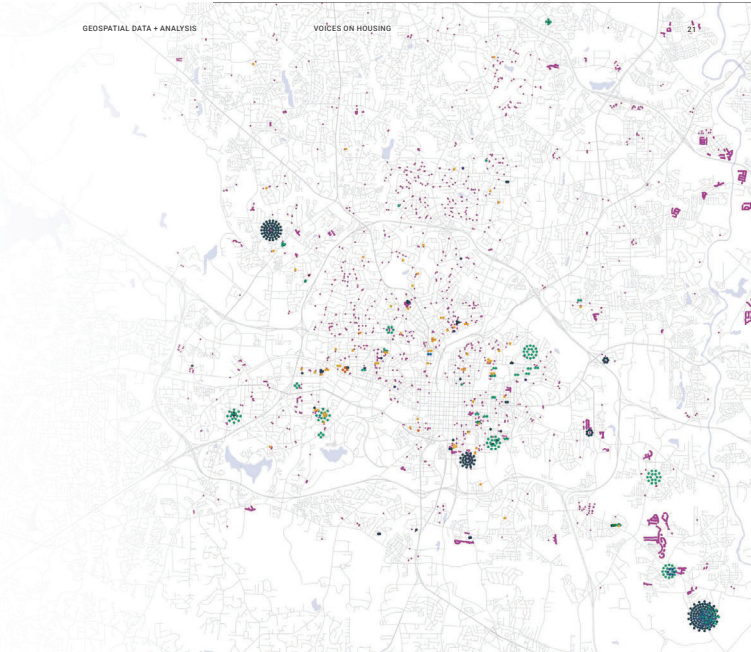
Geospatial Data + Analysis

- 20 Residential Permit Distribution & Missing Middle Housing Impact
- 22 Distribution of Individual Missing Middle Housing Categories
- 28 Residential Permit Distribution & Missing Middle Housing Impact
- 30 GoRaleigh Bus Stops & Routes, and Housing Proximity
- 32 Proximity to Parks, Open Space, & Trails
- 34 Proximity to Colleges & Universities
- 36 Proximity to Public Schools
- 38 Proximity to Low-Income & Low-Access Census Tracts
- 40 Population Density Analysis
- 42 Residential Zoning Overlays

Residential Permit Distribution & Missing Middle Housing Impact

The map clearly shows a concentration of new housing permits within the I-440 Beltline. This contrasts with the “All Residential Permits” data, showing housing more broadly distributed across the entire city. This visual evidence suggests that Raleigh’s MM1 drives increased urban density and diverse housing options specifically within central, established neighborhoods.

- MM1 Enabled Outside of Study (289)
- Townhouse (30)
- New Single Family Dwelling (178)
- New Building (2)
- Duplex (2)
- Addition (5)
- Internal ADU (1)
- Detached ADU (79)
- Attached ADU (5)
- Residential Permits Since MM1 (6,603)



Distribution of Missing Middle Housing Categories

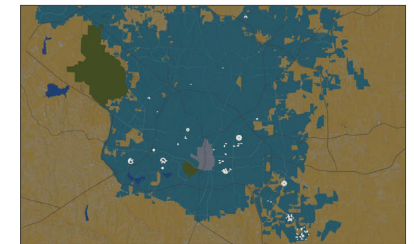
This series of maps provides a granular view of the specific housing types enabled by Missing Middle Policy 1 (MM1), illustrating their individual distribution patterns across Raleigh. It’s important to note that 289 MM1-enabled housing permits were not included in this study, as they were not fully completed at the time of our data set creation. Therefore, these maps represent a snapshot of the completed MM1 projects.

Within our study population, New Single Family Dwellings comprised the largest portion of MM1-enabled permits (178 units). This is a city permit classification that primarily includes tear-down properties that went from 1 to 2 units. In this case, only the second unit counts as missing middle enabled. New Single Family Dwellings’ distributions often shows clustering in new, smaller-scale developments, predominantly within existing neighborhoods inside the I-440 Beltline.

The second largest category of housing enabled by MM1 consists of Detached Accessory Dwelling Units (ADUs). Their individual permit locations contribute to the overall density, typically appearing as single units on existing residential lots. The remaining MM1 housing type categories had minimal representation in this study group, indicating that their development has been less frequent to date. Collectively, these maps reinforce how MM1 policies are fostering new housing types, particularly single-family and ADUs, to increase density within central Raleigh.



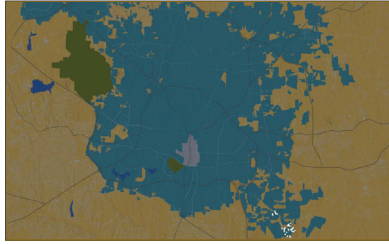
MM1 Enabled Outside of Study (289)



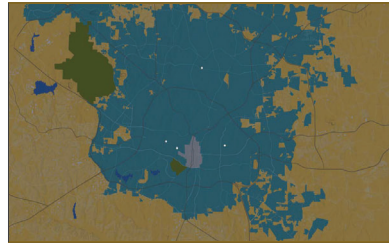
New Single Family Dwelling (178)



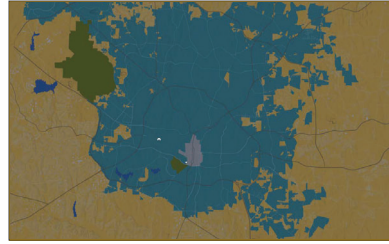
Detached ADU (79)



Townhouse (30)



Attached ADU (4)



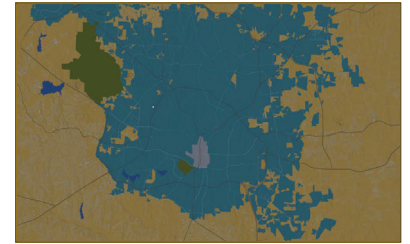
Addition (5)



Duplex (2)



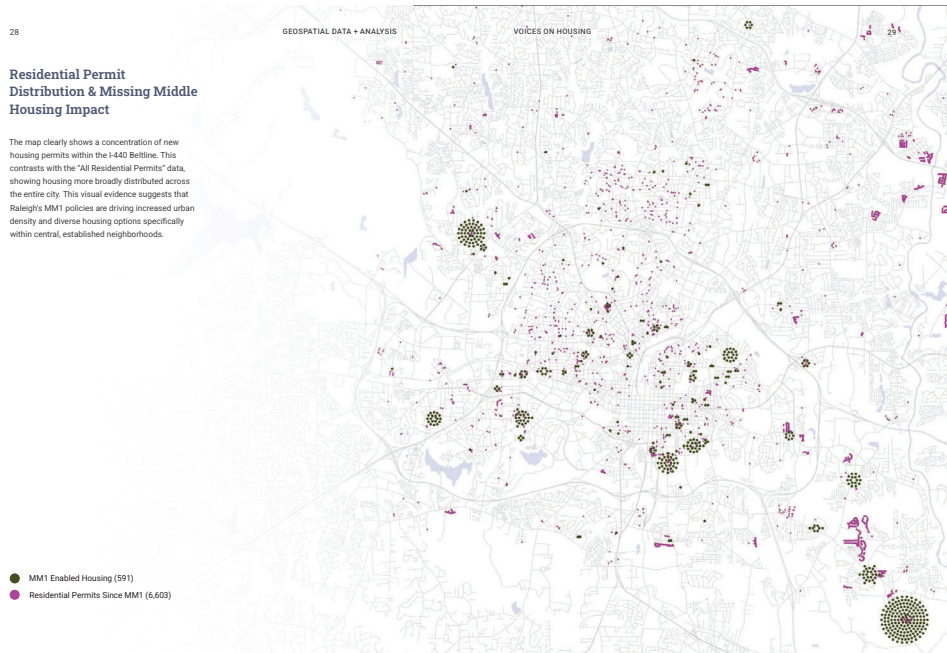
New Building (2)



Internal ADU (1)

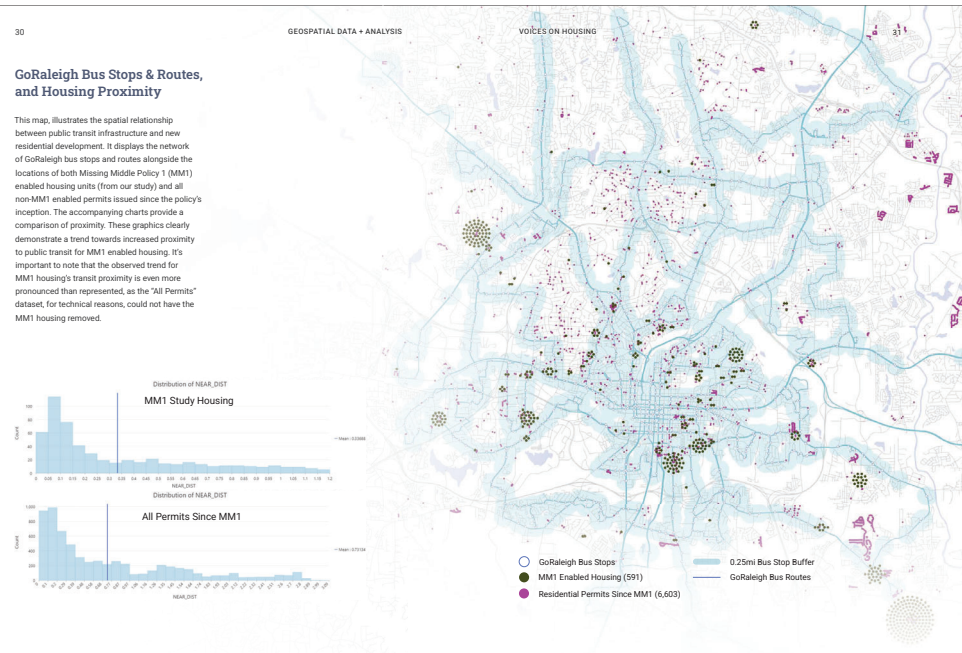
Residential Permit Distribution & Missing Middle Housing Impact

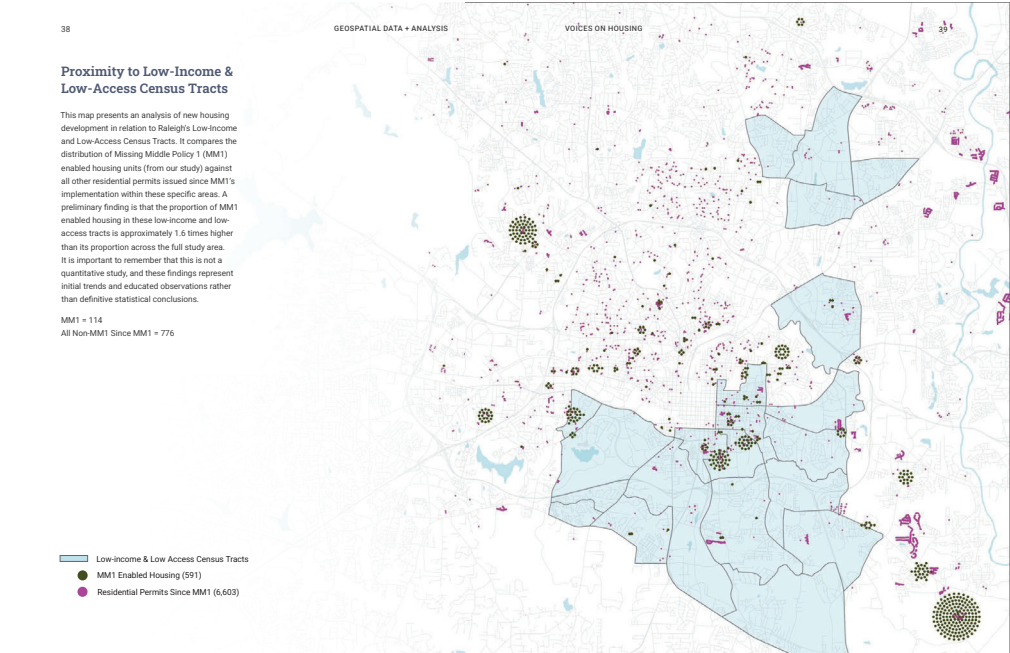
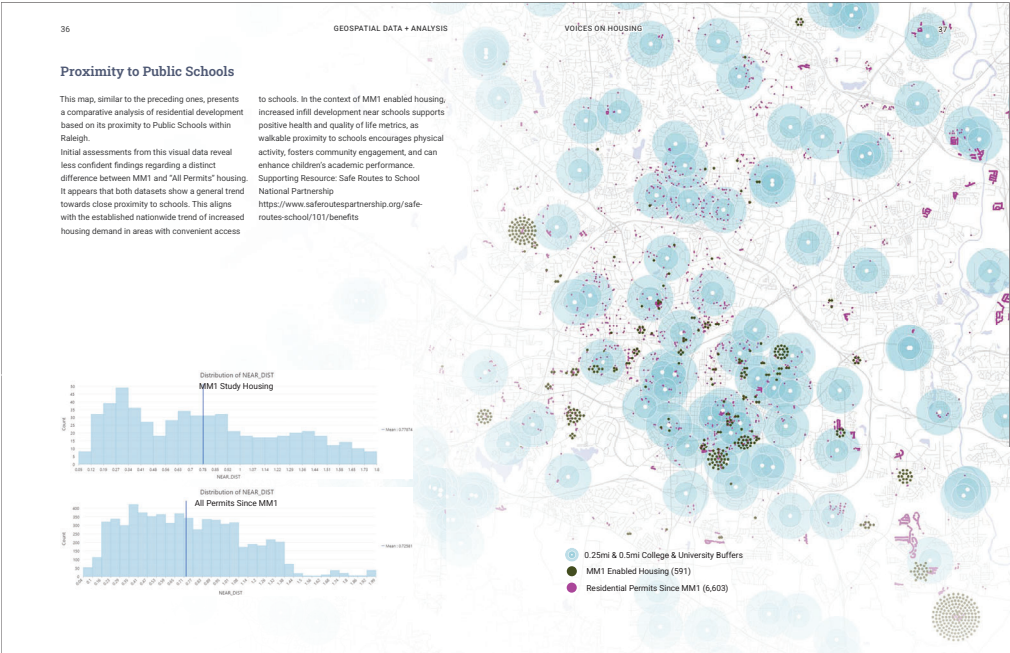
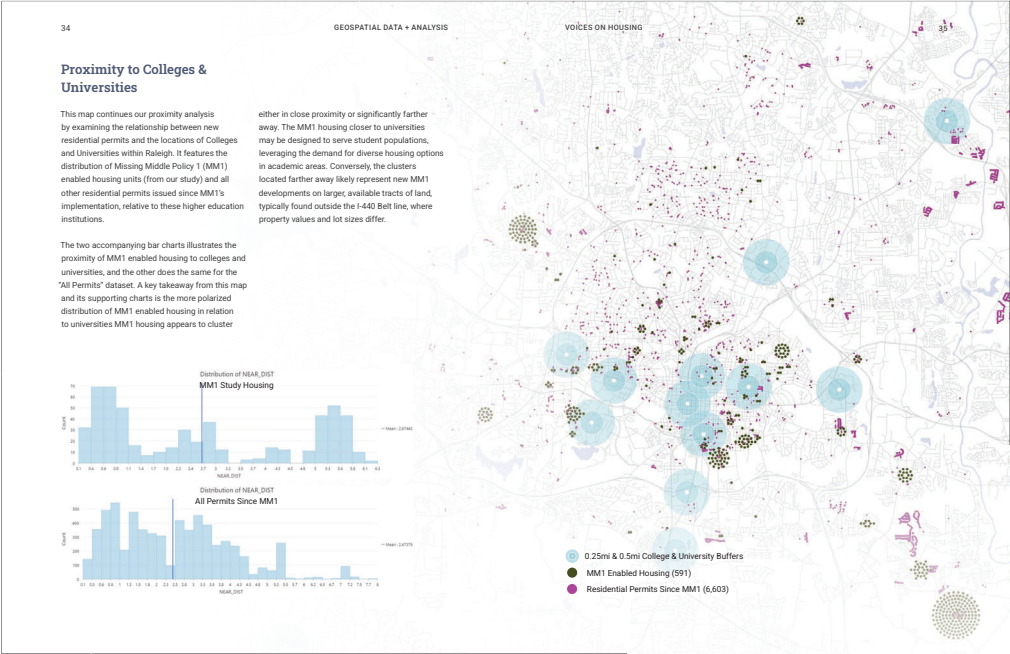
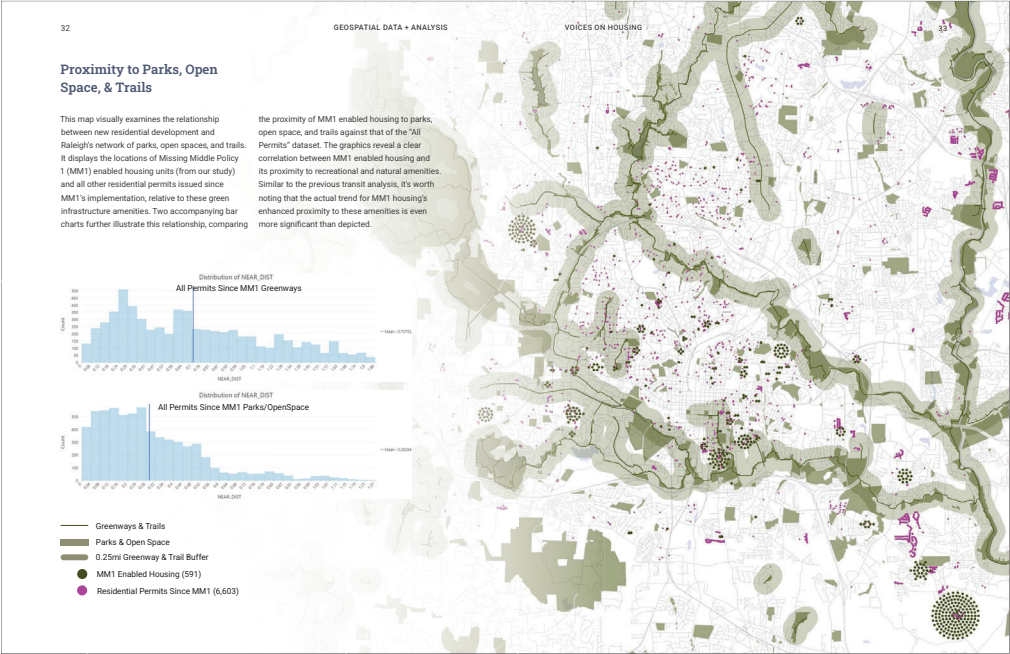
The map clearly shows a concentration of new housing permits within the I-440 Beltline. This contrasts with the "All Residential Permits" data, showing housing more broadly distributed across the entire city. This visual evidence suggests that Raleigh's MM1 policies are driving increased urban density and diverse housing options specifically within central, established neighborhoods.



GoRaleigh Bus Stops & Routes, and Housing Proximity

This map illustrates the spatial relationship between public transit infrastructure and new residential development. It displays the network of GoRaleigh bus stops and routes alongside the locations of both Missing Middle Policy 1 (MM1) enabled housing units (from our study) and all non-MM1 enabled permits issued since the policy's inception. The accompanying charts provide a comparison of proximity. These graphics clearly demonstrate a trend towards increased proximity to public transit for MM1 enabled housing. It's important to note that the observed trend for MM1 housing's transit proximity is even more pronounced than represented, as the "All Permits" dataset, for technical reasons, could not have the MM1 housing removed.





Population Density Analysis

This map presents a comparative analysis of new housing development in relation to Raleigh's population density. It displays Missing Middle Policy 1 (MM1) enabled housing units and all other residential permits issued since MM1's implementation, overlaid with a population density heatmap. Visual analysis of the heatmap graphic shows a clear trend: MM1 enabled housing is concentrated in the most densely populated areas of the city. In contrast, the "All Permits" dataset exhibits a more even distribution across the various population density ranges. This indicates that MM1 policies are facilitating residential development primarily in areas with established high population density.

- High Population Density
- Low Population Density
- MM1 Enabled Housing (591)
- Residential Permits Since MM1 (6,603)



Residential Zoning Districts

This final map in the series presents a comparison of new housing development within Raleigh's residential zoning overlays. It displays Missing Middle Policy 1 (MM1) enabled housing units and all other residential permits issued since MM1's implementation, situated against the backdrop of various zoning districts.

Initial review of this map indicates a clear pattern: the large majority of MM1 enabled housing is located within R-10, R-6, and R-4 zoning districts. Conversely, a substantial portion of the "All Permits" dataset is situated in lower density residential zoning districts.

While a more in-depth analysis would provide greater precision, this initial assessment suggests a strong correlation between MM1 housing and higher-density residential zones. City planning and policy staff may possess additional insights into the causal links driving these observed district trends.

- R1 Zoning Districts
- R2 Zoning Districts
- R4 Zoning Districts
- R6 Zoning Districts
- R10 Zoning Districts
- MM1 Enabled Housing (591)
- Residential Permits Since MM1 (6,603)



Study Scope and Research Methods

- 45 Understanding the Impact: Our Research Goals
- 46 Research Approach
- 46 Research Process

Understanding the Impact: Our Research Goals

The goals of this phase of the project are to:



Research Approach

This study employed a qualitative mixed-methods approach.

Data was gathered through field observations, questionnaires, and interviews. A qualitative approach was chosen to capture descriptive insights and contextual knowledge about perceptions of new housing and how residential mobility shapes affordable housing opportunities as the city grows.

Research Process

STEP 1: BUILDING THE STUDY POPULATION

The study began with field observations of units completed under the MMH reforms to validate the city's address list, count the number of units, and assess whether the structures were being used for permanent housing.

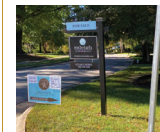
City Provided Data

Our study utilized the City of Raleigh's Missing Middle Housing (MMH) address database, which contained approximate addresses of new dwelling units permitted under MMH-related text changes (TC-05-20, TC-20-21) and marked as ready for occupancy by June 1, 2024. This dataset, provided by Justin Risher Senior Planner of the City of Raleigh Planning and Development Department, included work the city identified as:

- enabled by MMH text changes and
- ready for occupancy before 6/1/24

Field Recorded Data

Field observations the City provided data on occupancy and probable use for housing units enabled by Missing Middle Housing (MMH). Research field notes documented the likely occupancy status of units based on indicators of vacancy (e.g., lockboxes, "For Sale" signs, lack of furnishings) and probable permanent housing use (e.g., visible house numbers, individual mailboxes). Where available, additional information (advertisements, window views) helped identify likely short-term rentals or accessory dwelling units.



STEP 2: CREATE AND DISTRIBUTE SURVEY

We then distributed an online questionnaire to residents of these units and their nearest neighbors to gather information about housing choices and the potential for MMH.

We surveyed residents of MMH-enabled units and their six nearest neighbors (left, right, across the street). Three in-person visits were made to each target address, distributing flyers inviting participation in an online survey (Qualtrics). MMH residents received a \$2 incentive with the second invitation. Field notes from these visits documented housing conditions, neighborhood context, and resident interactions. The survey explored relationships to new construction, affordability, neighborhood dynamics, and policy views, collecting housing characteristics, neighborhood perceptions, policy opinions, and demographics. Location was inferred through cross-street questions and construction year (post-2022 for MMH).



STEP 3: FOLLOW-UP INTERVIEWS FOR MORE DETAIL

Hour-long interviews were conducted with a subset of questionnaire respondents. The study sampled both new housing units and nearby residents to provide a comprehensive view of the neighborhood changes driven by MMH.

Survey respondents interested in follow-up interviews completed a separate form with contact details and availability. Interviews (Zoom, phone, or in-person, with optional Google Earth views) lasted about an hour, focusing on housing choices, neighborhood changes, policy, and MMH experiences. Two researchers facilitated (one leading, one technical support). Interviews were recorded (with consent), transcribed (Zoom, Otter.ai), reviewed, and anonymized with pseudonyms, stored separately from survey data. Location was inferred through cross-street questions and construction year (post-2022 for MMH).

Data Analysis

Data Analysis

To analyze our research on Raleigh's Missing Middle Housing, we used a mixed-methods techniques. This multi-faceted approach allowed us to thoroughly examine the impact of MMH in Raleigh, looking at how housing policies, resident experiences, and neighborhoods all connect.

1

FIELD OBSERVATIONS

We visited neighborhoods to see the new housing and its surroundings, providing real-world context.

2

SURVEYS

We collected opinions from many residents through surveys, using numbers to identify trends in their responses.

3

INTERVIEWS

We had in-depth conversations with residents to understand their individual experiences and perspectives.

4

THEMATIC ANALYSIS

We carefully read interview transcripts to find recurring themes and patterns in what people said. We used NVivo software to help organize this.

5

ENSURING RELIABILITY

We had multiple researchers review our analysis of the interviews to make sure our findings were consistent and accurate.

6

COMBINING THE DATA

We then brought together what we saw, what the surveys told us, and what we learned from the interviews. This helped us get a more complete and trustworthy understanding of the situation.

Key Findings

- 51 Key Resident Priorities
- 52 Chain-of-Moves Dynamics
- 54 Housing Transitions: Resident Stories
- 57 Residents' Recommendations for the City
- 59 Survey and Interview Demographics



Key Resident Priorities

Residents call for balanced growth, improved housing affordability, and greater accountability from developers to ensure new development meets community needs.

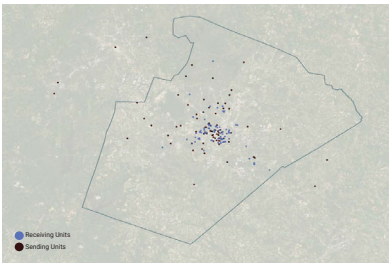
Interview participants consistently emphasized that affordability should not equate to lower quality. One resident stated they would be willing to pay more in taxes to support dignified, affordable housing options. Others expressed concern that rising property taxes are pushing longtime residents out of their homes. Participants also noted the need to ease development constraints in order to boost housing supply and affordability. However,

several raised concerns about the lack of recourse when developers fail to deliver on promises, including potential losses in property value. Gentrification and displacement also surfaced as critical issues, particularly in neighborhoods near downtown Raleigh. Residents acknowledged the city's progress, but called for a more intentional, equitable approach to development that supports inclusion and long-term affordability.

Chain-of-Moves Dynamics

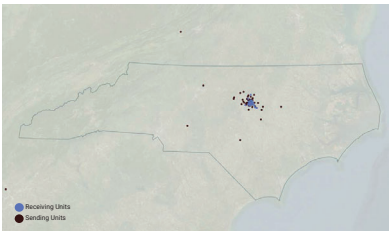
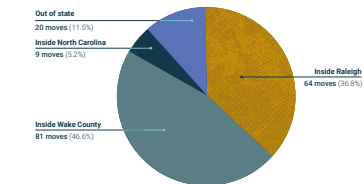
Resident interviews indicate that some of those moving into Missing Middle housing will vacate other units, creating a "chain of moves" that may ease regional housing pressures and expand options for others. To evaluate this ripple effect, survey respondents shared previous and current housing locations, offering insights into movement patterns across the Triangle. Most participants moved to new MMH housing from within Wake County, with only 11.5% percent of the respondents coming from outside the State. These moves helped free up units in more expensive or less accessible parts of the region, potentially increasing availability for a broader range of households. To better understand this dynamic, we surveyed participants for information on their previous and current housing locations, including cross streets and zip codes. The data provides insight into movement patterns and housing

transitions, which can be visualized in the below and on the following pages. Fully exploring these ancillary impacts of Missing Middle Housing is beyond the scope of the study due to the relative recency of the text code changes.

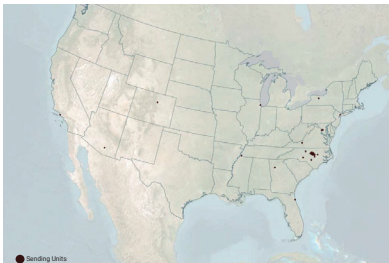


Sending and receiving units in Wake County

Where Respondents Are Moving From



Sending and receiving units in North Carolina



Sending units across in the U.S.

Housing Transitions: Resident Stories

Residents described diverse pathways into Missing Middle housing, shaped by affordability, proximity to work, lifestyle preferences, and long-standing neighborhood ties.

Interviewees shared personal accounts of how and why they came to live in Missing Middle units. Some moved to stay close to work or to remain in walkable, vibrant communities. Others made strategic choices to upgrade within the same neighborhood or relocate due to affordability constraints elsewhere. Life transitions, such as marriage, children, or job changes, were common drivers.

Our interviews with participants revealed a range of housing situations preceding their current residence in missing middle housing. While motivations varied, several themes emerged, including desires for homeownership, proximity to work, and neighborhood quality.

One participant highlighted their move from an established neighborhood in Raleigh to build a new home in a historic area:



"I lived off of Cheyenne Road in Raleigh, North Carolina, and wanted to build a home. We wanted to build a home. So we found Oakwood because they're mostly historic houses, and we bought the lot and built on it. So that's what brought me to this house in this area."

— Interviewee One

Another participant discussed the compromises made to balance work and personal preferences when relocating within the Triangle:

"I was living in Carrboro, and she was living in Raleigh, and when we met, I joined her in Raleigh for several years, but part of our agreement was that we would eventually move back to Carrboro. But then she started working at NC State, so she had to commute daily, and we agreed to move back to Raleigh. But interestingly, my specification, I said, is that if we move back to Raleigh, I want to move back to a neighborhood as nice as Carrboro. I don't know if you know much about Carrboro, but it's that quirky little town south of Chapel Hill, right? And, we looked around, and this current neighborhood where I'm living fit the bill. It's walkable."

— Interviewee Two

For some, the decision to stay within the same neighborhood while upgrading their housing reflected a deep connection to their community:

"We lived in the original home we bought back in 2005 in this neighborhood. We lived in that home for 17 years. We loved the neighborhood. We had kids, wanted to grow, and wanted to build ourselves a different home but stay in the same neighborhood if possible. So we undertook a subdivision with two neighbors, created a lot, and built ourselves a different, single-family home on a new lot that we created in that same subdivision off of Oberlin Road. So that is where we currently live. We've been here in this house for a year and a half. We've been in the neighborhood for almost 20 years."

— Interviewee Three

Others shared how broader life circumstances and market conditions drove their decisions. One participant reflected on relocating from Miami for better job prospects and affordability:

"I was living in Miami. This is like, I don't know, maybe about a little more than 10 years ago, like 200 or about 15 years ago. And Miami was just expensive, and we didn't really care for the city. So we were looking for a new area. I have a degree in computer science. And of course the Triangle is here. So I did some

research, housing was at a good price, and the job market was great. So we picked the city. Now in the house we sold our old house during the peak of the, you know, that season where everybody likes, that the houses were selling for way over value. So we cashed out, and then we started a new construction house, which ended up being a complete disaster. We walked away from that deal, and then eventually found another house that was under construction that we liked, and we purchased."

— Interviewee Four

Some participants described less dramatic moves but highlighted how their current housing represented a change in lifestyle:

"So I was still living in Raleigh. I was over by Lake Boone Trail in that area. I was also renting there. It was a townhome, and I was living with another person who was not my partner. It was a friend of mine, and we were roommates. So I went to a different part of Raleigh, I guess."

— Interviewee Five

For others, work-related relocations and rental housing transitions shaped their path to missing middle housing:

"I moved here from Louisiana for work, and I'm currently renting a townhome near downtown. I've rented pretty much the whole time I've lived here in

Raleigh, in various spots around downtown. I lived in a one-bedroom apartment, first moved over to a townhome, then moved to a single family home that I eventually got pushed out of because they wanted to sell the house a few years ago, but now I've lived in this townhome for about two and a half years now."

— Interviewee Six

These narratives reflect residents' complex and diverse pathways to missing middle housing, underscoring how individual moves contribute to broader patterns of neighborhood change and housing availability.

Residents' Recommendations for the City

Participants encouraged the City of Raleigh to sustain momentum on zoning reforms while addressing affordability, ensuring developer accountability, and mitigating displacement.

Residents expressed support for the city's efforts to modernize zoning but urged more transparency and oversight to ensure promised outcomes are delivered. One participant cited the benefits of density—like reducing traffic and supporting mass transit—but cautioned against opposition that might "stifle progress." Others called for more thoughtful planning that protects neighborhood character while meeting future needs. The most common call was for continued focus on affordable housing—not just in cost, but in quality and accessibility. Concerns about gentrification, displacement, and the need for deeper understanding of their root causes were shared across a wide range of perspectives.

One participant expressed optimism about the city's current trajectory while acknowledging the tensions between progress and neighborhood preservation:

"I think they're doing a lot of the right things... There's a lot of people in the neighborhoods that are really fighting to keep their neighborhoods exactly as they are... but it does stifle progress in terms of what we're trying to do. And what I feel like we're trying to do is get more mass transportation, bring down the environmental impact. More density helps that—less cars on the road and all that. I think we should

just keep going on with it. Look at the good things and say, 'Hey, should we do some more things?' Maybe take a look at some cities like Nashville that have done cool things and see what we can learn."

— Interviewee Seven

Affordable housing was consistently identified as a critical issue, with one participant emphasizing that affordability should not mean lower standards:

"I think affordable housing is really the number one issue, and I don't think affordable housing should mean substandard or insufficient housing either. I don't know how that could be engineered, but I'd be willing to pay more taxes to make that work. And something should be done for people who are historic owners of properties and are getting taxed out of their homes. Some people can't even live in their own houses because the taxes get too high."

— Interviewee Eight

Participants also stressed the importance of easing development constraints to address housing supply and affordability. As one participant noted:

"The development community badly wants to ease constraints on development so we can provide more housing supply and, hopefully, improve affordability... We'd be very keen for the city to remain focused on smart growth and breaking down barriers to allow us to achieve more building."

— Interviewee Nine

However, concerns were raised about the accountability of developers and the impact of unfilled promises on residents:

"You're really rolling the dice on what it's gonna end up being versus what was promised. And you have no recourse... If your property value drops because they didn't keep up with their promises, there's nothing you can do about it."

— Interviewee Ten

Affordability challenges and gentrification were also top of mind for many participants, especially as they navigated housing decisions. One participant shared their experience of weighing affordability against proximity to downtown Raleigh:

"It's very, very expensive to want to live in and around downtown Raleigh... It could easily go somewhere outside of city limits and pay at least \$100 less every month for a potentially bigger dwelling. It's the give and take

of affordability versus accessibility. And with gentrification, I think people need to understand the deeply rooted context behind it. When I see new builds or updated models of houses in lower-income areas, it's something I weighed pretty heavily when looking at rental options."

— Interviewee Eleven

These narratives underscored a shared desire for Raleigh to maintain a balanced and equitable approach to housing and development. Residents recognize the strides the city has made but call for continued efforts to address affordability, ensure accountability, and approach gentrification and neighborhood change with thoughtful planning.

Survey and Interview Demographics

Survey respondents were predominantly White, lived in two-person households without children, and represented a range of household types and experiences across 20 interviews.

The survey response rate was 11% for Missing Middle residents (n = 32) and 0.05% for neighbors (n = 79). Of the 110 respondents who shared racial identity, 74% identified as White. Other respondents included 5 African American/Black, 6 Hispanic/Latino, 1 Asian/Pacific Islander, 2 American Indian/Alaska Native, and 1 Mixed race (Black & White). Gender identity was 37% men, 35% women, 1% nonbinary/gender non-conforming, and 6%

preferred not to answer. Most respondents lived in two-person households, and the majority did not have children. A total of 20 interviews were completed (14 men, 6 women), including six with residents of housing developed under the new ordinance. The geographic distribution of Missing Middle homes, survey participants, and interviewees is shown in Figure 1.

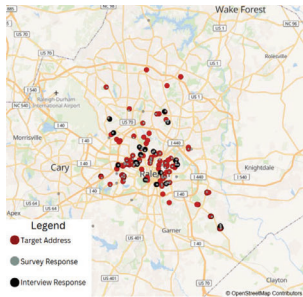


Figure 1: Geographic distribution of Missing Middle homes, survey participants, and interviewees.

Recommendations and Further Study

57 Conclusions

60 Precedent for Future Research

Conclusions

Study participants living in missing middle housing largely welcomed the gentle increase in density that MMH reforms permit, citing an openness to "creative land use."

The findings of this Phase 1 study on Missing Middle Housing (MMH) in Raleigh align with broader debates about how new residential construction influences affordability, displacement, and neighborhood character. In particular, our results echo two key strands in the literature. In Mast (2023), new market-rate construction was shown to yield "chain of moves" effects by indirectly freeing up more moderately priced housing through vacancies across a range of neighborhoods. Pennington (2022) highlighted the potential for localized spillover benefits—such as a slight decrease in rents and reduced displacement risk—even as new buildings can attract higher-income newcomers, raising concerns about gentrification.

In Raleigh's case, our study participants living in missing middle housing largely welcomed the gentle increase in density that MMH reforms permit, citing an openness to "creative land use." Field observations confirmed that approximately 85% of newly constructed MMH units are already occupied, with the intent for permanent housing in 89% of cases. This uptake supports Mast's (2023) contention that an increase in supply quickly meets latent demand, potentially mitigating further price pressures. At the same time, some respondents questioned whether "missing middle" homes were truly middle-income products. Several interviewees

explicitly stated that "missing middle" often equated to properties with relatively high prices, especially those located "inside the Beltline" or near desirable amenities. These observations resonate with Pennington's (2022) finding that new buildings can be perceived as contributing to higher, not lower, average housing costs in close proximity—particularly when the underlying land values are high.

Despite these affordability concerns, participants who moved into MMH units primarily described positive neighborhood experiences—mirroring Pennington's (2022) finding that net displacement risk can remain stable or even decrease. Many respondents cited the advantages of new construction and better housing quality. They also appreciated that relaxed regulations facilitated more flexible housing forms (e.g., duplexes and accessory dwelling units). According to Mast (2023), these incremental additions to the housing stock can, over time, loosen demand in older and lower-cost units, even though immediate effects may be subtle. Our survey data and interviews underscored that many new MMH residents had vacated other housing in Raleigh or Wake County, suggesting that a "vacancy chair" may occur. Yet quantifying its impact, particularly for lower-income residents, is challenging.

A key policy question is whether MMH can improve affordability beyond high-priced areas. While Mast (2023) underscores that building "higher-end" or moderately priced units can indirectly benefit lower-tier submarkets, several Raleigh interviewees speculated that MMH's price point might be too high to substantially relieve cost burdens for middle- or low-income households. Consistent with Pennington (2022), a few participants voiced reservations about potential long-term

gentrification, explaining that new units sometimes "price in" higher-income newcomers, thereby changing the social fabric of a neighborhood. Yet we also recorded instances of optimism, with residents noting "a marathon of trick-or-treaters" that signals neighborhood revitalization and the benefits of renewed housing stock.

Finally, the "chain of moves" dynamic remains an area for further research. Our attempts to track previous and current addresses show clear movement patterns within Raleigh and Wake County, lending some support to the idea that each new construction unit sets off a cascade of vacancies across the region. However, as in both Mast (2023) and Pennington (2022), our qualitative findings cannot definitively quantify the net affordability gains. Nonetheless, these early Phase 1 insights suggest that MMH reforms do introduce beneficial flexibility into Raleigh's housing market. They also highlight the need for ongoing, more targeted study—potentially with longitudinal data—to capture the full scope of short- and long-term affordability, displacement, and neighborhood change.

The Missing Middle Housing (MMH) policy changes in Raleigh represent a significant step toward addressing the city's growing housing challenges. However, this study reveals both successes and areas for improvement. While MMH reforms have increased housing diversity and density, affordability remains a key concern, with new construction often priced beyond reach for middle-income households. Rising land and construction costs, property taxes, and other expenses compound these challenges, limiting the broader impact of MMH on housing accessibility. Residents expressed mixed feelings about neighborhood changes brought by MMH developments. While some praised the revitalization, increased

density, and walkability these policies encourage, others raised concerns about gentrification, displacement of long-time residents, and the loss of neighborhood character. The ripple effects of MMH policies on housing mobility—the "chain of moves"—remain unclear, as many residents noted limited options for transitioning between renting and owning within their desired price range. Participants also highlighted the need for streamlined permitting processes, targeted affordability incentives, and greater accountability from developers. Despite these challenges, residents support policies like accessory dwelling units (ADUs) and smaller-lot development but emphasize balancing flexibility with thoughtful urban planning.

A significant benefit of allowing Missing Middle Housing is that new units will be added each year to the housing market at no cost to the city. However, to ensure MMH policies achieve their goals, Raleigh should also prioritize broader affordability strategies, such as municipal funding for new construction and property tax relief for low wealth residents. Future studies should further explore the chain-of-moves dynamic to better understand the policy's broader impact on housing accessibility. Additionally, transparent community engagement will be crucial for fostering trust and aligning policies with resident needs. Investments in multi-modal infrastructure, including public transit and walkability, are also vital to supporting sustainable growth. Raleigh's MMH reforms offer valuable lessons for other cities navigating urbanization, underscoring the importance of balancing growth, affordability, and inclusivity to create a more equitable and resilient future.

Precedent for Future Research

- Chen, L., Wang, H., & Meng, J. (2023). Image Analysis of Spatial Differentiation Characteristics of Rural Areas Based on GIS Statistical Analysis. *Electronics*, 12(6), 1414.
- Clark, E. (1984). Housing policies and new construction: A study of chains of moves in Southwest Skåne. *Scandinavian Housing and Planning Research*, 1(1), 3-14.
- Greenlee, A. J. (2019). Assessing the intersection of neighborhood change and residential mobility pathways for the Chicago metropolitan area (2006–2019). *Housing Policy Debate*, 29(1), 186-212.
- Mast, E. (2023). JUE Insight: The effect of new market-rate housing construction on the low-income housing market. *Journal of Urban Economics*, 133, 103383. Millard-Ball, A. (2002). Gentrification in a residential mobility framework: Social change, tenure change and chains of moves in Stockholm. *Housing Studies*, 17(6), 833-856. <https://www.tandfonline.com/doi/abs/10.1080/0267302015997>
- Pennington, K. (2022). The spatial impact of new housing on rents, displacement, and gentrification: Evidence from San Francisco.
- Parker, D. C., Valae Sharif, S., & Webster, K. (2023). Why Did the "Missing Middle" Miss the Train? An Actors-In-Systems Exploration of Barriers to Intensified Family Housing in Waterloo Region, Canada. *Land*, 12(2), 434.
- Spader, J. (2024). Has Housing Filtering Stalled? Heterogeneous Outcomes in the American Housing Survey, 1985–2021. *Housing Policy Debate*, 1-23.
- Te Braak, P., Verhoest, P., Bauwens, J., Minnen,

J., & Glorieux, I. (2022). Perceptions as drivers of residential mobility: A resonance analysis. *Cities*, 129, 103819.

References

- Alcezi Alexandrov and Laurie Goodman, January 2024, "Place the Blame Where It Belongs: Lack of Housing Supply Is Largely Responsible for High Home Prices and Rents", Urban Institute.
- Danielle Arigoni and Dan Parolek, September 19, 2024, "Missing Middle Housing Opponents Are Missing Important Facts. Here's What They Need To Know", Next City.
- Thomas Barrie, House and Home: Cultural Contexts, Ontological Roles, London: Routledge, 2017.
- Vicki Been, Ingrid Gould Ellen, and Katherine O'Regan, August 20, 2018, "Supply Skepticism: Housing Supply and Affordability," NYU Furman Center.
- Cristina Botu, Oskari Harjunen, Tuukka Saarimaa, August 2021, JUE Insight: "City-wide effects of new housing supply: Evidence from moving chains," *Journal of Urban Economics*
- Jerusalem Demas, 2024, On the Housing Crisis, New York: Zando Publications.
- Anthony Flint, January 2023, "The State of Local Zoning: Reforming a Century-Old Approach to Land Use," *Land Lines*, Vol. 35, No. 1, pp. 24-35.
- David Garcia, Muhammad Alameidin, Ben Metcalf, and William Fulton, 2022, "Unleashing the Potential of Missing Middle Housing," *Temer Center for Housing Innovation*.
- Sonia Hirt, 2024, Zoned in the USA, Ithaca, New York, Cornell University Press.
- Rory Howard, June 27, 2022, "Missing Middle Model to Ease Housing Shortage in Triangle Region," UNC School of Government. <https://ncimpact.sog.unc.edu/2022/06/missing-middle-model-to-ease-housing-shortage-in-triangle-region/>
- Even Mast, September 2021, JUE Insight: "The effect of new market-rate housing construction on the low-income housing market," *Journal of Urban Economics*.
- Andreas Mense, 2025, "The Impact of New Housing Supply on the Distribution of Rents, Institute for Employment Research," IAB
- Nuremberg and London School of Economics.
- Clayton Nall, Chris Elmendorf, Stan Okobdzija, July 19, 2022, "Housing Narratives: The Mental Models Underlying Skepticism Towards Housing Development" USC Price School.
- Kate Pennington, June 15, 2021, "Does Building New Housing Cause Displacement? The Supply and Demand Effects of Construction in San Francisco,"
- David Rouse, Ben Hittchings, Anita Brown-Graham, April 9, 2024, "North Carolina's Housing Shortage," UNC School of Government. <https://ncimpact.sog.unc.edu/2024/04/north-carolina-s-housing-shortage/>
- Jenny Schuetz, 2022, *Fixer-Upper: How to Repair America's Broken Housing Systems*, Washington, DC: Brookings Institute Press.
- Christina Stacy, Chris Davis, Yanah Siffon, Freemark, Lydia Lo, Graham MacDonald, Vivian Zheng, Rolf Pendall, 2023, "Land-use reforms and housing costs: Does allowing for increased density lead to greater affordability?" Urban Institute.
- Mihir Zaveri, Oct 15, 2022, "A housing crisis has more politicians saying yes to big real estate," Mihir Zaveri, The New York Times.

- Montgomery Planning, Montgomery County, MD, "Complete Communities," <https://www.pcmf.com/city/35711/NC/>
- Wicki, Michael, Katrin Hofer, and David Kaufmann, "Planning instruments enhance the acceptance of urban densification," *Proceedings of the National Academy of Sciences* 115, no. 38 (2022): e2201780119.
- Gardner, C. (2024). Cutting Zoning Down to Size: Reevaluating the Legal Vulnerability of Urban Minimum Lot Sizes. San Diego L. Rev., 61, 231. Freemark, Yanah. "Zoning change: Upzonings, downzonings, and their impacts on residential construction, housing costs, and neighborhood demographics." *Journal of Planning Literature* 38, no. 4 (2023): 548-570.
- Colburn, Gregg, and Rebecca J. Walter. *Affordable Housing in the United States*. Taylor & Francis, 2024.

- Montgomery Planning, Montgomery County, MD, "Complete Communities," <https://www.pcmf.com/city/35711/NC/>
- Wicki, Michael, Katrin Hofer, and David Kaufmann, "Planning instruments enhance the acceptance of urban densification," *Proceedings of the National Academy of Sciences* 115, no. 38 (2022): e2201780119.
- Gardner, C. (2024). Cutting Zoning Down to Size: Reevaluating the Legal Vulnerability of Urban Minimum Lot Sizes. San Diego L. Rev., 61, 231. Freemark, Yanah. "Zoning change: Upzonings, downzonings, and their impacts on residential construction, housing costs, and neighborhood demographics." *Journal of Planning Literature* 38, no. 4 (2023): 548-570.
- Colburn, Gregg, and Rebecca J. Walter. *Affordable Housing in the United States*. Taylor & Francis, 2024.

Appendices

1. Recruitment Flyer



2. Questionnaire

Block	Question	Response Choices
Informed Consent	Q1 Welcome to the Housing in Raleigh study! By clicking below, you acknowledge...	☐ I consent, begin the study ☐ I do not consent, I do not wish to participate
New Housing	Q2 Which best describes how you relate to new housing?	☐ I am living in newly constructed housing (constructed from 2023-present) ☐ I am a neighbor of newly constructed housing. ☐ I don't know how to answer.
	Q3 How do most people you know talk about the ways new housing has changed the quality of your current neighborhood?	☐ Much better ☐ Somewhat better ☐ Stayed the same ☐ Somewhat worse ☐ Much worse
	Q4 How do most people you know talk about the ways new housing has changed housing affordability in your current neighborhood?	☐ Much better ☐ Somewhat better ☐ Stayed the same ☐ Somewhat worse ☐ Much worse

Current Address	Q5 In what year did you move to your current address? Q6 Do you currently rent or own your home? Q7 What is your current zip code? Q8 What are the cross streets where your current home is located? Q9 Which best describes the building you live in? Q10 How many bedrooms are in your home? Q11 Including yourself, how many people currently live in your home? Q12 How many children under 18 years old currently live in your home? Q13 What is your gender identity?	[Open-ended response] ☐ Own outright (no mortgage) ☐ Own (with a mortgage or loan) ☐ Rent privately ☐ Rent from a local authority ☐ Other [Open-ended response] ☐ Street 1 [Open-ended response] ☐ Street 2 [Open-ended response] ☐ Accessory Dwelling (e.g. tiny house, cottage) ☐ Apartment building ☐ Duplex ☐ Single family home ☐ Townhouse ☐ Other ☐ Studio/Efficiency ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more ☐ Woman ☐ Man ☐ Transgender ☐ Non-binary/non-conforming ☐ Prefer not to respond
-----------------	---	--

	Q14 How do you describe your ethnicity? (check all that apply) Q15 In general, I know my neighbors very well. Q16 In my neighborhood, there are sufficiently wide, good-quality footpaths. Q17 In my neighborhood, there are many attractive sights (such as gardens, trees, greenspaces, attractive buildings, and views). Q18 In my neighborhood, there are large parking lots in front of shops and businesses. Q19 In my neighborhood, there are often many people out walking. Q20 The crime rate in my neighborhood makes it unsafe to walk places during the night.	☐ African American, Black ☐ Hispanic, Latinx/o/a ☐ Asian and Pacific Islander American ☐ American Indian and Alaska Native ☐ Middle Eastern and North African ☐ White ☐ Another way ☐ Strongly agree ☐ Somewhat agree ☐ Neither agree or disagree ☐ Somewhat disagree ☐ Strongly disagree ☐ Strongly agree ☐ Somewhat agree ☐ Neither agree or disagree ☐ Somewhat disagree ☐ Strongly disagree ☐ Strongly agree ☐ Somewhat agree ☐ Neither agree or disagree ☐ Somewhat disagree ☐ Strongly disagree ☐ Strongly agree ☐ Somewhat agree ☐ Neither agree or disagree ☐ Somewhat disagree ☐ Strongly disagree ☐ Strongly agree ☐ Somewhat agree ☐ Neither agree or disagree ☐ Somewhat disagree ☐ Strongly disagree
--	--	--

		APPENDICES	VOICES ON HOUSING	
72				73
	Q21 In my neighborhood, there are badly maintained or unoccupied buildings and houses.	- o Strongly agree - o Somewhat agree - o Neither agree or disagree - o Somewhat disagree - o Strongly disagree		- o Very stable and secure - o Fairly stable and secure - o Just somewhat stable and secure - o Fairly unstable and insecure - o Very unstable and insecure - o Not sure
	Q22 In my neighborhood, there are unattractive buildings and houses.	- o Strongly agree - o Somewhat agree - o Neither agree or disagree - o Somewhat disagree - o Strongly disagree	Housing Policy	Q28 How do you feel about your current housing situation? - o The government is doing enough for RENTAL housing. - o The government should do more for RENTAL housing. - o Not sure/ No Opinion
	Q23 In my neighborhood, there is a lot of air pollution.	- o Strongly agree - o Somewhat agree - o Neither agree or disagree - o Somewhat disagree - o Strongly disagree		Q29 Do you think your state and local governments are doing enough to ensure there is sufficient affordable rental housing? - o The government is doing enough for housing to BUY. - o The government should do MORE for housing to BUY. - o Not sure/ No Opinion
	Q24 In my neighborhood, there is a mix of age groups (younger and older) and family types.	- o Strongly agree - o Somewhat agree - o Neither agree or disagree - o Somewhat disagree - o Strongly disagree		Q30 Do you think your state and local governments are doing enough to ensure there is sufficient affordable housing to buy? - o Strongly agree - o Somewhat agree - o Neither agree nor disagree - o Strongly disagree
	Q25 In my neighborhood, there is a unique area with personality and character.	- o Strongly agree - o Somewhat agree - o Neither agree or disagree - o Somewhat disagree - o Strongly disagree		Q31 Some say it's better to relax zoning regulations so developers can build more types of housing. How do you feel? - o Strongly agree - o Somewhat agree - o Neither agree nor disagree - o Strongly disagree
Housing Affordability	Q26 Which of the following have been a somewhat frequent or extremely frequent concern for you in the past 6 months? (check any that apply)	- o Strongly agree - o Somewhat agree - o Neither agree or disagree - o Somewhat disagree - o Strongly disagree	Previous Housing	Q32 Some say communities should keep zoning regulations in place to preserve the community's character and quality of life. How do you feel? - o Strongly agree - o Somewhat agree - o Neither agree nor disagree - o Somewhat disagree - o Strongly disagree
	Q27 Approximately what percentage of your total household monthly income would you say you spend on your rent or mortgage?	- o Less than or equal to 20% - o 21-30% - o 31-40% - o 41-50% - o More than 50% - o Not sure		Q33 What was your previous zip code? Q34 What are the cross streets nearest to your previous home? Q35 At your previous address, which type of building did you live in? - o Street 1 [Open-ended response] - o Street 2 [Open-ended response] - o Accessory Dwelling (e.g. tiny house, cottage) - o Apartment building - o Duplex - o Single family home - o Townhouse - o Other
		- o Struggling to keep up with your bills - o Not being able to own a home in the future - o Struggling to keep up with your mortgage or rent payments - o Having to move because you cannot keep up with your mortgage or rent payments - o Being foreclosed on or evicted from your home		Q36 How does your current housing compare to your last home? - o Much better - o Somewhat better - o Stayed the same

74	APPENDICES	75
Q37 How does your current neighborhood compare to your previous neighborhood? Interview Q38 Would you be interested in completing an hour-long interview about neighborhood change?	o Somewhat worse o Much worse o Much better o Somewhat better o Tie same o Somewhat worse o Much worse o Yes, I would love to complete an interview. o No, I am unable to complete an interview at this time.	Q4 Which days of the week are you generally available? o Mondays o Tuesdays o Wednesdays o Thursdays o Fridays o Saturdays o Sundays Q5 Which time of the day are you generally available? o Mornings (8am-12pm) o Afternoons (12pm-5pm) o Evenings (5pm-9pm) o Another time Q6 Please share anything else we need to know for interview scheduling. For example, would Spanish Language or Sign Language interpretation services be helpful? [Open-ended response]
3. Interview Intake Form		
Question	Response Choices	
Q1 Did we mention how much we appreciate you? Thank you for helping our NC State student researchers by volunteering to participate in this part of the project.	[No response options; this is a statement of appreciation]	
Q2 Please share your contact information to schedule an interview.	o First Name _____ o Last Name _____ o Address _____ o Address 2 _____ o City _____ o State _____ o Postal code _____ o Email address _____ o Telephone number _____	
Q3 Which interview formats do you prefer (you can choose as many as you would like)?	o In-person o Telephone (voice only) o Online (video and voice)	About You and Your Most Recent Move - Tell me a little about yourself and your current living situation. - What brought you to Raleigh and your current living arrangement? - In what year did you move to your current address? - Where were you living prior to that? - Was this your first choice when you were looking for a new place to live? - What was your main motivation for moving? - What attracted you to this neighborhood/building? - Compromises made (renting/owning, building type, location, etc.) - What are the most important ways housing influences your lifestyle? - What are the things about you that influence your housing preferences?

76	APPENDICES	VOICES ON HOUSING	77
	- How would you describe Raleigh as a place? How well does it fit your preferences?	Closing and Next Steps	- Ask if there's anything else the participant wants to share. - Thoughts on zoning and housing decisions affecting your life. - Confirm how to contact the participant for follow-up. - Thank the participant and confirm contact for sharing the report and project updates.
Current Neighborhood – Google Earth	- Review Google Earth image of the current neighborhood. - Ask what stands out when looking at the map. - Where are places you go, interact with neighbors, or interact with strangers? - What areas are neglected or changing? - Show Google Earth images from 2000, 2010, 2020 and ask for comparison: What changes do you notice? What seems better or worse?		
Current Address – Google Street View	- Show Google Street View of the area. - Navigate to the participant's current address. - What stands out when viewing the street and address? Does it match the current appearance?		
Chain-of-Moves, Previous Neighborhood	- Review Google Street View of previous location. - Navigate to the participant's previous home. - Ask about changes noticed, what seems better or worse.		
Chain-of-Moves, Housing Affordability	- How long do you think you will stay at your current home? - What factors will influence your decision to move? - Do you think you are likely to stay in Raleigh or the Triangle? - How likely are you to move to a larger, same-sized, or smaller house? - How confident are you that your next move will be 100% your decision? - Thoughts on housing affordability and security?		
Housing Policy	- Ask about thoughts on local/state housing policies. - Direct experience with navigating state/local housing policies. - Thoughts on land use zoning and gentrification.		
Neighborhood Change	- What comes to mind when you hear people talk about neighborhood changes? - Share building proposals and ask thoughts.		
Architecture & Lifestyle	- Show mock-ups of ADUs, townhouses, duplexes, and condominiums. - Which housing type makes the most sense in your current neighborhood? - Which matches where you currently live? - Which would you choose to live in? - What lifestyle does each housing type support? - Safety concerns for each building type?		

78

APPENDICES

VOICES ON HOUSING

79

COLLEGE OF DESIGN

Tom Barille, FAIA, DPACSA
Professor of Architecture
Principal Investigator

Drake Bruner, M.A.
Research Associate

COLLEGE OF NATURAL RESOURCES

Bethany Cuthis, PhD
Assistant Professor in the College
of Natural Resources
Principal Investigator

Keyla Gilligan, PIETM PhD Student
Research Associate

Mickery Brigham
Research Associate

Kabriel Garde
Research Associate

PAPPAS PROGRAM TEAM

Adam Withers, P.L.A., A.S.I.A., IGA
Certified AIA Architect
Associate Director of the Pappas
Real Estate Development Program
Co-principal Investigator

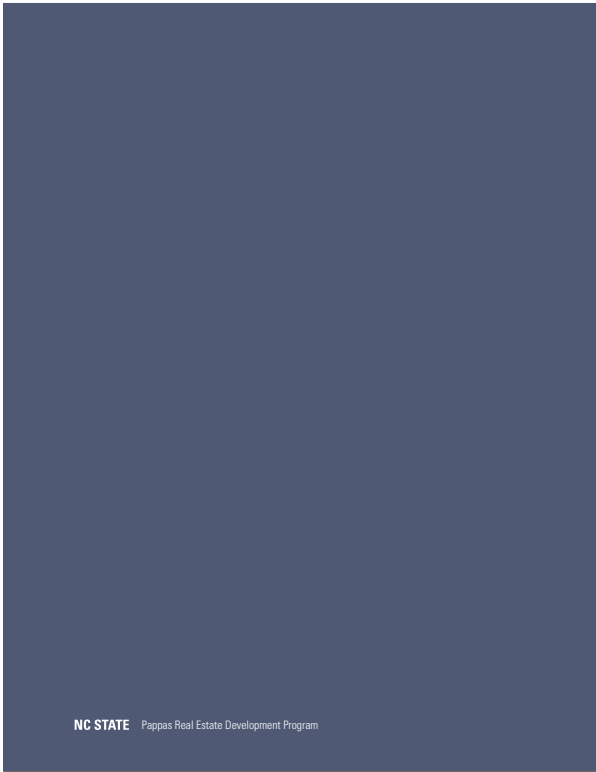
Elizabeth Gabriel, MFA
Designer of the Pappas Real Estate
Development Program
Designer

NC STATE
UNIVERSITY

Pappas Real Estate
Development Program

Roleigh

©2025 All Rights Reserved
Pappas Real Estate Development Program Publication



NC STATE Pappas Real Estate Development Program

Weekly Events Digest

Friday, October 24 – Thursday, October 30

City of Raleigh Office of Special Events
specialevents@raleighnc.gov | 919-996-2200 | raleighnc.gov/special-events-office

Permitted Special Events

[Day of the Dead 5K](#)

Historic Oakwood Cemetery & Wilmington Street

Saturday, October 25

Event Time: 9:00am - 12:00pm

Associated Road Closures: Wilmington Street between E. Hargett Street and E. Morgan Street will be closed from 8:00am until 12:30pm. The 5K route will be closed from 8:45am until 10:30am. Note that all cross-streets will be detoured during the event and [view the 5K route map](#) for more details.

[Moving Day NC Triangle](#)

Dix Park

Saturday, October 25

Event Time: 10:00am - 1:00pm

Associated Road Closures: The Kirby parking lot will be used from 5:30pm on 10-24-25 until 2:00pm on 10-25-25. Roads will be closed from 11:00am until 12:30pm on 10-25-25 for the following route: Start in Kirby parking lot; Right onto Umstead Drive; Right onto Dawkins Drive; Continue to Kirby parking lot to finish.

[Revista Latina – Day of the Dead](#)

Fayetteville Street

Sunday, October 26

Event Time: 12:00pm - 4:30pm

Associated Road Closures: Fayetteville Street between Martin Street and the south end of City Plaza, and Davie Street between S. Salisbury and S. Wilmington streets will be closed from 7:00am until 8:00pm.

[Trunk or Treat](#)

McDonald Lane

Wednesday, October 29

Event Time: 5:30pm - 6:30pm

Associated Road Closures: McDonald Lane between Oberlin Road and Colonial Road will be closed from 4:00pm until 7:30pm.

Other Upcoming Events

[Market and Movie Night – Inside Out 2](#)

Friday, October 24

Moore Square

[NBA YoungBoy](#)

Friday, October 24

Lenovo Center

[A Shopping Spree!](#)

Friday, October 24 – Sunday, October 26

Raleigh Convention Center

National Prescription Take Back Day

Saturday, October 25
Various Locations

Halloween Spooktacular – NC Symphony

Saturday, October 25
Meymandi Concert Hall

Grupo Barak

Saturday, October 25
Raleigh Memorial Auditorium

Cocoa and Conversation – Public Art Project

Saturday, October 25
Bragg Street Park

Closing Reception – Wandering Between Worlds

Saturday, October 25
Pullen Arts Center

Pierce the Veil

Saturday, October 25
Coastal Credit Union Music Park at Walnut Creek

Tate McRae

Saturday, October 25
Lenovo Center

NC State Fair

Through Sunday, October 26
NC State Fairgrounds

Artist Talk: Sam Van Aken

Sunday, October 26
The Chapel at Dix Park

Vegas Golden Knights vs. Carolina Hurricanes

Tuesday, October 28
Lenovo Center

Fall Job Fair

Wednesday, October 29
Wilders Grove Solid Waste Services Facility

Big Thief

Wednesday, October 29
Red Hat Amphitheater

Jonas Brothers

Wednesday, October 29
Lenovo Center

Curtain Call From Beyond: Theatre Haunts & History

Through Thursday, October 30
Raleigh Memorial Auditorium

Weekly Events Digest

Friday, October 24 – Thursday, October 30

City of Raleigh Office of Special Events
specialevents@raleighnc.gov | 919-996-2200 | raleighnc.gov/special-events-office

[New York Islanders vs. Carolina Hurricanes](#)

Thursday, October 30
Lenovo Center

[John Legend](#)

Thursday, October 30
Red Hat Amphitheater

[The Seven Deadly Sins Presented by Carolina Ballet](#)

Through Sunday, November 2
Fletcher Opera Theater

[Fall & Halloween Programs with Raleigh Parks](#)

Through Friday, November 7
Various Locations

Public Resources

[Event Feedback Form](#): Tell us what you think about Raleigh events! We welcome feedback and encourage you to provide comments or concerns about any events regulated by the Office of Special Events. We will use this helpful information in future planning.

[Road Closure & Road Race Map](#): A resource providing current information on street closures in Raleigh.

[Online Events Calendar](#): View all currently scheduled events that impact city streets, public plazas, and Dix Park.

Council Member Follow Up



Raleigh

MEMO

TO: Marchell Adams-David, City Manager

FROM: Paul Kallam, Transportation Director

DEPARTMENT: Transportation

DATE: October 24, 2025

SUBJECT: History & Current Utilization of GoRaleigh R-Line

GoRaleigh R-Line History & Utilization

Soon after the opening of the Raleigh Convention Center, GoRaleigh began the R-Line service in February 2009. Its original purpose was to provide transportation for convention center participants, residents and downtown employees to move throughout the downtown area and over to the Glenwood South area where many dining opportunities existed.

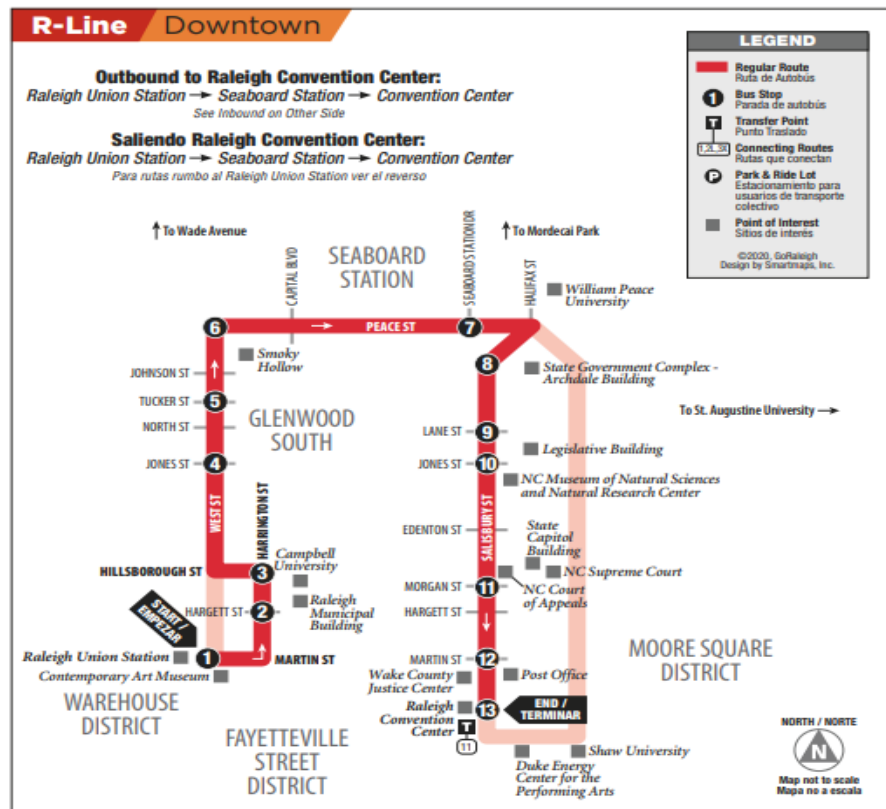
Ridership grew steadily in the first six (6) years averaging over 25,000 trips monthly. However, in 2014 Uber/Lyft began operating and there was almost an immediate reduction in ridership. The following year, 2015 saw an average of 17,000 monthly trips, and ridership continued to drop through 2019. Scooters and bikeshare programs began in 2018 and 2019 bringing our average ridership down to just under 10,000 monthly trips. The R-Line has not competed well with the increased options for micro-mobility downtown. In 2018, transit staff worked with a group of downtown stakeholders through a revisioning process to determine if the route needed to be changed. The result of that process brought the current route that travels along Wilmington Street, Peace Street, West Street and Salisbury Street.

Municipal Building
222 West Hargett Street
Raleigh, North Carolina 27601

One Exchange Plaza
1 Exchange Plaza, Suite 1020
Raleigh, North Carolina 27601

City of Raleigh
Post Office Box 590 • Raleigh
North Carolina 27602-0590
(Mailing Address)

Manager's Update



R-Line Map

Unfortunately, almost immediately after the new route was deployed, the Covid-19 pandemic impacted service levels, and the R-Line was suspended due to low ridership and work from home options that became popular during the pandemic. Benchmarks were set by the Raleigh Transit Authority for when the R-Line should return. However, when those benchmarks were met, the driver shortage did not allow for the R-Line service to return, and in fact, GoRaleigh had to cut service frequencies on many of its other routes due to the shortage of qualified applicants.

Full service on the R-Line (and all GoRaleigh routes) was restored in May 2024. Since that time, the R-Line ridership has struggled to return to the lows that it saw in 2019. Today's monthly ridership averages under 5,000 trips. The route currently provides about five trips per hour of revenue service. This is the lowest performing route operating from GoRaleigh Station and around downtown. In FY25, GoRaleigh's overall system ridership grew by a little over 73% from the prior year and over 40 percent from the pre-pandemic totals while the R-Line ridership decreased by 50%. Some of the 73% increase in ridership is due to us moving away from using farebox data and transitioning over to the automatic passenger counter (APC) system on the bus. The APC data is generally deemed more accurate than the farebox data and used for planning purposes as well. It is common to see large increases in ridership data when agencies make this transition.

Another important note is that during this time period the downtown population has grown from 6,000 residents to almost 16,000. Residents, convention center attendees and employees are choosing other transportation options for internal downtown trips such as walking, scooters, bikeshare, etc. Additional development has also “filled the gap” between downtown and Glenwood South, making the destinations feel more connected and more pleasant to traverse by foot, bike, or scooter.

The City of Raleigh scooter and bikeshare programs provide around 1,000 daily trips and offers an almost immediate option to get directly from your origin to destination. Additionally, the Raleigh downtown area is walkable within the R-Line service area. Waiting 5-10 minutes for a bus ride that may still require another 5–10-minute walk to a destination has become much less popular with scooters and bikeshare options. The 1,000 daily trips taken on other micro-mobility options provide about the same number of monthly trips that the R-Line was performing before these competitive options were deployed in Raleigh.

Staff will be bringing other R-Line reprogramming options for Council consideration at a later date. Please keep in mind that any updates to the current route for the R-Line will require a six-month process including completing Title VI equity analysis, Raleigh Transit Authority discussion and endorsement, and ensuring the route can operate within existing operating funds for the R-Line service.