REINTRODUCTION OF "MISSING MIDDLE HOUSING" TYPOLOGIES IN A COLLEGE TOWN: CHALLENGES AND OPPORTUNITIES FOR ATHENS, GEORGIA

by

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(Under the Direction of Stephen Ramos)

ABSTRACT

As many cities in North America seek ways to meet the housing needs of their growing populations, many are revising residential density allowances in single-family zones to enable the construction of small-scale multi-family housing, such as multiplexes, cottage courts, and accessory dwelling units. These housing typologies, commonly referred to as Missing Middle Housing (MMH), were historically ubiquitous in most American cities, but became difficult or illegal to build due to zoning regulations. Athens, Georgia is a college town that has for decades struggled to meet the housing needs of year-round residents while also housing a large, off-campus student population. This thesis investigates how increasing the supply of MMH could play an important role in addressing Athens' unique housing challenges. I review examples of MMH-enabling efforts in four cities to identify broader lessons applicable to Athens and conclude with a set of recommendations to guide and inform the process.

INDEX WORDS: Affordable Housing, Missing Middle Housing, College Towns, Student Housing, Low-Density Zoning Reform, Housing Supply, Housing Policy, Land Use Planning

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CHAPTER 1

INTRODUCTION: WHY MISSING MIDDLE HOUSING?

> *"After a century of development and planning focused on delivering single-family homes to the detriment of our cities and the earth, and at prices that are less and less attainable to all but the wealthy, we all need to act to respond to the housing issues in our communities and to deliver housing choices in walkable urban environments at a variety of price points and that deliver more sustainable development patterns."*
>
> Daniel Parolek in the preface to "Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis" (2020).

Many cities in North America are implementing strategies to increase housing supply and housing affordability in their jurisdictions. In the past decade in particular, many cities are looking at updating or revising their zoning codes, building regulations, and permitting procedures associated with low-density residential zones. Low-density zoning reform aims to reduce the legal and regulatory barriers to building modestly-scaled multi-family homes in areas zoned to restrict development of all but detached single-family homes. The type of housing that can result from these efforts can include a variety of typologies, including duplexes, triplexes, fourplexes, courtyard apartments, bungalow or cottage courts, backyard cottages, townhouses, multiplexes, or live/work spaces. These typologies have become popularly referred to as "Missing Middle Housing," a term coined and popularized by Dan Parolek and his colleagues at Opticos Design, Inc., and described more extensively in the 2020 book "Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis" (Parolek 2020). Missing Middle Housing is not only an approach for delivering more housing, but also an effort to restore or create urban development patterns more conducive to livability,

environmental sustainability, and more efficient delivery of urban services, such as public utilities, parks, roads, schools and mass transit.

The purpose of this thesis is to develop a set of recommendations to guide efforts to increase the supply of missing middle housing (MMH) in Athens, Georgia. I explain the concept of missing middle housing and examine examples of MMH implementation efforts from around the country. I briefly explore the unique challenges of college towns and investigate the housing challenges in Athens, Georgia. I explore why missing middle housing is not currently being built in Athens and conclude with several recommendations for community leaders who are considering missing middle housing re-legalization efforts in Athens.

In Chapter 2 I explore the missing middle housing concept and discuss the primary arguments in its favor. Proponents argue that MMH may improve housing affordability by sharing land costs across multiple smaller units, using simpler, low-cost construction methods, reducing transportation costs and creating opportunities for additional income. The ability of MMH to deliver affordability, and whether MMH enabling efforts around the country actually deliver a meaningful number of units remains undetermined. However, many of the arguments in favor of MMH go beyond affordability, including increasing housing supply, the incrementalism inherent in the approach, which could be less likely to engender opposition, more efficient use of land, putting more homes into areas of a city that can support increased density, improving housing choices to meet the needs of shifting demographics and housing preferences, increasing walkability and reducing car dependency, and an overall reduction in urban sprawl.

I selected four examples of missing middle housing enabling efforts around the U.S. I chose Montgomery, Maryland because it exemplifies a robust county planning process that has resulted in policy changes. A non-profit-led effort in Chattanooga, Tennessee was chosen for its

unique and broadly applicable approach that focused on providing thoughtful and practical information to small developers and others who wish to develop missing middle housing. Decatur, Georgia is an example of a city-led effort that proposed missing middle housing primarily as an approach to address the problem of housing affordability. While most MMH enabling efforts include affordability as a goal, Decatur's MMH initiatives were generated from their city's affordable housing task force work. Finally, Portland, Oregon's example of sweeping legislation to promote missing middle housing construction exemplifies the role that state enabling laws can play to backstop local legislation. The Portland example also includes a direct affordability mechanism that allows four- and six-plexes in single family zones if half the units are affordable to low-income households. I conclude this section with a discussion of broader lessons from these four case studies that may have applicability to my main case study: Athens, Georgia.

Athens, Georgia is home to the state's flagship university and nearly 40,000 students. Like many college towns around the country, Athens faces unique housing pressures due to conflict between the need to house the off-campus student population while meeting the housing needs of year-round residents. Like tourist towns, college towns have been historically viewed as investment opportunities for small- and medium scale landlords, second home buyers, and apartment developers. Public universities are building less housing despite growing student populations, and private developers have filled that gap by building off-campus, purpose-built luxury student accommodations that serve essentially as private dormitories. These mid- and high-rise apartment buildings have changed the physical landscape in many college towns. At the same time, single-family home construction in Athens has declined. I will explore whether current building trends in Athens are meeting current and future housing demands and

preferences. Developers are building in Athens, but it's not the kind of housing year-round residents of Athens want or need. Athens leaders are currently investigating the possibility of removing legal barriers to development of missing middle housing in its residential zones as a way to increase housing supply and promote smart urban development. Most cities in the U.S. have missing middle housing that was built prior to zoning laws made their construction nearly impossible. College towns in particular, and Athens is no exception, have a relatively large amount of historic missing middle housing, most likely due to the type of housing (duplexes, multi-plexes, small-scale apartment development, single-family homes converted to small apartment buildings, etc.) needed to meet student housing needs prior to the era of large student apartment complex development.

In Chapter 3, I present a review of the literature about housing challenges specific to college towns. I review how scholars have understood the ways that university students impact the college towns around them, and how large public universities in the U.S. - by not building adequate on-campus housing for their students - are impacting the housing landscapes in their surrounding towns. There is limited evidence to suggest that an increase in off-campus student housing may drive up housing costs more generally in the surrounding area. The higher market rents that students are willing to pay, and their ability to pool their resources with other students for shared accommodations signals to other landlords that they may they match these higher rents. Housing university students is important, and student housing isn’t inherently bad. But the new trend of luxury purpose-built student accommodations may be somewhat problematic, and certainly impacts the physical landscape of many college towns, including Athens.

In Chapter 4, I present the results of research into the housing challenges in one college town in the Southeastern U.S.: Athens, Georgia. I present demographic information about

Athens, including population, income, housing tenure, housing affordability and housing supply. As stated above, Athens is building housing, but not the right kind to meet current and projected housing demands and preference. MMH may be an important way to meet housing demand and preferences of Athenians. I also examine why missing middle housing is not being built in Athens and outline the current barriers, including restrictions in the current zoning code and economic, market, and regulatory factors. Reducing or addressing these barriers, in particular those under the purview of local government, including zoning code revisions and regulatory factors, would be an important step toward re-legalizing missing middle housing. While there will always be households that prefer the detached single-family home, MMH can provide choices for Athenians who do not want to live in large multi-family apartment buildings and would prefer to live in small-scale multi-family in order to have a human-scale, less car-dependent lifestyle.

In Chapter 5 I present a set of recommendations for how Athens can increase the supply of house-scale small multi-family housing. In this chapter I argue for the importance of encouraging the construction of missing middle housing in Athens and describe efforts to date that have laid the groundwork in support of this idea. I lay out my recommendations for increasing the supply of missing middle housing in Athens. I present the case that MMH efforts must be grounded in robust, thoughtful and progressive land use planning, including the revision of the Growth Concept and Future Land Use Maps and the development of plans, such as small area plans or plans specifically geared toward enabling MMH. In addition to identifying areas where infill MMH is appropriate or desired, I suggest that Athens leadership prioritize underdeveloped greyfield sties for new residential missing middle housing development and make plans for the infrastructure, services, and transportation support of that. I recommend that

Athens leadership take advantage of the fact that several other cities and counties have undertaken similar MMH-enabling initiatives, and that Athens is starting with the benefit of learning from others' successes and challenges. I underscore the importance of Athens leadership being clear on its goals and have the vision to embrace the re-legalization of MMH as something they want to actively encourage rather than simply remove barriers. I recommend that Athens-Clarke County government retain as much land as possible, starting immediately, so that government-owned land can be prioritized for affordable housing development. I make the case that communication about missing middle housing should be done carefully. Leaders should be clear about the benefits of re-legalizing MMH and be honest with the public about its limitations for delivering affordability. I warn that poor or misguided communication can kill initiatives in a single meeting of the county commission. I emphasize the importance of city-led pilot projects as proof of the MMH concept and suggest that a corridor multi-plex project would be a good start. Finally, I recommend that the ACC government leadership consider partnerships, programs, or legislation to ensure that some of the new MMH units are affordable to low- and moderate-income households.

I began this work in 2020 while serving on a sub-committee of the Athens-Clarke County Planning Commission. The committee was charged by Athens-Clarke County Mayor Kelly Girtz to "explore issues and recommend practices that would encourage mixed-income development across various residential zones, including some specifically identified issues which could serve as either impediments or accelerants in developing an affordable housing initiative in Athens-Clarke County." (Athens-Clarke County Planning Commission 2020). The sub-committee recommended, amongst other things, that enabling some missing middle housing types (ADUs,

duplexes, and cottage courts) could be achieved with relatively minor amendments to the single-family zoning ordinance.

I started to consider whether implementation of missing middle housing enabling strategies in a college town would pose unique challenges in delivering housing supply and affordability. Would adding house-scale density in the form of missing middle housing building types actually increase housing supply for middle-income households, or would it only provide rental income opportunities for investors? Is there something unique to college towns that make them worthy of special consideration when enabling new missing middle housing construction? I explore some of these ideas in this thesis.

Housing supply and affordability concerns have become a central theme in discussions amongst Athens' appointed and elected officials, Planning Department staff, activists, and journalists (Aued 2022a, 2022b; Dowd 2022; Shearer 2022). There is scarcely a week that goes by in Athens where a local publication or politics writer does not write about the problem of affordable housing in Athens. Georgia Democratic gubernatorial candidate Stacy Abrams called out Athens as being one of Georgia's least affordable cities (Aued 2022a.) Missing middle housing enabling efforts for Athens have already begun. My hope is that this thesis serves to inspire city leaders to continue and build upon the work of several tasks forces and committees who have recommended Athens-Clarke County government leaders take action. The Athens-Clarke County government hired Opticos Design, Inc. to conduct a Missing Middle Scan for Athens in 2021-2022. The ACC government leadership should build upon this relationship and consider continuing to work with Opticos for guidance on land use planning, communication and public engagement, and zoning code revision. The time is right for Athens to develop a broad toolbox of strategies to address housing supply and affordability issues, and local policies,

legislation and programs that enable the construction of missing middle housing should be an important tool in that box.

CHAPTER 2

UNDERSTANDING MISSING MIDDLE HOUSING

As communities look for ways to address affordable housing challenges, there is increased interest in low-density zoning reforms that update land use rules in single family zones to allow 'gentle' or 'discreet' density increases (Baca et al. 2019; Winterberg-Lipp 2018; etc.). Appendix A includes a more in-depth discussion of the historical context of low-density zoning reform and a brief review of low-density zoning reform efforts underway in the United States. Although many cities are also increasing housing supply by allowing high-rise multi-family structures in certain areas (e.g. "transit-oriented development" approaches that increase density adjacent to public transit hubs), a 'gentle density' approach allows infill parcels in established single-family neighborhoods to be developed with house-scale multi-family dwellings in order to increase the supply of smaller, ideally less expensive dwelling units while preserving the physical scale of the neighborhood and taking advantage of existing transportation infrastructure and municipal services. In this chapter I describe the missing middle housing concept and investigate the assertion that increasing the supply of missing middle housing meets housing demands associated with shifting demographics, housing preferences, and affordability needs. I lay out the primary arguments in favor of re-legalizing the construction of missing middle housing. I will examine four examples where local governments or non-profit organizations are working toward re-legalizing the construction of missing middle housing, and identify lessons applicable to my subsequent examination of Athens, Georgia in Chapter 3.

What is 'Missing Middle Housing?'

A ubiquitous expression in discussions of housing issues (supply, choice, and affordability) and urban planning over the past decade is "Missing Middle Housing" (MMH). The phrase was coined and popularized around 2010 by Daniel Parolek and colleagues at the Opticos Design, Inc., a firm of urban designers and strategists and has since gained increasing popularity in North America. Although they did not invent the general concept (nor do they claim to), they have raised awareness of the importance of re-legalizing historic residential building typologies nationwide. In their 2020 book "Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis," the authors call for a paradigm shift in the way we think about density, construction, and housing financing systems as well as the way we think about and communicate about housing (Parolek 2020).

According to the authors, the MMH approach aims to deliver house-scale buildings with multiple units in walkable neighborhoods. These buildings are compatible in scale and form with single-family homes and "help meet the growing demand for walkable urban living, respond to shifting household demographics, and meet the need for more housing choices at different price points" (Parolek 2020). They are considered "missing" because they have generally been illegal to build in many, if not most, U.S. cities since the mid-1940s. It is important to note that, although MMH is brought up regularly in the context of housing affordability, the "middle" in MMH does not refer to home prices or homes affordable to middle-income household. Rather, "middle" refers to the physical scale of the housing. Missing middle housing types fall in the "middle" of the range of housing typologies between detached single-family homes and large multi-family apartment complexes. The authors also argue that the smaller unit size, simpler construction, and distribution of land costs across multiple units may also deliver affordability

for middle-income households. The ability of MMH to deliver affordability will be discussed later in this thesis.

MMH typologies include small-scale multi-family dwellings, such as courtyard apartments, bungalow courts, townhouses, live-work buildings, and "plexes," such as duplexes, tri- and four-plexes, and larger multi-plexes. Figure 1 presents the range of housing types considered on a continuum of scale. MMH can also include attached and detached accessory dwelling units, also known as backyard cottages, mother-in-law units, carriage houses, or granny flats. The authors point out that these housing types are not new; many cities allowed them until single-family zoning regulations and restrictions were utilized or modified to favor the detached single-family home, effectively preventing the construction of MMH. Many cities have a lot of historic missing middle housing structures; it is not uncommon to see plexes, 2-flats, rowhouses, backyard cottages, over-the-garage apartments, etc. However, in many, if not most, cities they are considered 'non-conforming' and could not be built today. Historically these housing types have delivered "affordability by design" without subsidies, and have provided homes for the "middle income" market (Parolek 2020). MMH types played an important role in the development of North American cities; for example, the "two-flat" in Chicago (a two-story house with an apartment unit on each floor) was a vehicle for social mobility and played an important role in the history of Chicago's immigrant communities (Bentley 2014).

Figure 1. Range of "Missing Middle Housing" typologies. Source: Parolek 2020.

Low-density zoning reform is critical to the implementation of the MMH approach; adding house-scale 'gentle' density is dependent upon changing codes and development standards in single-family zones. See Appendix A "How Did We Get Here? The Dominance of the Detached Single-Family Home" for an in-depth discussion of the history leading up to the movement toward low-density zoning reform. Parolek and colleagues detailed in broad terms the type of zoning changes that could deliver missing middle housing, including: 1) increase maximum allowed density, 2) adjust maximum allowed heights to be no more than 2.5 stories, 3) reduce minimum lot size requirements and replace with minimum lot width, 4) regulate maximum width of building to be 45-60', 5) remove open space requirements, 6) reduce or remove parking requirements, and 7) map multi-unit zones more broadly in land use planning.

There are several primary characteristics of missing middle housing. MMH can located in an existing or newly-built walkable context, which refers specifically to walkability to a destination, like work, shops, schools and amenities (versus recreational walking paths and trails). The MMH approach focuses more on form, scale and building types than dwelling units

per acre, ideally resulting in lower perceived density but yielding higher densities that support (and can be supported by) municipal services and amenities. Missing middle housing typically has smaller building footprints, and the scale of MMH focuses more on maximum building depth, width and height (the building form or envelop) than on maximum density, which commonly receives the most emphasis. Missing middle homes tend to be small (starting as low as 600 square feet), which not only lowers construction costs, but provides housing that appeals to a growing number of single-person households, downsizing baby boomers, and people seeking to have a smaller footprint.

The authors argue that MMH can deliver a higher quality of life. Designers of MMH focus on thoughtfully-designed homes that increase a sense of livability in smaller spaces by, for example employing efficient uses of space often seen in the "tiny house" movement. MMH can be rental or for-sale housing, ideally mixed within a neighborhood. MMH types are usually simple wood construction and comparatively less expensive to build than other urban housing types. Some MMH typologies, such as courtyard apartments and cottage courts, are constructed with an eye toward site layout (and creation of additional shared or open spaces) that fosters a sense of community. Missing middle housing types can be distributed throughout a block of single-family detached houses or on the end lot of a single-family detached block. MMH typologies can serve as a transition style of housing between two types of land uses – a multi-plex on a lot adjacent to a commercial corridor can serve as a transition from the corridor to a single-family neighborhood, or in a transition area between single-family homes and higher-density housing.

An important concept around the development of MMH is that high parking requirements and affordable or attainable housing are incompatible. Too much land devoted to parking reduces

land available for housing and increases land prices. If MMH is being built in a walkable context, the authors argue that on-site parking requirements should be reduced to one (or less) car per unit. Additionally, ground floor space being taken up by parking limits the ability to use ground floor spaces in ways that activate the streetscape of the neighborhood, either with commercial/retail uses or front porches (Parolek 2020).

Shifting demographics and housing preferences

Arthur C. Nelson argues that that adding more Missing Middle Housing is key for meeting housing needs as demographics shift and housing preferences change (Nelson 2020). He estimates that in order to accommodate anticipated housing preferences, more than 60 percent of all new housing would need to be built as Missing Middle Housing units in walkable communities over the next several decades. He cites several demographic trends to explain this. More than 80% of the growth in households between 2018 and 2040 will be households without children. Tens of millions of baby boomers (born ~1946-1964) and Gen Xers (born ~1965-1980) will become empty nesters and singles in the coming decades. Millennials (born ~1981-1996) will be forming households, but are predicted to opt for smaller homes. Generation Z (born ~1997-2012) will be forming starter-home households.

According to Nelson, the key to understanding how the demand for MMH will change lies in the projected changes in household type and age of householder. His analysis examined anticipated changes in households by type between 2018 and 2040. Of the three types of households (households with children, households without children, and single-person households), he found that each accounted for 19%, 42%, and 39% (respectively) of the anticipated share of household growth by 2040. While there will be 4.4 million more households

with children in 2040, this accounts for only 19% of the total growth in households, and the other 81% is among households without children (9.9 million) and single-person households (9.3 million). Looking at households by age, Nelson's analysis found that 78% of the growth in households (18.5 million new households) will be households held by people over the age of sixty-four, and 21% of the growth will be households held by people between the ages of 35 and 64. People under the age of 35 account for only 1% of the growth in households. According to Nelson's research, "this shift is important because households without children and especially single-person households prefer walkable communities and Missing Middle Housing options."

The National Association of Homebuilders surveyed 3,247 recent and prospective home buyers and found that the majority of home buyers (67%) wanted a single-family detached home (Quint 2021). On the other hand, in the National Association of Realtors 2020 Community and Transportation Preference survey discussed below, one in five respondents currently living in a detached home would prefer to live in an attached home in a walkable community with a shorter commute to work (National Association of Realtors 2020).

Around half of Americans surveyed by the National Association of Realtors indicated a preference for living in walkable communities, a preference that persists despite the Covid-19 epidemic. In the National Relators Association's biennial Community and Transportation Preference Survey conducted in February 2020 (pre-pandemic) and July 2020 (several months into the pandemic), more than half (52% and 53%, respectively) of respondents in the top 50 Metropolitan Statistical Areas in the U.S. in the February and July 2020 surveys indicated they would prefer to live in houses with small yards where it is easy to walk to places they need to go (versus in houses with large yards where more driving is necessary. Around half of the respondents (48% and 50%) in the February and July 2020 surveys indicated they would prefer

to own or rent an apartment or townhouse with an easy walk to shops and restaurants and shorter commute to work versus owning/renting a detached, single-family house where they would have to drive to shops and restaurants and have a longer commute to work. People who "strongly agreed" that there are "lots of places to walk nearby" show an 8% increase in their perceived quality of life. Although it remains to be seen exactly how Covid-19 will affect housing preferences in terms of house size, detached versus attached house, and yard size, the 2020 NAR surveys show that a substantial demand for walkability persists for Americans of all ages despite the pandemic, with Americans older than 55 and with higher incomes indicating an increased interest in walkability.

Missing Middle Housing as part of wider low-density zoning reform movement

The Missing Middle Housing approach is part of a wider low-density zoning reform effort to increase housing choice and affordability and undo the damage wrought by the dominance of the detached single-family house in the North American housing landscape for over half a century. Numerous advocacy organizations have either formed around or developed initiatives in support of low-density zoning reform (of which the missing middle housing movement is a part). They support the notion of encouraging "gentle" or "discreet" density increases in single-family neighborhoods as a way to add smaller, less expensive dwelling units while preserving the physical scale of the neighborhood. The Brookings Institution released a report in December 2019 illustrating how replacing detached single-family homes with "gentle density" could increase the number of available homes and bring down average housing prices in high-cost locations (Baca et al 2019). The Congress for the New Urbanism, with its *Project for Code Reform*, has embraced the movement as a logical extension of principles of traditional

neighborhood design, mixed-use and diverse districts, and walkability for which it has long advocated (Project for Code Reform 2020). The Incremental Development Alliance provides support and encouragement for entrepreneurial developers who want to work at a smaller scale and for municipalities who want to use this approach to strengthen their neighborhoods (Incremental Development Alliance 2020). Strong Towns, which advocates for financially strong and resilient urban development patterns, promotes incrementalism and iterative change (instead of large, irreversible development projects that prioritize growth over community goals) as a fundamental shift in thinking about urban development (Strong Towns 2020). AARP (formerly the American Association for the Retired Persons) has placed considerable emphasis on gentle density and missing middle housing in its efforts to improve quality of life and attainable housing for older persons (AARP 2022). Many of the legal changes advocated for by proponents of MMH are in line with the increasing popularity of form-based zoning codes. Rather than the traditional zoning codes that focus first and foremost on land use, form-based codes concentrate on the desired physical form, placement, size and bulk of buildings. The Form Based Codes Institute of Smart Growth America advocates for and educates about the use of form-based codes to reform zoning in a way that is compatible with MMH principles (Form Based Codes Institute 2022).

What is the connection between Missing Middle Housing and housing affordability?

The lack of affordable housing is a problem in many North American cities, and the increasing desire to live in walkable, amenity-rich communities exacerbates this problem because there are not yet enough such communities to meet this rising demand. Advocates for the MMH approach propose several ways in which it may deliver housing affordability:

- Affordability by design: missing middle housing has the potential to achieve affordable price points by increasing the housing supply for neighborhood living if developed in conjunction with using simpler, low-cost construction methods, reduced reliance on car ownership, and using land more efficiently with shared and smaller units.
- Reducing transportation costs: because missing middle housing is ideally built in walkable places, this lowers the need to build as much parking, which is expensive to build and drives up cost of housing. People living in walkable, transit-accessible neighborhoods can reduce the need to own a car or can reduce their dependency on the car and either own fewer (or no) cars or participate in car-share programs.
- Sharing land costs and building smaller units: missing middle housing creates multiple units on a lot, which allows the costs to be distributed across multiple units and increases affordability.
- Creation of opportunities for ownership and additional income: because federal home loans can be used for buildings up to four units, a person could buy a multi-unit MMH building where they can live and earn rental income. Additionally, due to its small scale and incremental approach, the development of missing middle housing can itself be a way for a community to build up small businesses through community development corporations or local bank investments. Community land trusts (which will be discussed later in this thesis) can also be utilized in conjunction with MMH development to create permanent affordable housing.

Importantly, Parolek and colleagues point out that gentle density increases and the reintroduction of missing middle housing typologies are not a panacea for addressing housing affordability in a community. With increasing land values and construction costs, the ability of new MMH construction to deliver affordability is not guaranteed and is at this point still more or less untested. We also do not know how many new units missing middle housing enabling activities being undertaken by cities will actually produce. However, the missing middle housing approach has an important role to play in increasing housing choice and supply, which may improve housing affordability and attainability in some communities (Parolek 2020).

What are the arguments in favor of re-legalizing missing middle housing?

There are several arguments used to advocate for the re-legalization of missing middle housing. Not all have been tested, but in the coming years as more states and cities move in the direction of enabling MMH to be built, the data will bear out the validity of these claims. In this author's opinion, the strongest arguments are:

1) MMH will **increase housing supply** by adding housing units into areas that currently have only single-family detached homes (or historic and non-conforming MMH types).
2) MMH will be **less expensive** because the units are smaller and the cost of land is split across multiple housing units. (Note that this argument is not stating that these units will be affordable to middle-income households; it states rather that they should theoretically be less expensive that single-family detached homes.)
3) Legalizing MMH supports the ***incremental*** **addition** of house-scale multi-dwelling homes, which *may* engender **less NIMBY-driven ("not in my backyard") opposition to change**.

4) Adding missing middle housing into high-amenity areas of a city **puts more homes into areas that can support that increased density** by tapping into existing municipal services (water, sewer, roads) and access to jobs, schools and transit.
5) MMH **increases housing choices** and creates options that meet the needs of shifting demographics and shifting housing preferences, such as seniors, young couples, and those who wish for a downsized lifestyle and walkable living.
6) MMH will **reduce sprawl**, which reduces carbon emissions, increases quality of life due to shorter commuting distances, and preserves more land for trees and green spaces.
7) By increasing residential density, the legalization of MMH may **increase walkability and reduce car dependency**.
8) Many argue in favor of legalizing MMH using simple **supply and demand logic**. Increasing the housing supply will theoretically reduce home prices. The scarcity of homes also fuels outside corporate speculation in detached houses that so many cities are experiencing.

Many of the above arguments draw from Parolek 2020 and Bertolet 2021. Several cities in North America are implementing new initiatives and policies to re-legalize the construction of MMH typologies. In the following section I examine examples of missing middle housing re-legalization efforts in several US cities.

REVIEW OF MISISNG MIDDLE HOUSING INITIATIVES

Several communities have incorporated Missing Middle Housing re-legalization efforts into their land use planning and housing affordability strategies. The purpose of this section is to review a few of those efforts to gain an understanding of different ways cities are paving the way for

increasing the supply of missing middle housing and identify lessons that may be applicable to Athens, Georgia.

Montgomery County, Maryland: Government Leading the Way

Montgomery County, Maryland is an example of county government-led efforts to implement the missing middle housing concept to increase the supply of more affordable housing. As one of the first places in the country to pass a mandatory inclusionary zoning law (the 1974 Moderately Priced Housing Law), it is not surprising that the Montgomery County is listed amongst cities like Seattle, WA Portland, OR, Minneapolis, MN, and Austin, TX who are at the forefront of missing middle housing initiatives. Montgomery County makes explicit use of the term "missing middle housing" on its website, outreach materials, and in its planning documents.[1]

In September 2018 the Montgomery County planning department released "The Missing Middle Housing Study" detailing the benefits and challenges of delivering missing middle housing (Montgomery County Planning Department 2018). The study investigated existing market conditions and regulatory barriers that interfere with the growth of the missing middle housing market in the county, and found that despite strong demand for these housing types, the market is undeveloped because potential developers do not have enough economic incentive to consistently pursue missing middle housing projects.

The study concluded by highlighting strategies for future action (Montgomery County Planning Department 2022):

[1] While outside the scope of this study, it would be interesting to assess whether a government's "branding" of its low-density zoning reform efforts with the "delivery of missing middle housing" shorthand is more or less effective in garnering community support and political interest and motivation to change policy.

1. Create a Missing Middle Optional Method of Development near transit through a Zoning Text Amendment (ZTA). Under the optional method higher densities would be allowed in exchange for significant public amenities and facilities to support that additional density.
2. Create a Missing Middle housing floating zone for specific locations in the county.
3. Rezone transit-accessible neighborhoods to Commercial Residential Neighborhood, which better accommodates missing middle housing.
4. Create a Missing Middle housing Functional Master Plan for the entire county that identifies ideal locations for this typology and results in a Sectional Map Amendment that would rezone appropriate areas.
5. Consider a pilot project to design and construct missing middle housing development on a county-owned site in order to demonstrate it as a viable housing alternative.
6. Evaluate potential financial incentives, such as tax credit programs or fee waivers, for Missing Middle housing typologies.

The Montgomery County Missing Middle Housing Study included an economic case study that evaluated the rate of return for three development scenarios for a 2.62-acre parcel with a fair market value between $6 and 8 million. They concluded that the high-density multi-family development scenario would be the most competitive option for a developer (nearly 40% rate of return) and therefore most likely to occur under existing conditions. The second scenario that combined high-density and missing middle would still generate a relatively higher rate of return at nearly 35%. The “missing middle only” scenario was the least likely scenario for a developer,

even if regular changes were made, with projected returns (17.8%) not high enough for developers to achieve competitive financing.

Montgomery county has undertaken several initiatives since the 2018 study, including a Zoning Text Amendment introduced by a county council member in December 2020, which would allow owners of R-60 zoned properties located within one mile of transit stations to build missing middle housing types, including duplexes, townhouses, and multi-family structures. Currently, R-60 zone allows 9 units per acre, which is less dense that the typical missing middle housing type, which is between 10 and 20 units per acre. The ZTA would amend the density, infill development and parking standards in R-60 under certain circumstances. Montgomery County planning staff has responded by recommending an expansion of this recommendation, which would allow house-scale duplexes and triplexes on all single-family lots throughout the county (not just associated with transit stations), and quadplexes on R-40, R-60 and R-90 zones in a new "Priority Housing District." Staff recommendations also included a reduction of parking requirements near transit and an optional method to develop cottage courts, townhomes and small apartment buildings. As of September 2022, the fate of the Zoning Text Amendment had not been decided.

Montgomery county has developed two planning initiatives that include a focus on missing middle housing. The Silver Spring Downtown and Adjacent Communities Plan, which was adopted in June 2022, will evaluate the predominantly single-family home neighborhoods in and adjacent to downtown Silver Spring to determine how diverse housing types not currently allowed might become permitted (County Council for Montgomery County, Maryland 2020). The second major initiative is "Thrive Montgomery 2050," the current county comprehensive plan update, which will be adopted in 2022 (Montgomery County, Maryland 2022). Missing

middle housing is named as an important goal in multiple sections of the plan. In the "Complete Communities" section of the plan, the first goal is to "*Retrofit existing communities and create new communities where people can meet their daily needs by walking, bicycling, or transit,"* followed by action 1.1.4.a: "*Further the Missing Middle Housing Study by identifying options and implementation strategies to increase the variety and density of housing types in areas zoned for single-family detached and semi-detached housing, particularly in areas located within a 15-minute walk or bike ride of rail and bus rapid transit."* In the "Resilient Economy" section of the plan, policy 3.6.2 is to "Encourage infill development by making the associated processes accessible to smaller or newer developers that want to take advantage of a diverse range of opportunities such as building Missing Middle Housing."

The Montgomery County Planning staff completed two master plans that proposed solutions that include missing middle housing recommendations. The Veirs Mill Corridor Master Plan was approved in 2019 and makes several mentions of missing middle housing and the desire to "introduce housing typologies that expand residential choices such as small lot bungalows, bungalow courts, duplexes, smaller townhouses, stacked flats or small-scale multi-family buildings." (Montgomery County Planning Department 2019). The plan also makes a specific recommendation to utilize two county-owned parcels (6 acres) located in a transition area between single-family area and a future transit-oriented development area as sites to introduce medium-density housing prototypes, including designs inspired by the missing middle concept. The Forest Glen/Montgomery Hills Sector Plan was approved in 2020. Similarly, this plan identifies specific areas – in both cases corridors – where rezoning to support missing middle housing is recommended: "*The strategic rezoning of single-unit residential properties along the Georgia Avenue corridor provides a transition from the commercial uses to residential*

neighborhoods and introduces the potential for new housing typologies in the plan area. These parcels would be appropriate for multi-unit, clustered housing, such as townhouses, courtyard dwellings and smaller apartment buildings (i.e., the "Missing Middle")."

All of the activity described here has taken place since 2018. Montgomery County is an example of a government-led approach to missing middle housing delivery that is focused primarily, if not entirely, on identifying and removing zoning and regulatory barriers in selected areas that the private market would then ideally respond to by delivering missing middle housing. This approach reflects county political leadership, proactive planning, and out-of-the-box thinking that addresses important barriers that limit production of missing middle housing. It will take time to fully understand whether this approach results in the delivery of missing middle housing.

Decatur, Georgia: government-led comparative financial modeling, cottage court model project, and the establishment of a community land trust

The city of Decatur, Georgia is an example of city government taking a multi-pronged approach to explore, develop and implement policies and programs to increase the supply of MMH to deliver affordable and workforce housing. In general, the recommendations generated by Decatur have all been in the context of increasing the supply of affordable housing. In 2014, the city updated its zoning codes to reduce the minimum home size and make it easier to build accessory dwelling units and cottage courts in single-family residential zones. In 2016 the city commissioned the "Decatur Affordable Housing Policy Feasibility Analysis" to analyze the effectiveness of some of Decatur's affordable housing policies and programs (City of Decatur 2016). That analysis is detailed below.

In 2020 the city adopted inclusionary housing legislation that requires private developers to include affordable units in exchange for benefits that include density bonuses, reduction in parking requirements, or development fee waivers. Also in 2020 the Decatur Affordable Housing Task Force released "A Report on the Findings and Recommendations for Decatur's Future Affordability and Inclusivity" (City of Decatur 2020). The report makes twenty-two recommendations, several of which are relevant to missing middle housing enabling activities, including:

- Hire dedicated staff to execute AH strategies
- Develop a soft-loan program that would use the financing to leverage a commitment from homeowners to set rents affordable to households earning 80% or less of the area median income
- Expand residential zoning districts that allow accessory dwelling units
- Allow development of townhomes in RS-17 zones
- Increase supply of AH by developing innovative pipelines of developable land. This could be accomplished by partnerships and programs to purchase or partner with landowners to prioritize affordable housing development on the land, such as city- and county-owned land, MARTA (transit) property, undevelopable privately-owned land, underutilized nonprofit-owned property, parking lots, and church-owned property, annexation activities, and building on top of existing structures.
- Create a Decatur Land Trust
- Increase housing supply by allowing duplex, triplex and quadplex constructions in current single-family zoned areas

- Explore innovating housing typologies, such as cottage court projects, and follow the recommendations of the 2016 plan to increase financial feasibility of cottage courts
- Establish and finance an affordable housing trust fund.

Although the city of Decatur has been working in a variety of ways to address affordable housing needs, the following sections highlights just three aspects of Decatur's strategy.

Financial Analysis of Cottage Court Development

In 2016 the city of Decatur commissioned the "Decatur Affordable Housing Policy Feasibility Analysis" to analyze the effectiveness of three of Decatur's affordable housing policies and programs (City of Decatur 2016). Decatur currently allows cottage courts to be built in RS-17 (single-family residential not to exceed 17 units/acre) and RM-22 (multi-family not to exceed 22 units/acre) zones, with a minimum of 5 and maximum of 9 cottages per site. The minimum permissible site size is 0.5 acres (Decatur Municipal Code, Part IV Unified Development Ordinance, Article 2, Section 2.2). Townhouses are also allowed in both RS-17 and RM-22.

One interesting component of the analysis was the creation of a map intended to identify residential parcels in Decatur that are at least one-half acre (the minimum permissible size for Cottage Court development at the time of the report) (Figure 2). The report authors noted that some of these lots would require a variance due to their irregular shape.

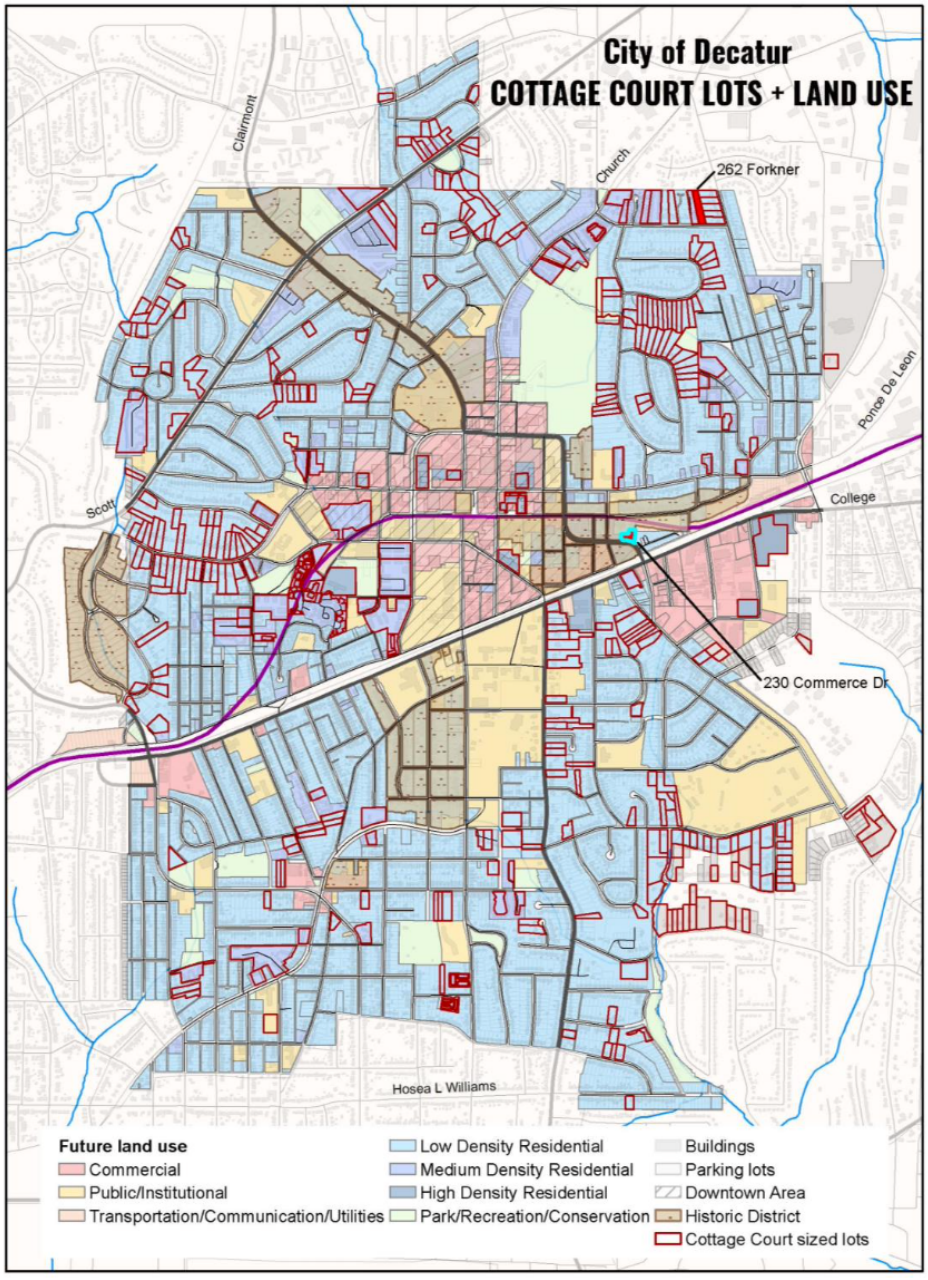

Figure 2. Residential parcels (outlined in red) where cottage courts were possible at the time of the Decatur analysis (2016). Source: Decatur Affordable Housing Policy Feasibility Analysis (2016).

The analysis evaluated whether Decatur's zoning ordinance creates the conditions for cottage courts to be an economically attractive financial alternative to townhouse or single-family home developments. The financial analysis included pro forma evaluations exploring feasibility for each of the three alternatives, including scenarios with and without affordable units. Figure 3 (next page) demonstrates that cottage court development at Decatur's current allowed density (at the time of the report) is not financially attractive when compared to alternative developments. The authors included an evaluation of a higher-density cottage court scenario wherein the allowed density matches the underlying density of the zone (17 or 22 units per acre for RS-17 and RM-22, respectively) and would, for example, allow 8 units on a half-acre site in RS-17. This alternative yields an 85% rate of return and is much more attractive than the current allowed density (7% rate of return), even when one affordable unit is included. Townhome and single-family home development yield 102% and 93%, respectively.

COTTAGE COURT FINANCIAL SUMMARY COMPARISONS

The following summary analysis provides a financial comparison of a cottage court community development as currently zoned, an increased density cottage court development, a townhouse development, and finally a large urban infill single family home development on subdivided lots for the same half acre parcel.

COTTAGE COURT	
The following development example assumes a cottage court development delivered at market rate per the zoning guidelines identified in the Unified Development Ordinance (UDO). Units are modeled at 1,100 SF per home, below the allowable size of 1,800 per zoning.	
PROPERTY	
Land:	.5 Acres
Land Cost:	$ 750,000
Land Cost Per Acre:	$ 1,500,000
Zoning Units Per Acre:	9
No. of Units:	5
Total Square Feet:	5,500
Affordable Units:	-
BUDGET	
Development Cost:	$ 1,486,188
Cost Per Unit:	$ 297,238
Cost Per SF:	$ 270
FINANCING	
Loan Amount:	$ 1,040,332
Equity:	$ 445,856
LTC:	70%
HOME SALES	
Home Size BR:	2 Bedrooms
Home Size SF:	1,100
Avg. Sale Price per Home:	$ 330,000
Avg. Price Per SF:	$ 300
FINANCIAL PERFORMANCE	
Equity Investment:	*$ (445,856)*
Total Profit:	*$ 31,812*
Rate of Return:	*7%*
Equity Multiple:	*1.1*

COTTAGE COURT - INCREASED DENSITY	
The following development example increases the density of the cottage court development to match the allowable density of 17 units/acre for RS-17, and provides one affordable unit at 100% Area Median Income. Units are modeled at 1,100 SF per home, below the allowable size of 1,800 per zoning.	
PROPERTY	
Land:	.5 Acres
Land Cost:	$ 750,000
Land Cost Per Acre:	$ 1,500,000
Zoning Units Per Acre:	17
No. of Units:	8
Total Square Feet:	8,800
Affordable Units:	*1*
BUDGET	
Development Cost:	$ 1,891,998
Per Unit:	$ 236,500
Per SF:	$ 215
FINANCING	
Loan Amount:	$ 1,324,399
Equity:	$ 567,599
LTC:	70%
HOME SALES	
Home Size BR:	2 Bedrooms
Home Size SF:	1,100
Avg. Sale Price per Home:	$ 322,607
Avg. Price Per SF:	$ 291
FINANCIAL PERFORMANCE	
Equity Investment:	*$ (567,599)*
Total Profit:	*$ 482,390*
Rate of Return:	*85%*
Equity Multiple:	*1.8*

TOWNHOME DEVELOPMENT	
The following development example takes the same 0.5 acre development site as the cottage court and models a townhome development of with the max allowable density of 8 units for comparison.	
PROPERTY	
Land:	.5 Acres
Land Cost:	$ 750,000
Land Cost Per Acre:	$ 1,500,000
Zoning Units Per Acre:	17-22
No. of Units:	8
Total Square Feet:	16,000
Affordable Units:	-
BUDGET	
Development Cost:	$ 3,096,414
Per Unit:	$ 387,052
Per SF:	$ 194
FINANCING	
Loan Amount:	$ 2,167,490
Equity:	$ 928,924
LTC:	70%
HOME SALES	
Home Size BR:	3 Bedrooms
Home Size SF:	$ 2,000
Sale Price per Home:	$ 550,000
Price Per SF:	$ 275
FINANCIAL PERFORMANCE	
Equity Investment:	*$ (928,924)*
Total Profit:	*$ 951,586*
Rate of Return:	*102%*
Equity Multiple:	*2.0*

LARGE SINGLE FAMILY DEVELOPMENT	
The following development example takes the same 0.5 acre development site as the cottage court and models the development of 4 large single family homes for comparison. This assumes the lot is subdivided to provide the minimum lot size of 5,000 SF for a detached home per the RS-17 zoning.	
PROPERTY	
Land:	.5 Acres
Land Cost:	$ 750,000
Land Cost Per Acre:	$ 1,500,000
Zoning Units Per Acre:	8
No. of Units:	4
Total Square Feet:	14,000
Affordable Units:	-
BUDGET	
Development Cost:	$ 2,872,692
Per Unit:	$ 718,173
Per SF:	$ 205
FINANCING	
Loan Amount:	$ 2,010,884
Equity:	$ 861,808
LTC:	70%
HOME SALES	
Home Size BR:	5 Bedrooms
Home Size SF:	$ 3,500
Sale Price per Home:	$ 997,500
Price Per SF:	$ 285
FINANCIAL PERFORMANCE	
Equity Investment:	*$ (861,808)*
Total Profit:	*$ 798,108*
Rate of Return:	*93%*
Equity Multiple:	*1.9*

Figure 3. Financial comparison of three cottage court development scenarios. Source: Decatur Affordable Housing Policy Feasibility Analysis (2016).

The report noted several factors that influence cottage court development costs. The higher price of land in multi-family zones means that infill cottage development may only be realistic and feasible in single family zones. While cottages are small, they can be expensive (per square foot) to build as they include the most expensive rooms of a house (kitchen and bathrooms) as well as heating/air conditioning and ventilation systems. Although cottages are limited to 1.5 stories (24') in height, full two-story framing is less expensive than 1.5-story framing. Cities should be aware that other development codes that can drive up costs or reduce development intensity, including excessive setbacks, separations and parking requirements, can drive up prices. Finally, the authors point out that if impact fees, permit fees, and utility hook-up fees are based on single-family housing, cottage court development costs (and sales prices) might be unreasonably high.

The authors made several recommendations based on their analysis. Decatur should increase the allowed density for cottage courts from 5-9 units to 17-22 units per acre in line with the RS-17 and RM-22 zoning. This would require reducing setbacks and parking requirements. The city should consider adding a 2-for-1 development density option to allow two cottage court homes to be built on any single-family lot. The maximum cottage size of 1,800 square feet should be reduced; a cottage of that size with market rate (at the time of the report) of $250-300 per square foot generates sale prices between $450-540K per unit and fails to fulfill Decatur's affordable housing goals. Finally, the authors recommended that Decatur consider working with a Community Land Trust to produce cottage court developments with permanent affordability, starting with land the city already owns. Notably, since the time of the report, the City of Decatur created the Decatur Land Trust in 2019, which was incorporated in 2021 and will have its first project come on line in 2022.

Oak Cottage Court Model Project

In 2016 Decatur began the process of a city-led cottage court model project on a city-owned half-acre parcel on Commerce Drive (Figure 4). The project was intended to be a catalyst for such projects and is one of the only examples this author could find of a city-led proof-of-concept project for missing middle housing development. The project also has the goal of identifying and addressing any regulatory barriers that might be preventing the development of similar cottage courts. The development will include six cottages ranging between 700 and 1,200 square feet with a price point range between $100-250K. The ownership of the land will be retained by the newly-formed Decatur Land Trust, who will also manage the long-term affordability of the units. The houses will be marketed to city employees and employees of the local school district or housing authority. The qualified buyers (earning 80-100% AMI) will be selected through a lottery system. The city led the project design, then contracted with a developer to build out the project.

The project experienced several delays related to the Georgia Department of Transportation requiring a deceleration land to enter the site (Commerce Drive is a state roadway) and land disturbance permits. Since the project was conceived, construction costs skyrocketed and the Decatur Development Authority had to consider ways to continue the project, which had become less financially feasible. They considered reducing the number of affordable units in the development from six to four in order to have two market-rate units to offset the cost of construction of the affordable cottages (Harris 2021). The city and the Decatur Development Authority ultimately partnered with the Atlanta Neighborhood Development Partnership (a non-profit affordable housing developer) and a general contractor, and the project finally broke ground in August 2022 (Decatur Land Trust 2022).

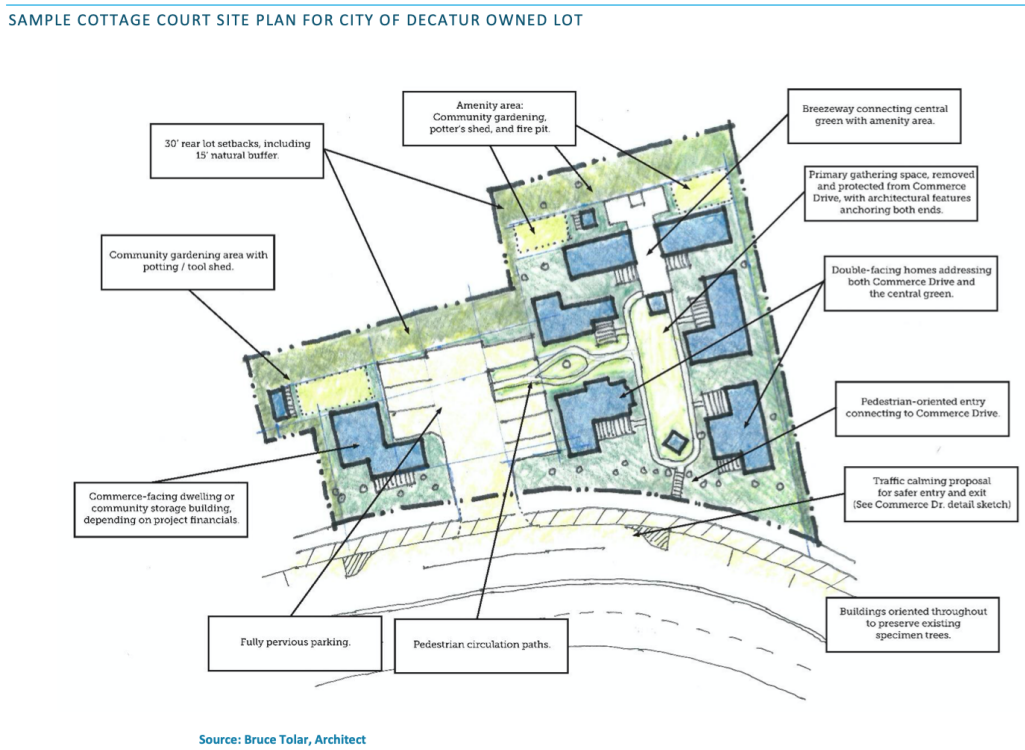

Figure 4. Sample cottage court design for City of Decatur model cottage court project. Source: Decatur Affordable Housing Policy Feasibility Analysis (2016).

While a slow process, Decatur's experience is likely a realistic example of the types of obstacles a city can encounter when embarking on such a project, and of how economic conditions deemed favorable five years ago have changed during the delay period to the point where the project is less economically feasible. Still, much can be learned from the example by other cities and developers considering cottage court development.

Identifying the Critical Role of Community Land Trusts

Throughout Decatur's planning documents and reports, one recommendation is ubiquitous: a city-sponsored community land trust is a critical component of the strategy to facilitate the

creation of creating permanent affordable housing for moderate income families. (City of Decatur 2016 and 2020). In their 2020 report, the Decatur Affordable Housing Task Force recommended that the City of Decatur should initially fund and build the capacity of a new Decatur Land Trust. Community Land Trusts (CLTs) are non-profit organizations, sometimes created by local governments, that provide shared equity homeownership and affordable rental opportunities. The CLTs model is a form of shared-equity homeownership that ensures long term affordability. The CLT uses donated land, government subsidies, and private fundraising to develop or rehabilitate homes that it sells to income-qualified buyers at a below-market price. At the time of closing, the CLT and the homeowner enter into a ground lease agreement that establishes a limited equity resale formula if the owner wishes to sell the home. The resale formula establishes an upper limit on the sale price of the home. The home is sold either back to the CLT or directly to another income-qualified household. As the ground leases are often renewable for 99 years, this model ensures permanent affordability of the home.

The Task Force underscored the importance of quickly building up the land trust's organizational capacity in order to acquire property and remove it from the speculative real estate market before it becomes prohibitively expensive. They also recommended the land trust identify initial specific programs to execute, adopt a "learning by doing" strategy, and consider whether to sub-contract some work with a high-functioning housing organization that could either continue if the arrangement were successful or "sunset as certain capacity milestones are met" by the land trust. The key aspect of these recommendations is to move quickly as land prices soar. In her report to city commissioners on February 16, 2021, Kristin Allin, Decatur's Affordable Housing Fellow, stated that the land trust model is one of the most important affordable housing tools in Decatur, and is the most important ways cities can take properties out of the market force

equation (City of Decatur 2021). Land trusts can act as important stewards for affordable housing and can minimize displacement of low- and moderate- income residents. In cities with hot housing markets, land trusts might be one of the best tools to facilitate delivery of missing middle housing.

Proposed 2022 Zoning Amendment to Enable Missing Middle Housing Construction

On October 11, 2022, the City of Decatur Department of Community and Economic Development presented a recommendation to amend the Unified Development Ordinance to allow duplex, triplex, and quadplex residential units in R-50, R-60, R-85, and RS-17 single-family residential zoning districts (Stewart 2022). The five-hour long planning commission meeting included substantial backlash from residents concerned about design standards, square footage minimums, parking standards, and the unintended consequences of private developer activities. There were also concerns expressed about whether the amendment would actually result in affordable housing. The meeting resulted in the commission voting to recommend denial to the city's application. The next steps for the proposal include more public input meetings and a final vote by the City of Decatur's City Commission in late 2022.

Chattanooga, Tennessee: non-profit partnership to support small missing middle housing development efforts

In Chattanooga, Tennessee several partners came together to promote the development of missing middle housing in their community. Chattanooga Neighborhood Enterprise (CNE) is a non-profit housing and community development organization founded in 1986 to encourage homeownership by issuing low-interest residential loans, providing homebuyer education

resources, mortgage and foreclosure guidance, and creating affordable housing in historically underserved parts of the city of Chattanooga (Chattanooga Neighborhood Enterprise 2022). With the support of the Lyndhurst Foundation, a private family foundation based in Chattanooga, CNE worked with a design team from the Incremental Development Alliance to study two target neighborhoods (Highland Park and Ridgedale, where CNE had purchased 34 vacant parcels from the going-out-of-operations Tennessee Temple University) and create a set of missing middle housing design plans and considerations, construction estimates and finance models. Their 2016 report "Missing Middle Housing Types for Chattanooga: Time-Honored Buildings for the Thoughtful Small Developer" is intended to provide development packages, from "finance to floor plan," that would "strengthen neighborhoods, be profitable for the builder, and meet housing demand" (Incremental Development Alliance 2016). The document was created to be a valuable resource for developers, individuals and organizations who wish to develop affordable missing middle housing types in Chattanooga.

The team consulted with city officials to identify issues and obstacles to MMH development associated with Chattanooga's zoning and building codes and included recommendations in the report. They found that zoning posed a significant barrier to the development of missing middle housing. They found that, although the relatively recently created Urban General Commercial (UGC) zoning classification in Chattanooga may best accommodate the proposed MMH designs, the UGC zoning classification has been primarily applied to Main Street style mixed-use buildings and only a few lots in Chattanooga have this designation. The team noted that rezoning properties in residential zones to UGC could engender opposition from neighbors concerned about the wider range of uses allowed in the UGC classification. To this end the team recommended the creation of a more flexible zoning option to

reduce time, cost and uncertainty for missing middle housing developers who might otherwise have to go through a lengthy rezoning process. In the meantime, developers will have to apply for rezoning when building small-scale multi-family units on residential lots. The team also pointed out obstacles in Chattanooga's city code with respect to minimum lot size requirements (currently too large for any of the lots in the study area), prohibition of accessory dwelling units (another missing middle housing typology that can increase affordability and resiliency for homeowners), and limitations on how many units per lot allowed in residential zones.

The report identified other thresholds and factors in the zoning code that will impact the feasibility of small-scale multi-family developments. For example, a key threshold for stormwater management is 5,000 square feet; if a developer disturbs more than 5,000 square feet of soil, they will be responsible for expensive on-site stormwater management. They also noted that there is currently no official guidance on stormwater management techniques for small-lot sites. Like so many proponents of low-density zoning reform and the re-introduction of small-scale multi-family housing, the team underscored the need to re-think and reduce parking minimums. In particular, they recommended allowing alley parallel parking spaces to count as official parking spaces, and allowing staff-level review (versus lengthier commission approval) to allow compact parking spaces and on-street parking spaces to count toward parking minimums. By "diagnosing" these "key thresholds" within municipal regulation that could make or break small development projects, the document can play an important role to guide code revision.

An important outcome of the partnership was the sponsorship of a Small-Scale Development Training Workshop in October 2016. One of the partners in this effort was the Incremental Development Alliance (Incremental Development Alliance "IncDev" 2022). IncDev

is a non-profit alliance of practitioners who provide training for small developers and build local capacity to create stronger neighborhoods. The workshop offered specialized training on how to create small projects, like 1-3 story buildings with less than 20 units through presentations about finance, design and site selection; and networking opportunities. Since the workshop, one of the small developers who attended (Adamson Developers) built three six-plexes for CNE, which has become part of CNE's rental portfolio. Additional MMH development projects by CNE are now underway, including four quadplexes, a duplex, a 5-unit cottage court, and an 18-unit apartment development.

Brass tacks guidance for small developers

The report identified four different general categories of missing middle housing typologies the team found to be compatible and economically feasible within existing lot sizes and infrastructure in the two target neighborhoods. The four categories include:

- Live-work buildings where the business owner lives on-site and reduces overhead by sharing home and work expenses.
- 2-4 unit residential, which could include duplexes, triplexes, and quadplexes on a single or double lot, or could include the addition of backyard cottages. These can be financed with common, federally insured mortgages and create opportunities to strengthen neighborhoods where local owners occupy the building and offset the mortgage cost with rental income.
- 6-12 unit residential, which is more likely to be a project underseen by larger professional developers. The economics of these buildings tend to improve with more units. The proposed

designs for these buildings occupy single lots and can provide a good transition from lower density neighborhoods to higher density mixed use aeras.

- 12-18 unit residential, often designed in a courtyard layout, these buildings can become icons and invite a visual destination on the street, and can provide enormous tax revenue per acre when not constrained by excessive parking minimums.

For each of the above four general categories of building type, the report provided a general overview of considerations for that type (see Figure 5). For each category, the authors developed a catalog detailing several ways to deliver that type, including the size of each unit, parking spaces, and whether the design would be more appropriate for a corner lot versus a mid-block lot, and whether the design required more than a single lot. Figure 6 provides an example of the eight different ways identified by the report authors the "2-4 unit residential" typology might be carried out. The report also included considerations for matching buildings with available lots (and building placement on the lot), parking considerations, financing guidance, and regulatory thresholds to be aware of see (Figure 7). Similar analyses were conducted for each of the four categories.

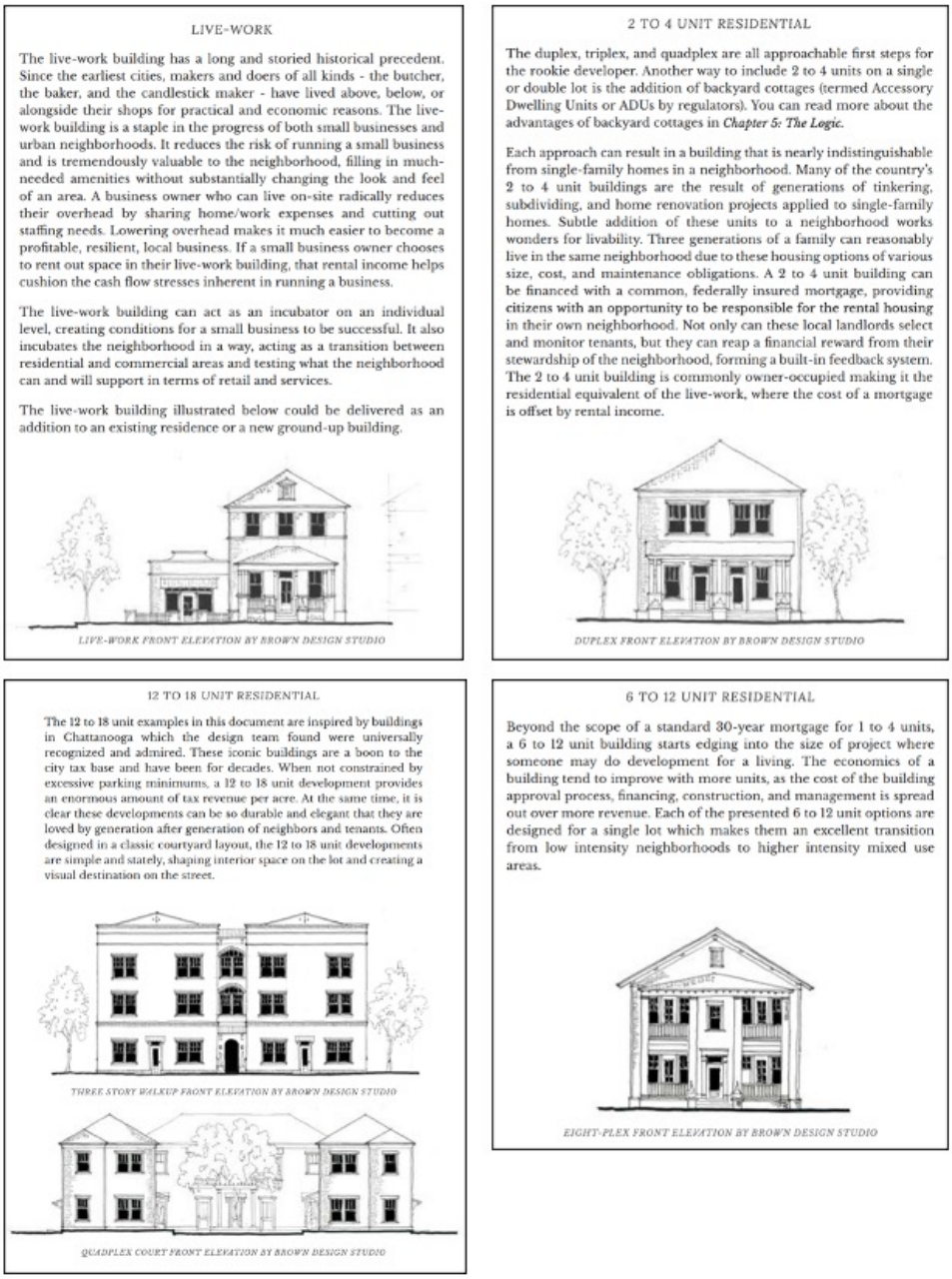

Figure 5. The four general categories of Missing Middle Housing identified and described in by the Chattanooga report. Source: "Missing Middle Housing Types for Chattanooga: Time-Honored Buildings for the Thoughtful Small Developer." (2016)

Figure 6. Eight ways to accomplish the 2–4-unit residential missing middle housing typology. Source: "Missing Middle Housing Types for Chattanooga: Time-Honored Buildings for the Thoughtful Small Developer" (2016).

Figure 7. Guidance for building placement in for 2–4-unit residential missing middle housing development. Source: "Missing Middle Housing Types for Chattanooga: Time-Honored Buildings for the Thoughtful Small Developer" (2016).

The report also included four templates for bank packages a small-scale developer could use to obtain financing for a project, including sample cover letters, sketches, site plans and elevations, pro forma analysis, hard cost estimates, and guidance for providing market data for the proposed project. Of the four pro forma financial statements provided in the report, all four target rents of $650 to $800 per month for one-bedroom units and $800 to $1100 per month for two-bedroom units.

The Chattanooga example demonstrates a different approach from Montgomery County, Maryland. In Montgomery County the missing middle housing efforts appear to have been spearheaded by local government staff and politicians, and have focused primarily on proactive planning and the identification and removal of regulatory barriers to missing middle housing. This effort in Chattanooga was undertaken by a non-profit community development agency (with the support of many partners, including the Chattanooga Housing Authority, a private foundation, and national coaches focused on incremental development). Local government was consulted for technical considerations (zoning, stormwater, parking regulations). In fact, the report generated by the non-profit effort provided guidance for city planners. This effort resulted in the delivery of several missing middle housing buildings in the two target neighborhoods (Figure 8).

Figure 8. Examples of missing middle housing developed by the Chattanooga Neighborhood Enterprise initiative since 2016. Source: CNE website (cneinc.org/creating-homes).

Portland, Oregon: brief overview of city-wide legislative reform

In the summer of 2020, after five years in development, the city of Portland, Oregon passed its "Residential Infill Project" legislation, which was hailed by Sightline Institute as "the best low-density zoning reform in history." An important factor in the process of getting the legislation passed was a 2019 state-wide bill passed by the Oregon state legislature that required larger cities to allow up to four units of housing on single-family zoned properties by 2022. The Residential Infill Project legislation in Portland permitted duplexes in all formerly single-family zones and allowed three- and four-unit homes almost everywhere. The legislation also made it easier to add accessory dwelling units, such as backyard cottages and granny flats, on single-family lots, and removed parking mandates from three quarters of the city's residential land. Importantly, the city also included a "deeper affordability option," which allowed four to six homes on any lot if at least half (with a 6,000 square foot maximum building sizes) are available to low-income residents at regulated, affordable prices. Figure 9 summarizes the legislation.

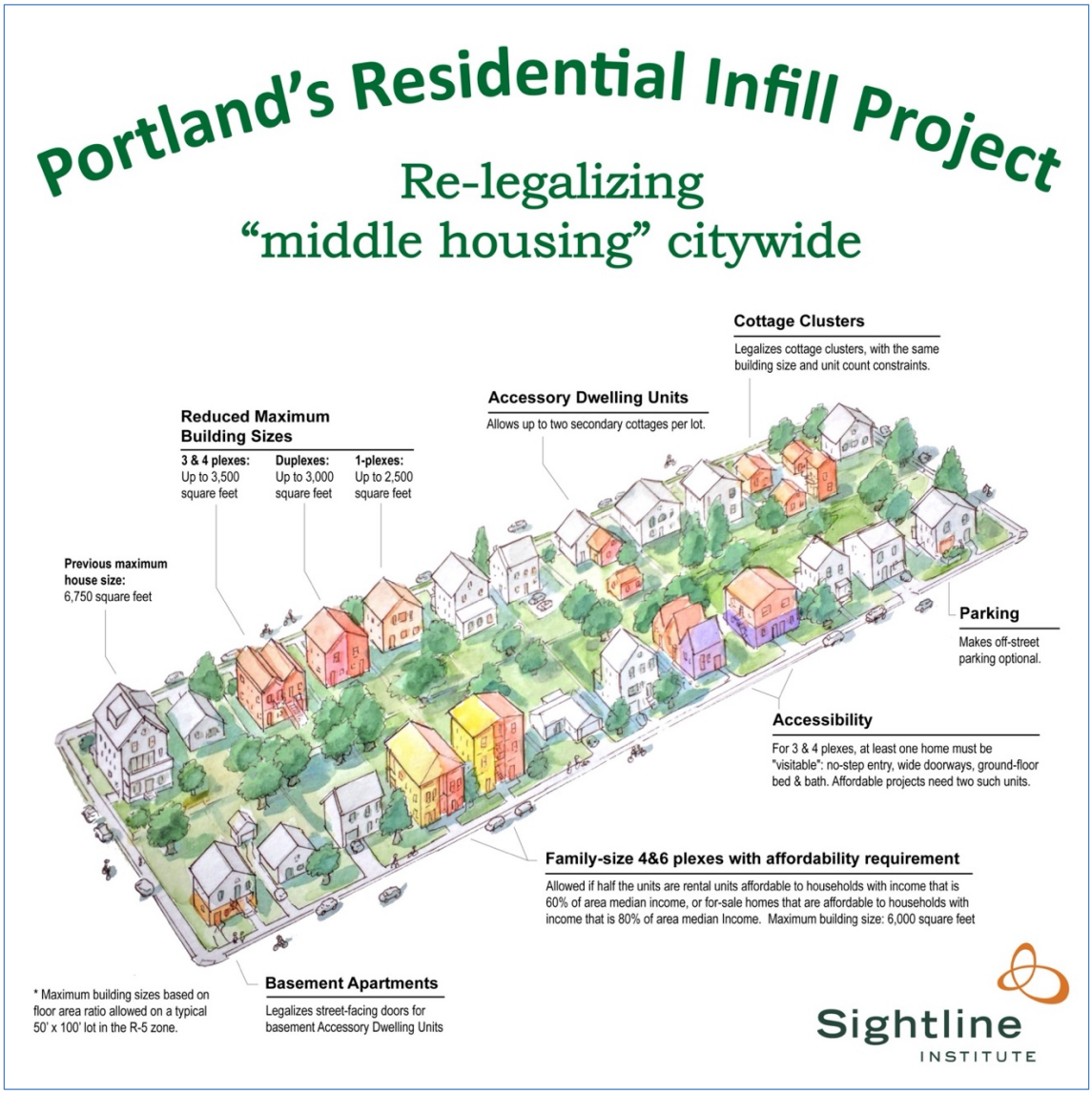

Figure 9. Summary of Portland, Oregon's Residential Infill Project legislation to increase the construction of missing middle housing. Source: Sightline Institute 2020.

Only approximately 100 additional units have been built since the program went into effect in August 2021. As a result, the City passed new reforms in June 2022 (called "Residential Infill Project 2") that included zoning "tweaks" the better enable the construction of new units (City of Portland 2022). The tweaks include:

- By shrinking the maximum allowable size of structures in single family zones, the original program limited unit sizes in a way that made them less appealing for developers and the households they are building for. The original program didn't allow four-unit structures to be larger than three-unit structures, which prevented fourplexes from including three-bedroom units sized for families. The new program increases the maximum size of four-unit structures.
- The reforms also legalized cottage clusters. Although Portland also already allowed cottage clusters, developers had to go through a process that gave city officials and public the ability to demand changes or kill the project. The new program allows developers to build cottage clusters by right.
- The new legislation makes it easier to divide individual lots into multiple properties. This allows developers and owners to engage in more traditional financing models that lenders are more familiar with.
- Townhomes (single-family attached homes that share a wall) are now easier to build, and they can more easily be sold as individual properties.

The Portland example demonstrates the influence of statewide legislation on local MMH re-legalization efforts. Additionally the revision of the Infill legislation in Portland approximately a year later demonstrates the importance of making adjustments to legislation to increase the likelihood of it achieving the desired effect.

Lessons learned from case studies

There are many ways communities around North America are incorporating the concept of missing middle housing into their efforts to address housing supply and affordability. The communities identified in this section are just a very small set of examples; dozens of communities are working on similar efforts. Table 1 compares the elements of the MMH enabling strategy, resulting policies or programs, and lessons/implications that can be learned from the four examples.

Table 1. Comparative matrix of Missing Middle Housing enabling efforts in Montgomery County, Maryland, Decatur, Georgia, Chattanooga, Tennessee, and Portland Oregon. Please note that the table is on two pages.

Entity	**Type of Entity & Geographic Scope**	**Elements of Missing Middle Housing Strategy**	**Policies or Programs Resulting from Planning Activities**	**Lessons/implications**
Montgomery County, MD	County government, Montgomery County	• Planning Department-led 2018 Missing Middle Housing Study identified regulatory barriers and identified strategies for future action. • Two planning initiatives developed: Silver Spring Downtown and Adjacent Communities Plan (2022) will evaluate single-family neighborhoods in Silver Spring to enable MMH, and "Thrive Montgomery 2050," which names MMH as an important goal and calls for implementation of strategies identified in the 2018 plan. • Planning staff have since completed two master plans that include MMH recommendations (Veirs Mill Corridor in 2019 and Forest Glen/Montgomery Hills in 2020).	• 2018 study resulted in proposed Zoning Text Amendment (ZTA) to amend density, infill development and parking standards. • County planning staff has recommended expansion to proposed ZTA to allow house-scale duplexes, triplexes, and quadplexes on all single-family lots throughout county and identifies new "Priority Housing District." Proposed reduction of parking requirements near transit and optional method to develop cottage courts, townhomes and small apt. buildings • Fate of ZTA still undetermined as of September 2022.	• A robust, county planning department-led MMH study paved the way for a variety of proposed policies and planning guides, including small area plans. • County leadership took a plan seriously and translated its recommendations into action.
Decatur, GA	City government, City of Decatur	• 2014 zoning code update to reduce minimum home size and make it easier to build ADUs and cottage courts in single family zones • 2016 report "Decatur Affordable Housing Policy Feasibility Analysis" examined effectiveness of Decatur's affordable housing policies and programs, including economic feasibility of cottage court development. The report also identified parcels with minimum 0.5 acres where cottage courts are possible. • 2020 report by Affordable Housing Task Force: "A Report on the Findings and Recommendations for Decatur's Future Affordability and Inclusivity," including several recommendations in support of MMH development.	• Oak Cottage Court Model Project • Creation of Decatur Land Trust • Proposed amendment to the Unified Development Ordinance to allow duplex, triplex, and quadplex residential units in R-50, R-60, R-85, and RS-17 single-family residential zoning districts. Still pending.	• Several recommendations from reports have been implemented, including city-led model cottage court project and creation of Decatur Land Trust. • Most of the work in Decatur has presented missing middle housing as an affordable housing strategy. • Public opposition to zoning code amendments may provide lessons for other jurisdictions.

Entity	Type of Entity & Geographic Scope	Elements of Missing Middle Housing Strategy	Policies or Programs Resulting from Planning Activities	Lessons/implications
Chattanooga, TN	Non-profit led partnership; broadly applicable scope not limited to Chattanooga	• Chattanooga Neighborhood Enterprise (CNE), a non-profit housing and community development organization worked with several partners (private family foundation and design team from Incremental Development Alliance) to study two target neighborhoods and create a set of missing middle housing design plans and considerations, construction estimates, and finance models. • Resulted in 2016 report "Missing Middle Housing Types for Chattanooga: Time-Honored Buildings for the Thoughtful Small Developer" • In addition to presenting design plans and considerations, the authors consulted with city officials to identify issues and obstacles and made recommendations about zoning, including MMH obstacles associated with parking and stormwater management (site disturbance).	• Small-scale Development Training Workshop in October 2016. Has resulted in construction of three six-;lexes for CNE and additional projects in construction, including four quadplexes, a duplex, a 5-unit cottage court, and an 18-unit apartment development. • The report developed specific guidance and consideration for development of four categories of MMH, and provided templates for banking packages to obtain project financing.	• CNE's initiative approached MMH from the point of the view of the small-scale developer, which is an important component of MMH development. • MMH enabling activities do not always need to start with forward-thinking government staff. The city of Chattanooga was consulted, but did not initiate the project. • This activity will not directly lead to zoning amendments, but could be utilized by the city planners to support proposed changes.
Portland, OR	City government, City of Portland	• 2019 statewide legislation required larger cities to allow up to four units of housing on single-family zoned properties by 2022. • In 2020 the City of Portland passed sweeping legislation, "The Residential Infill Project." • In 2022 the legislation was reformed to better enable the construction of new MMH units	• The 2020 legislation permits duplexes in all formerly single-family zones, allows 3- and 4-unit homes almost everywhere, made it easier to add ADUs on single-family lots, removed parking mandates from ¾ of city's residential land, and allowed four to six housing units if at least half are affordable. • The 2020 legislation was updated in 2022 to reduce maximum allowable size of structures in single family zones, make it easier to divide individual lots into multiple properties, and make it easier to build townhomes and sell them as individual properties.	• Statewide enabling legislation paved the way for the city of Portland to pass local legislation • Smart MMH-enabling legislation can include an affordability requirement as exemplified by the allowance of (4- and 6-plexes in single family neighborhoods if half are affordable. • Revising legislation can be iterative; within two years of the original legislation, the city recognized shortcomings in the 2020 legislation and made updates.

Numerous important lessons can be learned from these case studies. Montgomery County's efforts appear to have resulted from a robust planning process in which county leaders and planning department officials truly committed to the process. In many jurisdictions planning reports are generated, but are not always followed or taken seriously by political leaders, who are ultimately responsible for directing county work plans (and allocating resources) that will carry out recommendations of the report. Decatur, Georgia's focus on missing middle housing as an affordability strategy may end up being problematic since MMH development might not generate affordable units unless paired with affordability programming. However, Decatur's creation of a Community Land Trust and model cottage court pilot project are inspired. It is too early to know how successful these efforts will be. The specificity and detail of the Chattanooga Neighborhood Enterprise examination of MMH has broader applicability nation-wide. Their focus on lessons for small developers is important. Portland's legislation is an example of the power of state-wide legislation that backstops local efforts to increase MMH construction, and demonstrates that affordable unit production can be a part of MMH-enabling legislation. The 2022 update to the Portland Infill legislation signals a willingness to 'tweak' legislation until it generates the desired housing production.

There are several broader lessons that can be drawn from this work and my review of Missing Middle Housing strategies and enabling activities:

- Unless developers are supported and incentivized to build missing middle housing, it will not happen at a scale large enough to make a real difference in housing supply. MMH efforts need to go beyond zoning updates and must include an examination of economic and regulatory feasibility and incentives, such as tax credit programs, fee waivers, etc.

- Zoning codes and administrative regulations must be examined and updated to enable missing middle housing. Montgomery County planners suggested an MMH "floating zone;" the City of Decatur is thoughtfully examining, using a pilot project, whether their current cottage court zoning ordinance crates the conditions to make their development economically attractive or feasible, and the Chattanooga partners identified the need to create a more flexible zoning option to reduce time, cost and uncertainty for missing middle housing developers who might otherwise have to go through a lengthy rezoning process. This should also include an examination of stormwater and other land development regulations that may need to be revisited.
- Small developers must have access to resources and support to develop missing middle housing. They do not have as much bandwidth as a large developer to, for example, wade through a city or county government's regulatory hurdles.
- City-led/supported pilot projects as proof-of-concept can go a long way to help planners and developers understand where zoning codes might be getting in the way of missing middle housing development, and where the financial barriers might be. In addition, such pilot projects can also be useful as a tool for engendering community buy-in and support.
- A city/community needs to be clear about its goals. Does it want to re-legalize the construction of missing middle housing? If so, it needs to create a plan to do so and then take that plan seriously. Montgomery County planners suggested the creation of a Missing Middle Housing Functional Master Plan to identify ideal locations and identify appropriate areas for rezoning. They have created a set of plans and proposed legislation that explicitly enables the construction of MMH.

- Missing middle housing efforts must be underpinned by robust future land use planning. Where is MMH appropriate or desired? Identify those areas and develop small area plans, zoning overlays (or floating zones) in support of that.
- Communities will benefit from identifying areas appropriate for missing middle housing development that are less likely to rouse opposition from residents of single-family neighborhoods. Transportation corridors, transition zones between busy corridors and residential areas, and areas near transit stations might be a smart place to start.
- Re-legalizing MMH typologies isn't a guaranteed way to increase the supply of affordable housing. Unless an affordability partnership is identified, such as with a Community Land Trust, a non-profit housing developer, or housing authority, or private philanthropic funding, missing middle housing could be affordable only to those with higher household incomes. If MMH is intended to increase a community's supply of affordable housing, then affordability partnerships and programs must be a part of the plan.
- When it comes to communication strategies, MMH as an affordability solution is a hard sell. MMH increases housing supply and housing choice, makes more efficient use of land and city services, and reduces urban sprawl. Its ability to deliver affordability (without legislation like Portland's) is still unknown.
- From the city of Portland's example, it is clear that any local legislation will likely need to be updated in order to 'get it right' and actually have the legislation produce more MMH housing units. To that end, cities should set targets and monitor the number of missing middle housing units created after implementation of new legislation.

Re-legalizing the construction of missing middle housing building typologies holds promise for increasing housing supply and housing choice. It is the re-introduction of a style of housing that many North Americans are familiar with. There are several strong arguments in favor of re-legalizing MMH, including making more efficient use of land and government services, sprawl reduction, and the incremental nature of the approach being (theoretically) less likely to engender opposition. Although it is less clear whether increasing the supply of MMH units will directly address housing affordability in a community without explicit legislation, programs or partnerships that require or encourage it, simple supply and demand logic supports the idea that reducing housing scarcity can bring home prices down. The examination of Missing Middle Housing enabling efforts in this chapter identifies ideas, opportunities and challenges for implementing these changes. The purpose of this chapter was to identify applicable lessons for Athens, Georgia, which will be addressed in Chapter 4.

CHAPTER 3

HOUSING CHALLENGES IN COLLEGE TOWNS

Prior to an in-depth look at missing middle housing as a potential tool to increase housing supply and affordability in Athens, Georgia, it is important to understand the unique housing challenges faced by college towns. Adequate supply of quality, affordable housing is a problem across the united states in rural and urban areas of all sizes. However, college towns that are the home to large public universities face the unique pressure of having enough housing for the off-campus student populations while simultaneously meeting the housing needs of year-round residents.

College towns and the impact of students on the housing market

The relationship between large universities and their surrounding "college towns" is complicated, particularly when it comes to the community impacts of housing college students off-campus. There is no agreed-upon definition or formal classification of a college or university town, but in general these are cities dominated by the presence of a large university (or a cluster of several colleges or universities) with the consequently large student population and large number of residents employed by the university. The presence of the university in these towns permeates many aspects of the economic, cultural and political life there. Thomas Laidley's 2014 analysis of the impacts of privatized student housing on poverty and housing affordability accurately captures this complicated relationship:

> *"Colleges and their students contribute much to the local economies they are embedded in, and are often the lynchpin that spares postindustrial university towns from the ravages of deindustrialization. The darker side of the "town and gown" dynamic, at least contemporarily, is perhaps best illustrated by physical redevelopment, housing affordability, and demographic turnover, and*

> *the localized pressures wrought by the presence of the university as tax-exempt landowner and consumer of municipal services."* (Laidley 2014)

The contemporary academic discussion about the impact of students on the landscape of college towns seems to have initially started in England, and several authors cite a 1999 paper by Paul Chatterton "University students and city centres - the formation of exclusive geographies: the case of Bristol, UK" as a seminal paper (Chatterton 1999; Reynolds 2020; Smith 2009). Chatterton focused primarily on how the segregation (both temporal and spatial) of student-oriented popular culture and entertainment venues creates a 'geography of exclusion' in city centers and drives urban change. He argued that:

> *"…traditional students represent non-exploratory, middle ground cultural actors and are part of a patchwork of groups whose activities are re-imaging city centres. However, in contrast to much recent work which examines city centre consumption by certain groups, I argue that the seasonal migration of adolescent and wealthy university students to many British cities is located within the trend towards the growth of segregated entertainment provision and the emergence of 'geographies of exclusion' in city centres."*

Chatterton further observes the role of students in the housing sector:

> *"Students are often a gentrifying force and, through house price inflation in the private-rented accommodation sector, can force out local groups. However, this spatial segregation also reflects their desire to be removed from other groups through a perceived fear of violence and crime against students. Traditional students, then, can be regarded as one of the many mini-communities within the divided city which are generated through ritualised and segregated activity, especially in relation to going-out."*

Since 1999 many scholars have written about the sociospatial and economic impacts of student populations on a city, or 'student geographies' (a term coined by Smith 2009). Many authors have explored the increased demands for student housing resulting from the expansion of higher education and the resulting changes experienced by residential communities due to higher student concentrations (Bose 2015; Charbonneau, Johnson and Audrey 2006; Chatterton 1999,

2000, 2019; Foote 2017; Garmendia, Coronado, and Urena 2012; He 2015; Hubbard 2009; Kinton et al. 2018; Laidley 2014; Moos 2016; Reynolds 2020; Sage, Smith, and Hubbard 2012; Smith 2005, 2009; Smith and Holt 2007; Revington 2022; Revington et al. 2020; Turok, Munro, and Livingston 2009; Woldoff and Weiss 2018). Although the discussion started in 1999 with student-oriented entertainment venues, more recent discussions about how students transform urban spaces have focused primarily on the impacts of housing unprecedented numbers of students off-campus and in their surrounding university towns.

The concept of 'studentification' was first identified by Darren P. Smith to describe the growing concentration of students in residential areas and displacement of non-student residents:

> *"Studentification engenders the distinct social, cultural, economic and physical transformations within university towns, which are associated with the seasonal, in-migration of HE [higher education] students. At a conceptual level, processes of studentification connote urban changes which are tied to the recommodification of 'single-family' or the repackaging of existing private rented housing, by small-scale institutional actors (e.g., property owners, investors and developers) to produce and supply houses in multiple occupation (HMO) for HE students."* (Smith 2005)

Much of the original research on studentification was focused on houses in multiple occupancy (HMOs), a term used primarily in England (but applicable to the U.S.) to describe traditional single-family houses that have been converted to multi-occupancy houses for college students (Foote 2017). 'Studentification' has been used not only to describe the potential displacement effects of students occupying HMOs, but also the impact of 'too many' student-occupied houses on a street and the potential negative effects of student lifestyles (i.e., trash accumulation, noise, parties, etc.) on neighborhoods. More recently researchers have recognized a "second wave" of studentification in the form of purpose-built student accommodations (PBSAs), which are essentially off-campus dormitories built by private commercial developers

that have gained popularity over the past decade or so (He 2015; Sage, Smith, and Hubbard 2012; Hubbard 2009). This trend is prevalent in many U.S. college towns and in many cases the wave of development of amenity-rich, high-rent "luxury student apartments" has transformed not only the housing landscape but the landscape of city centers and downtown cores. Garmendia et al (2012) recognized the importance of understanding how different student housing morphologies (i.e., PBSAs versus HMOs) impact neighborhoods and cities, and distinguished between 'vertical studentification' associated with students living in high-rises and 'horizontal studentification' associated with students occupying previously single-family homes.

Eleven years after his original paper, Paul Chatterton in 2010 discussed the way this more recent trend of constructing student residential amenity-rich high-rise towers has drastically changed the conversation:

> "*These are stunning developments in the ongoing story of the student city in the UK. They represent new heights in the reformulation, upgrading, and commodification of the student experience. No longer do students choose from gritty `digs' let by slum landlords. […] With the introduction of contemporary luxury student living this is no longer the case. Higher education students (at least those who can afford to) can choose from a range of high-quality vertical living accommodation in large dedicated purpose-built tower blocks. They are the newest arrivals in the unfolding story of the gentrification of central urban areas.*" (Chatterton 2010)

This sentiment is echoed by He (2015), who notes that "the production of [purpose-built student accommodation] … involve[s] large-scale investment and takes studentification into a new stage." (He 2015). The trend of constructing off-campus luxury student housing has caught on in many countries throughout the world, including the United States.

U.S. college towns: the privatization of student housing and proliferation of luxury student housing development

Student enrollment at U.S. universities has increased in recent decades, and with universities not providing enough housing for students (and the general trend of students moving off campus as early as their second year), the private market has responded in ways that have impacted housing affordability in college towns. In the fall of 2018, there were 16.6 million undergraduate students enrolled in degree-granting postsecondary institutions, which represents a 26 percent increase from the 13.2 million students enrolled in 2000 (National Center for Education Statistics 2020). However, university-supplied housing, particularly at public four-year institutions, has not kept up with increasing enrollment (Laidley 2014; Black 2019). A typical university in the U.S. provides on-campus housing for approximately one-fifth of its student body, leaving 80% of its students to find off-campus housing (Bunch 2019; Black 2019). A 2017 report from the University of Virginia found that the school's enrollment increased by 4,700 students over the past 25 years while the university added only 700 beds (Cameron et al). This trend is repeated throughout the U.S.; for the 2020-2021 academic year, the University of Georgia only had the capacity to house approximately 25% of its students (University of Georgia Factbook, 2021).

Public universities in the United States rely on funding at the level of the state government, which is discretionary and blows with the political winds. Despite increasing student enrollment in public universities, state governments have decreased their funding for higher education over the past three decades (Laidley 2014). This negatively impacts capital projects such as dormitory construction. Many universities typically issue bonds to construct dorms, and are increasingly reluctant to do so as debt-to-capital ratios rise and state appropriations and private donations decrease.

Students living off campus is not a new phenomenon, and is not always necessarily problematic. Students (particularly upperclassmen) have been housed off-campus for decades, often in multi-occupancy single-family home conversions or multi-family apartment complexes. Landlords have various levels of commitment to the community – some live in the house next door, some are parents of current students taking advantage of an investment opportunity (Elmer 2012), some are the latest in a multigenerational family who has made its living renting housing to college students, others live out of state – and take various levels of pride in (and care for) the accommodations they provide for students. This has caused or exacerbated "town vs. gown" tensions in university-adjacent traditional neighborhoods in college towns as long-time residents experience negative effects ranging from noise and quality of life concerns to displacement or departure. Student housing can be a mechanism for the gentrification of older low- to middle-income neighborhoods, effectively forcing people out through a variety of means. There are also concerns about the degradation of historic homes as many have been "chopped up" to create smaller units and can sometimes suffer from neglect or abuse. In college towns like Athens, Georgia where football is king and alumni return to the city for sporting or other university events or as a nostalgic getaway, there is also the phenomenon of "game day" houses or second homes that exist to house families and guests who return for events but otherwise sit empty or participate in the short-term vacation rental market.

But the face of private, off-campus student housing has changed in the 21st century. In many college towns across the U.S., a prevalent trend in student housing development is purpose-built student accommodation (PBSA), which most often takes the form of amenity-rich, high-rent, "luxury" student apartment buildings or sprawling complexes. These are more than just off-campus dorms; they often have pools, rooftop bars, gyms, private study rooms, and other

amenities intended to appeal to affluent students. They often rent by the room; for example, a typical unit layout has an equal number of bedrooms and bathrooms, and each student has a lease with the rental management company as opposed to a typical shared apartment where one lease covers multiple roommates. In the U.S., this type of development has become a "reliably profitable" niche market in real estate, and large private companies like American Campus Communities, Campus Crest Communities, and others have built student housing developments throughout the U.S., including contracting with universities to build and manage on-campus housing facilities (Laidley 2014). Luxury PBSAs are controversial for many reasons, including a further widening of a gap amongst affluent students who can afford to take advantage of their amenities and convenient locations and less-affluent students who live in aging dorms or who must live further away from campus (Burns 2019; Breland 2019). Many PBSAs have physically altered the landscape of downtowns. A study of student housing and displacement in Charlottesville, Virginia explored the university's real estate practices and off-campus student housing development that has led to displacement of historical communities and pricing out of lower-income residents:

> *"… new luxury student housing developments on West Main Street, which have incurred controversy from residents for their 'wall'-like construction physically blocking off these neighborhoods from West Main Street, as well as increasing parking density and property valuations around the new buildings. National developers are not just building to meet basic student demand for housing, but actively pursuing high-income undergraduate and graduate students with a host of private amenities. Moreover, businesses and restaurants along West Main Street, traditionally a working-class shopping district, have begun catering towards wealthier incoming residents, putting cheaper options out of business."* (Cameron et al 2020)

Why does this matter? Although research in this area is still sparse, particularly when it comes to the impact of luxury PBSAs on housing affordability in college towns, several studies suggest that an increase in the number of off-campus students has the effect of increasing home prices and rent in the city. A 2014 study of 20 of the largest four-year public universities in the U.S. located outside major central cities explored the relationship between off-campus student housing and measures of housing cost and affordability (Laidley 2014). Laidley's model suggested that an increase in the size of the off-campus student population is associated with higher market rents, particularly in areas with relatively high concentrations of students. A 2017 study of Bloomington, Indiana found that student rentals drive up rents for family renters (Bloomington Normal Regional Housing Study 2017). One of the suggested reasons for off-campus students driving up rents is their ability to combine their purchasing power in a way that negatively affects family renters. For example, four students might be able to pay $800 each and willing to share a house or apartment can combine their purchasing power to rent a four-bedroom apartment for $3,200. This enables the property owner to rent the unit for more than they would have been able to rent it to a family. This, as well as the relatively high rents of the PBSA model, can have community-wide effects as owners of multi-occupancy rental houses raise their rents to match the higher rents students are willing to pay.

In conclusion, university students impact the housing landscape in college towns in a variety of ways. Large public universities are building increasingly less housing for their students despite increasing enrollment. Meeting student housing needs in college towns has for decades been viewed as an investment opportunity for small- to medium-scale landlords and apartment developers. In recent decades these needs are being met with the proliferation of purpose-built mid- and high-rise luxury apartments. This changes the physical landscape in the college town,

and there is limited evidence that higher-rent paid by students may increase rents overall in the community. The next chapter provides and in-depth look at one college town in the southeastern US: Athens, Georgia.

CHAPTER 4

CHARACTERIZATION OF ATHENS, GEORGIA: DEMOGRAPHICS, HOUSING SUPPLY, AND OBSTACLES TO MISSING MIDDLE HOUSING DEVELOPMENT

The purpose of this chapter is to present a picture of Athens, Georgia. I will present demographic information, including population, income, housing tenure, housing affordability and housing supply. I will also present information about what type of housing is being built in Athens and examine why missing middle housing is not being built in Athens.

Growing population

Athens-Clarke County is located in northeast Georgia and at approximately 120 square miles is the smallest county by land mass in Georgia[2]. The city of Athens and Clarke County formed a unified government in 1990. Athens-Clarke County (ACC) is a growing community. There are currently 126,176 people living in ACC, up 7.5% from the 2010 population of 116,714.[3] The State of Georgia and the U.S. Census Bureau projections estimate the 2040 population will be 148,264, which represents an anticipated 14% increase over the 2019 population by 2040.[4] Athens is home to the state's flagship public university and thus a large portion of ACC's population – 33,363 people, or 26.4%, is aged 18-24 (see Figure 10). The 55 and over population is expected to rise; there is an estimated 44% increase this group by 2040 (25,761 in 2020 versus

[2] Estimates of Athens-Clarke County's land area vary between 116 and 121 square miles, depending on data source and methodology.
[3] U.S Census Bureau, Social Explorer Tables: American Community Survey 2019 (5-Year Estimates). Note: students living outside of dormitories and fraternity/sorority houses are typically counted in census measures. Thus in 2019, most but the 9,424 campus-housed students would have been considered in the ACS estimates.
[4] County Residential Population 2016-2062, Georgia Governor's Office of Planning and Budget. Retrieved April 1, 2021 https://opb.georgia.gov/census-data/population-projections.

37,010 in 2040). In comparison, there is an anticipated 27% increase in residents aged 35-54 by 2040 [5]

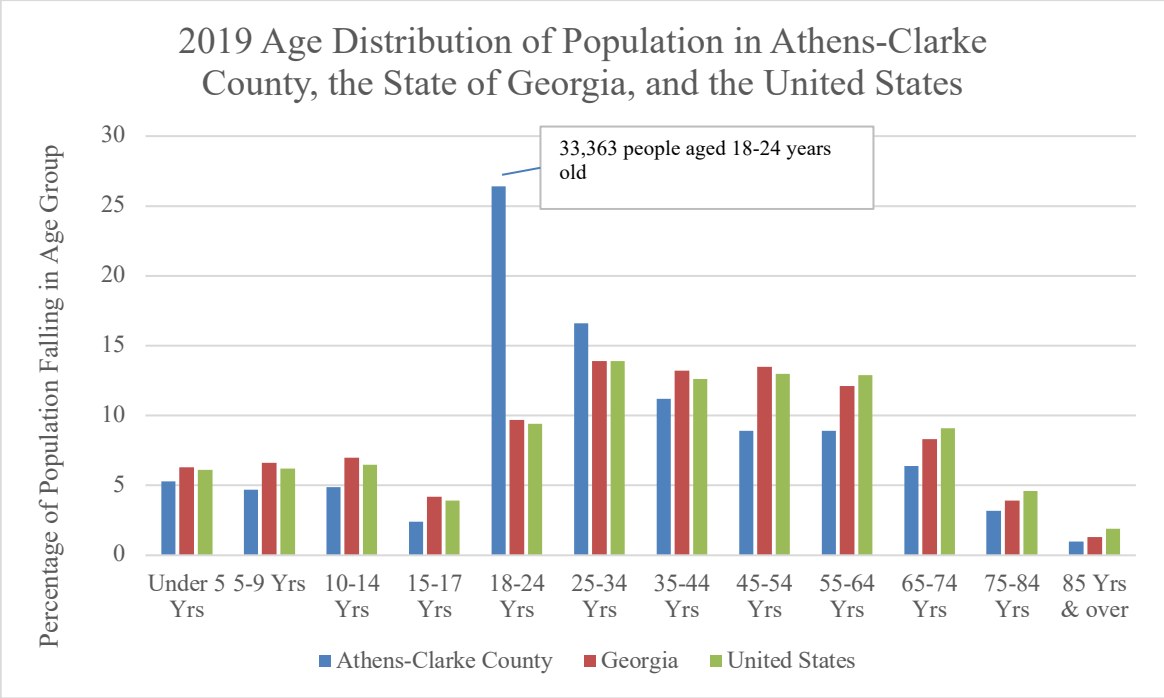

Figure 10: Age distribution in Athens-Clarke County. Source: U.S. Census Bureau, Social Explorer Tables: American Community Survey 2019 (5-Year Estimates).

Income

The U.S. Department of Housing and Urban Development's 2020 Area Median Income (AMI) for the four-county Athens-Clarke Metropolitan Statistical Area (ACC-MSA) that includes Clarke, Oglethorpe, Oconee and Madison counties ranges between $45,920 and $65,600 for a one- to four-person household, respectively.[6] Estimating poverty levels can be tricky in a college

[5] County Residential Population 2016-2062, Georgia Governor's Office of Planning and Budget. Retrieved April 1, 2021 https://opb.georgia.gov/census-data/population-projections
[6] U.S. Census Bureau, Median Household Income, Quick Facts, accessed April 10, 2021, https://www.census.gov/quickfacts/clarkecountygeorgia.

town. A useful poverty estimate that comes from the Census Bureau's Small Area Income and Poverty Estimates (SAIPE) is the poverty rate for children aged 5-17 living with their families.[7] In ACC, 26.5% of children aged 5-17 are living in families under the poverty threshold. This is in contrast with rates of 18.6% and 15.8% in Georgia and the U.S., respectively.

Housing tenure and affordability

There are more renter-occupied households than owner-occupied households in ACC. More than 61.0% of occupied housing units in Athens are renter-occupied (Table 2). This is substantially higher than the portion of renter-occupied housing units in Georgia (36.7%) and in the United States (36.0%). Conversely, the rate of homeownership (39%) in ACC is substantially lower than the national homeownership rate of 64%. According to the American Community Survey 2019 5-year estimates, 69,612 Athenians live in renter-occupied housing units. There are a total of 29,782 renter-occupied units with an average household size of 2.3 people per household.

Table 2. Housing tenure in Athens-Clarke County. Source: U.S. Census Bureau Social Explorer Tables: ACS 2019 (5-Year Estimates).

	Athens-Clarke County	Georgia	United States
Total occupied housing units	48,844	3,758,798	120,756,048
Renter-occupied housing units	29,782 (61.0%)	1,381,025 (36.7%)	43,481,667 (36.0%)
Owner-occupied housing units	19,062 (39.0%)	2,377,773 (63.3%)	77,274,381 (64.0%)

[7] U.S. Census Bureau, Poverty Rate for Children Living with their Families, Athens-Clarke County, Georgia, *Small Area Income and poverty Estimates Program*, accessed April 9, 2021, https://www.census.gov/programs-surveys/saipe.html.

Many Athenians are housing-cost burdened (typically defined as paying more than 30% of gross income on rent or mortgage (Figure 13).[8] . 53.9% of renter households and 41.4% of owner-occupied households with a mortgage are paying 30% or more of their income on their mortgage payment (2019: ACS 5-Year Estimates). In total, across the 48,844 occupied housing units in ACC (including renter households and households with and without a mortgage), 22,214 households, or 45.5%, in ACC pay 30% or more of their income on rent or mortgage. In contrast, 34.9% and 36.6% of households are housing cost burdened in the state of Georgia and the U.S., respectively.

Table 3. Housing cost-burdened households paying 30% or more of their gross income on housing costs. Source: U.S. Census Bureau Social Explorer Tables: ACS 2019 (5-Year Estimates).

	Athens-Clarke County	Georgia	United States
Cost-burdened renter households	16,060 (53.9%)	623,753 (45.2%)	20,002,945 (46.0%)
Cost-burdened households with mortgage	4,907 (41.4%)	554,677 (35.9%)	18,634,981 (38.5%)
Cost-burdened households without a mortgage	1,247 (17.3%)	133,078 (16%)	5,537,243 (19.2%)
Total cost-burdened households	22,214 (45.5%)	1,311,508 (34.9%)	44,175,169 (36.6%)

Athens-Clarke County is similar to the state of Georgia and the rest of the county in that household income is not keeping up with increasing housing costs. Table 4 shows the 2020 HUD Income Limits for households of various sizes in the Athens-Clarke County MSA. HUD Income Limits are used to determine eligibility for federal housing programs. For purposes of this analysis, workforce housing is defined as housing affordable to people making 80%-120% of the

[8] The author acknowledges that including costs of utilities and transportation (associated with location and commute length) is a more accurate representation of affordability.

area median income. The figures in these tables denote households earning 80-120% of the AMI as "workforce housing," – what they earn and what they can afford to rent or buy.

Table 4. 2020 HUD income limits for the Athens-Clarke County, GA Metropolitan Statistical Area, which includes Clarke, Madison, Oconee, and Oglethorpe counties. The shaded area indicates household income in the 80-120% Area Median Income (AMI). Source: U.S. Department of Housing and Urban Development, 2020 HUD Income Limits. Accessed April 2021, https://www.huduser.gov/portal/datasets/il.html#2020_data.

2020 HUD Income Limits for Households of Various Sizes in the Athens-Clarke County MSA				
	1-Person Household	2-Person Household	3-Person Household	4-Person Household
120% AMI	$55,104	$62,976	$70,848	$78,720
100% AMI	$45,920	$52,480	$59,040	$65,600
80% AMI	$36,736	$41,984	$47,232	$52,480
60% AMI	$27,552	$31,488	$35,424	$39,360
50% AMI	$22,960	$26,240	$29,520	$32,800
30% AMI	$13,776	$15,744	$17,712	$19,680

Tables 5 and 6 show the affordable monthly rents and home purchase prices for households of various sizes. For example, a 4-person household earning 80% of the area median income earns $52,480. The maximum monthly rent this family could afford (without becoming cost burdened) is $1,312 per month. If this family wanted to purchase a home, they could afford a home valued at $205,680, assuming a 10% down payment, 30-year conventional mortgage with 3.24% interest rate.

Table 5. Maximum affordable rent by household where the monthly rent is 30% of the monthly household income. The shaded area indicates affordable rent for households earning in the 80-120% AMI range. Calculations based on 2020 HUD Income Limits.

Maximum Affordable Rent Based on Percentage of Area Median Income Earned				
Household income	1-Person Household	2-Person Household	3-Person Household	4-Person Household
120% AMI	$1,378	$1,574	$1,771	$1,968
100% AMI	$1,148	$1,312	$1,476	$1,640
80% AMI	$918	$1,050	$1,181	$1,312
60% AMI	$689	$787	$886	$984
50% AMI	$574	$656	$738	$820
30% AMI	$344	$394	$443	$492

Table 6. Maximum affordable home purchase price for households with various income levels. The shaded area indicates house prices affordable to those earning in the 80-120% AMI range. Calculations based on 2020 HUD Income Limits using the House Affordability Calculator (https://www.calculator.net/house-affordability-calculator.html.) Assumptions include: 30-year conventional mortgage (28/36 rule), 3.24% interest rate, 10% down payment, 3% closing costs, 1.5% property taxes, 0.5% home insurance, mortgage insurance, 1.5% estimated annual maintenance costs (including repair and utilities), 28% debt-to-income ratio. For example, a family of four earning 120% of the AMI can "afford" (purchase without being housing cost burdened) a $308,520 home.

Maximum Affordable Home Purchase Price Based on Percentage of Area Median Income Earned				
Household income	1-Person Household	2-Person Household	3-Person Household	4-Person Household
120% AMI	$215,964	$246,816	$277,668	$308,520
100% AMI	$179,970	$205,680	$231,390	$257,100
80% AMI	$143,976	$164,544	$185,112	$205,680
60% AMI	$107,982	$123,408	$138,834	$154,260
50% AMI	$65,305	$81,833	$98,361	$114,889
30% AMI	$19,027	$28,944	$38,861	$48,777

Trends in median single-family home sale prices and market rents

Figures 11 and 12 demonstrate the trends in median single-family home sales prices and market rents in ACC. In July 2022 the median sale price for a single-family home was $341,167, which is a 142% increase from early 2010, when it was $140,763. The mean market rate rent across all rental homes and apartments in Athens is $1,558 monthly, which is a 139% increase from March 2015, when it was $652.

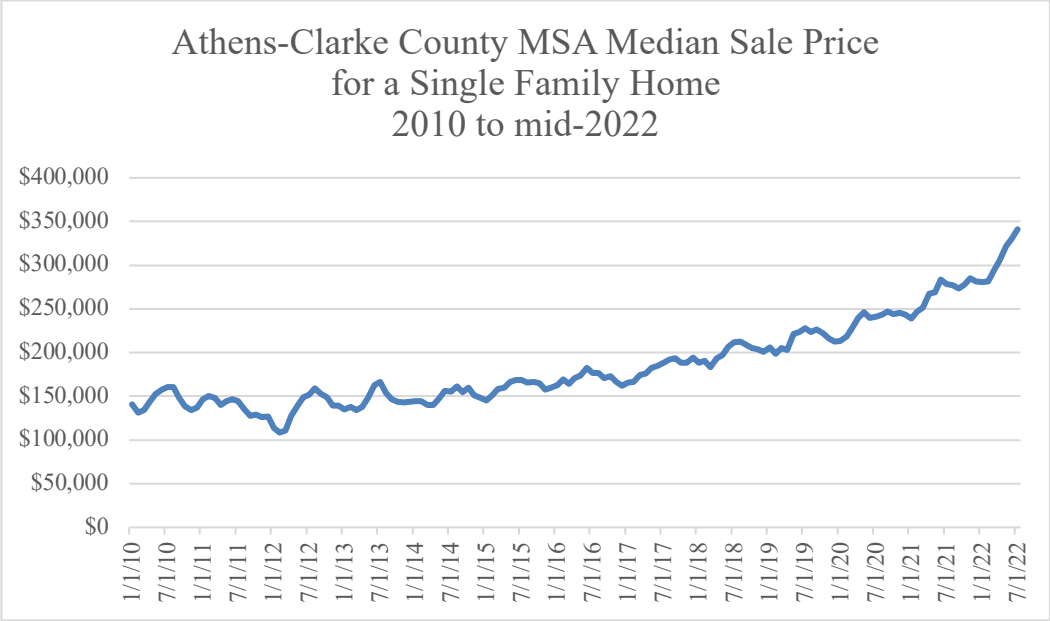

Figure 11. Median single-family home price for a home in Athens-Clarke County between 2010 and 2022. Source: Zillow Housing Data, List and Sales Price for Athens-Clarke County MSA. https://www.zillow.com/research/data/ Accessed October 1, 2022.

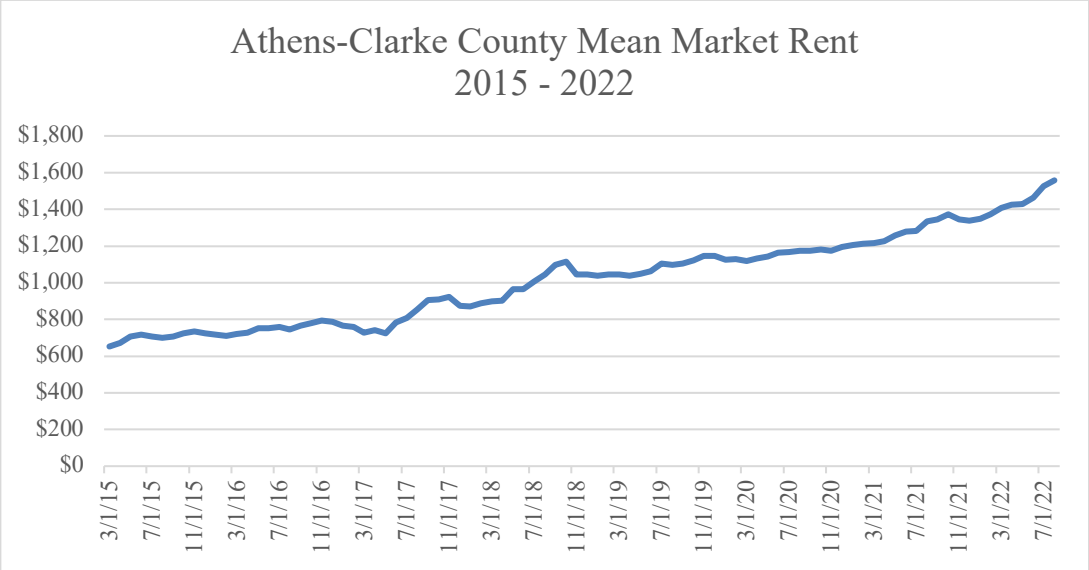

Figure 12. Mean market rent in Athens-Clarke County, 2015 – 2022. This reflects the mean of listed rents that fall into the 40th to 60th percentile range for all homes and apartments in a given region, which is once again weighted to reflect the rental housing stock. Source: Zillow Housing Data, Rentals for Athens-Clarke County MSA. https://www.zillow.com/research/data/ Accessed October 1, 2022.

Pressure from housing university students off-campus in Athens

Housing the student population in Athens has been a challenge since the 1940s, and has been the primary driver behind zoning regulations. While the University of Georgia has had on-campus living since the 1800s, it wasn't until the 1950s and later that UGA started to build large dorms to house its post-World War 2 increasing enrollment numbers.[9] In fact, it was this increase in student enrollment[10] and related housing immediately following World War II that instigated the adoption of zoning regulations for the City of Athens in 1958 and Clarke County in 1960.[11]

[9] University of Georgia, Housing History. Accessed April 2021, https://housing.uga.edu/about-us/history/
[10] The Servicemen's Readjustment Act of 1944, commonly known as the G.I. bill, provided (amongst other things) payments of tuition and living expenses to attend college for war veterans.
[11] Bruce Lonnee, Athens-Clarke County Planning Department, personal communication.

Athens has a relatively large proportion of missing middle housing typologies. In the years after World War 2, Athens residents started converting attics, basements and carriage houses into rentable spaces for students. Although the university was building dorms, it was not building dorms at a fast enough pace to house students on campus. In addition to partial or total conversions of single-family homes, modestly-scaled apartment buildings (i.e. Mathis Apartments on Lumpkin Street, Calais Apartments on Boulevard) were built in the 1940s through 70s, primarily to house students. The purpose of early zoning regulations was to guide where student housing could happen, and in fact the early zoning regulations continued to allow multi-family housing in single-family residential zones until 2000. Residents and leaders reacted to stem the tide of conversions in single-family neighborhoods, eventually pushing student living to corridors, outskirts, and eventually to downtown.

Student enrollment at the University of Georgia is increasing; total enrollment (undergraduate, graduate and professional) in 2000 was 31,288.[12] In 2021, this number was 40,118. In just over 20 years, student enrollment at UGA increased by 28.2%. During that same period, UGA increased its capacity to house students on campus by 4,099 beds. Even today with a total 2020-2021 enrollment of 39,147 students, UGA still only has the capacity to house 10,050 students on campus. Although UGA has added beds to its on-campus housing capacity since 2000, with increasing enrolment figures during that same period (adding 7,859 students since 2000, representing a 25.1% increase), UGA still only has the capacity to house 24.7% of its students (up from 18.4% in 2000), leaving as many as 29,484 students needing housing off campus in Athens and nearby communities. This is, of course, an overestimation based on a

[12] UGA Office of Institutional Research, UGA Factbook, 2021. www.oir.uga.edu

simple calculation, but even 20,000+ students seeking off-campus housing represents a substantial amount of housing needed to fulfill this need.

There have been student-oriented apartment developments in Athens since the mid-20th century, many of which were considered high-end at the time. The development of "luxury" Purpose-Built Student Accommodations (PBSAs) *outside* of downtown Athens was prevalent from the mid-80s to the late 90s, and was the impetus for updating the land use and zoning regulations to reduce sprawl and encourage more multi-family development in downtown Athens rather than at the edges of the developed area.[13] The downtown PBSA boom then came on the scene in Athens in full force starting with the 909 Broad Street complex in 2008 with 383 bedrooms (Athens-Clarke County Planning Department 2021). Purpose-built student housing is distinguished from other types of housing by their lease structure (often a by-the-bedroom leasing arrangement), unit layout (often an equal number of bedrooms and bathrooms), and amenities (pools, fitness centers, study rooms, shuttles to campus, etc.). In a two-year period between 2014 and 2016, five PBSA developments were built in downtown Athens, totaling 2,168 bedrooms.[14] Since the beginning of 2018 to April 2021, the Athens-Clarke County Planning Department had received applications for and/or approved multi-family development (50 units per development or more) totaling 11,118 bedrooms. Many of these developments appear, either due to leasing model, location, types of amenities, or marketing language, to be clearly targeted to students.

[13] Bruce Lonnee, Athens-Clarke County Planning Department, personal communication.
[14] Note that information about PBSAs in ACC is often given in terms of number of bedrooms, as that is how density is calculated for multi-family developments in ACC. The five PBSAs referred to here include: The Standard (2014, 610 bedrooms), The Eclipse (2014, 128 bedrooms), Georgia Heights (2015, 292 bedrooms), The Mark (2016, 928 bedrooms), and Uncommon (2016, 210 bedrooms). Source: Athens-Clarke County Planning Department.

One unique aspect of Athens that merits brief discussion is the relative affluence of students in Athens. Students are an important economic force in Athens and have an enormous impact on the housing landscape. According to data from the Opportunity Insights project, Raj Chetty and colleagues found the median family income of students at UGA is high relative to peer institutions (for UGA, peer institutions are other "highly-selective public 4-year institutions" (Opportunity Insights, College Mobility Report Card Tool, 2017). Students from UGA come from families with a median parent income of $129,800 (in 2015 dollars), which places UGA 5th amongst peer institutions behind University of Michigan, Virginia Tech, Texas A&M, and Georgia Tech. UGA ranks third amongst peer institutions (Behind Michigan and University of Texas at Austin) for share of students from the top one percent of family income. At UGA, 5.1% of students come from families who made about $630,000 or more per year. UGA ranks fourth amongst peer institutions (behind Michigan, Virginia Tech, and Texas A&M) for the share of students from the top fifth (20%) of family income. Fifty-nine percent of students at UGA come from families who earn $110,000 or more annually.

Although beyond the scope of this thesis, it is also important to note that Georgia is one of several states with a lottery-funded merit scholarship program. The HOPE (Helping Outstanding Pupils Educationally) program was established in 1993 and provides scholarships for students with a minimum high school GPA. Georgia's HOPE program (including the full-tuition Zell Miller scholarship) has increased the number of Georgia students who have stayed in-state for college, and drastically increased the average competitiveness of attending public institutions in Georgia. There are serious issues with merit-based scholarship programs. According to a 2014 report by the American Association of State Colleges and Universities, merit-based scholarship programs disproportionately benefit white and higher income families

(Lebioda 2014). The inequity in access to resources across demographic sectors results in an uneven distribution of lottery dollars. The eligibility requirements limit the pool of students who qualify for scholarships and often restrict funds to those students with greater financial resources in the first place. (see also Johnson 2012; Kolodner 2015; Zhan 2020; Heller and Marin 2002; Adams 2021; Lee 2020). According to the Georgia Budget and Policy Institute, 81 percent of University of Georgia students are HOPE scholarship recipients (Lee 2020). HOPE Scholarships cover about 79 percent of tuition at UGA; HOPE recipients at the University of Georgia get more than $176 million in state financial aid. The likelihood of HOPE or Zell Miller scholarship increases with family income. This point is relevant to a discussion of housing affordability in a college town such as Athens because, although research is lacking in this area, one might logically conclude that a significant number of families whose children attend UGA have college savings funds that are freed up by their student's receipt of a HOPE scholarship. It would be difficult to quantify the impact of this on the Athens economy, but is worthy of mention in this discussion.

Housing types and tenure

Athens-Clarke County has relatively lower proportion of its housing stock in detached single-family homes (46.7%) compared to the 4-county metropolitan statistical area (of which Athens is a part), Georgia and the United States with 57.7%, 66.3%, and 61.6%, respectively (see Figure 13). In fact, Athens has a substantially higher proportion of its housing units in 2- to 19-unit structures. 38.1% of housing units are in attached single family (townhouses, duplexes) and small multi-family (up to 19 units) compared to Georgia (18.4%) and the U.S. (23%).

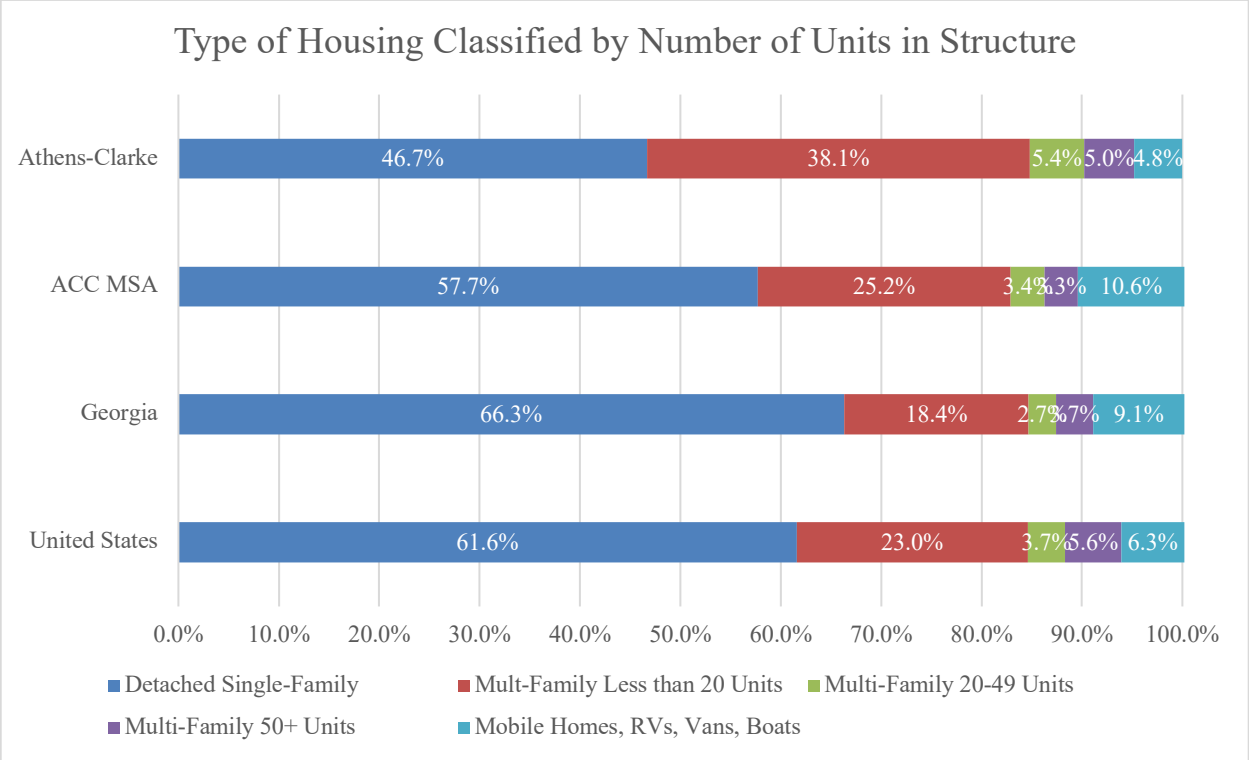

Figure 13: Type of Housing in Athens-Clarke County classified by number of housing units in the structure across four geographies (Athens-Clarke County Metropolitan Statistical Area, Georgia, and the U.S. Source: U.S. Census Bureau Social Explorer Tables: ACS 2019 (5-Year Estimates).

Athens has a relatively larger number of housing in 2–19-unit structures; however, Athens may also have relatively higher demand for this type of housing than a town less impacted by the needs of off-campus student housing. While it might be tempting to conclude from this that Athens has "enough" missing middle housing (if a generalization can be made that structures with 2-19 units are MMH), the prevalence of this housing typology reflects primarily on Athens' history as a college town hosting the state's flagship public university and its large student population.

I explored the idea that college towns tend to have proportionally more housing in structures with 2-19 units by examining other college towns. Table 7 shows six U.S. cities

typically thought of as "college towns," the state of Georgia, and the U.S. The college towns have a higher proportion of mid-density housing units (in 2–19-unit structures) than in the state of Georgia or in the U.S. Mid-density units are overwhelmingly occupied by renters; all six cities and the state of Georgia have higher than 79% of these mid-density units occupied by renters, although all are substantially higher than the U.S. as a whole with 73.7% of mid-density units occupied by renters. It is important to be cautious with drawing conclusions about what it means that the majority of mid-density units are occupied by renters nationwide. The current stock of middle-density (2-19 unit) housing is serving mostly rental households, which occupies an important housing niche. Increasing missing middle housing typologies may continue to offer rental opportunities or may give rise to new ways of thinking about this style/size of housing.

	"College Towns"						State of Georgia	United States
	Athens, GA	Tuscaloosa, AL	Ann Arbor, MI	Corvallis, OR	Blacksburg, VA	Madison, WI		
Total number of occupied housing units	48,844	35,264	47,765	23,083	13,403	110,294	3,758,798	120,756,048
Number of (and percentage of total) occupied housing units in 2–19-unit structures	18,671 (38.2%)	10,562 (30.0%)	20,521 (43.0%)	8,163 (35.4%)	7,150 (53.3%)	36,552 (33.1%)	676,815 (18.0%)	27,356,791 (22.7%)
Number of (and percentage of total) housing units in 2–19-unit structures that are **renter-occupied**	17,396 (93.2%)	10,063 (95.3%)	16,480 (80.3%)	7,594 (93.0%)	6,685 (93.5%)	29,102 (79.6%)	551,844 (81.5%)	20,161,493 (73.7%)

Table 7. Comparison of proportion of occupied housing units in 2–19-unit structures and their tenure in college towns, the state of Georgia, and the United States. Source: U.S. Census Bureau and Social Explorer Tables: ACS 2019 (5-Year Estimates).

Building trends in Athens-Clarke County

Very few mid-density (2-19 units per structure) structures have been built in Athens since 2010. In fact, single-family home construction is also low compared to historic levels. One way to estimate development of mid-density housing stock in Athens is to look at the age of structure present-day households report living in by the type of structure (single-family, mid-density, etc.). Figure 14 represents the distribution of households by the year the structure was built and by type of housing (based on the number of units in the structure).[15] Much of the single-family and mid-density housing development occurred in Athens between 1960 and 2009, and since 2000 housing development overall has declined, particularly since 2010. The development of mid-density (2-19 unit) structures seems to have peaked between in the period between 1980 and 1999. As will be discussed below, multi-family development in Athens has experienced a sharp increase since 2018.

[15] This data does not distinguish between detached and attached single family homes, thus townhomes are combined with detached single-family homes.

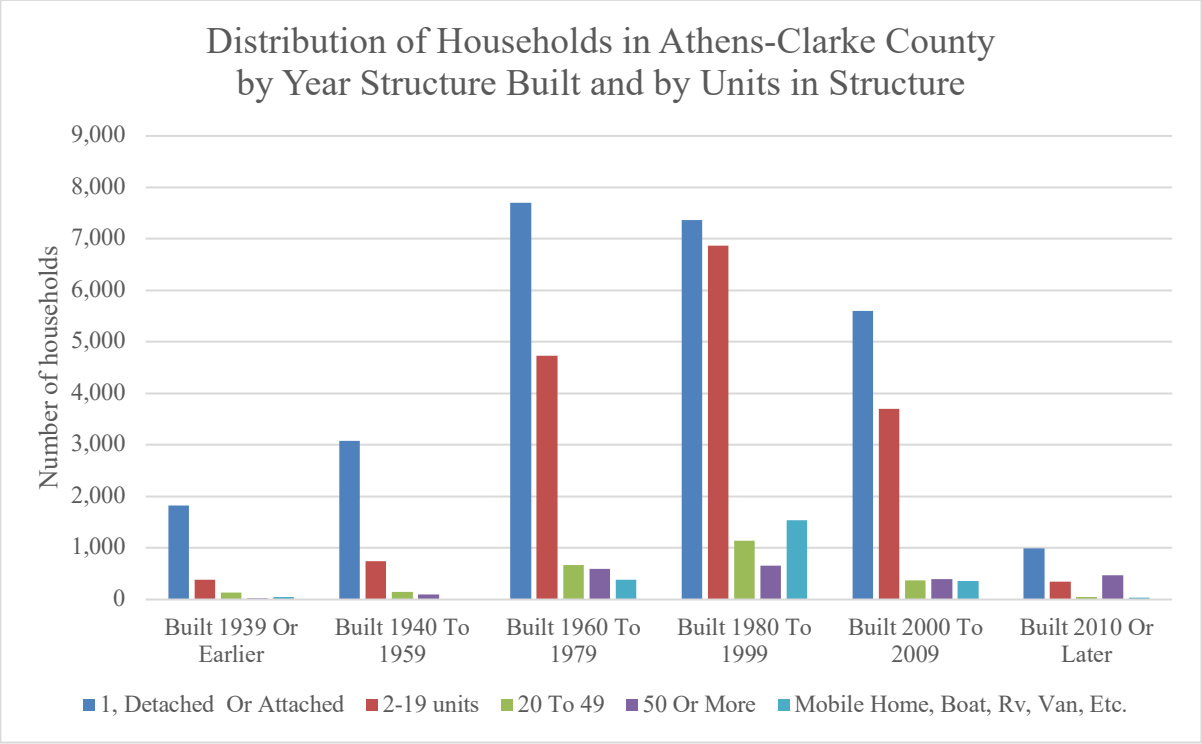

Figure 14. Distribution of households in Athens-Clarke County by the year the structure was built and sorted into units per structure. Source: U.S. Census Bureau and Social Explorer Tables: ACS 2019 (5-Year Estimates).

Building permit data retrieved from HUD for the period between 2000 and 2019 indicates that Athens is building a high proportion (45.8%) of its new residential construction in multi-family structures relative to the state of Georgia (22.2%) (Table 8). (Both Athens and the state have a high proportion of multi-family construction (91.2% and 93.4%, respectively) in structures with 5 more units per structure.

Table 8. Building permits issued in Athens-Clarke County between 2000 and 2019. Source: U.S. Department of Housing and Urban Development, *State of the Cities Data Systems.* Retrieved April 2021, https://socds.huduser.gov/permits/.

	Athens-Clarke County	State of Georgia
Total Housing Unit Permits Issued (2000-2019)	14,211	1,226,783
Units in Single-Family Structures	7,697 (54.2%)	954,397 (77.8%)
Units in Multi-Family Structures	6,514 (45.8%)	272,476 (22.2%)
Portion of Multi-Family Permits in 2-Unit Structures	*412 (6.3%)*	*7,884 (2.9%)*
Portion of Multi-Family Permits in 3-4 Unit Structures	*161 (2.5%)*	*10,209 (3.7%)*
Portion of Multi-Family Permits in 5+-Unit Structures	***5,941 (91.2%)***	*254,383 (93.4%)*

*Note: one permit = one unit. For example, a development with 20 apartments would show up as 20 permits.

Figure 15 represents data obtained directly from the Athens-Clarke County Department of Building Permits and Inspections. Single-family home development dropped off in 2009 and, although it has increased somewhat since then, has never returned to pre-2008 recession levels. On the other hand, the number of units of multi-family housing has shown a marked increase over the past decade. Although this data does not make the distinction between a mid-rise 100+ unit apartment complex and a 10-apartment courtyard apartment building, the author is aware of several student-oriented apartment buildings that likely account for the majority of the multi-family development.

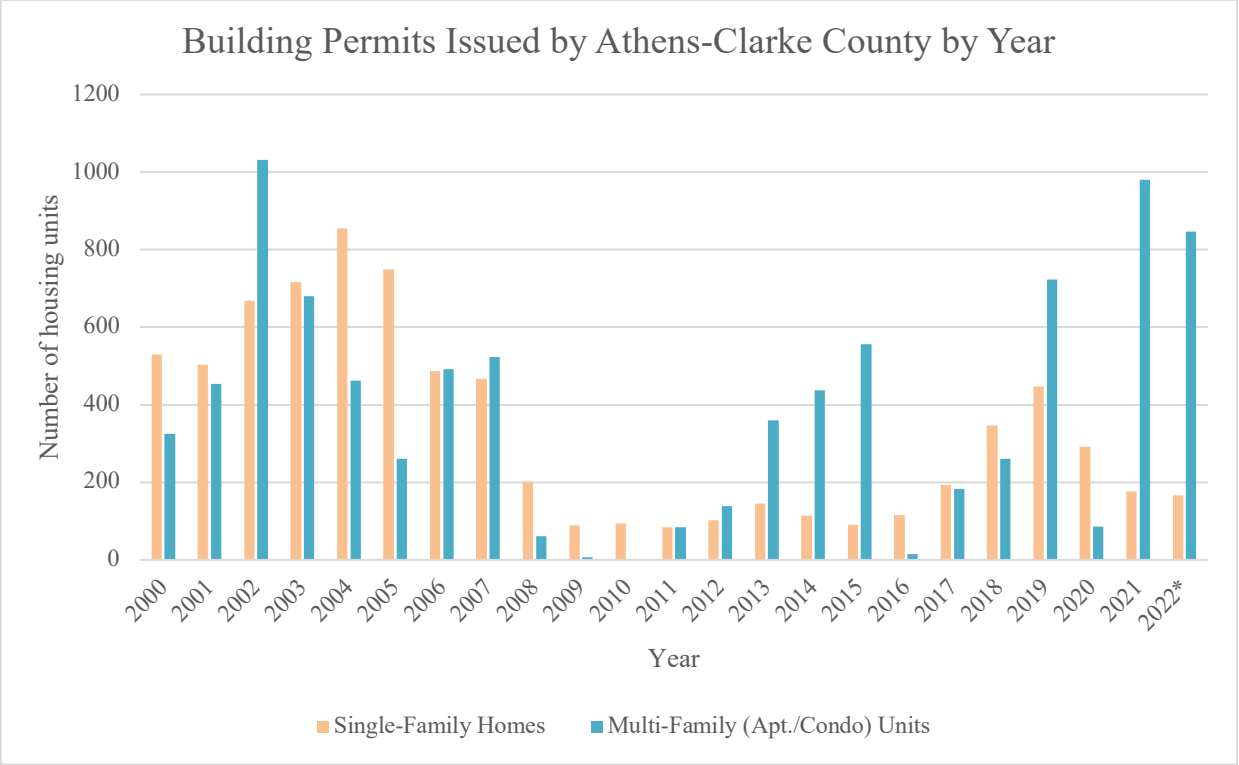

Figure 15. Building permits issued by Athens-Clarke County Department of Building Permits and Inspections from 2000 to mid-2022. The asterisk (2022*) denotes through August 2022. Source: Athens-Clarke County Department of Building and Inspections.

This trend is also supported by the Georgia Initiative for Community Housing Athens Team. Their report includes a 2015 Inventory and Assessment of Multifamily Rental Developments in Athens, which found that the majority of new multi-family housing development in Athens between 2005 and 2015 is “purpose-built” student housing apartments (GICH 2019). Multi-family apartments are by far the most common housing type being built in Athens.

Housing preferences

There has been some effort put toward understanding housing preferences of Athenians in the past decade. In 2015 Athens-Clarke County Unified Government commissioned the Athens Workforce Housing Study to investigate workforce housing needs and preferences in the county (APD 2016). The study's authors defined workforce households as "those with earned income from 60-120% of the area median income that may be insufficient to secure decent housing in reasonable proximity to local job centers." The study examined the Athens housing market and conducted a housing preferences survey. They found that multifamily residential construction is the dominant driver of new development in Athens, that Oconee county is developing single family homes at a ratio of 4 to 1 compared with Athens-Clarke, and concluded that there is a severe deficit in new housing development most desired by the workforce in Athens. Of note, survey respondents expressed a preference for single-family homes. They cited the Inventory and Assessment of Multifamily Residential Developments in Athens by John Wall and Associates (2015) to underscore the lack of workforce housing being developed in the decade prior to the study. In particular, according to the Wall study, only three of the 19 apartment complexes built between 2005 and 2015 were targeted for working families. Of the 2,255 apartments built in Athens during that period, 67% were considered student apartments. They found that the senior housing sector is the only multifamily segment more neglected than the workforce segment.

Another process undertaken by ACC community leaders was the Envision Athens Community Assessment (Envision Athens 2017). The assessment reiterated that much of the residential construction in ACC had been focused on multi-family projects. The authors found that between 2005-2015, there were 19 apartment developments with 2,255 new units built in Athens. Sixty-seven percent of those units are considered student apartments or housing. Only

eleven percent of multifamily units built between 2005- 2015 are considered workforce housing. They also found a zero percent vacancy rate for senior housing in the community, indicated an unmet demand. They stated there are limited housing options for households earning 60-120% of the area median income, and that there is a substantial gap between affordability and availability.

A brief note about housing supply shortage: In the Athens Missing Middle Housing Scan, Opticos authors stated that by 2040, ACC is projected to become home to an additional 26,425 residents (Opticos Design, Inc. 2022). Using the average household size for ACC (2.36 people), that means an additional 11,197 units over the next 18 years, or an annual average of 622 units, need to be built in order to keep up with population projections.

Why isn't new missing middle housing being built in Athens?

Zoning

At approximately 120 square miles, Athens-Clarke County (ACC) has the smallest land area of all of Georgia's 159 counties[16]. With its small land area and scarce amount land available for residential development, land costs are high in ACC, which drives up the cost of housing. Over 60 percent of land in the county is zoned for either low-density residential use (as low as 1 unit per 10 acres) or for uses that prohibit residential development. Of the 40% of land where residential development is allowed, the majority (69%) is zoned for single-family residential use. Currently in ACC, single-family residential zoning prohibits all residential typologies except single-family detached dwellings. The only exception is in the two smallest-lot residential zones (RS-5 and RS-8, with 5,000 square foot and 8,000 square foot minimum lot area, respectively),

[16] Estimates of Athens-Clarke County's land area vary between 116 and 121 square miles, depending on data source and methodology.

2- and 4-unit single family attached units (defined as two dwellings sharing a common vertical wall functioning as the property line) are allowed if they are part of a 2-acre (or more) subdivision.

As shown in Table 9 over 36% percent of the land in ACC is zoned Agricultural-Residential. Nearly 10% of ACC's land is owned by government and institutional entities, including federal, state and local government and the University of Georgia. Nearly 12% of the land is zoned for employment or industrial use. Over 2% of the land is park land.

Table 9. Percentage of land in each zoning classifications in ACC and type of residential construction allowed. Source: Athens-Clarke County Planning Department.

Athens-Clarke County (ACC) Zoning Classification	**Portion of land in ACC**	**Residential allowed?**
Agricultural-Residential	36.44%	1 single-family dwelling per 10 acres
Single Family Residential	27.37%	1 single-family dwelling per lot
Employment/Industrial	10.21%	No
Government/Institutional	9.98%	No
Commercial	7.23%	16-24 bedrooms per gross acre in 4 commercial subcategories; 200 bedrooms per gross acre in the commercial-downtown subcategory
Mixed Density Residential	5.08%	Three sub-categories (RM-1, RM-2, RM-3), which allow 16, 24 or 50 bedrooms per gross acre, respectively
Parks	2.13%	No
Employment-Office	1.53%	Total residential square footage shall not exceed 20% of total square footage of development

Economic/Market and Regulatory Factors

As land values have skyrocketed, and land development and home construction costs increase, it has been increasingly difficult to build housing and sell it at a price affordable to the workforce. While a developer used to be able to buy a piece of land for a reasonable price and build a starter home, land values, particularly in high-demand areas, make this nearly impossible. In her September 2022 New York Times article *"Whatever happened to the starter home?"* Emily Badger argued that the economics of the housing market and the local rules that impact it have made developing entry-level "starter" homes nearly impossible (Badger 2022). She described how, as land grew more expensive, communities did not respond by allowing housing on smaller pieces of land. In fact, they did the opposite. The increased the rules about what builders could build and ensured that they could not construct smaller, more affordable homes.

She interviewed several developers, and the following excerpts from the interview give a flavor for this history:

> *"When we started out 20 or so years ago, we could buy a lot for $10,000-$15,000, and we could build a home for under $100,000," said Mary Lawler, the head of Avenue Community Development Corporation in Houston, a nonprofit developer. "It was a totally different world than we are in today."*
>
> *In Portland, Ore., a lot may cost $100,000. Permits add $40,000-$50,000. Removing a fir tree 36 inches in diameter costs another $16,000 in fees. "You've basically regulated me out of anything remotely on the affordable side," said Justin Wood, the owner of Fish Construction NW.*
>
> *In Savannah, Ga., Jerry Konter began building three-bed, two-bath, 1,350-square-foot homes in 1977 for $36,500. But he moved upmarket as costs and design mandates pushed him there. "It is not that I don't want to build entry-level homes," said Mr. Konter, the chairman of the National Association of Home Builders. "It is that I can't produce one that I can make a profit on and sell to that potential purchaser."*

A development and construction industry has not developed around financing and building missing middle housing types because they have been illegal in most cities for the past few decades. Additionally, developers are not attracted to the economics of MMH development. The case studies of MMH efforts in Decatur, GA and Chattanooga, TN described in Chapter 2 of this thesis cite efforts that take economic feasibility into consideration. Larger buildings with 100+ units are usually more cost-efficient than smaller multi-unit housing smaller projects are unable to absorb risk as well as large projects. Larger developers looking for high returns on their investment are much less likely to build MMH types unless they come up with new and creative approaches to increase their economic return.

Regulatory considerations affect the economic viability of MMH construction projects. Residential buildings with four or more units require consideration under the Fair Housing Act to ensure that the people with special needs or aging people have their unique needs met (Parolek 2020). This can add cost and complexity. MMH types with more than two dwelling units are subject to the same International Building Code (IBC) as larger multifamily buildings. The IBC is stricter and more expensive than the International Residential Code, and many small developers are less familiar with IBC code requirements.

A condominium ownership model can be appropriate for some for-sale MMH types, but it is complicated.[17] The style of ownership can be applied to each unit in a duplex or triplex or to each small home in a bungalow court. Condominium development can be tricky; many projects require builders to purchase additional insurance to protect them construction defect laws that set

[17] Condominiums are often thought of as a housing typology; however, condominium refers more generally to a type of ownership model wherein units in a multi-unit complex are individually owned and common spaces are shared in joint ownership.

higher construction-warranty standards for condos than houses or apartment buildings (Parolek 2020). Loans for condominiums can be complex and there are often many parties involved, including the government. Construction lenders often require a large number of the condominium units to be presold prior to lending money. It can be more difficult for buyers to get a mortgage for a condo, particularly if it is a Federal Housing Administration loan, which requires a set of conditions that are difficult for prospective buyers to control[18]. In October 2019 the FHA modified its rules to grant mortgages for individual condos in an unapproved project if the certain criteria are met[19]. Condominiums often must have a homeowner's association to manage the shared spaces and maintenance, which can be cumbersome and expensive. In a housing market like the one in Athens, Georgia, condominium lending is scarce, rendering it even more difficult to obtain a condo loan.

Impact fees, stormwater management requirements, tree removal fees, and other land development costs are an important factor in whether a builder can afford to develop affordable housing. In Badger's article (2022), she writes:

> *"This mix of good intentions (energy efficiency, tree preservation) and exclusionary ones (aesthetic mandates, minimum lot sizes) has pushed up the cost of building on top of the rising cost of land. Cities have also shifted more of the burden for funding public infrastructure like parks and sewer systems off taxpayers and onto homebuilders. The result today is that a builder who can put up only one home on an expensive piece of land will construct a large, expensive one."*

[18] Such as: at least 50% of condo units in the development must be owner occupied; no more than 15% of the units in the complex can be more than 30 days behind on their association dues; and no more than 30% of the units have FHA loans.

[19] The condo project must be completed; in a development with less than 10 units, only 2 can be FHA insured; in a development with more than ten units, a maximum of 10% of the units can be FHA insured; at least 50% of the units must be owner occupied.

This is no less true in Athens, Georgia. Stormwater management rules, for example, not only limit the amount of impervious surface that can be added to a piece of land, but substantially add to land development costs. Although in principle I agree with the spirit of such rules, they undoubtedly add to construction costs and interfere with affordable housing goals. In a place like Athens-Clarke County, where land is scarce and land available for residential development is even more scare, the obstacles to building missing middle housing are many.

In conclusion, Athens-Clarke County is a growing city with a large university student population and an anticipated increase in the 55 and older segment of the population. There is a high rate of poverty and much of the housing on the market is unaffordable to the middle-income households earning 80-120 percent of the area median income. Athens has experienced a boom in multi-family student housing development, and single-family and mid-density (2-19 units per structure) construction has plummeted. Despite a strong preference for single-family homes, they are not being produced and it is not reasonable to expect that building detached single-family homes is the way out of Athens' housing crisis. It is nearly impossible to construct new missing middle housing typologies because of zoning barriers, economic factors and regulatory barriers. MMH may nevertheless be an important way to meet housing demand and preferences of Athenians. While there will always be households that prefer the detached single-family home, MMH can provide choices for those who do not want to live in large multi-family apartment buildings and would prefer to live in small-scale multi-family in order to have a human-scale, less car-dependent lifestyle. The next chapter will propose a set of recommendations for how Athens can increase the supply of house-scale small multi-family housing.

CHAPTER 5

INCREASING THE SUPPLY OF MISSING MIDDLE HOUSING IN ATHENS, GEORGIA: CHALLENGES AND OPPORTUNITIES

In this chapter I explain why I believe it is important to re-legalize the construction of missing middle housing in Athens, describe efforts to date that have laid the groundwork in support of this idea, and outline my recommendations for increasing the supply of missing middle housing in Athens-Clarke County. I conclude by discussing ways that the reintroduction of missing middle housing could increase the supply of affordable housing for moderate income households in Athens.

Why is it important to encourage the construction of missing middle housing in Athens?

Housing supply is not keeping up with the needs of the current (or projected future) population in Athens. Athens might currently have enough units to house its current and projected population over the next few years, but the type of housing units being developed in Athens (apartment units in large buildings) is not the type of housing (single-family) Athens needs in order to meet the demands of Athens' current and future residents. Missing middle housing typologies could play an important role in meeting this demand. In their 2021 Missing Middle Housing Scan report for Athens, Opticos Design, Inc. found that with ACC's projected addition of 26,425 by 2040, there will need to be an additional 11,197 housing units over the next 18 years (assuming 2.36 average household size) (Opticos 2022). They estimated this would require the construction of approximately 622 new housing units per year. While it is difficult to precisely know the housing preferences of Athens-Clarke County residents in the next 18 years, nation-wide projected

changes in demographics and housing preferences described in Chapters 2 and 4 indicate a growing demand and preference for a type of housing that missing middle housing typologies could help to deliver. Locally in Athens-Clarke County, the estimated population growth in people aged 55 and over alone is a strong argument for building house-scale multi-unit housing in walkable areas.

Single-family home development in ACC has declined over the past two decades while multi-family apartment development has risen. New missing middle housing typologies are scarce; between 2000 and 2019, only 573 units of housing have been developed in structures containing between 2 and 4 units. This rise in multi-family development, much of which is apartment buildings purpose-built for the university student population, is increasing the number of apartment dwelling units but not meeting the rising demand for non-student housing, particularly housing that is affordable to the workforce or retiring population in areas well-served with infrastructure and amenities.

With the scarcity of land, high land prices, zoning and development obstacles, and increasing pressure from outside corporate investors, second home buyers, and student housing developers, Athens needs to come up with ways to increase housing supply with an eye toward housing affordability and minimizing uncontrolled urban sprawl. ACC will not fill its housing supply and affordability gap by continuing to build large multifamily student apartments and detached single-family homes. The re-legalization of MMH can play an important role in meeting this demand.

Laying the groundwork: local working groups and reports in Athens 2015 to present

Community leaders and planners in Athens have been thinking about housing affordability for the past 20 years, and more recently have set the wheels in motion to address the problem. There are been several working groups and reports, including the 2016 Workforce Housing Study (APD 2016) and the report produced by the Georgia Initiative for Community Housing Athens Team (GICH 2019). The Workforce Housing study recommended several tactics for ACC, several of which are relevant to this discussion:

- Establish a targeted workforce or employer assisted housing initiative
- Provide a property tax abatement to incent investment and renovation
- Establish a workforce housing trust fund
- Evaluate inclusionary zoning
- Collaborate with builder/developers to remove workforce housing barriers
- Establish a Workforce Housing Advisory Council

The 2019 GICH report included five recommended strategies to improve housing affordability in Athens:

- Invest in an Affordable Housing Special Revenue Fund that could be used to develop affordable housing units;
- Incentivize inclusionary development;
- Identify opportunities for redevelopment by developing an inventory of properties based on several criteria, including access, size of parcels, current zoning, ownership situation, blight/abandonment, etc.
- Solidify code enforcement practices

- Combat displacement of existing neighborhood groups

The GICH authors specifically pointed out Athens' relatively high share of missing middle housing types and stated that this type of housing creates a "stepping stone" between apartment buildings and single-family homes and enable different forms of ownership (GICH 2019).

The 2017 "Envision Athens" process, a precursor to the 2018 Comprehensive Plan, identified the following in its Community Assessment: the housing market is heating up, but mostly in multi-family construction; most new multifamily housing is student apartments; there is a need for workforce and senior housing; and there are limited housing options for households earning 60-120% of the area median income (Envision 2017). The 2018 Athens-Clarke County Comprehensive Plan identified as a goal for ACC to have "Housing options that reflect the diversity and meet the needs of the community, including housing for families and a diverse workforce. These are quality options with a variety of types, prices, and locations." (Athens-Clarke County 2018).

In 2020 the Athens-Clarke County Planning Commission was charged by the Mayor to develop a set of recommendations associated with land use regulation to address housing affordability. They recommended the following to the Mayor and Commission: allow accessory dwelling units in all single-family residential zones, reduce minimum floor area requirements, establish in inclusionary zoning program, remove legal impediments that prevent the construction of duplexes and cottage courts in some single-family zoned neighborhoods, amend the code to accommodate an affordable housing density bonus (Athens-Clarke County Planning Commission 2020). The Planning Commission also identified the need for ACC to further study a form-based code approach for Athens. As a result of these recommendations, an Inclusionary Housing working group was established in 2021, including planning commissioners, elected

county commissioners, and affordable housing developers and advocates. Thus far they have written and steered the 2022 passage of a local voluntary Inclusionary Zoning program for multi-family development and are currently working on enabling accessory dwelling units in single-family zones. (Allen 2022).

In 2021 Athens-Clarke County hired Opticos Design, Inc. to complete a "Missing Middle Housing Scan" for Athens, which was presented in mid-2022 and formally accepted by the Mayor and Commission in October 2022 (Opticos Design, Inc. 2022). The commissioning of the Missing Middle Housing Scan was an important step and signaled that ACC leadership is interested in the concept and might finally be serious about taking action to increase the production of missing middle housing. There is a tendency in many local governments to commission studies and then not act on the study's recommendations, and Athens is no different in this regard. For example, of the recommendations from the GICH study, only two have been partially addressed. ACC leadership has taken some steps, however. Although a replenishing Affordable Housing Special Revenue Fund has not been established, over 44 million dollars was allocated from the 2020 SPLOST (special purpose local option sales tax) revenue fund for the horizontal infrastructure development in support of a large mixed-income (including subsidized housing) development in downtown Athens (Athens-Clarke County 2020). More recently, the voluntary multi-family inclusionary zoning program was established (as noted above), and revenue associated with any payments-in-lieu of affordable unit development will be used for future affordable housing activities.

The 2022 Athens Missing Middle Housing Scan report, included in this thesis as Appendix B, includes a very detailed set of recommendations about removing barriers in the ACC municipal code around zoning and development standards in four residential zoning

categories. They also recommended that ACC make investments in neighborhoods the authors have identified as "MMH-ready." They suggest ways to create areas that are best for MMH development, including "Walkable Centers:" mixed-use, pedestrian oriented, multi-modal transportation access, and transition areas that ensure compatibility with adjacent residential neighborhoods. This scan did the initial detailed work of going through each of the four zones and identifying which types of MMH are or are not currently allowed, and how current parking minimums, density calculations, and minimum lot areas pose barriers to MMH development. They recommended that the ACC update its codes to regulate for maximum building footprint, height and parking rather than density. They recommended the removal of minimum lots sizes and advocated for establishing lot width and depth standards for each MMH type in each zone. They also recommended replacing lot coverage requirements for MMH with maximum footprint and height requirements. This report lays important groundwork for action; it not only establishes a relationship between the ACC government leadership and experts on MMH development, but also educates ACC's elected officials on how updating zoning and land use planning could enable MMH construction.

Recommendations for increasing the supply of missing middle housing in Athens

This section details several recommendations for increasing the supply of missing middle housing in Athens-Clarke County, including:

1. Set the stage with smart future land use planning
2. Create and adopt plans that specifically enable missing middle housing
3. Consider underdeveloped greyfield sites for new residential missing middle housing development

4. Learn from the experiences of other cities and don't hesitate to revise the code if it's not working as intended
5. The importance of leadership and vision: don't just "enable" or "allow" missing middle housing, actively encourage it
6. Retain as much land as possible, starting now
7. Communicate carefully, within the government and to the public
8. The importance of city-led pilot projects as proof of concept
9. Consider an affordability requirement for multiplexes
10. Consider partnerships and policies to deliver affordability

Recommendation 1: Set the stage with smart future land use planning

The Athens Missing Middle Housing Scan report is an important start to re-legalizing missing middle housing in Athens-Clarke County. The ACC Mayor and Commission should get that process started and empower ACC Planning staff, possibly with outside consultant support if needed (there are planners and firms that specialize in re-writing zoning code), to update the zoning code and development standards. However, re-legalizing missing middle housing must be supported by smart future land use planning that identifies where MMH would be appropriate/feasible and more generally where in the county additional residential density is desired and can be supported by city services and transportation options. ACC did not update its Future Land Use map when they wrote their 2018 comprehensive plan, but intends to do so in 2023.

An important caveat about timing: there are several zoning code updates that could be implemented before the recommended Future Land Use map update process described below.

This includes legalization of accessory dwelling units and townhomes, removal of minimum house size requirements, and creation of code that enables cottage courts (even if they initially may only be allowed as a special use).[20] These should be done as soon as possible – rewriting code takes time, and this process should start simultaneously with the Future Land Use Map update.

The first step of Future Land Use Map update is to revise the Growth Concept Map (GCM) (Athens-Clarke County 2008). The GCM arranges general land use character areas in the county and takes into consideration the natural environment, 20-year population growth, existing and planned infrastructure, and community development goals. It denotes major land use categories, regional, local centers, and community elements (i.e., corridors, gateways, parks, environmental areas). The GCM guides the creation of the official Future Land Use Map, which in turn provides the basis for zoning classifications. In early 2020 county planners started the work to update the GCM, but for a variety of reasons, including Covid-19 pandemic, the process was set aside. At that time, the draft GCM update went further than the most recent (2008) GCM to update some of the centers and identify East and West Urban Centers. The GCM update is the ideal opportunity to proactively identify the general areas in the county where more intense development that includes housing should be.

Unlike the Growth Concept Map, the Future Land Use (FLU) map places every parcel in Athens-Clarke County into a land use category (Athens-Clarke County 2022). These categories include: corridor business, downtown, main street business, community center mixed use,

[20] Note that cottage courts are currently possible as a planned development (PD) rezone, but PD rezones must be approved by the planning and county commissions, so there is currently disincentive built in to cottage court development due to the unpredictable and political nature of that process.

employment, government, university district, neighborhood mixed use, residential mixed use, corridor residential, traditional neighborhood, and single family residential. Each of these categories has a set of allowed zoning classifications for that category. The GCM and FLU updates can help the community plan for increased housing needs by identifying ideal locations for gentle density increases (residential infill or greyfield redevelopment sites), how and where to incorporate housing into mixed use developments, and 'hot spots' (corridors and identified centers) where higher intensity development (that includes housing and commercial activities) should be actively encouraged and the corresponding infrastructure, multi-modal transportation options, and walkability be created or improved.

In this process it is also important to **g**ive special attention to minimize displacement of lower income residents. Neighborhood Revitalization Strategy Areas identified by HUD might factor into land use planning activities and policies or programs that might offer some protection. Athens-Clarke County elected leaders and management must prioritize and reinvigorate this process of updating the Growth Concept Map and Future Land Use Map as soon as possible.

Recommendation 2: Create and adopt plans that specifically enable missing middle housing

As part of the land use map updates, ACC should consider whether the concept of "small area plans" is appropriate for Athens. Small area plans address growth, improvement or preservation of a specific area of a city, and have the benefit of providing a level of detail and analysis that a county-wide plan cannot (City of Memphis 2020). The visionary City of Memphis Comprehensive Plan, "Memphis 3.0", uses small area planning to, among other things, identify priority areas where missing middle housing is desired and propose a range of MMH types for typical existing lot sizes in that area (City of Memphis 2019). Small area plans are most often

driven by community involvement to ensure that the plan responds to identified needs and provides suitable and desired solutions to issues identified by residents. One of the outcomes of a small area plan from a transitional neighborhood in Memphis was a "Vacant Lot Activation Toolkit" to determine appropriate solutions, including MMH typologies, for development of vacant lots (Memphis 2019, 167-169). The broader "Accelerate Memphis" initiative outlines a set of investments and safety improvements in support of small area planning goals (City of Memphis 2022). Small area plans may address land use, zoning, transportation, housing, municipal service delivery, economic development, and aesthetics. They can vary in geographic scope and can focus on a specific neighborhood, commercial area, corridor, center, or a city-owned site that is ready for redevelopment. (The mall area in Athens, for example, would be a fitting geography for a small area plan. A new urban center defined during the future land use planning process is another example of where a small area planning approach could be useful.) Small area planning would also be appropriate for planning for the revitalization of an underdeveloped site with aging multi-family residential development or a dilapidated or obsolete commercial structures where missing middle housing will be encouraged. Small area planning might also be appropriate for areas identified as being at higher risk of displacement of lower-income residents due to real estate investment. Small area plans can guide policy and provide the basis for decision-making.

Another example of planning that specifically enables missing middle housing comes from one of the case studies described in an earlier chapter. Montgomery County, Maryland created a Missing Middle Housing Functional Master Plan for the entire county that identifies ideal locations for this typology and resulted in a Sectional Map Amendment to rezone appropriate areas. Athens-Clarke County might consider whether zoning overlays or proof-of-

concept areas of town would be an effective way to operationalize MMH development. Corridors where larger-scale MMH development, such as 8, 10, 12-plexes, is appropriate should be identified. MMH housing along corridors ae a good way to add MMH because county residents are already used to the higher density and level of activity along corridors, and they can provide a good transition between the higher intensity corridor and adjacent residential areas.

There are a variety of less-conventional zoning and land-use planning mechanisms that should be explored as part of efforts to increase the supply of missing middle housing.

Recommendation 3: Consider underdeveloped greyfield sites for new residential missing middle housing development

Planning new neighborhoods or mixed-use developments on greyfield sites (obsolete, failing, or underused real estate assets or land) is another important way to increase the supply of missing middle housing in the community.[21] The original intent of missing middle housing was to re-introduce MMH typologies back into established, walkable neighborhoods as a "gentle" or incremental way to increase residential density and make more efficient use of land, reduce urban sprawl, and increase housing choices. However, there may be underdeveloped sites (for examples, the mall on Atlanta Highway, the Kmart site on Barnett Shoals road) and aging multi-family developments in need of revitalization where smart planning of a large site can yield a new neighborhood or mixed-use area with missing middle housing that is located in an area of the county that is (or will be) supported with the necessary services and transportation to support

[21] New development on undeveloped "greenfield" sites could also be developed using missing middle housing principles. However, underdeveloped greyfield sites, such as abandoned/obsolete mall sites or aging multi-family developments, are preferred.

it. Opticos Design, Inc. has been engaged in several projects that responded to the needs of clients who wanted to build new neighborhoods that deliver missing middle housing and walkability. For example, the Prairie Queen development in Papillion, Nebraska was a 50-acre site where the developer wanted to build a walkable, sustainable community including 540 housing units on an empty parcel of land (Figure 16) (Opticos 2022). The Culdesac Neighborhood in Tempe, Arizona was a 16-acre site that the developers wanted to develop with 636 housing units as the first car-free neighborhood designed for shared mobility and built from scratch in the U.S. (Figure 17; Opticos 2022). Although these are both greenfield developments, the same principles of could apply to revitalizing underdeveloped large sites in Athens. It is also worth mentioning that new MMH-inspired neighborhoods might be able to take advantages of legal mechanisms (homeowner's associations, covenants, etc.) that require owner-occupancy of some or all of the units to ensure that the housing does not become student rental housing.

Figure 16. Example of the application of Missing Middle Housing principles to large-site (versus infill) development: Prairie Queen neighborhood site plan and housing concept sketches for a 50-acre site in Papillion, Nebraska. Source: Opticos Design, Inc.

Figure 17. Example of the application of Missing Middle Housing principles to large-site (versus infill) development: Culdesac Neighborhood site plan and housing concept sketches for a 16-acre greenfield site in Tempe, Arizona. Source: Opticos Design, Inc.

Allowing (or encouraging) the construction of missing middle housing building typologies on infill lots in established residential neighborhoods alone will likely not deliver enough missing middle housing to make a significant difference in housing supply and choice in Athens. The land use planning update process should include identifying potential redevelopment sites with abandoned or aging commercial or multi-family structures where missing middle housing principles could be applied to deliver a large number of MMH units and the supporting infrastructure, urban services and walkability. This might call for the ACC government to come up with developer incentives (i.e. tax abatements, gap financing) and programs that promote or require inclusion of affordable units, spot permitting, overlays, city-led proof-of-concept projects, or other mechanisms that have been historically less common in Athens.

Recommendation 4: Learn from the experiences of other cities and don't hesitate to revise the code if it's not working as intended

ACC does not need to learn every lesson about MMH implementation the hard way. ACC has the advantage of being able to learn from other MMH-enabling efforts around the country. There are abundant examples from around the county of cities, counties or states that have implemented and revised zoning changes and programs that ACC can learn from.

Many cities for example, initially legalized accessory dwelling units, such as backyard cottages or in-law suites, but with an owner-occupancy requirement. After observing that ADUs were not being built at the rate intended, some cities, such as Seattle, revised their code to remove the owner-occupancy requirement in the interest of seeing ADUs getting built to increase housing supply and housing choice. The ACC Inclusionary Housing Working Group is (as of October 2022) currently drafting an updated ordinance to allow ADUs in all single-family

residential districts and agricultural-rural districts (possibly also in some mixed-use residential districts). ACC leadership can learn from examples around the country to guide the development of the ADU ordinance.

The Portland, Oregon case study in Chapter 2 provided a clear example of MMH-enabling legislation being revised within two years of original passage in order to achieve the intended goals. Minneapolis, MN was the focus of much attention in 2018 when the city legalized the construction of duplexes or triplexers in single-family zones citywide beginning in January 2020 (Sisson 2018). This has resulted in a very small increase in duplex and triplex development, which is attributed to the fact that Minneapolis only slightly modified their regulations on how large the new housing may be, requiring the developments to fit within the same building envelope (including height and setback restrictions) as the single-family homes they replaced (Britschgi 2022). Minneapolis planners and voters continue to work on a variety of housing reforms and updates – not limited to single-family zoning updates – such as removing maximum dwelling occupancy, improving the feasibility of ADUs construction, legalizing single-room occupancy apartments, and the reduction of mandatory parking minimums (Blumgart 2022). As other cities of various sizes and levels of similarity with Athens work through the complexity of allowing missing middle housing, Athens-Clarke County can learn from these examples rather than reinvent the wheel. This process will likely be iterative; a policy change might not yield the intended results should be revisited as needed.

Recommendation 5: The importance of leadership and vision: don't just "enable" or "allow" missing middle housing, actively encourage it

Ultimately Athens-Clarke County leaders need to made a decision about whether they want the re-legalization of missing middle housing typologies to be part of their toolkit to create more housing supply, housing choice and (ideally) housing affordability. If the answer to that question is yes, ACC government leadership needs to commit to making it happen. Set housing targets and make the corresponding changes to codes and programs to achieve them. There is a tendency in Athens to let the perfect be the enemy of the good, and good initiatives often get delayed by discussions, debates, and commissioning more studies. Missing middle housing construction is not going to solve the housing affordability crisis in Athens. But that doesn't mean Athens shouldn't move forward with it. In fact, because relegalizing MMH development would be one of several strategies to address the housing problems of Athens, ACC government leadership should take the steps to enable MMH as quickly as possible with a combination of good future land use planning and zoning code updates so that other tools in the affordable housing solutions toolbox can be implemented as well.

A distinction also needs to be made by community leaders about whether the ACC local government wants to "enable" or "allow" the development of MMH or ***actively encourage*** it. Those are two very different ways of pursuing a strategy. There is a tendency for local planners to say that housing supply and affordability isn't "just" a zoning problem, and that the most they can do is update the zoning code ("set the table") and give the private market the chance to respond. This is not a reasonable expectation. Land values and other barriers identified in this thesis are such that the private market is unlikely to fill this gap, even if the zoning were updated. Removing zoning barriers is an important MMH-enabling activity. However, local government

can go further than this if, that is, ACC government leadership decides MMH development is something they want to actively encourage and invest in.

Land use planning and zoning updates can and should be accompanied by programs, outreach materials, educational resources, workshops, and other activities that encourage MMH construction. If the current planning department does not have the bandwidth to do this, then government leadership needs to make the changes that ensure that planners are given the resources they need to carry this out. For example, several municipalities have created "pattern books" or pre-approved plans for missing middle housing types, particularly with ADUs (Murphy 2022). Norfolk, Virginia has developed a Norfolk's 'Missing Middle Pattern Book' that aims to streamline permitting for multi-family housing (Ionescu 2021). South Bend, Indiana recently started a new program that offers pre-approved development templates to small-scale developers at no cost (Herriges 2021). Other cities have created websites to guide developers through the process: Seattle's "ADUniverse" website contains "how to" pages and interactive maps for property owners to see what is possible on their property (City of Seattle 2022). The Chattanooga case study demonstrated a set of guidelines created with the small developer in mind. These are not passive efforts; these are examples of cities that have decided to actively encourage missing middle housing development by supporting small developers and increasing predictability around entitlement processes and permitting.

Recommendation 6: Retain as much land as possible, starting now

The government has limited control over land it does not own. Future land use and zoning changes can be made and incentives can be offered to limit or spur developers in support of community housing goals. But if the ACC government can retain and obtain as much land as

possible for this purpose, starting now, this will be more effective. Some governments do this with land banks, which are public authorities or organizations created to acquire, hold or redevelop land so that it may be used to meet community goals. ACC government has had a Land Bank Authority in the past; its status is currently inactive. ACC could reanimate this authority, or if a land bank is not the right model for Athens, engage in other land retention activates in support of affordable housing development.

Recommendation 7: Communicate carefully, within the government and to the public

If ACC leadership truly wants missing middle housing to be built, then it must thoughtfully and actively encourage MMH development in the areas identified in the land use planning process, update the zoning code and development standards, and be as minimally restrictive as possible. This requires smart communication both amongst government officials and staff, but with the public as well.

It is important to bring the staff responsible for regulating land development requirements (such as stormwater, etc.) along in the process so that they understand that, within reason and in compliance with federal and state laws), the goal is to create more housing in the right places. Streamlining regulations and empowering county staff to act, within the law, as *enablers or partners* rather than *gatekeepers* is crucial. If everyone is clear on the community goals of creating more housing in appropriate areas, and county department directors manage their staffs correspondingly, responsible MMH developers can be viewed as partners rather than "the bad guys."

Within the relevant commissions (planning and county) and ad hoc committees formed to address housing challenges in Athens, it is critically important to not get side-tracked by

arguments about owner occupancy, short-term rental regulations, etc., that will engender enormous opposition and delay or even kill the process. ACC government leadership does not need to commission another study to prove that Athens needs more housing and that enabling missing middle housing development could be an important part of a set of solutions. The Covid-19 pandemic changed the housing picture nation-wide, but it is not necessary to precisely understand the exact current housing needs in Athens. If anything, the problem has only gotten worse since the earlier studies of Athens done since 2015. ACC government leadership has commissioned plenty of studies and undergone multiple planning processes that have underscored the need to increase housing supply, and has specifically identified missing middle housing typologies as an important strategy in the housing toolbox.

Time is of the essence. While community and government leaders argue about whether relegalizing MMH is the "perfect" solution, whether an ADU should require one versus one and a half parking off-street parking spaces, or whether backyard cottages are intrusive to neighbors, corporate investors, development companies building large tracts of rental housing, and luxury student developers will decide what kind of housing development will happen in Athens. Is that what Athens wants?

Finally, communicating to the public about why re-legalizing missing middle housing is important and demonstrating the ACC leadership has given thoughtful consideration to where in the county it is appropriate is key. Important work to update zoning codes can be killed at one contentious county commission meeting. Consider whether it is smart to present MMH as an affordability strategy. Unless code revisions are accompanied by explicit affordability programs, it is not a guaranteed way to deliver affordable units. Just down the road in Decatur, Georgia, city planners are struggling to move forward a plan to update their Unified Development

Ordinance to allow duplex, triplex and quadplex residential units in some of their single-family residential zoning districts. On October 11, 2022, the Decatur planner who oversees affordable housing initiatives, Kristin Allin, presented the plan to an audience that can be described as hostile. (Stewart 2022). Although the initiative is not dead and still has a long way to go, it would behoove Athens planners (including professional planning staff, appointed officials, advocacy groups, etc.) to understand the type of resident opposition it is likely to receive and formulate a plan for addressing the concerns. Importantly, Athens-Clarke leadership can utilize the Athens 2022 Missing Middle Housing Scan and its new relationship with Opticos Design, Inc. to guide a thoughtful communication plan. Re-legalizing missing middle housing is an important concept in 21st century urban planning. Is it best to try to "sell" it to communities as an affordable housing solution when the evidence for that is scarce? Or are the other arguments in favor of it – reduction of sprawl, more efficient use of land and urban services, increased quality of life due to walkability, reduction in car dependency, and reduced commuting times – a better way to communicate about it? Community leaders should give this serious thought as they move forward with MMH strategies.

Recommendation 8: The importance of city-led pilot projects as proof of concept

As described earlier in this thesis, less than an hour from Athens is the city-led model cottage court pilot project underway in the city of Decatur, Georgia. Athens leadership should pay attention to this project and learn from it. The ACC government can work with partners (investors, developers, non-profits, etc.) to identify an appropriate MMH pilot project location and typology in Athens. This author recommends a developing a larger (8-12 unit) multiplex on a corridor. Such a project would have high visibility and show the community that such a thing is

not only possible but also attractive. A corridor project might engender less opposition as corridors already have higher levels of traffic and noise. Athenians who speak up at Planning and County Commission meetings are often concerned that more intense residential development will bring more traffic into their neighborhoods, so a pilot project with an eye toward keeping the new traffic generated by the multiplex development on the corridor (and not into the neighborhood) would be a wise approach. As in the Decatur project, units can be set aside as affordable to a target household income level.

Another way to approach a pilot project is to establish a partnership with a developer with vision and goals that align with ACC's housing goals. A developer such as the firms described in the Prairie Queen and Culdesac developments described above might be the right partner. A smaller developer who wishes to develop on a smaller (2-5 acre) infill site might also be appropriate. While such a project can be primarily supported by private investment, there are many ways the city can support the project, either through land donation or administrative/regulatory incentives.

Recommendation 9: Consider an affordability requirement for multiplexes

As we learned from the Portland, Oregon example, it is possible to include in MMH-enabling legislation a requirement that multiplexes contain affordable units. In the case of Portland, four- and six-plexes are allowed in single-family zones if at least half the units are made available to low-income residents at regulated, affordable prices.

Recommendation 10: Consider partnerships and policies to deliver affordability

Missing middle housing development will not necessarily be affordable. Based on the calculations presented in the previous chapter, a home affordable to 4-person Athens household earning 80-120% of the area median income can cost a maximum of between $205,680 and $308,520. A rental unit affordable for a 2-person household in this income demographic must cost between $1,050 and $1,574 maximum per month. Proponents of enabling missing middle housing development speculate that MMH typologies might be more affordable because the land purchase and development cost can be spread across multiple units, the smaller size of the homes, and simpler construction techniques. However, land values, land development costs (sidewalks, curbs, trees, water, sewer, stormwater), and construction costs are likely too high to support the economic feasibility of missing middle housing projects. This is particularly problematic in Athens, where much of the "developable" land for sale is either too expensive or being sold because there are factors, such as floodplains, sewer easements, problems with slope, absence of city water, sewer and roads, etc., that make developing the land prohibitively expensive.

Increasing the supply of housing and creating more housing choice should reduce the intensity of the housing demand in Athens and bring prices down. Eric Kronberg, Atlanta-based architect and housing choice advocate, argues that "if housing doesn't exist at all price points, higher income people will 'buy down the ladder,' leaving the fewest options for those with the lowest incomes" (Ward 2019). The current conditions in Athens are such that a household earning an annual income of $200,000 is competing for the housing with a household earning $100,000 per year. Housing scarcity, Kronberg argues, hits people with lower incomes the hardest (Kronberg 2020). There is skepticism in the literature and anecdotally that increasing

housing supply will address housing affordability. This is often based on the suspicion of the idea that creating supply at all price points relies on a "trickle down" theory. It is also based on a concern that if leaders focus too much on increasing supply, they will allow housing to be built "all over the place" and lose sight of other community values, such as sprawl reduction, walkable/bikeable communities, and environmental quality. It is important that leaders stay focused on facilitating the development of more housing, with a variety of typologies, built in the 'right' places (as determined through an intentional land use and transportation planning process).

It appears unlikely that the private market will deliver missing middle housing in walkable areas that is also affordable to middle income households. If the Athens community wants to encourage the development of new missing middle housing to explicitly generate affordable housing units, then it must seriously consider programs and partnerships to achieve that goal. There are several examples of partnerships, policies or programs that could increase affordability of MMH units.

Community Land Trusts

One approach to ensuring affordability is the Community Land Trust (CLT) model. CLTs are a form of shared-equity homeownership (others include deed-restricted homeownership and limited-equity cooperatives). These approaches "insulate homes from the price pressures of the private market and share equity between homeowners and the community to allow for both asset building and continued affordability" (Axel-Lute 2021). Community Land Trusts (CLTs) are non-profit organizations that provide shared equity homeownership and affordable rental opportunities. The classic CLT model is led by a "tripartite" board made of up CLT residents,

community members and other stakeholders and experts. The organization uses donated land, government subsidies, and private fundraising to develop or rehabilitate homes that it sells to income-qualified buyers at a below-market price.

At the time of closing, the CLT and the homeowner enter into a ground lease agreement that establishes a limited equity resale formula if the owner wishes to sell the home. The resale formula establishes an upper limit on the sale price of the home. The home is sold either back to the CLT or directly to another income-qualified household. As the ground leases are often renewable for 99 years, this model ensures permanent affordability of the home. CLT homeowners own their homes and build equity by paying toward their mortgages. The homeowner owns the home and has all conventional rights to the land enjoyed by any homeowner including the right to bequeath the home to their heirs. The ground lease also ensures the home will remain owner-occupied. CLTs are unique from other affordable housing models (i.e., deed restrictions, 15- or 30-year affordability periods associated with Low Income Housing Tax Credit projects, or inclusionary programs that do not include a permanent affordability provision, etc.) in that they ensure permanent affordability. CLTs can also operate as affordability partners in inclusionary housing developments and could play a role in ensuring affordability in missing middle housing developments. They could, for example, be the mechanism for ensuring affordability of 2 units in a new six-plex.

Unlike many cities around the country, Athens already has a Community Land Trust: Athens Land Trust (ALT). ALT's implementation of the Community Land Trust model stewards a one-time community investment in affordable housing, usually in the form of a construction grant under the federal HOME Investments Partnership program, to create housing that will never revert to market rate housing or unaffordable rental properties. In 20 years, ALT has

produced (either through rehabilitation or new construction) over 60 single-family homes and partnered with a low-income tax credit developer to ensure the affordability of 96 rental units. ALT could become a partner to ensure affordability as ACC works to increase its housing supply. It is important to note that ALT's association with the ACC government is only related to funding. The ACC Department of Housing and Community Development administers the federal funding that subsidizes ALT's development of affordable housing units. So, while Athens "has" a community land trust, it is entirely independent.

ALT is a separate entity and their interest in partnering with ACC government in its missing middle housing efforts to ensure affordability for moderate-income or workforce households may be limited. The current mission of ALT is to develop affordable housing opportunities to households earning less than 80% AMI. Their programmatic funding, which comes from Community Development Block Grant funds, specifies this. The challenges of working with ALT are twofold: the ALT Board of Directors would need to be interested in and willing to expand the scope of ALT's work to provide affordable options for 80-120 % AMI (versus 80% AMI or below). If the interest is there, ALT would need to receive a new (additional) source of funding to support any activities that support households earning between 80 and 120% AMI. In the larger picture this could be a relatively small annual investment by the city consisting of 1-2 full-time salaries and programmatic overhead dedicated to workforce housing development.

Additionally, Athens Land Trust has a very specific mission of serving residents in historically marginalized neighborhoods and may have limited interest in creating affordable units for higher (but still moderate) income earners in neighborhoods not identified as priority neighborhoods for ALT. The question of whether the current CLT in Athens is interested in

expanding its mission is important; if ALT wants to stay focused on the 80% or below income level, the city might wish to explore other ways to implement the CLT model of permanent affordability.

Housing Trust Funds

Another option to consider is the creation of an affordable housing trust fund. Housing Trust Funds (HTFs) are funds created and administered at the city, county or state level to support a variety of affordable housing initiatives. HTFs can be used in a way that caters to locally-identified housing needs, and are generally not subject to the restrictions associated with federal housing subsidy programs. The agency administering the funds can determine eligible activities such as emergency rent assistance, brick-and-mortar construction of affordable housing, or preservation/rehabilitation of existing affordable housing stock. Agencies with affordable housing trust funds determine whether the fund will be administered by an existing governmental office or a new entity, such as a newly-formed public office or an existing or new non-profit organization. They also make determinations about eligibility, how the application process will be structured, the form of the awards (i.e., grants, forgivable or low-interest loans, credit guarantees, etc.), and a process for oversight of the fund administration.

Housing Trust Funds can be comprised of revenue from a variety of sources. When establishing HTFs, communities consider the revenue potential and whether the revenue source(s) can generate sufficient funds to providing meaningful support of the local affordable housing goals, and whether the revenue source is reliable and sustainable over time. HTFs can be funded by a dedicated funding source that acts as a stable source of revenue that can continue to provide ongoing funds without the need for annual appropriations. These are known as

"dedicated housing trust funds," and can be an effective way to ensure long-term sustainability of the fund. Even dedicated funding sources can fluctuate; for example, revenue from real estate taxes or transfer fees, impact or linkage fees, tax increment financing programs, in-lieu payments from a city's inclusionary zoning program, or fees associated from other economic activity, can be impacted by an economic downturn. Although HTFs are not subject to annual appropriations, they can be susceptible to diversion for non-housing purposes. HTFs can also be funded through appropriations or other one-time revenue sources, such as general obligation bonds or sales tax levies. Some communities have found this to be useful for getting a HTF started and building support for developing an ongoing dedicated source of revenue for the fund.

In a 2016 study of HTFs (the Housing Trust Fund Survey), the following revenue sources were reported for city-level HTFs in the survey: developer impact fees, developer agreements, property tax, inclusionary zoning in-lieu fees, document recording fees, tax increment funds, short-term rental fee/tax, hotel/motel tax, housing bond, income and interest earned, condo conversion fees, construction excise tax, general fund set-aside, real property transfer tax, demolition tax, city owned land sales, building permit fee, property taxes on previously owned city land, and general funds (Center for Community Change 2016).

There are a variety of activities that communities can fund with HTFs, and the choice of activities will depend on housing needs in the local jurisdiction and the revenue potential for the fund. Local Housing Solutions (2022) generated a useful list representing the types of programs that an HTF might fund, including:

- Capital subsidies for affordable housing developments
- Below-market financing of affordable housing development
- Operating subsidies for affordable housing developments
- Acquisition and operation of moderate-cost rental units

- Targeted efforts to create and preserve dedicated affordable housing in resource-rich (high-amenity) areas
- Targeted efforts to expand the supply of rental housing and lower-cost housing types in resource-rich areas
- Community land trusts
- Deed-restricted homeownership
- Limited equity cooperatives
- Use of publicly owned land for affordable housing
- Land banks
- Property acquisition (lending) fund
- State- or local-funded tenant-based rental assistance
- Security deposit and/or first and last month's rent assistance
- Down payment and closing cost assistance
- Shared appreciation mortgages
- Subsidized mortgages
- Energy-efficient retrofits
- Foreclosure prevention programs
- Assistance for home safety modifications
- Homeowner rehabilitation assistance programs
- Weatherization assistance

ACC leadership should continue the process of creating an affordable housing trust fund that is replenished by public funds (such as payments-in-lieu from the Inclusionary Zoning program, sales tax levies, developer fees, etc.) but also leverages private or philanthropic dollars to complement city funds. They should set very clear goals that include target areas for development (as identified through the Future Land Use update process described above), a clear sense for what kind of housing ACC wants to prioritize, and the target affordability range, and seek ways to ensure long-term or permanent affordability of housing units created by the program. Leaders might also consider whether to use the fund to develop infrastructure (water, sewer, stormwater management, roads, fiber, etc.) in support of affordable housing development. Such a fund would have an advisory committee made up of city staff and elected/appointed officials, residents, affordable housing developers, and relevant outside advisors, etc.

Other policies and partnerships for affordability

Although mentioned several times in this thesis and in recommendation 8, it is important to again mention the City of Portland's infill legislation that includes a direct affordability mechanism that allows four- and six-plexes in single family zones if half the units are affordable to low-income households. I have made note of this policy multiple times because it is an important type of policy to consider as Athens moves forward. Finally, there are a handful of examples around the country of local governments partnering with "unlikely" housing partners, such as churches, hospital systems, large employers, universities, etc. to create affordable housing.

Conclusion

In this chapter I outlined why I think it is important to encourage the construction of missing middle housing in Athens-Clarke County. I described several recommendations for ACC leadership based on examples from other implementation efforts and my understanding of the ACC political and development landscape. While I believe that increasing the supply of MMH could improve the housing affordability problem in Athens if done at a large enough scale, the only way for MMH development to deliver guaranteed affordability to middle income (households earning 80-120% of the area median income) is to pair the efforts with targeted partnerships and programs and write new legislation that requires affordability in some types of MMH development. I believe that the ACC government should explore additional options, such as Community Land Trusts and Affordable Housing Trust Funds, and creative partnerships with large employers (i.e., healthcare systems, churches, etc.), and mission-driven developers to pair missing middle housing efforts with the community's housing affordability goals.

CHAPTER 6

CONCLUSION

The reintroduction of 'Missing Middle Housing' (MMH) has become an important concept as communities seek ways to increasing housing supply and housing choice to meet current and projected demographic needs and housing preferences. MMH is a historical housing typology of house-scale multi-family housing-units that can be found in many North American cities today, but has been rendered illegal to build in most cities due to zoning and development regulations. MMH is part of a wider conversations underway about the problems associated with outlawing all but detached single-family homes in large swaths of U.S. cities in the last half century. This has reinforced suburban development patterns and exacerbated urban sprawl, not to mention the reinforced racial and class separation and inequitable access to homeownership opportunities.

The goal of reintroducing MMH is to allow parcels in established single-family neighborhoods to be developed with house-scale multi-family dwellings in order to increase the supply of smaller dwelling units while preserving the physical scale of the neighborhood and taking advantage of existing transportation infrastructure and municipal services. In this thesis I described in detail the MMH concept and explored the many arguments in favor of its relegalization. I also examined four examples (Montgomery County, Maryland, Chattanooga, Tennessee, Decatur, Georgia and Portland Oregon) of missing middle housing implementation efforts to identify themes and lessons that may be learned from these programs.

In my exploration of the particular housing challenges experienced by college towns, I found that university students and their housing needs impact the housing landscape in college towns in a variety of ways. Meeting student housing needs in college towns has for decades been

viewed as an investment opportunity for small- to medium-scale landlords and apartment developers. As large public universities build less housing for their growing student bodies, private developers have stepped in to build off-campus, purpose-built luxury student accommodations that essentially act as private dormitories. These mid- and high-rise apartment buildings have changed the physical landscape in many college towns and there is some evidence that the high rent paid by students in these developments may increase overall rents in the community.

I investigated the housing challenges in Athens-Clarke County, a college town, in the U.S. Southeast. Athens is a growing city with a large university student population and an anticipated increase in the 55 and older segment of the population in the coming decades. There is a high rate of poverty and much of the housing on the market is unaffordable to the middle-income households earning 80-120 percent of the area median income. The 2022 Athens Missing Middle Scan authors found that, in order for Athens-Clarke County to keep up with projected housing needs, it would have to have 622 new housing units constructed each year between now and 2040 (Opticos Design, Inc. 2022). Based on stated housing preferences in a variety of community housing initiatives undertaken in Athens in the past decade, Athens is building the wrong kind of housing. Like so many college towns, Athens has experienced a boom in multi-family student housing development, and single-family and mid-density (2-19 units per structure) construction has plummeted.

Single-family homes are not being constructed at a high enough pace, and it is not reasonable – or feasible - to expect that building a lot more detached single-family homes is the way out of Athens' housing crisis. It is nearly impossible to construct new missing middle housing typologies in Athens due to zoning barriers, economic factors and regulatory barriers.

MMH may be an important way to meet housing demand and preferences of Athenians. While there will always be households that prefer the detached single-family home, MMH can provide choices for those who do not want to live in large multi-family apartment buildings and prefer a human-scale, less car-dependent lifestyle.

I argued that it is important to encourage the construction of new missing middle housing in Athens-Clarke County. I described several recommendations for ACC based on examples from other implementation efforts and my understanding of the ACC political and development landscape. They include:

1. Set the stage with smart future land use planning
2. Create and adopt plans that specifically enable missing middle housing
3. Consider underdeveloped greyfield sites for new residential missing middle housing development
4. Learn from the experiences of other cities and don't hesitate to revise the code if it's not working as intended
5. The importance of leadership and vision: don't just "enable" or "allow" missing middle housing, actively encourage it
6. Retain as much land as possible, starting now
7. Communicate carefully, within the government and to the public
8. The importance of city-led pilot projects as proof of concept
9. Consider an affordability requirement for multiplexes
10. Consider partnerships and policies to deliver affordability

I discussed that affordability is not the strongest argument in favor of re-legalizing MMH. I think that the re-legalization of missing middle housing is a very important movement in 21st century urban planning that addresses past mistakes with regard not only to the problematic history of single-family zoning but also in regulations that privileged the detached single-family home and reinforced sprawl, car-dependency and suburban development patterns. I pointed out that, although MMH does not necessarily deliver affordability, there are ways – Community Land Trusts, Housing Trust Funds, policies with affordability mechanisms, and partnerships with unlikely housing partnerships -- that improve the affordability argument. It remains to be seen how much new housing the approach would create. I think that it is nevertheless a worthwhile strategy to pursue. In my view strongest arguments in favor of MMH include that it can create more housing options, reduce urban sprawl, make more efficient use of land and urban services (including more efficient use of taxpayer dollars), increases quality of life due to walkability, reduction in car dependency, and reduced commuting times, and meets the rising demand for smaller footprint homes in walkable neighborhoods.

My investigation has led to several suggestions for future research, including:

- How might market barriers (land values, construction costs, land development costs) may be more effectively addressed?
- Does the reintroduction of missing middle housing lead to gentrification and displacement?
- What type of housing tenure is most common in the different types of new missing middle housing, and is this different in a college town than other towns? Who owns the new housing? Who lives there and do they rent or own?

- What types of anti-displacement measures might work best in connection with re-legalizing missing middle housing?
- Does a city identifying areas for upzoning (and more dense housing development) encourage land speculation by investment firms and exacerbate affordability problems?
- How much new housing will the MMH approach actually produce? Does this matter? Is it important to know the answer to this question? The changes will likely be incremental, and that might be enough.
- Is form-based code the most effective way to do MMH-enabling zoning reform? Examine zoning reform in several jurisdictions to determine the most effective zoning reform.

Final thoughts

When I started thinking about the subject of missing middle housing, I suspected that enabling MMH in a college town would be especially tricky due to the unique housing challenges in college towns, including pressure to house off-campus students and the proliferation of companies and individuals who profit from that. I wondered whether adding "gentle density" in the form of backyard cottages, 4-plexes and other missing middle housing types would lead to opportunities for profit-seekers rather than increasing the supply of more affordable or attainable housing. My answer to this question is: maybe. Depending on where the new MMH is built, allowing ADUs and multi-plexes in single-family zones might present opportunities for people to create and/or rent out their additional units in a way that does not serve the community's identified need to increase housing options for workforce/middle income earners.

But I don't know if this is unique to college towns. Housing problems in college towns are certainly unique, but the implications of various solutions may not be unique. In other words, there is pressure from corporate and individual investors in most cities, so any activities that increase housing supply, unless they are accompanied by affordability programs, can create new investment opportunities.

College towns and tourist towns have been contending with housing pressures for decades that have now become ubiquitous across North America. Investors have historically viewed college towns and tourism-economy towns as opportunities to make money by providing rental or vacation housing to a willing market of students and tourists. Second home buyers (local and non-local) have invested in college and tourism towns for years. As populations grow in these towns, the need for housing for year-round residents has become more dire and has created a scarcity that corporate investors are all-too-eager to fill. Viewing housing as a commodity and the financialization of housing has changed the housing landscape across North America, and college towns know this first-hand (Teresa 2022).

In the meantime, I've come to believe that there are other, more impactful, housing pressures in Athens than a person building a house-scaled four-plex (in an appropriate area) so they can rent it out to students. Outside corporate investors are purchasing housing units by the dozens or even hundreds in Athens right now. Housing developers are building (or proposing to build) large developments with dozens of detached single-family rental homes in locations that will exacerbate sprawl and traffic problems, and will not create pathways to homeownership that so many are seeking. National student housing developers have transformed downtown Athens and beyond with mid-rise luxury student apartment buildings. UGA fans and parents are purchasing homes in single-family neighborhoods that sit empty much of the time or are on the

short-term rental market. The impact of these pressures Athens is yet to be fully understood or quantified. However, taken as a whole, they render my initial concerns about, for example, a person building a cottage in their backyard for rental income[22], much less important by comparison.

Athens leadership should not get too caught up on creating limitations while enabling missing middle housing development. In my view they should support the re-legalization of MMH with a robust future land use planning process (including transportation and infrastructure planning) that identifies ideal areas for MMH development and builds on the recommendations of the 2022 Athens Missing Middle Housing Scan. They should address "low hanging fruit" zoning changes immediately, which include legalizing ADUs, duplexes, townhomes, and removing minimum home size requirements across all residential zones. It might be argued that crafting a standalone cottage court ordinance would also be relatively simple.

ACC government leadership should consider whether there are areas where housing stock (and residents) are particularly vulnerable to displacement caused by increased residential density allowances. In ACC there are several areas designated "Neighborhood Revitalization Strategy Areas," which are designated by the U.S. Department of Housing and Urban Development for Community Development Block Grant Awardees. These areas might be particularly vulnerable to investors coming in and replacing single-family homes with small multi-family student rentals. I am not suggesting that missing middle housing not be enabled in

[22] There is an important and active argument underway nationally about whether to include owner-occupancy requirements in ordinances that legalize accessory dwelling units (ADUs). My comment here is not to argue one way or the other, but to point out that while leaders and advocates are having that argument, large corporate housing investors are changing the housing landscape in Athens by buying large swaths of land and housing units in ways that will impact housing much more significantly that the limited number of backyard cottages that will be built as the result of an ADU ordinance.

these areas, but rather that they may warrant special attention in the future land use planning process as well as creation of new policies.

ACC government leadership should continue and build upon the relationship with Opticos Design, Inc., and work with them in both the land use planning process and guiding zoning code revisions. In response to several cities throughout the country enabling MMH, there are several planning firms and consultants specializing in zoning code rewrites in support of MMH development. Furthermore, rather than updating zoning and waiting for the private market to respond, the ACC government needs to actively encourage this type of housing and make it easier, not harder or more complicated, to develop it. If ACC needs to build over 600 housing units per year to meet projected housing needs of a growing population, then the local government needs to stop viewing themselves as gatekeepers that limit and restrict housing development and start viewing themselves as enablers of the right kind of housing development that produces more housing units in small-scale multi-unit developments.

Architect and Urbanist Eric Kronberg believes that community perception is the primary challenge to missing middle housing development. He states that “the only financially feasible project with workforce housing is a 12-plex,but most communities can’t even stomach a duplex” (Kronberg 2020). Athens leadership needs to be very intentional about how a program of re-legalizing MMH is communicated to the public. In their book on Missing Middle Housing, Parolek and Nelson discuss the importance of pointing out that MMH already exists here, a point that is reiterated in the Athens Missing Middle Housing Scan report (Parolek 2020; Opticos Design Inc. 2022). This is not a new housing type – it is a historic housing type that, for a variety of reasons, is illegal to build in most residential zones in Athens. Many people in Athens already live in or next to (legal, nonconforming) missing middle housing buildings. The concept of

"gentle density" increases or "incremental development" might resonate more than "we're going to adopt a county wide program to intensify residential development everywhere." MMH development will not happen all at once – that's the point, in fact, when MMH is constructed as infill development. Addressing concerns that historic homes will be demolished to make way for four-plexes is important. Concerns about traffic problems are real; city leaders must incorporate transportation planning efforts and communicate about this to the public.

I anticipate that many will shun the concept as trendy and not "fixing" the housing affordability problem. A leader in Athens recently stated that efforts toward enabling missing middle housing in Athens are trendy, "trickle-down" thinking and not where our focus and resources should be. The idea that Athens shouldn't pave the way for the construction of missing middle housing, which can be starter homes for many, because it is not a complete affordability solution is "all-or-nothing" thinking that is in itself a barrier to change. Public engagement and communication will be an important part of the process, but there will be opponents regardless of thoughtful communication strategies, and the ACC government needs to have the vision and courage to move things forward nonetheless. In the above section I discussed briefly the importance of pilot projects as proof-of-concept. If done well, and in a thoughtful location, this might go a long way toward improving public understanding and buy-in to missing middle housing construction.

Finally, deeply subsidized housing to serve households with extremely low and low incomes will always be an important part of meeting housing needs in Athens. As Athens works to enable MMH, affordability programs and partnerships need to be established to keep the focus on affordability and work to prevent potential displacement caused by gentrification. Student housing development has encroached into single-family neighborhoods, particularly in

historically marginalized African American neighborhoods, and it is important to maintain focus on this as we increase housing supply. The re-legalization of new missing middle housing construction can play an important role in meeting the housing demands and preferences of current and future Athens residents, and can produce a larger effect of reducing urban sprawl and making more efficient use of urban services and community resources.

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APPENDIX A: HOW DID WE GET HERE? THE DOMINANCE OF THE DETACHED SINGLE FAMILY HOME

A brief history of single-family zoning

In recent years, city planning scholars, practitioners and the wider public have become increasingly aware of the history and implications of the single-family zoning classification that dominates most North American cities. In many American cities it is illegal to build anything other than a detached single-family home on more than 75% of the city's residential land (Badger and Bui 2019). This figure is even higher in suburbs and newer cities in the Sun Belt. As U.S. cities struggle to deliver affordable housing options for their residents, planners are examining the role that this dominant residential land use classification plays in perpetuating the housing affordability crisis.

The history of zoning regulation in the United States is rooted in the late 19th and early decades of the 20th centuries, when its proponents advocated zoning as a legal mechanism to control the type and intensity of land use that addressed the shortcomings of public land use regulations (i.e. nuisance laws and uniform building laws) and private agreements (covenants and deed restrictions) to ensure and protect public safety and general welfare (Hirt 2014, 132-133). Early proponents of zoning claimed that nuisance and building laws applied to entire cities and treated the city too uniformly, and they argued that creating districts within a city where certain noxious uses were acceptable was superior because it allowed businesses to operate while protecting residents' welfare. Private covenants were *ad hoc*, piecemeal, often poorly drafted, and thus susceptible to courtroom challenges. Zoning, they argued, allowed the creation of

districts where certain uses were allowed and thus created order and predictability in the city landscape.

Several US cities enacted zoning ordinances, beginning with height regulations in Washington, DC in 1899 and an ordinance in 1908 Los Angeles that established residential and industrial use districts (Silver 1991). The first citywide zoning ordinance in the US was in New York, which in 1916 introduced three basic land-use categories: residential, business and unrestricted (Hirt 2014, 35). Despite the American emphasis on the values of individualism and personal property rights, the zoning argument was successful in the United States, argues Sonia Hirt in *Zoned in the USA* (2014), because it addressed public safety and welfare concerns in a way that was "deeply embedded in the noble American traditions of political, economic and spatial individualism" (Hirt 2014, 134). Although zoning restricted the actions of private parties and thus seemed to run counter to American ideals, zoning regulations were crafted in a way that also narrowly defined and restricted the authority of government officials and regulators. Zoning was also presented as protecting the value of private property and guaranteeing the sanctity of the detached private home. By 1922, the US Department of Commerce issued the Standard State Zoning Enabling Act, which served as a model law for states to enable zoning regulations (US Department of Commerce 1922).

In 1926 the U.S. Supreme Court decision *Village of Euclid, Ohio v. Amber Realty Co*. upheld the constitutionality of the city's 1922 comprehensive zoning ordinance that regulated and restricted the location and attributes (e.g., lot sizes, size and height of buildings, etc.) of buildings based on their use. This decision solidified the rights of municipalities to enact restrictive use-based land use and building codes when these codes bear a substantial relationship to the health, safety and welfare of the public. The case enabled the application of a low-level of

scrutiny to uphold the constitutionality of a zoning ordinance, gave municipal ordinances the "presumption of validity" where public welfare was concerned, and placed the burden of proof on the party challenging the zoning ordinance.[1] It is interesting to note that in the court's landmark opinion, written by Justice Sutherland, the sanctity of the detached single-family home, as opposed to the "parasitic" apartment house, was unambiguously asserted, and in fact the apartment house being viewed as a nuisance that could be excluded from a single-family zone was central to the case:

> "*With particular reference to apartment houses, it is pointed out that the development of detached house sections is greatly retarded by the coming of apartment houses, which has sometimes resulted in destroying the entire section for private house purposes; that in such sections very often the apartment house is a mere parasite, constructed in order to take advantage of the open spaces and attractive surroundings created by the residential character of the district. Moreover, the coming of one apartment house is followed by others, interfering by their height and bulk with the free circulation of air and monopolizing the rays of the sun which otherwise would fall upon the smaller homes, and bringing, as their necessary accompaniments, the disturbing noises incident to increased traffic and business, and the occupation, by means of moving and parked automobiles, of larger portions of the streets, thus detracting from their safety and depriving children of the privilege of quiet and open spaces for play, enjoyed by those in more favored localities-until, finally, the residential character of the neighborhood and its desirability as a place of detached residences are utterly destroyed. Under these circumstances, apartment houses, which in a different environment would be not only entirely unobjectionable but highly desirable, come very near to being nuisances*" (*Village of Euclid, Ohio v. Amber Realty, Co.,* 272 U.S. 365, 394 (1926)).

The Euclid case paved the legal way not only to affirm a local government's right to implement zoning regulations, but also embodied an anti-multi-family housing sentiment that persists in zoning patterns we see today.

[1] However, this 'presumption of validity' has been a source of confusion since Euclid. See Hopperton, 1996.

Race and zoning

Zoning may seem on its face to have virtuous early objectives related to protecting public health and welfare, but racial and class prejudices also played an important role in the development of zoning (Hirt 2014, 134). The push to improve the blighted physical environment, combat urban congestion, and separate incompatible land uses was also a means to enforce racial segregation and exclude undesirables, namely Black people and immigrants (Silver 1991). Minorities and the poor were perceived as the greatest danger to property values in general and to single-family residential areas in particular (Hirt 2014, 134). In 1910 Baltimore enacted the first racial residential zoning ordinance that forbade a person of one race from moving into or using a residence on a city block where the majority of residences were occupied by members of the other race (Troesken and Walsh 2019). By 1917, 26 other cities passed similar legislation. From the beginning these ordinances were challenged on their constitutionality and in 1917 the US Supreme Court struck down a Louisville, Kentucky racial zoning ordinance that prohibited the sale of real property to Black people in white-majority neighborhoods (and vice versa) in the landmark *Buchanan v. Warley* decision (245 U.S. 60, 1917).

The *Buchanan* decision, however, was not based on a violation of the equal protection clause of the Fourteenth Amendment, but rather was based on the determination that the restriction of the property rights of (white) property owners to sell to whomever they pleased was a violation of freedom of contract under the due process clause (Rothstein 2015). Several cities interpreted the ruling as not applicable to their laws because their laws only prohibited the *residence* of Black people in white neighborhoods, not ownership. For this reason, racial zoning continued to be enforced in some U.S. cities until the 1960s.

The *Buchanan* decision weakened zoning as a means to segregate by race, but did not prevent the use of the comprehensive planning process and segregationist laws to get around zoning limitations to perpetuate racial segregation (Silver 1991). In the wake of the decision, city leaders and homeowners wishing to continue racial segregation sought alternative ways to prevent Black families from migrating into white neighborhoods (Troesken and Walsh 2019). Some cities continued to use racial zones in their master plans, which were used to guide public and private development (Rothstein 2015; Silver 1991). City officials also led efforts to organize homeowners' associations with race-based deed restrictions. In some cities professional planning consultants were brought in to create "legally defensible" zoning plans to segregate Black residential areas (Silver 1991).[2]

In recent years the story of how the government at several levels has systematically discriminated against Black Americans through zoning and housing policies, although understood by many for years, has emerged into the wider public consciousness. In *The Color of Law* and other writings, Richard Rothstein summarizes these policies and makes a compelling, evidenced-based argument that this discriminatory environment was explicitly designed to separate races and was legislated and intentional rather than *'de facto,'* or an accident of circumstance (Rothstein 2017; 2019). The federal government was directly responsible for policies that perpetuated racial segregation and prevented Black Americans from owning property, obtaining bank loans, and choosing their housing type and location. Federal policies originating during the New Deal allowed local housing authorities to racially segregate public housing projects. As white families left the projects for the suburbs, public housing became

[2] For an example of race-based zoning after the *Buchanan* decision, see also Robert H. Whitten, *The Atlanta Zone Plan: Report Outlining a Tentative Zone Plan for Atlanta,* 1922.

predominantly Black and was sited only in Black neighborhoods. This 'white flight' to the suburbs was subsidized by the federal government when it guaranteed construction loans to suburban mass-production developers on the explicit condition that no home sales or re-sales to Black people were allowed. Federal bank regulators approved policies through which banking institutions refused home loans to Black people. It was only with the 1968 passage of the Fair Housing Act that racial deed restrictions were deemed unlawful. On the state level, state commissions refused to (and still do not) discipline real estate brokers for discriminatory practices and race-based client steering. Locally, public housing projects and Black neighborhoods became neglected by municipalities' discriminatory denial of public services, such as providing inadequate garbage collection, power, sewer and water services, and street paving. Many Black neighborhoods were also rezoned to allow mixed uses, including industrial uses.

It is important to briefly discuss the role played by the Fair Housing Act (1968) [3,] and the U.S. Supreme Court decision *Brown v. Board of Education* (347 U.S. 483 (1954)) in the increasing prevalence of exclusionary zoning ordinances. Although the Fair Housing Act prohibited housing discrimination on the basis of race, color and national origin, it was unevenly enforced and allowed lenders and landlords to maintain and profit from a system that continued to discriminate. Although the *Brown* decision made it illegal to segregate schools based on race, racist officials sought ways to keep Black families out of white neighborhoods so they could draw school attendance zones to correspond with residential segregation and have Black schools

[3] The Fair Housing Act (also known as Title VIII of the 1968 Civil Rights Act), 42 U.S.C.A. §§ 3601-3631 (1968). The Fair Housing Act was passed in 1968 to protect individuals and families from discrimination in the sale, rental, financing, or advertising of housing. It was amended in 1988 to prohibit discrimination on the basis of race, color, religion, sex, disability, family status, and national origin.

and white schools. *Brown* made segregated schools unconstitutional; however, a court order was almost always required for large urban school districts to pursue desegregation (Trounstine 2018). Jessica Trounstine's analysis of the impact of desegregation orders revealed that such orders significantly increased the share of neighborhoods that were homogenous; in other words, her analysis unsurprisingly confirms the trend of white flight. Approximately two-thirds of exclusive white neighborhoods are located in the suburbs, while three-fourths of the homogenous neighborhoods dominated by minorities are located in central cities. White homeowners, in order to protect property values in their segregated, homogenous neighborhoods, organized through homeowners' associations and had an outsized voice in the processes that controlled government decision-making on zoning implementation and land-use regulation, slum removal, the rebuilding of downtowns, placement of public housing, and zoning decisions that increased negative impacts on poor and minority neighborhoods.

A primary tool for maintaining segregation was (and is) the residential single-family zone (Manville et al 2020). Residential single-family zoning got around the *Buchanan* decision by maintaining racial segregation without using racial language. Single-family zoning benefits property owners; in cities with high housing demand, it inflates home values and prevents teardowns in neighborhoods, thereby protecting their physical character. Single-family zoning prevents housing density in areas where it actually should be – areas well served by schools, public infrastructure, walkability, and access to jobs and amenities. It pushes housing development into areas already zoned for denser, often lower-income living, outskirts, and/or areas with higher environmental pollution due to industrial and commercial activities. Privileging single-family homes exacerbates inequality and increases the divide between the rich and the poor and often exposes the poor to lower quality environmental conditions. When school district

boundaries are drawn around neighborhoods that represent one type of housing (single-family detached) to the exclusion of another (multi-family), "governments are overfeeding rich schools and starving poor schools" due to the importance of property taxes in funding public education (Edwards 2019).

Time for change

There are many valid criticisms of zoning in general, with arguments ranging from social to environmental. Sonia Hirt lays out several of these criticisms in *Zoned in the U.S.A* (Hirt 2014). Zoning segregates people by class and race and affords privileges to some while denying them to others. By separating land uses and contributing to urban sprawl, zoning increases the car dependence of urban dwellers, and those with limited access to cars, either due to age, disability or income level, zoning restricts their ability to reach needed services. Zoning limits social interaction in general, and between people of different race and income classes in particular. The environmental arguments against zoning are compelling; zoning contributes to urban sprawl by promoting low-density development patterns. These land-use patterns are an inefficient use of land that encroaches natural habitats and requires greater travel distances and dependence on the car or other fossil-fuel powered transportation.

Single-family zoning has become widespread across North American cities, rendering it illegal to build anything other than a detached single-family zone on most of the residentially-zoned land in American cities with strong job growth and competitive housing markets (Badger and Bui 2019). For example, 84 percent of residential land in Charlotte, NC is zoned to favor detached single-family homes and prevent nearly everything else. In San Jose, CA, this number is 88 percent. Portland, OR and Seattle, WA have 77 and 81 percent of their residential land

zoned for exclusively detached single-family homes, respectively. By taking a large portion of residential land off the market for higher-density housing, single-family residential zoning exacerbates the housing affordability crisis in American cities.

Many scholars, practitioners, lawmakers, and others are advocating for single-family zoning reform amid concerns over housing affordability, racial inequality and carbon emissions. In January 2020 the American Planning Association devoted an issue of its quarterly journal to arguments around ending single-family zoning. In "It is Time to End Single-Family Zoning," Michael Manville and colleagues argue that zoning that prohibits all development except detached single-family homes is "inequitable, inefficient, and environmentally unstainable," has classist and racist origins, and should no longer exist (Manville et al 2020). This type of zoning, they argue, allows a small number of people to amass disproportionate property wealth, excludes many others from high-opportunity neighborhoods, and forces others to pay more for housing than they should. They do not argue against detached single-family homes (although they state very clearly that this type of living has real social and environmental costs), but rather against zoning laws that favor and protect the single-family home (and are based on normative principles associated with single-family living) and thereby reduce the amount of land available for multi-family housing.

In "Death to Single Family Zoning … and New Life to the Missing Middle," Jake Wegmann argues that single-family zoning is the single most harmful widely used practice in planning" (Wegmann 2020)." He cites increasing evidence that housing density directly correlates with high automobile use, and that the greatest reductions in carbon emissions would arise from the conversion of low-density neighborhoods to medium density. Single-family zoning effectively requires an inefficient use of land and living space and guarantees that in

sought-after neighborhoods in high-costs cities and in suburbs everywhere, new market-rate housing will never serve the middle-income or the poor. He argues that "there is no defensible rationale grounded in health, safety, or public welfare for effectively mandating a 3,000-square-foot house with one unit while prohibiting three 1,000-square-foot units within the same building envelope." He advocates for the removal of requirements that impose two conditions: 1) only detached single-family homes may be built, and that 2) they must occupy sizable land parcels.

In "Not a Matter of Choice: Eliminating Single-Family Zoning," Anaid Yerena echoes these arguments and goes further to say that planners have a professional and ethical imperative to work to reform zoning (Yerena 2020). She points to the American Institute of Certified Planner's (AICP's) Code of Ethics' section on a planner's responsibility to the public: "We shall seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the disadvantaged and to promote racial and economic integration. We shall urge the alteration of policies, institutions, and decisions that oppose such needs." She unequivocally makes the argument that planners who are not working to dismantle a system that has served as a racial and economic exclusionary tool are operating in violation of the AICP Code of Ethics.

Low-density zoning reform

Many cities in North America are implementing strategies to increase the supply of affordable or attainable housing in their jurisdictions. In the past decade many cities are looking in particular at updating or revising the codes, building regulations, and permitting procedures associated with their low-density residential zones. Low-density zoning reform aims to reduce the legal and regulatory barriers to building-smaller, lower cost homes on expensive land. Since zoning

regulations are the domain of local governments, zoning reform is most often applied to local codes. However, state law may also be changed as part of a low-density zoning reform effort, such as in the state of Oregon. Zoning reform may completely overhaul a local government's zoning scheme, such as removing a city's single-family zoning classification, creating new zoning classifications or overlays that allow modestly scaled multi-family development in former exclusively single-family zones, or adopting a form-based zoning approach where zoning defines a desired built form or allowed building envelope versus primarily regulating on the basis of numeric expressions of density or floor area ratio (Parolek 2020). More often, it seems, these reforms are smaller or more targeted undertakings; rather than overhauling a city's entire zoning scheme or adding new zoning classes entirely, the reforms focus on incremental changes within the existing code. Such changes include:

- Examining allowable uses (often referred to as "use tables") in existing zoning classifications; are there any residential zones that enable house-scaled multi-family dwellings, such as duplexes, triplexes, backyard cottages, courtyard apartments, etc.? What uses could be made legal within low-density zones to increase the supply of affordable housing?
- Examining codes that regulate building heights, setbacks and other siting requirements, minimum lot sizes and lot coverage. Are the metrics working against the delivery of affordable housing types? Minimum setbacks and lot sizes may be too large, for example. Could maximum house sizes be reduced in order to discourage large single-family detached homes? Are minimum house size restrictions restricting the ability to build a small-footprint home?

- Re-thinking parking minimums -- high parking requirements can increase housing costs (by taking up valuable land for cars instead of people); off-street parking requirements can restrict new small-infill housing options in existing neighborhoods
- Enabling accessory dwelling units (attached or detached) and addressing parking requirements associated with them)
- Strategically streamlining the regulatory review processes
- Placing affordability requirement on multi-family developments

It is important to note that "upzoning" and "low-density zoning reform" are related, but not exactly the same thing. Upzoning is "changing the zoning code to allow taller and/or denser buildings … and increases the buildable capacity of land, creating the opportunity to increase supply" (Budds 2020). In recent years the term is often associated with rezoning land in cities within walking distance of public transit stations, and often connotes high-rise multi-family developments (versus house-scale buildings). There are certainly places where this type of development is appropriate; transit-oriented development and mixed-use developments in commercial nodes play an important role in cities and, depending on a number of factors related to local land values, median area incomes and housing market conditions, can potentially increase the supply affordable housing dwelling units if implemented in partnership with public housing, subsidies, or inclusionary zoning programs that require low-market rate units as a condition of (or incentive associated with) their development. This discussion focuses on "low-density zoning reform," referring to any changes that can be made in areas zoned for low-density residential to increase the supply of affordable housing. Low-density zoning reform can include

upzoning a single-family zone, for example, amongst other changes, but more often is viewed as a set of approaches, often incremental in nature.

Numerous advocacy organizations have either formed around or developed initiatives in support of low-density zoning reform (of which the missing middle housing movement discussed in this thesis is a part). They support the notion of encouraging "gentle" or "discreet" density increases in single-family neighborhoods as a way to add smaller, less expensive dwelling units while preserving the physical scale of the neighborhood. The Brookings Institution released a report in December 2019 illustrating how replacing detached single-family homes with "gentle density" could increase the number of available homes and bring down average housing prices in high-cost locations (Baca et al 2019). In addition to Dan Parolek's advocacy of "Missing Middle Housing" (Parolek 2020), The Congress for the New Urbanism, with its *Project for Code Reform*, has embraced the movement as a logical extension of principles of traditional neighborhood design, mixed-use and diverse districts, and walkability for which it has long advocated (Project for Code Reform 2020). The Incremental Development Alliance provides support and encouragement for entrepreneurial developers who want to work at a smaller scale and for municipalities who want to use this approach to strengthen their neighborhoods (Incremental Development Alliance 2020). Strong Towns, which advocates for financially strong and resilient urban development patterns, promotes incrementalism and iterative change (instead of large, irreversible development projects that prioritize growth over community goals) as a fundamental shift in thinking about urban development (Strong Towns 2020). AARP (formerly the American Association for the Retired Persons) has placed considerable emphasis on gentle density and missing middle housing in its efforts to improve quality of life and attainable housing for older persons (AARP 2022). Rather than the traditional zoning codes that focus first

and foremost on land use, form-based codes concentrate on the desired physical form, placement, size and bulk of buildings. The Form Based Codes Institute of Smart Growth America advocates for and educates about the use of form-based codes to reform zoning in a way that is compatible with MMH principles (Form Based Codes Institute 2022).

Low-density zoning reform at a variety of scales: local, state and federal

Most low-density zoning reform is occurring at the local (municipal or county) level. An oft-cited recent example is the city of Minneapolis' Plan 2040, which, beginning in 2020, allows duplexes and triplexes in single-family zones city-wide without increasing the off-street parking requirements (City of Minneapolis 2020). There are dozens of other cities and counties proposing or implementing elements of low-density zoning reform as part of their affordable housing strategies, often with specific reference to increasing the supply of missing middle housing or 'housing options' in general. The city of Decatur, Georgia released in February 2020 a report of the Decatur Affordable Housing Task Force, *A Report on the Findings and Recommendations for Decatur's Future Affordability and Inclusivity* (City of Decatur 2020). The report advocates for zoning reform as a way to break the cycle of inequitable race-based zoning and lending practices that continue to impact housing access in the city. The report includes recommendations to allow cottage court developments, accessory dwelling units, and the addition of a conditional-use permit process for townhomes in a zone that already allows them in order to evaluate whether the proposed townhome development results in a loss of workforce housing units. The report also recommends an inclusionary zoning program that requires developers building above a certain unit amount to set aside a specific percentage of units for low- and moderate-income renters and buyers. The Montgomery County, Maryland Planning

Department released in 2018 a report, *The Missing Middle Housing Study,* that recommends identifying "Missing Middle Conditional Use" or "Optional Method of Development" floating zones for residential areas in specific locations in the county and allowing increased density and building heights, townhouses and duplexes, and decreasing restrictions on setbacks, lot coverage and parking requirements (Montgomery County, Maryland Planning Department 2018. The report suggests the creation of a Missing Middle Housing Functional Master Plan that identifies ideal locations for MMH typology and drives a land use map amendment to rezone appropriate areas. Dozens of cities are undertaking similar efforts, but these efforts are relatively recent and still underway, so it will take time to know which approaches will be adopted by local legislators and whether they will succeed in their goal of increasing the supply of affordable housing.

One city has recently passed what might be considered the most comprehensive set of low-density zoning reform measures. In August 2020 city leaders in Portland, Oregon, building upon a statewide upzoning measure passed in 2019 (described below), passed a set of reforms for low-density residential zones that: legalize cottage clusters, allow up to two ADUs per lot, remove off-street parking requirements, reduce maximum building for a single-family detached house (while allowing additional square footage for multi-plexes), increase universal accessibility in 3- and 4-plexes, legalize street-facing doors for basement ADUs, and allow 4- and 6-plexes if half the units are rental units (60% AMI for rental units, 80% AMI for for-sale units) (Anderson 2020a). These reforms are thought to bring together the best of what other cities like Minneapolis, Austin, TX and Vancouver, BC are doing by not only allowing missing middle housing types, but by allowing additional square footage in order to build multi-plexes and adding the affordability requirement to building anything above a triplex. For example, in Minneapolis, the interior square footage of a building can be up to the half the square footage of

its lot, regardless of how many units are in the home. On a 5,000 square foot lot, a 2,500 square foot house may be built. On the same size lot, a duplex would also need to be a maximum of 2,000 square feet. This effectively disincentivizes developers from building duplexes and triplexes.[4] Portland's approach caps house sizes (allowing, for example, a maximum of 2,500 square feet for a single-family home in their R-5 zones), but incrementally adds 500 square feet for duplexes and another 500 square feet for triplexes and quadplexes. This is predicted to create more economically attractive opportunities for missing middle housing developers.

Some states are taking on low-density zoning reform, arguing that state or even federal leadership on zoning reform is needed to not only "force anti-housing cities to welcome a bit more housing … [but] also open up useful new debates in pro-housing cities. The trick is to override the universal bias toward the status quo." (Anderson 2020b). Portland's legislation, for example, was built on a statewide measure passed in Oregon in 2019 that requires duplexes to be allowed in areas zoned single-family (in cities across the state with more than 10,000 people), and in the Portland metro area requires the city to allow quadplexes and cottage clusters in single family zones. The California legislature has struggled to pass statewide legislation despite the intensity of the affordable housing crisis in the state. Although California lawmakers passed legislation in 2016 to remove local barriers to accessory dwelling units and in 2017 to modify single-family zoning throughout the state by requiring expedited approval of up to two accessory dwelling units (ADUs) on all residential property, a more comprehensive bill (SB 50) that would have required four-plex residential zoning statewide and required cities and counties to change

[4] Minneapolis is currently in the process of undertaking a Built Form Rezoning Study, which proposes to make changes that address this and other similar problems. See https://minneapolis2040.com/implementation/built-form-rezoning-study/.

local zoning laws to allow for new, denser housing near new job centers and transit hubs failed in January 2020 due to opposition from local governments, anti-gentrification activists, and other anti-change/pro-single-family advocates. Other states have introduced or passed upzoning legislation, including Washington, Nebraska, Virginia, and Maryland. Of note, Nebraska's legislative bill 794, titled the "Missing Middle Housing Act," was indefinitely postponed in August 2020.

At a federal level, it remains to be seen whether federal policies might be put into place that either force or incentivize local and state governments to reform their exclusionary zoning laws that prevent multi-family housing construction. In June 2019 President Donald Trump issued an Executive Order acknowledging the problems Americans are having attaining affordable housing, recognizing that federal, state, local and tribal governments impose a multitude of regulatory barriers that hinder the development of housing, and establishing a White House Council on Eliminating Regulatory Barriers to Affordable Housing.[5] The Council was charged with identifying regulations and administrative practices that raise the cost of housing development and contribute to shortages in housing supply and identifying practices and strategies that successfully reduce and remove these barriers. This Order, while it may seem to have the right idea, seems to be more of a deregulation mandate, and reads like a wish list of regulations that large-scale housing developers view as inconvenient obstacles to maximizing profits. This is illustrated clearly by the list of regulatory barriers that the Council is charged with addressing: zoning and growth management, rent controls, cumbersome building and

[5] See Executive Order Establishing a White House Council on Eliminating Regulatory Barriers to Affordable Housing, accessed November 14, 2020, https://www.whitehouse.gov/presidential-actions/executive-order-establishing-white-house-council-eliminating-regulatory-barriers-affordable-housing/

rehabilitation codes, excessive energy and water efficiency mandates, unreasonable maximum density allowances, historic preservation requirements, overly burdensome wetland or environmental regulations, outdated manufactured-housing regulations, undue parking requirements, time-consuming permitting and review procedures, tax policies that discourage investment, overly complex labor requirements, and inordinate impact or developer fees.

During his campaign, Democratic presidential candidate Joe Biden pledged to fight discrimination in housing by taking action against exclusionary zoning. As a candidate he proposed a Local Housing Policy Grant program, funded with $300 million dollars (Andrews 2020). Under this program municipalities must create a plan for reducing zoning barriers to be eligible for grants. He also proposed making Community Development Block Grants (CDBGs) and Surface Transportation Block Grants contingent upon a zoning plan. However, it's unclear whether such a program would work. The idea of withholding CDBG funds to communities with discriminatory zoning is not new, and not unique to Joe Biden or the other 2020 Democratic presidential candidates, many of whom included similar idea in their housing policy statements (Andrews 2019a). President Nixon's first Secretary of Housing and Urban Development, George Romney, suggested withholding federal infrastructure funding to such communities, and in 2018 HUD Secretary Ben Carson made a similar suggestion (Schuetz 2018). However, Jenny Schuetz at the Brookings Institution found that withholding CDBG funds may not be the most effective "stick" (Schuetz 2018). The CDBG Entitlement Program, she wrote, is not one program, but several different funding streams with different targets. The stream most relevant to incentivizing local zoning reform is the CBDG Entitlement Program, which grants funds to communities based on population size, poverty, housing age, and housing conditions. The program is designed so that larger and poorer communities receive more than wealthy communities. Her study of New

Jersey and California showed that CDBG grantees are larger, poorer, and have less exclusive housing markets. Wealthy communities are more likely to have single-family zoning or be exclusionary suburbs, yet are less likely to received CDBG funds. Thus, the communities most likely to need a push to reform their exclusionary zoning policies and practices are less likely to rely on CBBG funds, and possibly less likely to respond to the threat of not receiving those funds. She pointed out, however, that some big-city CDBG grantees have exclusive neighborhoods that could benefit from zoning reform, including San Francisco, Berkeley and Los Angeles. She maintains, however, that withholding CDBG funds is a blunt instrument and that zoning reform at a federal level might be best encouraged a program of educating local governments with expert research one land use regulations conducted by HUD.

2020 Democratic presidential candidate Senator Cory Booker's housing plan included withholding money from federal transportation funds and program unless local governments reformed their zoning regulations. Cited in a July 2019 *Curbed* article (Andrews 2019b), University of Iowa law professor Greg Shill pointed out that using federal appropriations in this way holds potential.[6] "Federal appropriations in this space are already conditional … Even at the policy level, there's a lack of awareness around these tools, so it's great to see them getting attention from presidential candidates; conditional appropriation and preemption can be very powerful ways to improve public health, economic development, and climate mitigation." The article's authors point to a precedent where the federal government withheld transportation money to induce change at a more local level for a social good. In 1984 President Ronald Reagan signed an act that cut 10% of a state's federal highway funding if the state didn't raise the

[6] Jeff Andrews, "Cory Booker and Elizabeth Warren Want to Force Cities to Adopt YIMBY Policies. Can They?" July 22, 2019, https://archive.curbed.com/2019/7/22/20699372/yimby-cory-booker-elizabeth-warren-election-2020.

drinking age from 18 to 21. Although challenged, the act was upheld in 1987 by the Supreme Court. Conditional federal appropriations might be a useful tool to incentivize low-density zoning reform.

As President-elect, Joe Biden has proposed a $640 billion, 10-year housing plan in which low-density zoning reform plays a prominent role.[7] In it he directs the Secretaries of HUD and Transportation to identify existing federal grant programs that can be amended by adding zoning reform as a requirement. The plan also proposes to expand investments in Local Housing Policy Grants to give states and localities technical assistance and planning support needed to modernize housing regulations. The role of the federal government in low-density zoning reform remains to be seen.

Will low-density zoning reform achieve its intended goals?

With most instances of low-density zoning reform (LDZR) occurring within the last few years, it remains to be seen whether it is an effective way to increase the supply of affordable housing. How do we measure success of LDZR? We can look at whether the reforms resulted in the construction of more housing, and whether the construction of this new housing actually increased the supply of the type or level of *affordable* housing a community needs. Many of the LDZR initiatives around the U.S. tie directly to enabling the delivery of missing middle housing typologies, or house-scale multi-family housing in walkable and/or high-amenity areas. Missing middle housing can happen on a variety of sites (greyfield, greenfield, and infill), but it remains to be seen whether low-density zoning reforms that pave the way for adding small multiplexes

[7] "The Biden Plan for Investing in Our Communities Through Housing, accessed November 15, 2020, https://joebiden.com/housing/.

and backyard cottages in neighborhoods that formerly excluded them will actually push the needle on meeting a community's affordable housing supply needs.

Changing zoning may reduce regulatory barriers to building more affordable housing, but it does not reduce the market barriers. Zoning reform opens up opportunities to increase the affordable housing supply, but its success relies on the market to produce housing. Upzoned land holds more development potential and thus becomes more valuable, and the price of land, of course, figures into the developers' math.[8] A 2019 study of Chicago has garnered a great deal of attention. The study, *Upzoning Chicago: Impacts of a Zoning Reform on Property Values and Housing Construction*, concluded that upzoning measures enacted in Chicago had the effect of increasing land values on upzoned parcels and did not positively impact the number of newly permitted dwellings over five years (Freemark 2019a). The study was used as part of the effort to kill California's SB 50, and the author has since published a new perspective, clarifying that his study looked at short-term effects of increasing zoning density *allowances* (not measuring impact of actual density increases) in one city, and that his work underscores the importance of accompanying zoning reforms with other mechanisms to ensure affordability (Freemark 2019b). Unlike Chicago's upzoning, SB 50 included renter protections in high-displacement risk areas, the prohibition of the demolition of existing rental housing, an affordable unit requirement (15-25%) for any new housing developments with ten or more units, and a 5-year community review period to establishing new zoning rules for areas deemed more vulnerable to gentrification.[9]

[8] This conversation can sometimes get complicated by the idea of the "filtering effect," an oft-debated theory that the construction of new housing, even higher-priced new housing, can lower rents for lower-income people by reducing the competition in the housing market. The filtering effect may in fact happen in some markets, but is unpredictable. The filtering effect can also be used to justify the construction of large, multi-family high-rise structures, which is only one piece of the affordable housing supply puzzle.

[9] SB 50 was postponed and may come up again the California legislature in 2020.

In the case of Minneapolis, the program hasn't been in place for long enough to measure its success. Minneapolis' Plan 2040 not only removed barriers to building duplexes and triplexes in the city's single-family zones and allowed denser development in transit zones, but also proposed a $40 million investment in programs that support renters and combat homelessness (Sisson 2018). But will it work? As of September 1, 2020 (8 months after the Plan's enactment), only three triplex building permits had been requested (Jones 2020). Planners in Minneapolis are not surprised; missing middle housing typologies are not as easy to finance, and not as profitable for developers. Another limiting factor is that even though triplexes are now allowed, the underlying code is still written to deliver single-family detached houses. Height restrictions and building setback requirements are the same and, as discussed earlier, a triplex on a single-family lot must fit within the footprint of the original building. This is a huge limiting factor in a city with a lot of 40-foot lots, and as noted above, may be slated to change in 2020 to reduce those barriers. As quoted in Sisson's *Curbed* article, former city planner Tim Keane said the plan is a "radical social engineering experiment without a shred of empirical data to support its shifting goals" (Sisson 2018). Portland's comprehensive LDZR package may hold more potential to deliver affordable housing to the city. Policymakers, state and local governments, and housing scholars will be looking at Minneapolis and Portland for empirical data in the coming years. These cities have led the way and will undoubtedly bear the brunt of criticism as they work out the kinks in their plans, and it may take some regulatory tweaks and some time for developers to figure out how to realize these opportunities.

Are the gains going to be too small to make a difference in the supply of affordable housing? According to Jenny Schuetz of the Brookings Institution, the value of upzoning is greatest in areas where land values are high, where developers already want to build, and where

additional units will generate a profit for the landowner (Budds 2020). Schuetz maintains that gentle increases in upzoning thus far have not resulted in enough development to significantly impact housing affordability. For example, is allowing accessory dwelling units in single-family zones going to make a real impact on creating new affordable housing? Portland, Oregon has allowed ADUs since 1997, but since then only 1,900 have been built (although this has increased sharply after Portland dropped its systems development charges in 2016) (Peterson 2020). Schuetz also argues that the permitting process and building regulations need to be examined for ways they may enable or limit affordable housing supply. She cites basement apartments as an example; if an updated zoning regulation allows basement apartments, but building codes require an apartment to have 7-foot ceiling height, then many homes in older neighborhoods will not be able to take advantage of the new opportunity unless they want to pay to have their basement dug out. Ultimately, she maintains that targeted and direct approaches to address the housing shortage (such as tying state funding to having a housing plan) are likely to be effective blanket directives, like upzoning an entire city or state. Schuetz (quoted by Budds 2020) says: "I would rather they give local governments quantitative targets for how much housing they ought to produce. We can look at things like rate of population growth and job growth and get a sense of the places that really aren't building enough housing to keep up with demand, give them a target, and then give them some financial carrots and sticks to keep them accountable."

Low-density zoning reform, by itself, is not going to solve a city's affordable housing problem. It's critical that we also invest in building public housing that stays affordable in perpetuity, vouchers and other subsidy programs for low-income families, tenant protections, and programs to combat homelessness. We must do the work to identify areas at greatest risk for new housing causing the displacement poor or minority populations and put programs into place that

protect these communities. LDZR is a start toward righting past wrongs in housing access, but an incomplete solution. It will take some time for us to know the answers to these questions: How long will the market take to respond to these changes? Who is benefitting/profiting? Who is being exploited or displaced? What type of housing is appearing? Is it affordable? For whom? Will it be enough?

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APPENDIX B

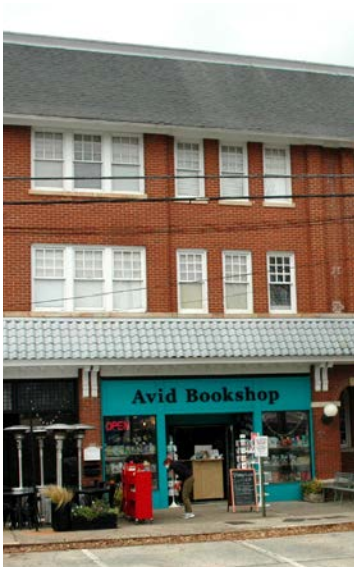
2022 MISSING MIDDLE HOUSING SCAN PREPARED FOR ATHENS-CLARKE COUNTY, GEORGIA BY OPTICOS DESIGN, INC.: ANALYSIS AND DEFINITION OF BARRIERS TO MISSING MIDDLE HOUSING

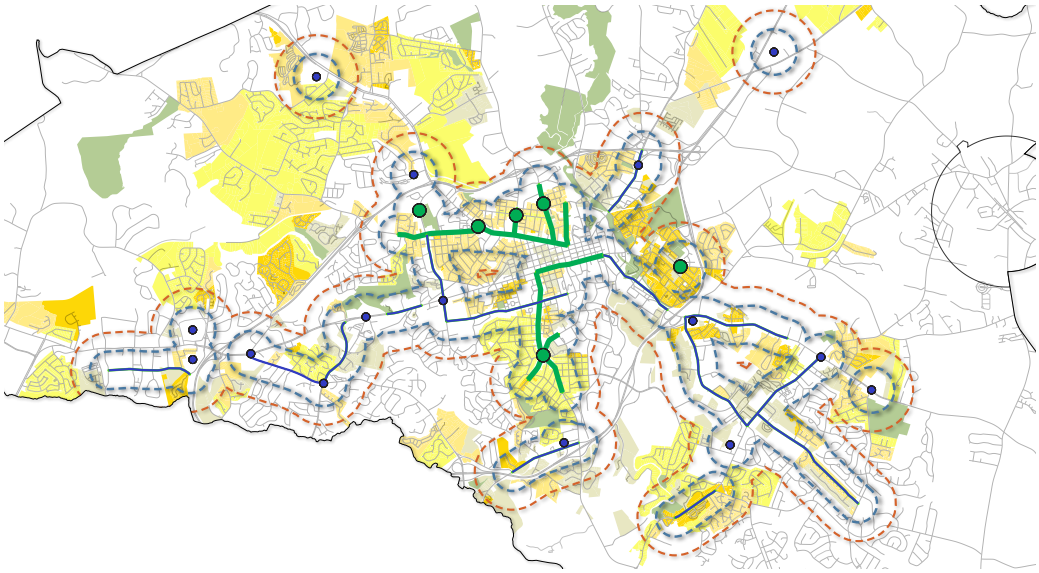
MMH Scan™

Analysis + Definition of Barriers to Missing Middle Housing

Prepared for:
Athens-Clarke County, GA

April 08, 2022





OPTICOS

Prepared For:

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What's Inside?

MMH Scan™ Analysis + Definition of Barriers to Missing Middle Housing

Purpose + Objectives

CHAPTER 1

In this chapter

1.1 What This Study Is About

Athens-Clarke County is working to expand the variety of housing choice and promote affordability.

The Need for More Housing Choices

Increasingly, millennials and baby boomers are looking for more choices and smaller places to live that are within walking distance of their lifestyle. But the choices primarily continue to be single-family houses and large apartment projects. In ACC, since 2019, single-family homes, townhouses and large apartments (over 20 units) have been 83.2% of the total 53,633 units built, approved, or planned.[1] Duplexes and smaller apartment projects (3-19 units) have been 9.7% of the total.[1]

Source

[1] *U.S. Census Bureau*

The Need for Regulatory Change

Too often, the types and size of new dwellings that the market wants are not allowed by local policy or zoning regulations. This leaves innovative developments needing to go through complex and uncertain review processes when trying to respond to the shifting market. Regulatory change is needed to make new investment predictable and simple.

Missing Middle Housing (MMH) is intended to be part of low-rise residential neighborhoods, which are typically zoned as some variety of "single-family residential". However, because MMH contains multiple units, it is, by definition, not allowed in single-unit zoning districts. But MMH is not the same as typical apartment projects either.

Typical multi-family zoning districts allow much bigger buildings (taller and wider) and also typically encourage lot aggregation and large suburban garden apartment buildings. The environments created by these zoning districts are not what is intended by MMH.

Focus of this Study

The scope of work provided for in-depth analysis of up to four zones across ACC. ACC selected the following zones to study how these zones could contribute to generating MMH: RM-1, RS-15, RS-8, and RS-5. These zones were selected for two key reasons: how much they occur near existing and potential Walkable Centers, and because the allowed size of buildings in these zones best aligns with the House-scale nature of MMH.

Location of Available U.S. Housing Stock

90% of available housing in the U.S. is located in a conventional neighborhood of single-unit homes, adding up to a 35 million unit housing shortage.[2]

Based on the need for more and affordable housing choices, ACC is taking the leadership role to identify the barriers that hinder or prevent MMH. The results of this study and specific recommendations are in Chapter 3. These results and recommendations will benefit ACC most if pursued by a broad coalition of public and private sector groups and individuals working together.

Source

[2] *Dr. Arthur C. Nelson "Missing Middle: Demand and Benefits", Utah ULI Conference, October 21, 2014*

Note

In this analysis "single-family" is hereafter referred to as "single-unit."

Figure 1.1 *An example of a Courtyard Building MMH type (Atlanta, GA)*

1.2 Overview of Athens-Clarke County's Population + Housing

Population Projections Through 2040

By 2040, ACC is projected to become home to an additional 26,425 residents. Using the average household size for ACC (2.36 people), that means an additional 11,197 units over the next 18 years, or an annual average of 622 units. To put this in perspective, in 2019, ACC produced 673 new units, 328 of which were single-unit dwellings.

For 2020 and 2021, ACC produced an average of 748 new units, of which 110 were single-unit dwellings.

Population Characteristics	
Total Population[1]	128,671
Average Household Size[1]	2.36
Homeowners[1]	39.0%
Renters[1]	63.3%
Renter Vacancy Rate[1]	2.9%
Median Household Income[1]	$36,623
Median Home Value[1]	$170,700
Median Monthly Rent[1]	$856
Total Amount of Land[2]	75,632 acres
Amount of Land Zoned for multi-family Housing[2]	7.0% (4,963 acres)

[1] U.S. Census Bureau

[2] ACC Planning GIS

Housing Types (Existing)		
	Total	**%**
Single-unit, Detached[3]	26,496	49.4
Single-unit, Attached[3,4]	3,190	5.9
Duplexes[5]	4,352	8.1
Buildings with 3-4 Units[5,6]	162	0.3
Buildings with 5-9 Units[5,6]	161	0.3
Buildings with 10-19 Units[5,6]	527	1.0
Buildings with >20 Units[5]	14,939	27.9
Mobile Homes[5]	2,466	4.6
Other[5,7]	1,340	2.5
Total:	53,633	

[3] ACC Planning LBCS Data

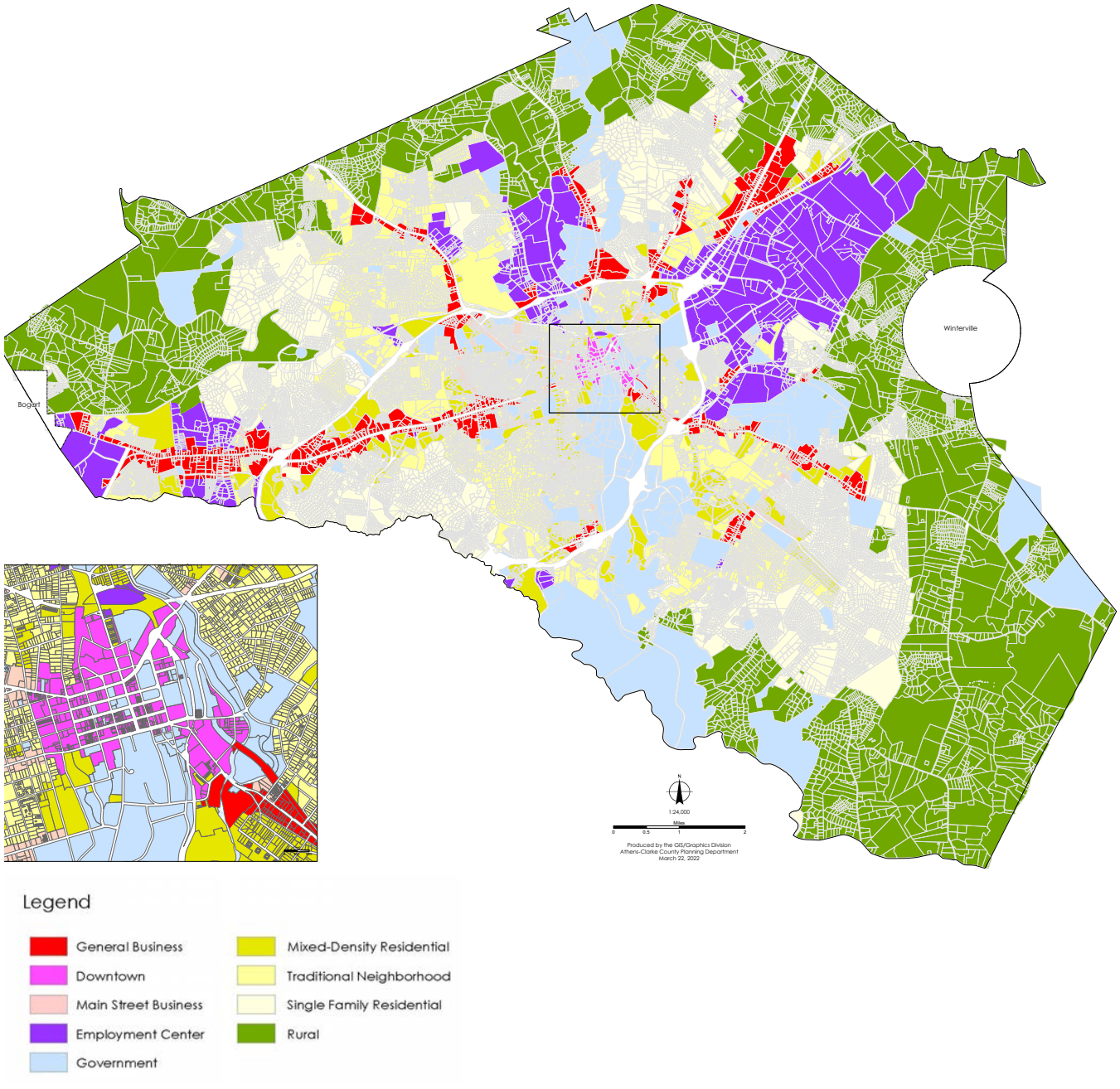
[4] Includes Townhouses

[5] ACC Tax Assessor Data

[6] May include some MMH types

[7] Dorms, Fraternities/Sororities, Other Institutional units

Figure 1.3 *Future Land Use Map of Athens-Clarke County*



1.3 Why Missing Middle Housing (MMH) Is Important in The Future of Communities

Eight key national trends point to MMH as an essential part of communities' strategy for reinvestment and housing production.

Sources

[1] *National Association of Realtors*
[2] *American Planning Association*

Cities Are Prioritizing Walkability for Their Triple-bottom-line Benefits

- The improved physical and mental health of residents;
- Environmental stewardship; and
- Economic benefits.

Walkable Living in Demand

- There is a 20-35% gap between the demand and supply of walkable urban living choices. Essentially two housing products, single-unit houses and mid/high-rise apartments, are creating the gap, and
- 60% of people favor neighborhoods with a walkable mix of houses and stores rather than neighborhoods that require more driving between home, work, and play.[1]

Housing Choices Have Been at Extreme Ends of The Spectrum

For the past 75 years, we have primarily been building detached single-unit houses and mid-rise/high-rise apartments, without addressing the market needs between these two ends.

Millennials and Baby Boomers[2]

- 56% of millennials and 46% of baby boomers want to live in more Walkable Neighborhoods, and
- 59% of millennials and 27% of baby boomers are looking for MMH.

Office Tenants[3]

Office tenants prefer locations in walkable environments over typical suburban office parks by a ratio of 4 to 1.

Changing Demographics[4]

By 2025, 85% of households will not have children, but we are building as if they will. Millennials, baby boomers, and single person households do not need or want a large yard or house to maintain. Further, nearly 30% of them are single-person households.

10,000 Baby Boomers Retire Every Day[5]

Half of them have no retirement savings and depend on their social security payment (avg. $1,341 per month), requiring smaller and more affordable housing choices.

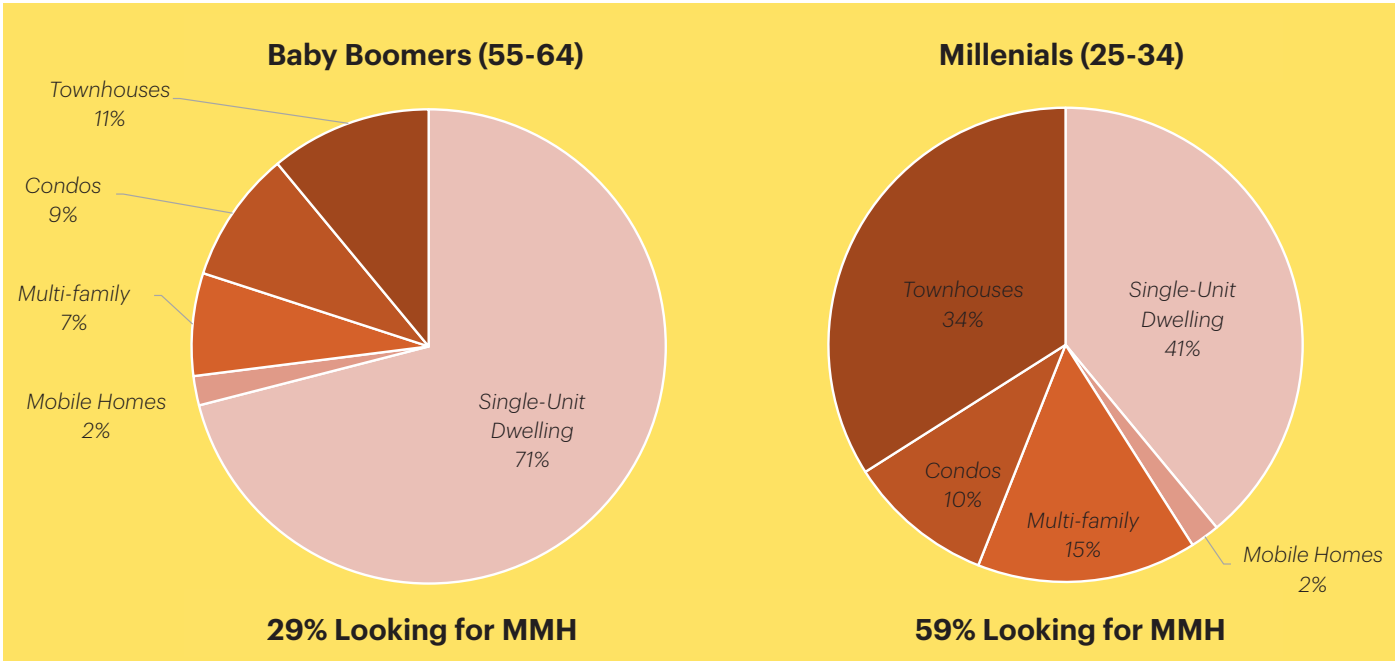
Shortage of 3 Million Units

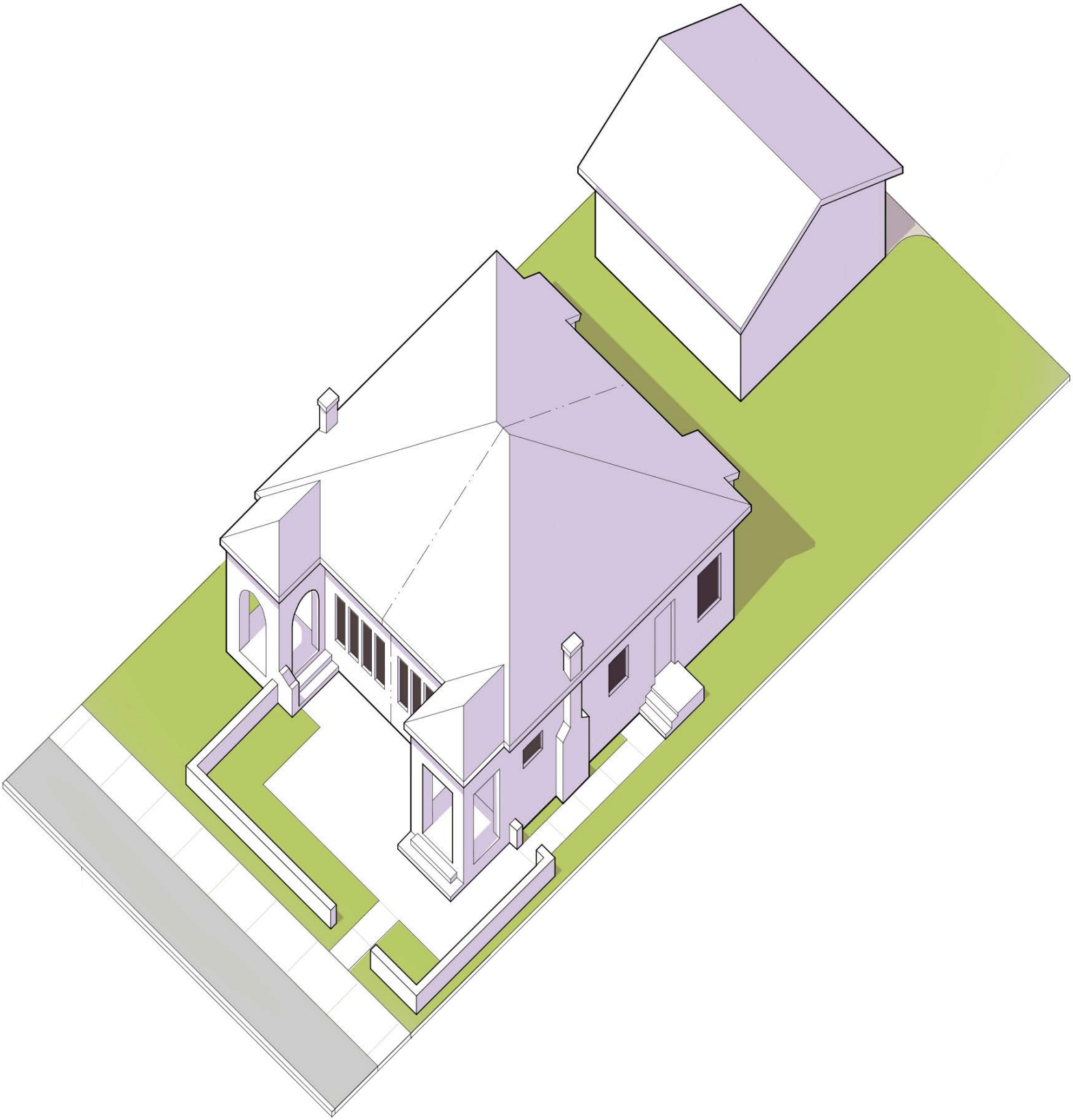
Across the U.S., we are short of the demand for small lot and attached housing units.

Sources

[3] *NAIOP Commercial Real Estate Development Association*
[4] *U.S. Census Bureau*
[5] *Home.one*

Figure 1.4 *Housing type preferences of Baby Boomers and Millenials*[2]





CHAPTER 2

About Missing Middle Housing

In this chapter

2.1 What Is Missing Middle Housing?

House-scale buildings with multiple units in Walkable Neighborhoods

Responding to The Demand for Walkable Urban Living

The mismatch between current US housing stock and shifting demographics, combined with the growing demand for walkable urban living, has been poignantly defined by recent research and publications by Christopher Nelson and Chris Leinberger, and most recently by the Urban Land Institute's publication "What's Next: Real Estate in the New Economy."

The solution is not as simple as adding more multi-family housing stock using the same housing typologies that have been built over the past couple of decades. Instead, it will be necessary to shift the way that we design, locate, regulate, and develop homes. As "What's Next" states, "It's a time to rethink and evolve, reinvent and renew." To that end, MMH types such as Duplexes, Fourplexes, Cottage Courts, Multiplexes, Townhouses, and Live/Work units, are a critical part of the solution and should be in the toolbox of every architect, planner, real estate agent, and developer.

Well-designed and simple, Missing Middle types achieve medium-density yields and provide high-quality, marketable options between the scales of single-unit homes and mid-rise apartments. They are designed to meet the specific needs of shifting demographics and new market demands and are a key component in neighborhoods offering diverse housing choices. They are called "missing" because very few of these

Figure 2.1 *Walkable Neighborhoods within a 5-minute walk (blue dashed area) and 10-minute walk (orange dashed areas) or 5-minute bike ride surrounding a variety of Walkable Centers (green dot).*

CLOSER LOOK

Walkable Neighborhood

These are places where a person can easily walk or bike to home, work, or to fulfill most daily needs, including shopping and recreation. The compact form and mix of uses found in a Walkable Neighborhood are anchored by "Walkable Centers": where neighborhood-serving retail, food, services, and employment are located in a pedestrian-oriented environment, affording multi-modal access throughout the area. These environments accommodate but do not depend on the use of automobiles for most daily needs. This was the standard model developed prior to the 1940s. See Section 2.3 for more information on "Walkable Centers".

housing types have been built since the early 1940s due to regulatory constraints, the shift to auto-dependent patterns of development, and the incentivization of single-unit homeownership by the federal government. Before the 1940s, they were a natural part of the housing mix, helping to provide housing choices to people at a variety of stages in their life and income levels. Communities and organizations, including AARP, are realizing that MMH is important in helping neighborhoods thrive while providing housing choices as people age and can stay in their neighborhood.

A Walkable Context

A critical characteristic of the MMH types is that they are most effective when located within an existing or newly created walkable context. Buyers or renters of these housing types are choosing to trade larger suburban housing for less space, less yard to maintain, and proximity to services and amenities such as restaurants, bars, markets, services, and employment. Figure 2.1 shows a "walkable" area in ACC surrounding mixed-use "centers" that are not car-dependent.

Medium-density but Lower Perceived Densities

Missing Middle building types typically range in density from about 10 dwelling units per acre (du/acre) to up to 50 or 60 du/acre, depending on the building type and lot size. It is important not to get distracted with the density numbers when thinking about these types. Density is an unpredictable factor that depends on many variables; see Figures 2.2 and 2.3 as an example. Due to the small footprint of MMH types, and the fact that they are usually mixed with a variety of building types, even on an individual block, their perceived density is usually quite low—they do not look like dense buildings.

A combination of these types provides a neighborhood with a minimum average of 16 du/acre. This is generally the threshold at which an environment has enough people to be transit-supportive and when neighborhood-serving, walkable retail, and services become viable.

Small Footprint and Blended Densities

A common characteristic of these housing types is their small-to-medium-sized building footprints. The largest of the Missing Middle types have a typical main body width of about 40 to 60 feet and can be up to 75 feet overall when secondary wings are included. These sizes are comparable to a large estate home. This makes these types ideal for urban infill and complete neighborhoods, even in older neighborhoods that were originally developed as single-unit but could be designated to allow slightly higher intensities.

Figure 2.2 *49 units, 30 du/ acre Building 175' x 165', 3 Stories*

Figure 2.3 *5 units, 29 du/ acre Building 40' x 65', 2 Stories*

Smaller, Well-designed Units

A common mistake by architects or builders new to the urban housing market is trying to force suburban unit types and sizes into urban contexts and housing types. The starting point for MMH is smaller-unit sizes (500 to 1,000 square feet). The challenge is to create small spaces that are well designed, comfortable, and usable. As an added benefit, smaller-unit sizes can help developers keep their costs down, improving the proforma performance of a project, while keeping the housing available to a larger group of buyers or renters at a lower price point.

Off-street Parking Does Not Drive The Site Plan

Trying to provide too much on-site parking can make a MMH develop project not viable. If large parking areas are provided or required, these buildings become very inefficient from a development potential or yield standpoint. As a starting point, these units should provide no more than one off-street parking space per unit. A good example of this is newly constructed mansion apartments in the new East Beach neighborhood in Norfolk, VA. To enable these lower off-street parking requirements, on-street parking is required to be available adjacent to the units. Housing design that forces too much on-site parking also compromises the occupant's experience of entering the building or "coming home" and the relationship with its context, especially in an infill condition, which can greatly impact marketability.

Figure 2.4 *The simple forms, smaller size, and compatibility with Type V construction help maximize affordability and investment returns, and are consistent with the construction strategies familiar to most residential homebuilders, as shown in this under-construction MMH project in Papillion, Nebraska.*

Simple Construction

"What's Next" states, "Affordability—always a key element in housing markets—is taking on a whole new meaning as developers reach for ways to make attractive homes within the means of financially constrained buyers." Because of their simple forms, smaller size, and Type V construction, Missing Middle building types can help developers maximize affordability and returns without compromising quality by providing housing types that are simple and affordable to build.

Creating Community

MMH creates community through the integration of shared community spaces within the types, as is the case for Courtyard Buildings or Cottage Courts, or simply from the proximity they provide to the community within a building and/or the neighborhood. This is an important aspect, in particular within the growing market of single-person households (which is at nearly 30% of all households, nationally) that want to be part of a community. This has been especially true for single women who have proven to be a strong market for these MMH types, in particular Cottage Courts.

Marketability

A final critical characteristic is that these housing types are very close in scale to single-unit homes and provide a similar user experience. For example, in these types, you enter through a front porch facing the street instead of walking down a long corridor or anonymous stairway to get to your unit. This makes the mental shift for potential buyers and renters much less drastic than making a shift to live in a large apartment building. This, combined with the fact that many baby boomers likely grew up in or near to similar housing types in urban areas or had relatives that did, enables them to easily relate to these housing types.

This is a call for architects, planners, real estate professionals, and developers to think outside the box and to begin to create immediate, viable solutions to address the mismatch between the housing stock and what the market is demanding: vibrant, diverse, sustainable, walkable urban places. MMH types are an important part of this solution and should be integrated into comprehensive and regional planning, zoning code updates, TOD strategies, and business models for developers and builders who want to be at the forefront of this paradigm shift.

Upper Missing Middle Housing

Upper Missing Middle Housing (Upper MMH) is the category of multi-unit buildings taller and deeper than MMH that still fit on the size of lots you would find in a single-unit neighborhood.

Upper MMH builds on MMH. By selecting strategic locations, it's still compatible with House-scale neighborhoods while likely achieving higher financial feasibility than MMH. Follwing are best practices to consider when using Upper MMH:

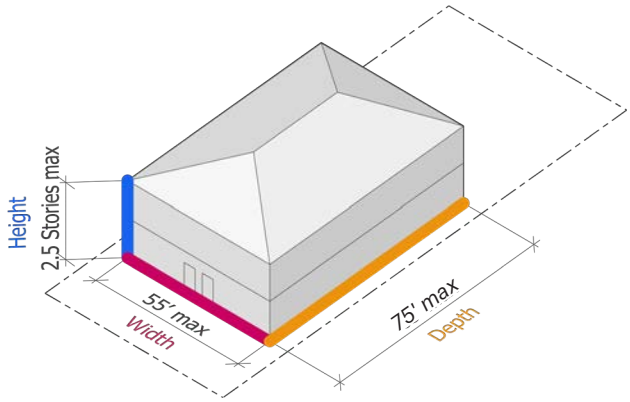
- Most effective where a greater degree of change is happening or desired.
- Use in transition areas of a neighborhood, connecting to more intense nodes or transit centers.
- Allow more lot coverage and/or deeper building footprints than for MMH.
- Require rear setback based on size of neighboring rear setbacks (up to 20 feet maximum)
- Reduced total stories along rear adjacent to neighboring houses.

Figure 2.5 *Example of where to consider locating Upper MMH in a neighborhood and along a corridor.*

Key

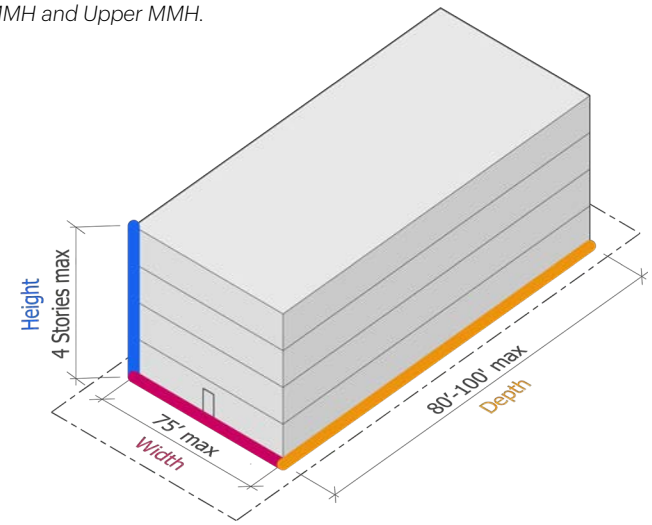
- Concentrate ground floor shops, services, food uses along major corridor
- Upper MMH along major corridor as transition to adjacent low intensity neighborhood
- Upper MMH secondary locations in response to ongoing change or desire for change

Figure 2.6 *The diagrams and images below show a comparison between MMH and Upper MMH.*



Missing Middle Housing (MMH)
Located within and along edges of low-to-moderate intensity neighborhoods.

Note: Wings not shown but allowed.



Upper Missing Middle Housing (Upper MMH)
Located along corridors and edges of neighborhoods where substantial change is happening or desired.

Duplex Side-by-Side (MMH)
2 units
Omaha, NE

Multiplex Large (Upper MMH)
7-18 units
Athens, GA

2.2 What Is A Missing Middle Building Type?

Figure 2.7 *MMH walking tour (top) and example documentation of a MMH type observed during the tour (bottom)*

Why Building Types Are Important for MMH

In order for MMH types to fit within the physical form of residential neighborhoods, it is important to understand the elements of building form and design that promote a house-scale look and feel. Building types provide a way to establish a common vocabulary that promotes house-scale building design. By providing this high degree of specificity, it is possible to promote more predictable outcomes in terms of what gets built. Higher degrees of predictability make it easier for the community to support new development projects since clear expectations in terms of building form can be set at the beginning of the development project.

CLOSER LOOK

How to Identify MMH Building Types in Athens-Clarke County

Taking an inventory of existing MMH types is the first step in creating building type standards. Many Missing Middle types may be non-conforming with existing zoning, or may have been converted into other uses, such as a single-unit home or offices, so it's important to do on-the-ground research to avoid overlooking existing examples. Mailboxes, electrical and gas meters, and window type/composition on the facade can indicate a Missing Middle type.

Existing Missing Middle types can provide guidance for calibrating zoning standards. Measuring lot dimensions, building footprints, frontage details, parking configurations, building height, location of units within the buildings, and location of building and/or unit entrances can help to define the unique characteristics of MMH types in ACC. Photo documentation also helps to inform standards, as well as providing examples of intended building form and character that can inform new development and infill development.

Characteristics of Missing Middle Building Types[1]

Missing Middle Housing is not a new type of building. It is a range of house-scale building types that exist in cities and towns across the country. These types were a fundamental part of pre-1940s neighborhoods, and many examples exist in ACC's more historic neighborhoods.

All MMH types share the following characteristics:

- **Height.** Two to two and a half stories maximum (third story as an exception; only allow Upper MMH with careful consideration of form and scale impact, see pages 18-19).
- **Multiple units per building.** Maximum of twenty units in largest MMH type; typically 12 units or less per building
- **Footprint.** Typical main body width of 40 to 60 feet along the street and can be up to 75 feet overall when secondary wings are included.
- **Off-street parking.** Recommend requiring no more than one off-street parking space per unit. This is based on being near to services, retail, and the availability of on-street parking. Detached garage buildings can help to maintain house-scale for the primary building in neighborhoods with narrower houses.
- **On-site open space.** Private open space is not needed and should not be required. Shared open space exists in the most intense MMH Types (Multiplex Large, Courtyard) in the form of a rear yard, sometimes as a wide side yard, or a courtyard.
- **Driveways.** Generally, driveway design for MMH types should match the neighborhood context on a per-lot basis. If no alley is present, single-wide driveways are recommended when possible to avoid building frontages dominated by parking.

Sources

[1] *Missing Middle Housing, Thinking Big and Building Small to Respond to Today's Housing Crisis, Dan Parolek, Island Press*

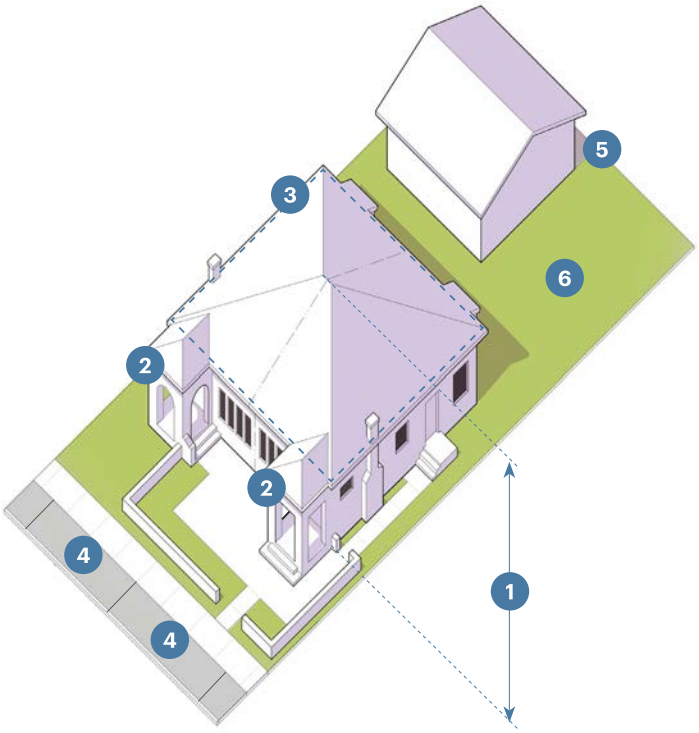


Figure 2.8 *Important features to regulate*

Key

1. Max. Height
2. Number of Units
3. Footprint/ Main Body Dimensions
4. On-street Parking
5. Driveways (if any)
6. On-site Open Space

Duplex Side-by-Side

Description

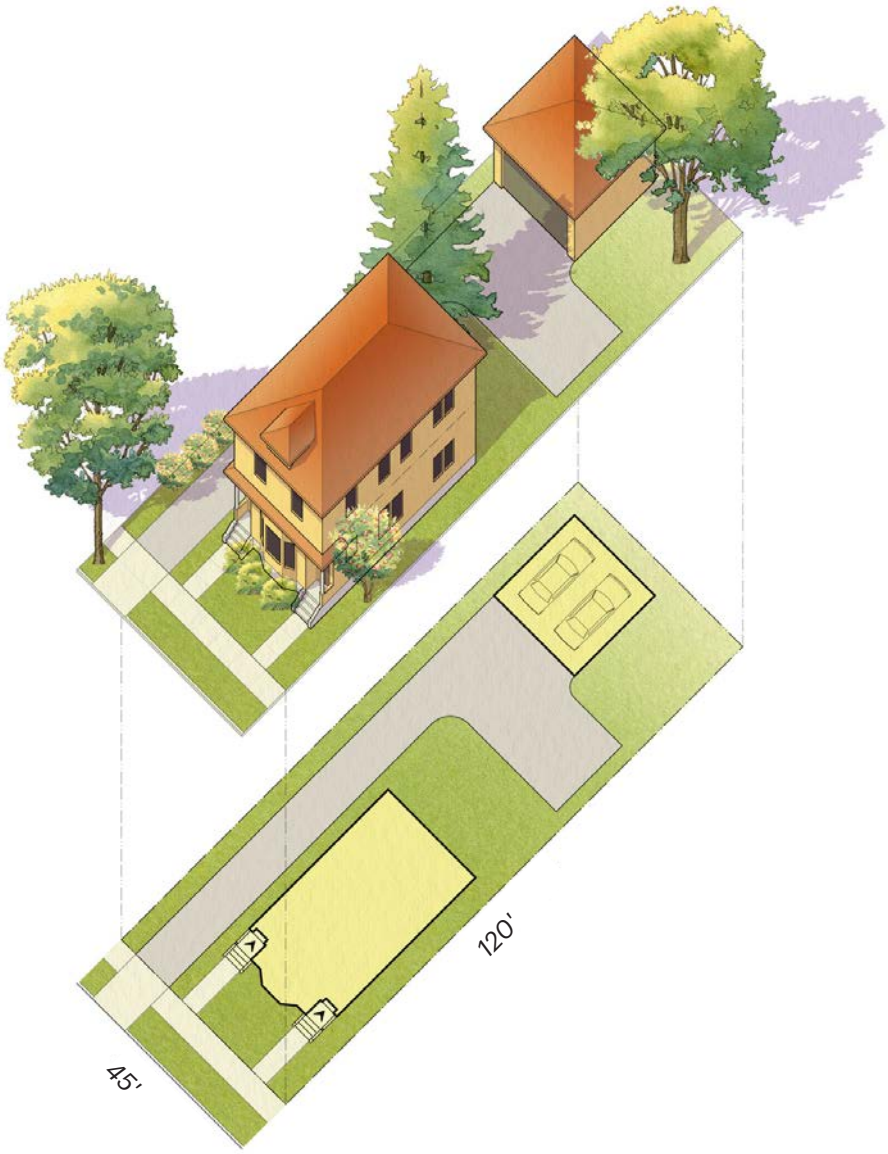
A small- to medium-sized building that consists of two dwelling units, one next to the other, both of which face and are entered from the street.

A variation of this is the "front-to-back" Duplex. This variation and the side-by-side building type are meant to provide two units within the footprint of a single-unit building. These are distinct from the non-recommended practice of attaching two single-unit houses to form two attached units. This latter approach often results in a building that is larger and is out of scale with its single-unit neighbors.

Accessory Dwelling Unit (ADU)
The ADU can be located above the garage building to provide an additional unit separate from the main building.

Duplex Side-by-Side			
Number of Units		**Vehicular Access**	
		Front	**Rear**
2	Lot Width (ft)	50' - 55'	45'
	Lot Depth (ft)	100' - 150'	100'
	Resultant Density (du/acre)		
	Without ADU	11 - 17.4	19.4
	With ADU	15.8 - 26.1	29

Duplex Stacked



Description

A small- to medium-sized building that consists of two stacked dwelling units, one on top of the other, both of which face and are entered from the street.

Accessory Dwelling Unit (ADU)
The ADU can be located above the garage building to provide an additional unit separate from the main building.

Duplex Stacked			
Number of Units		**Vehicular Access**	
		Front	**Rear**
2	Lot Width (ft)	45' - 50'	45'
	Lot Depth (ft)	100' - 130'	100'
	Resultant Density (du/acre)		
	Without ADU	13 - 25	19.4
	With ADU	20.1 - 26.1	29

Cottage Court/Bungalow Court

Description

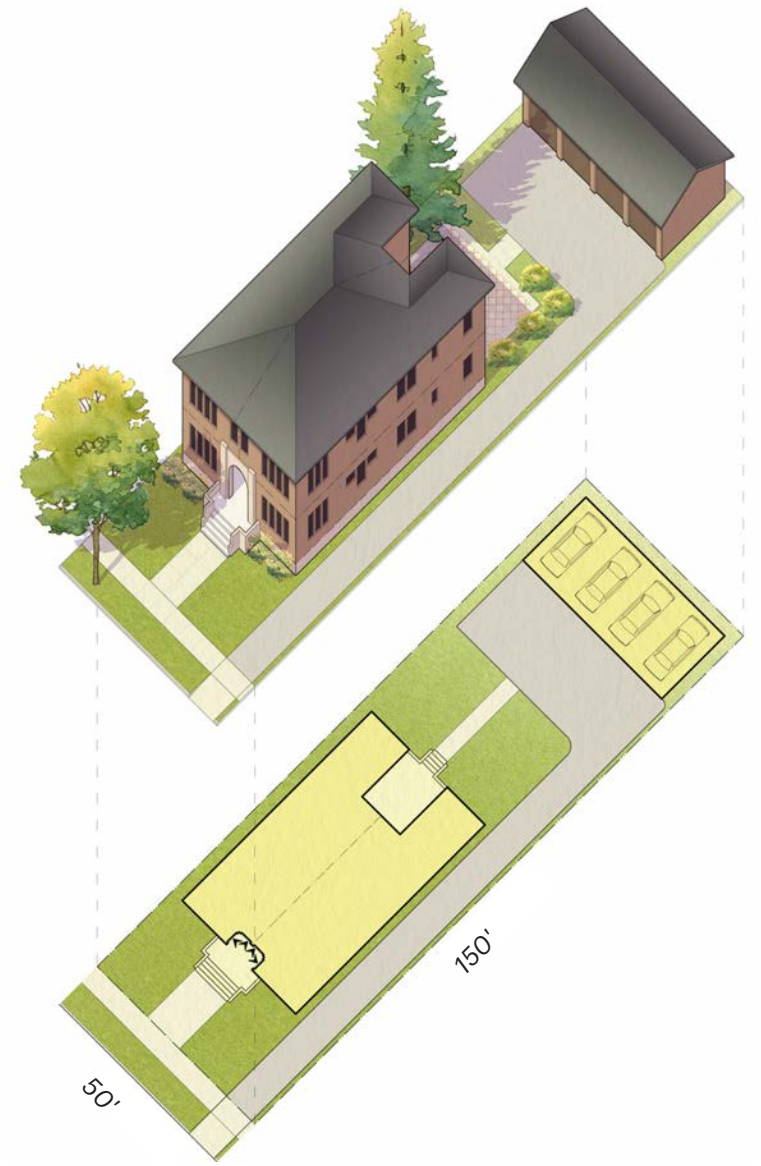
A series of small, detached buildings on a lot arranged to define a shared court that is typically perpendicular to the street. The shared court takes the place of a private rear yard and is an important community-enhancing element.

The Accessory Dwelling Unit (ADU) is not recommended for this type due to the limited number of available off-street parking spaces.

A larger version of this type is known as the “Pocket Neighborhood". This type differs from the Cottage Court primarily by site size. Typically, the Pocket Neighborhood is on a site at least twice as large as the Cottage Court, has larger dwellings and a variety of housing types (Houses, Duplexes, etc.).

Cottage Court/ Bungalow Court			
Number of Units		**Vehicular Access**	
		Front	**Rear**
3-10	Lot Width (ft)	110' - 115'	105'
	Lot Depth (ft)	205'	160'
	Resultant Density (du/acre)		
	Without ADU	15 - 19	28.5
	With ADU	n/a	n/a

Triplex/Fourplex



Description

A medium-sized building that consists of three to four units: typically two on the ground floor and up to two above with a shared entry from the street.

Accessory Dwelling Unit (ADU)

The ADU can be located above the garage building to provide an additional unit separate from the main building.

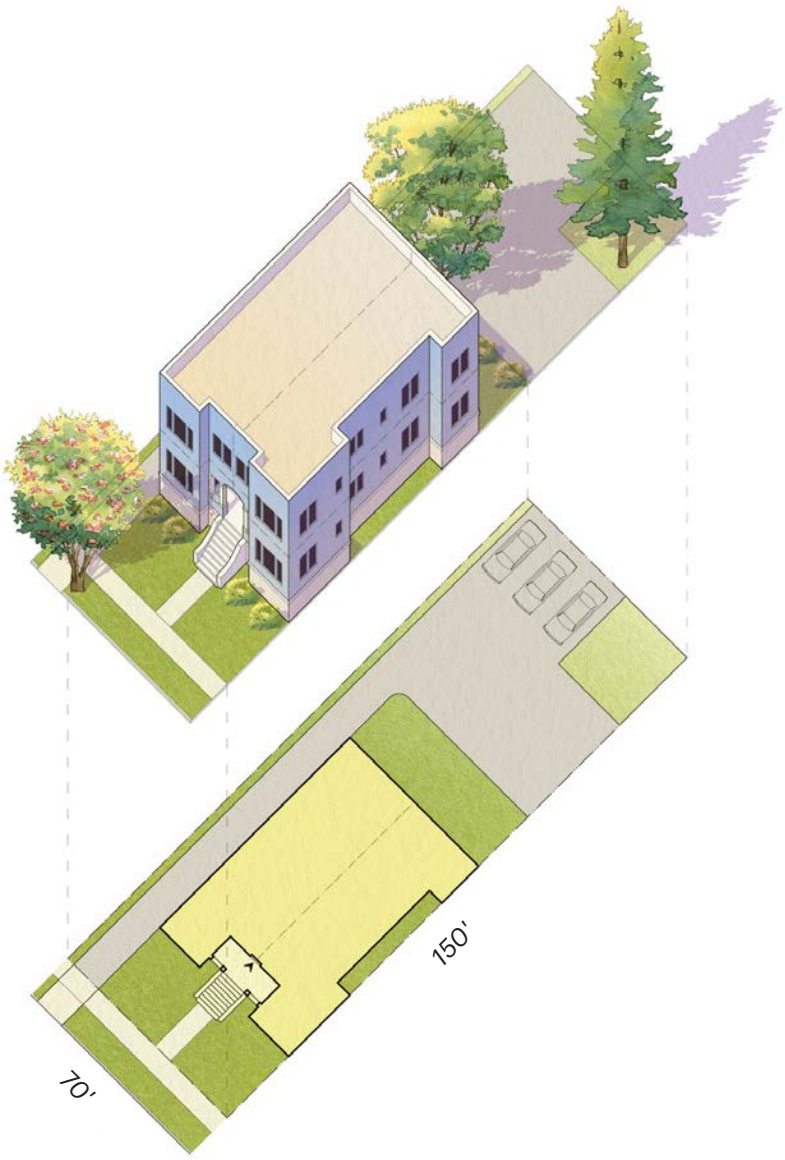
Triplex/Fourplex			
Number of Units		**Vehicular Access**	
		Front	**Rear**
3-4	Lot Width (ft)	50' - 60'	45'
	Lot Depth (ft)	110' - 150'	110'
	Resultant Density (du/acre)		
	Without ADU	20 - 29	35.2
	With ADU	25.9 - 31.7	44

Multiplex Small (Mansion)

Description

A medium-sized building that consists of 5 to 10 side-by-side and/or stacked dwelling units, typically with one shared entry or individual entries along the front and sometimes along one or both sides.

The Accessory Dwelling Unit (ADU) is not recommended for this type due to the limited number of available off-street parking spaces. In some situations, this type provides 0.5 parking spaces per unit at the lower end of the range of units.



Multiplex Small (Mansion)			
Number of Units		**Vehicular Access**	
		Front	**Rear**
5-10	Lot Width (ft)	70' - 75'	65'
	Lot Depth (ft)	110' - 150'	110'
	Resultant Density (du/acre)		
	Without ADU	33.3 - 44.6	60.9
	With ADU	n/a	n/a

Multiplex Large (Mansion)

Description

A medium-to-large-sized 2- to 3-story structure that consists of 7 to 18 side-by-side and/or stacked dwelling units, typically with one shared entry or individual entries along the front and sometimes along one or both sides.

The Accessory Dwelling Unit (ADU) is not recommended for this type due to the limited number of available off-street parking spaces. In some situations, this type provides 0.5 parking spaces per unit at the lower end of the range of units.

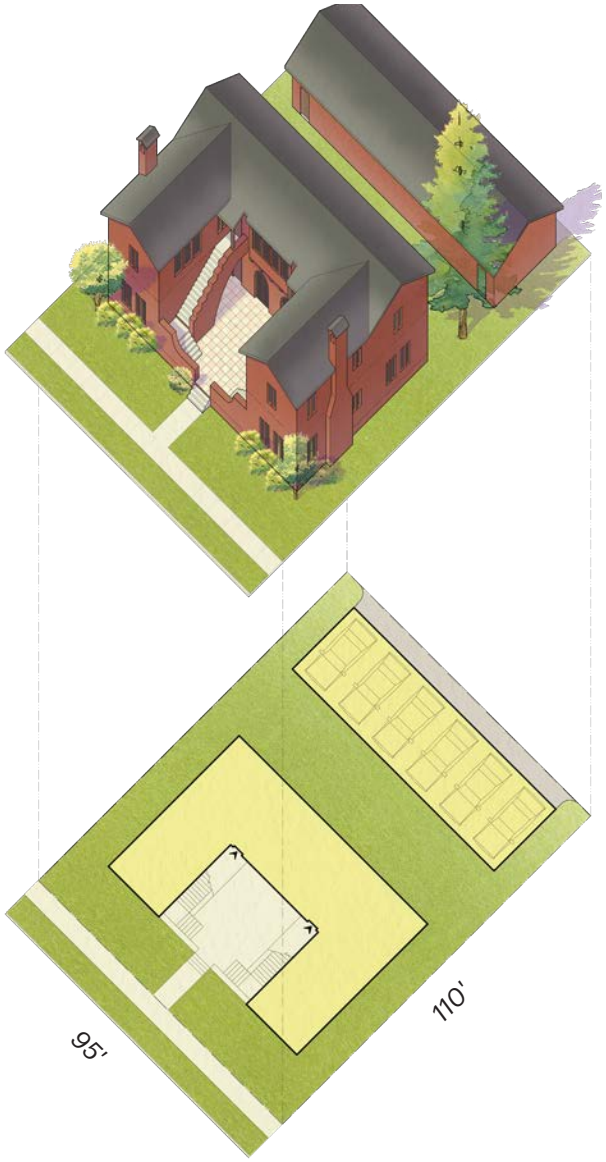
Multiplex Large			
Number of Units		**Vehicular Access**	
		Front	**Rear**
7-18	Lot Width (ft)	70' - 105'	65'
	Lot Depth (ft)	115' - 135'	115'
	Resultant Density (du/acre)		
	Without ADU	37 - 55.3	69.9
	With ADU	n/a	n/a

Courtyard Building

Description

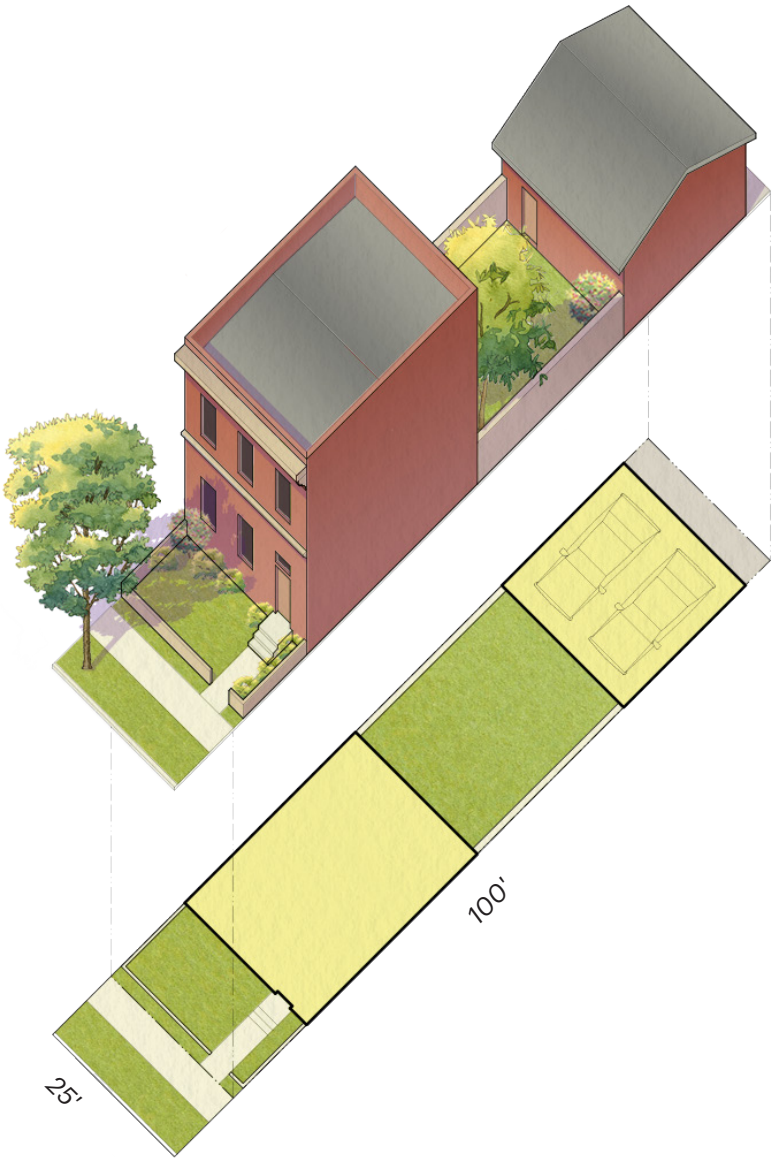
A medium- to large-sized building or up to three small-to-medium size detached buildings consisting of multiple side-by-side and/or stacked dwelling units arranged around a shared courtyard. Dwellings are accessed from the courtyard. Typically, each unit has its own individual entry or shares a common entry with up to three units.

The Accessory Dwelling Unit (ADU) is not recommended for this type due to the limited number of available off-street parking spaces.



Courtyard Building			
Number of Units		**Vehicular Access**	
		Front	**Rear**
6-20	Lot Width (ft)	100' - 125'	95'
	Lot Depth (ft)	110' - 150'	110'
	Resultant Density (du/acre)		
	Without ADU	18 - 46.5	88
	With ADU	n/a	n/a

Townhouse Small



Description

A small- to medium-sized building with one dwelling that is attached to other Townhouses in an array of up to four, depending on the context.

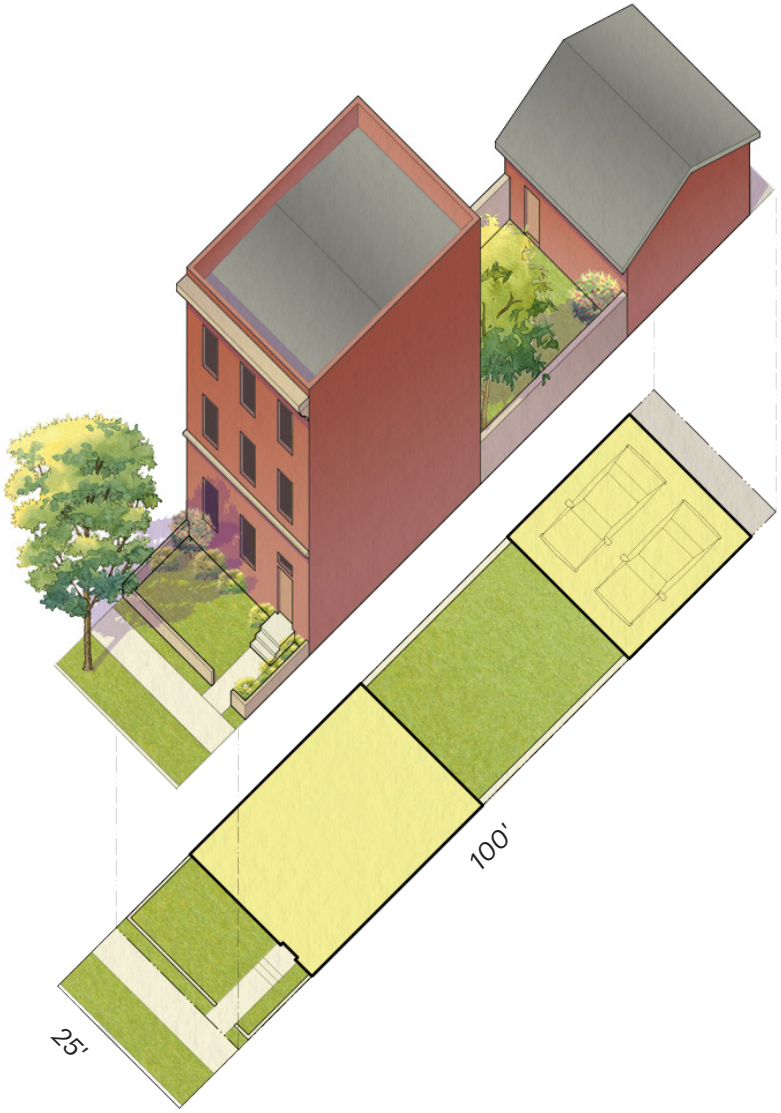
Townhouse Small			
Number of Units		**Vehicular Access**	
		Front	**Rear**
1	Lot Width (ft)	n/a	18' - 25'
	Lot Depth (ft)	n/a	100'
	Resultant Density (du/acre)		
	Without ADU	n/a	16 - 17.5
	With ADU	n/a	29 - 35

Townhouse Large

Description

A medium-sized 3-story building with one dwelling unit that is attached to other Townhouses in an array of more than four.

A more intense version of this type is the "Townhouse Flat" that divides the building vertically into two to three flats, depending on the context.



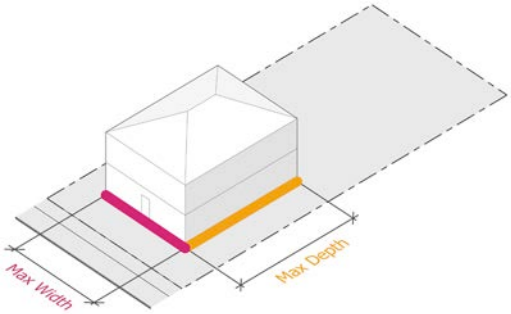
Townhouse Large			
Number of Units		**Vehicular Access**	
		Front	**Rear[1]**
1	Lot Width (ft)	n/a	18' - 25'
	Lot Depth (ft)	n/a	100'
	Resultant Density (du/acre)		
	Without ADU	n/a	18.6 - 55.8[2]
	With ADU	n/a	37.2 - 74.4

[1] Reflects one unit per Townhouse; however, option to design with one unit per floor, up to 3 units.

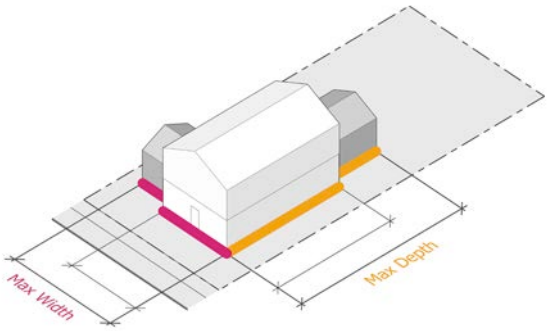
[2] This range reflects one to three units.

House-Scale Buildings

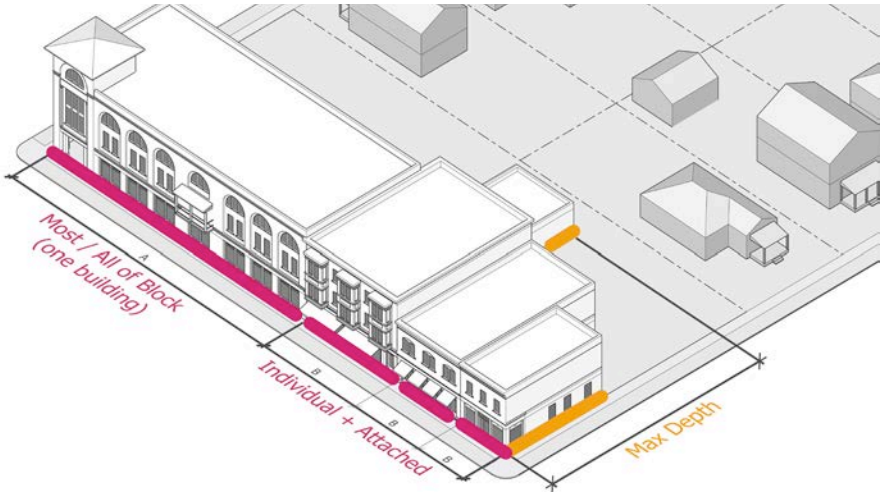
Main body only



Main body with side and rear wings



Block-Scale Buildings



CLOSER LOOK

Building Type Categories

Building types fall into one of two categories: House-Scale and Block-Scale.

House-Scale Buildings are the size of a house, typically ranging in footprint from as small as 25 feet up to 75 feet overall, including wings.

Block-Scale Buildings are individually as large as most or all of a block or, when arranged together along a street, appear as long as most or all of a block.

Figure 2.9 *House-scale Townhouses consist of a run of 2-4 units, up to 2 stories tall. This building type is appropriate in lower-intensity neighborhoods because it maintains the scale of a large single-unit house.*

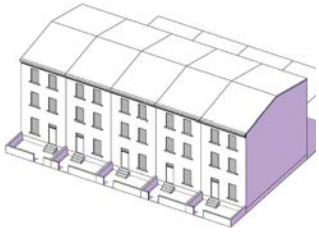


Figure 2.10 *Block-scale Townhouses consist of a run of 4-8 units, up to 3 stories tall. This building type is appropriate in moderate to high-intensity neighborhoods since it is larger in scale than a single-unit house.*

The Palette of Missing Middle Housing Types

Duplex Side-by-Side
2 units

Duplex Stacked
2 units

Cottage Court[1]
3-10 units

Triplex/Fourplex
3-4 units

Typical Characteristics of Missing Middle Housing Types

Vehicular Access	Front	Rear[2]	Front	Rear[2]	Front	Rear[2]	Front	Rear[2]
Max. Height (Stories)	1.5 (2.5 if overall building footprint is House-scale)		2.5		1.5 (rear building up to 2.5 stories)		2.5	
Lot Width (ft)	50' - 55'	45'	45' - 50'	45'	110' - 115'	105'	50' - 60'	45'
Lot Depth (ft)	100' - 150'	100'	100' - 130'	100'	205'	160'	110' - 140'	110'
Area of Lot (sf)	5,000 - 8,250	4,500	4,500 - 6,500	4,500	22,550 - 23,575	16,800	5,500 - 8,400	4,950
Resultant Density								
Without ADU	11 - 17.4	19.4	13 - 25	19.4	15 - 19	28.5	20 - 29	35.2
With ADU	15.8 - 26.1	29	20.1 - 26.1	29	n/a	n/a	25.9 - 31.7	44

[1] Variation: Pocket Neighborhood. The lot for this variation is the size of most of a block or up to an entire block, and the shared court is much larger, or there are several shared courts. The individual cottages are expanded to include a mix of Duplex and Fourplex buildings.

[2] Assumption is 5' side setbacks and 12' setback if front-loaded driveway (street access).

CLOSER LOOK

Numerical Figures for MMH Types

The numbers associated with each MMH type are representative of the typical lot width and depth that each type needs to function well. However, each type can be further customized to other lot widths and depths. As the lot width and depth increase or decrease, the density numbers will also change.

Missing Middle Housing Palette

The palette of MMH types above identifies the typical lot dimensions for each type. The minimum is what each type needs to provide a high quality living environment for residents, and the maximum is the size beyond which a lot becomes too large to deliver the type of compact development that supports walkable environments. These dimensions need to be adjusted to each community and its particular lot patterns.

The resultant density is the number that results from designing units that fit in each MMH building type. This is different from density regulations that predetermine how many units are allowed without regard for what can actually fit well.

Actual results could vary depending on front or rear vehicular access to parking.

Multiplex Small
5-10 units

Multiplex Large
7-18 units

Courtyard Building
6-20 units

Townhouse *Small*
1 unit

Townhouse *Large*[4]
1 unit

Front	Rear[2]	Front	Rear[2]	Front	Rear[2]	Front	Rear	Front	Rear
2.5 (3[3])		2.5 (3[3])		2.5 (3[3])		2.5		3	
70' - 75'	65'	70' - 105'	65'	100' - 125'	95'	n/a	18' - 25'	n/a	18' - 25'
110' - 150'	110'	115' - 135'	115'	110' - 150'	110'	n/a	100'	n/a	100'
7,700 - 11,250	7,150	8,050 - 14,175	7,475	11,000 - 18,750	10,450	n/a	1,800 - 2,500	n/a	1,890 - 2,625
33.3 - 44.6	60.9	37 - 55.3	69.9	18 - 46.5	88	n/a	16 - 17.5	n/a	18.6 - 55.8[5]
n/a	n/a	n/a	n/a	n/a	n/a	n/a	29 - 35	n/a	37.2 - 74.4

[3] In more intense neighborhoods. This type can be designed to have a third story, or a portion of a third story, depending on the intended physical character of the neighborhood. This intensity is referred to as Upper Missing Middle.

[4] Reflects one unit per Townhouse; however, option to design with one unit per floor, up to 3 units, depending on the context.

[5] This range reflects one to three units.

Although lot area can be used as a regulating factor, it should not be the primary factor. Instead, lot width and the resulting building width should be the primary regulating factors, as these provide for more targeted regulations that have a greater impact on the quality of the public realm and help to deliver more predictable built results in terms of building form.

These dimensions are the results of years of on-the-ground research and design work for private and public sector clients by Opticos. These dimensions are meant as a starting point, and should be calibrated for the specific on-the-ground conditions and desired community form wherever MMH types are desired.

The density ranges for each type correspond to the lower number of units with its smaller lot dimensions, and the higher number of units with its larger lot dimensions.

2.3 What Is A Frontage Type?

Figure 2.11 *Example of engaged stoop MMH frontage. Multiple units in the building are accessed by a single, shared entry that leads to a hall or small lobby area.*

Definition

Frontage Type. The component of a building that provides an important transition and interface between the public realm (street and sidewalk) and the private realm (building facade).

The ultimate intent of regulating frontages is to ensure, after a building is located appropriately on its lot, that its interface with the public realm and the transition between the two are detailed appropriately.

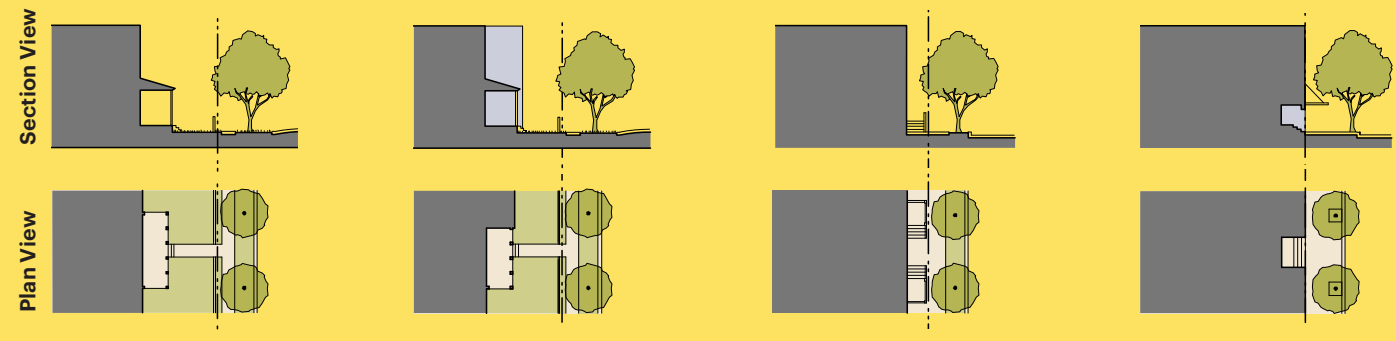
The names of the frontage types depicted below indicate their particular configuration or function and are based on examples found in cities across the country. Some types may be more or less common in ACC. An on-the-ground survey can establish which types are most representative of the character of buildings in ACC.

Why Frontages Are Important for MMH

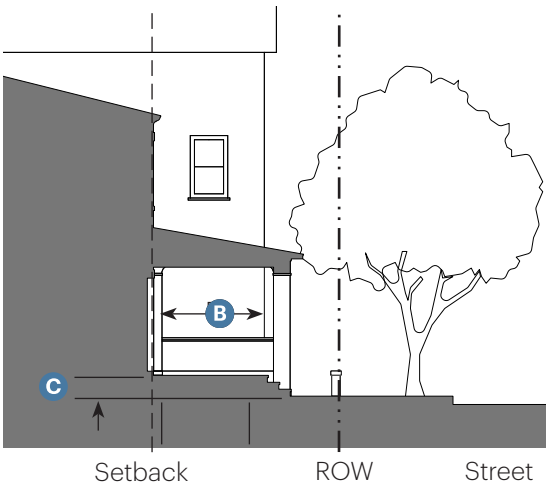
Missing Middle Housing types are house-scale and generally look like they could be a large single-unit home. Frontage types that are consistent with those used on single-unit homes, such as porches and stoops, help Missing Middle types contribute to the residential look and feel of neighborhoods where they are located. A strong sense of community is an important benefit that MMH types provide to residents and neighbors, and frontage types play a role in supporting this by providing a strong connection to the pedestrian-oriented streetscape.

CLOSER LOOK **Spectrum of Frontage Types**

Common MMH Frontages



Neighborhood



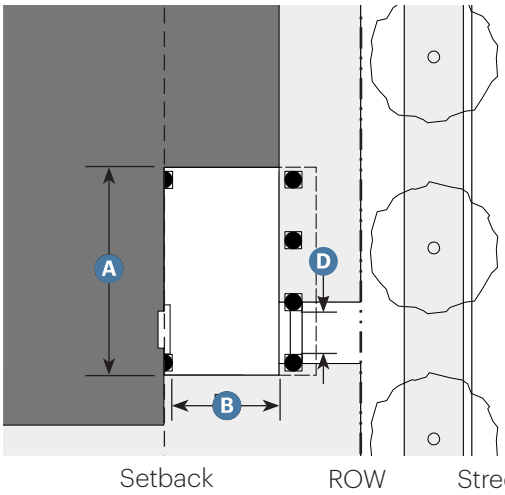


Figure 2.12 *Example of basic regulations for an engaged porch*

Key

- **A** Width
- **B** Minimum Depth
- **C** Finish Level Above Sidewalk (if applicable)
- **D** Pedestrian Access

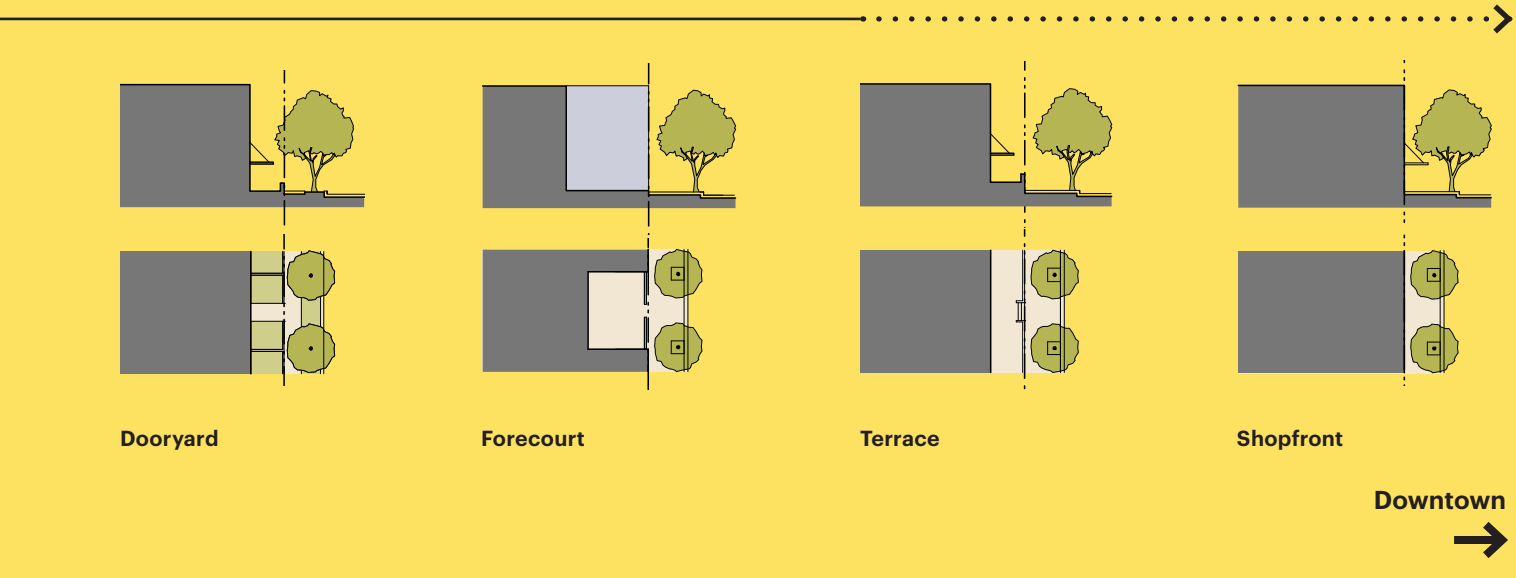
Buildings with entries that are not visible from the street can appear anonymous. Creating clear, distinct entryways with room for socializing reinforces the neighborhood character of Missing Middle types and provides for a more convivial and welcoming streetscape.

Important Features to Regulate[1]

Regulations for frontage types should be based on measurements from good local precedents to ensure they are appropriate. For instance, setting the correct minimum depth for stoops and porches is extremely important in order to ensure that they are actually usable, look like they're from the area, and improve the public/private interface by providing residents with a place to sit outside where they can also greet their neighbors.

Source

[1] *Form Based Codes: A Guide for Planners, Urban Designers, Municipalities, and Developers, Dan. Parolek AIA, Karen Parolek, Paul C. Crawford FAICP, Island Press*



2.4 Missing Middle Housing in Athens-Clarke County

Local Examples

Like most urban areas built before the 1940's, ACC includes many examples of MMH types (see page 37). These types are found primarily in older neighborhoods. Before the widespread adoption of automobiles, housing needed to be located close to areas where jobs were concentrated, since long commutes were inconvenient or infeasible. In many US urban areas, including ACC, MMH was built nearby commercial and industrial areas so that employees could have access to housing nearby their place of work. The images on the facing page (page 37) are examples of MMH types in ACC. Other examples of multi-family or medium-density housing exist in ACC; however, these examples are not considered MMH per the criteria identified on pages 14-17.

How Were These Built?

Most of the examples were built before the 1940's when previous regulations allowed them. Newer examples have had to use other zoning tools and processes because, depending on the specific zoning, none are allowed or, a very limited range of the MMH types is allowed.

Why Did They Go Missing?

Changes to the zoning code, incentives from the Federal Government to build single-unit homes at the edge of communities, and changes to the real estate finance landscape made it either impossible or financially unattractive to build the types of buildings that today we call "Missing Middle". Recent shifts in consumer demand, a need for both more housing in general and a greater variety of housing type options, and new ways of thinking about zoning provide a common way of expanding housing choice and an opportunity to bring these MMH types back to ACC.

House-scale Building
This house reflects the house-scale size of buildings that could easily have 2 to 4 units.

House-scale Building
This house reflects the house-scale size of buildings that could easily have 2 to 4 units.

Duplex Side-by-Side
2 units

Duplex Side-by-Side
2 units

Townhouse Small
4 units

Multiplex Large (Upper MMH)
7-18 units

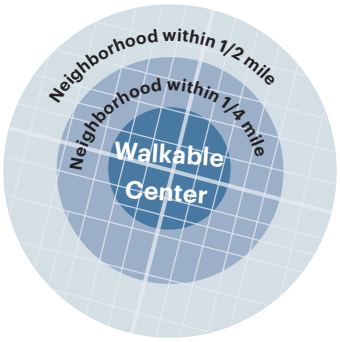
2.5 Walkable Centers in Athens-Clarke County

Walkable Centers

Missing Middle Housing is part of areas that are anchored by "Walkable Centers" that provide amenities such as schools, recreation, shopping, services, transit, food and employment. Using ACC's Growth Concept terminology, these can be grouped into three categories:

- Urban Center
- Community Center
- Neighborhood Center

Each type of center is described and illustrated on the facing page (page 39).



CLOSER LOOK

What Is A Walkable Center?

As discussed earlier, MMH is best suited for areas that are anchored by "Walkable Centers" that provide amenities such as shopping, services, transit, food, and employment. A Walkable Center can be either a small group of parcels (Neighborhood Center), or as big as a Downtown, or a Community Center. The point is that for MMH to be successful, MMH needs to be within short walking distance of vibrant centers with some or all of these amenities: food, shops, services, transit, and entertainment.

Walkable Centers are typically well connected to surrounding areas, making them accessible by multiple modes of transportation. Walkable Centers are the places where communities do things together. In some cases, they are places where people from across the city gather to work, shop, learn, play, and celebrate.

Overall, they serve as walkable, bikeable, or "park-once" destinations where community members can meet multiple daily needs in a single trip. When thriving, they are nodes of activity that enliven a neighborhood.

A 1/4 and 1/2 mile radius drawn around the Walkable Center shows a 5 and 10 minute walking (5-minute biking) distance from the Walkable Center. These areas are considered especially good locations for MMH.

Urban Center

A citywide destination for retail, food uses, service, employment, entertainment and recreation that includes significant housing.

Community Center

A community destination for retail, food uses, and services that is an amenity for adjacent neighborhoods. Examples of Community Centers are listed below:

- W. Broad St + Alps Rd
- Oglethorpe Ave + Prince Ave
- North Ave + Athens Perimeter Hwy
- Gaines School Rd + Lexington Rd

Neighborhood Center

A neighborhood destination of food, shops, and services at the intersection of two important streets that provides convenient services to the immediately adjacent residential neighborhoods. A Neighborhood Center is smaller and less intense than a Community Center.

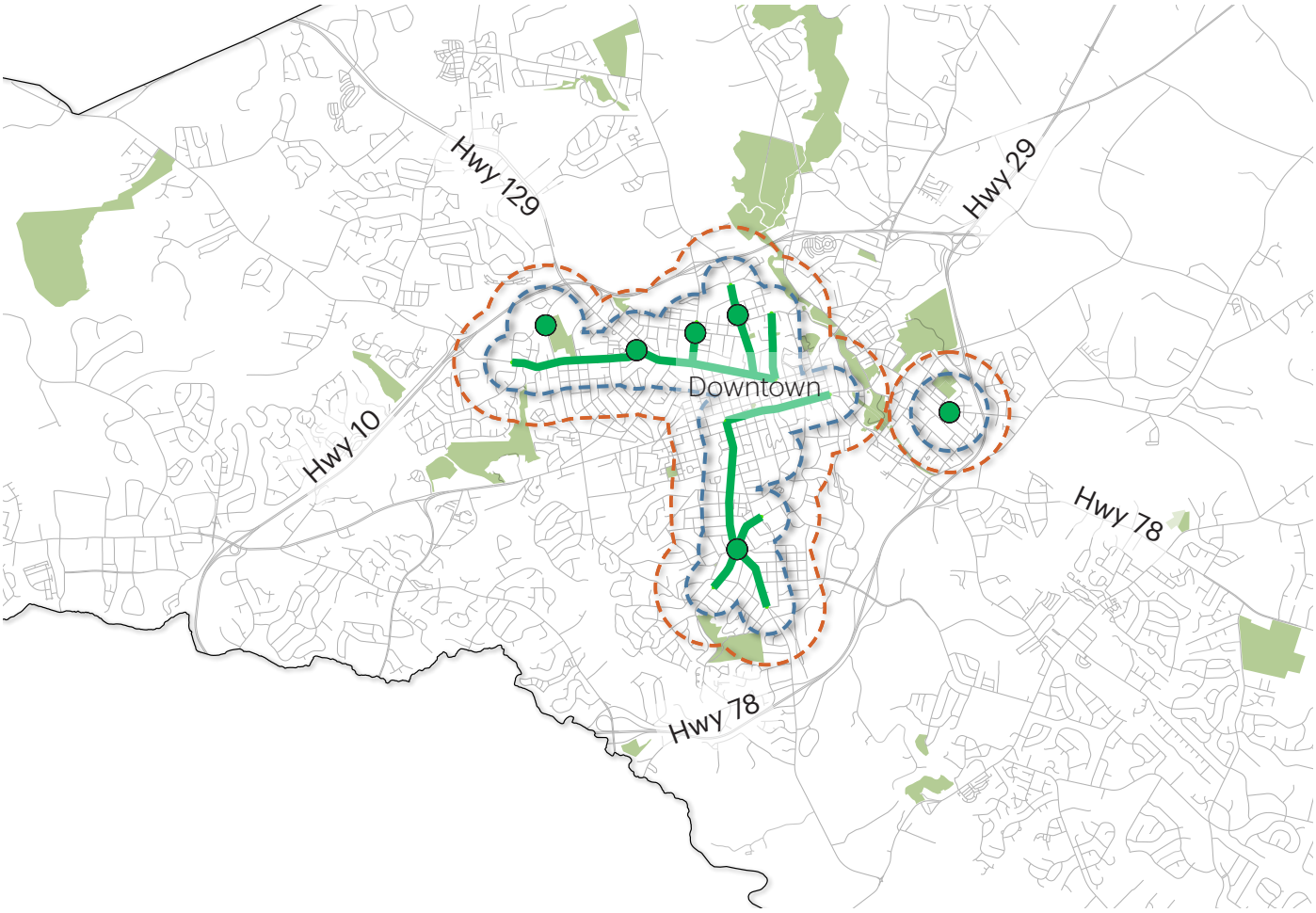
Examples of Neighborhood Centers are listed below:

- Oglethorpe Ave + Prince Ave
- Oglethorpe Ave + Hawthorne Ave
- Vine St + Nellie B. Ave
- Hawthorne Ave + Old West Broad St

Where Are Athens-Clarke County's Walkable Environments?

The map shows existing walkable environments in ACC focused around a variety of "Walkable Centers" and corridors identified through this analysis.

Figure 2.13 *Walkable environments (Centers and Corridors) in ACC*



Identified Walkable Environments

- Center
- Corridor
- 5 min. Walking Distance
- 10 min. Walking Distance, 5 min. Biking Distance

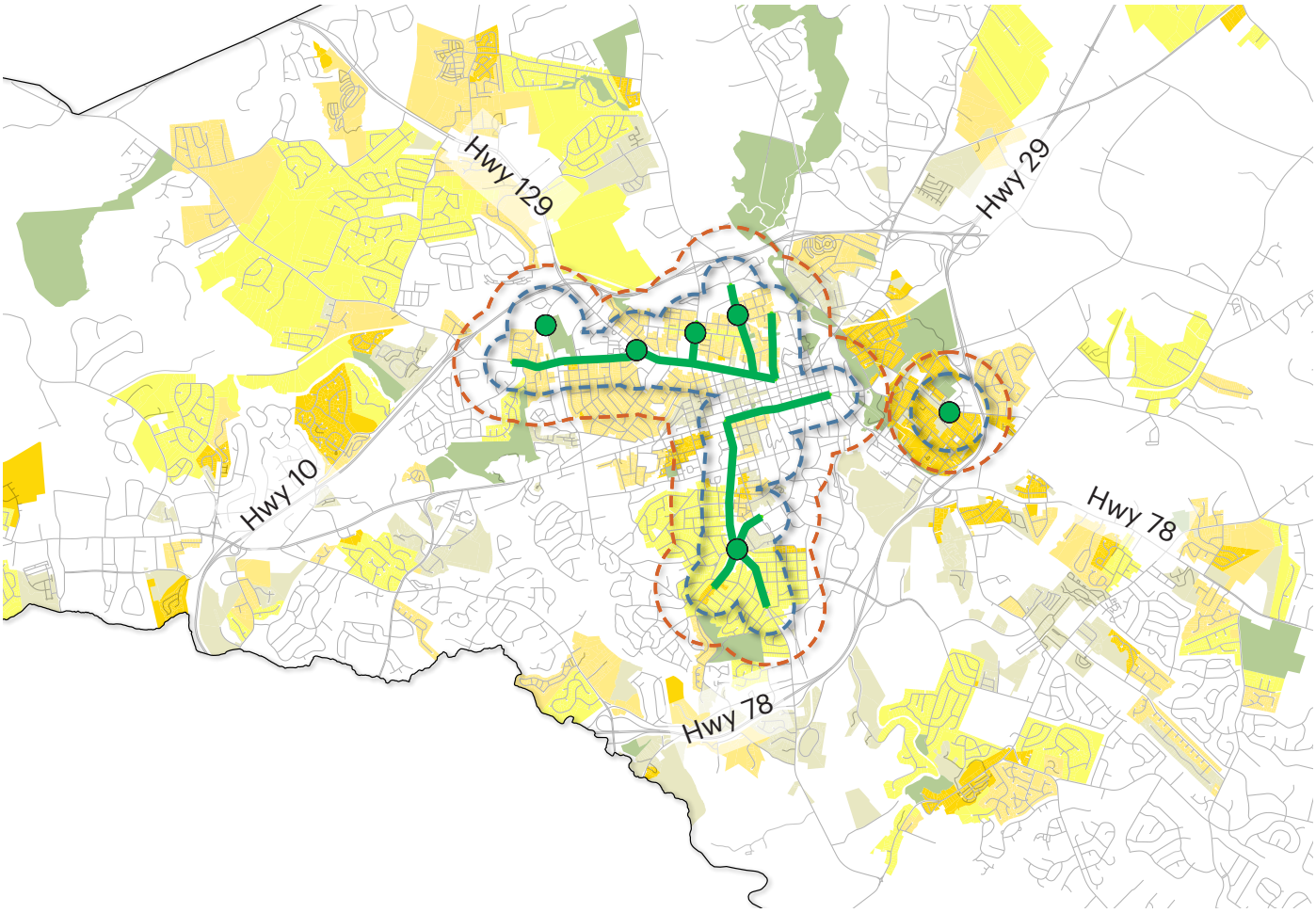
Other Amenities

- Park/ Open Space

Current Zoning within Walkable Environments

The map shows the location of the four zoning districts analyzed in relation to existing Walkable environments. Please see page 45 for information on potential Walkable Centers and their location relative to the four zones analyzed.

Figure 2.14 *Location of four zoning districts analyzed and existing Walkable environments*



2.6 Missing Middle Housing-Ready Neighborhoods

Beyond the Traditional Neighborhood Pattern

Missing Middle Housing types are most successful when located in an existing or newly built walkable context. Buyers and renters of these housing types are looking for walkability and are willing to make trade-offs on other housing features, such as unit size. For most urban areas, including ACC, the most walkable neighborhoods are those located near Downtown around the historic core.

Missing Middle Housing types can be built in an auto-oriented context, but they will not attract the same kind of buyer or renter, will not deliver more compact, sustainable patterns of development, and will not achieve the same returns or rents for developers. The higher the walkability of a project context, the smaller the units can be, and the less off-street parking is needed, which can improve the attractiveness of Missing Middle types for developers.

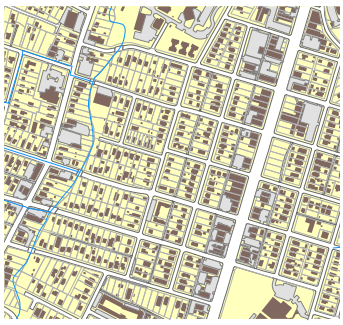
Like most mature urban areas, ACC's walkable urban core and traditional neighborhood areas are surrounded by newer neighborhoods characterized by a pattern of development that is more oriented towards automobile use. In many instances, these neighborhoods share many of the same walkable characteristics as the core and traditional neighborhoods to which they are adjacent, but certain walkable elements may be missing or may suffer from under-investment. It is these neighborhoods, where incremental changes can improve walkability, that are "Missing Middle Housing-Ready (MMH-Ready)".

CLOSER LOOK

What Does "Walkable" Mean?

For the purpose of this report, walkable describes places where a person can walk or bike to fulfill some or all daily needs. These environments allow for use of automobiles but do not require one for every trip.

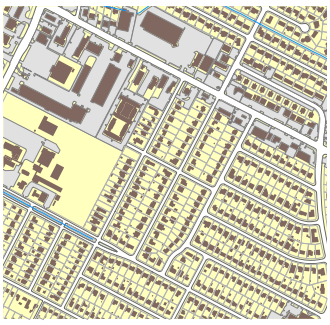
Walkable does not mean recreational walking such as on paths and trails, but rather walking ***to*** *a destination like work, services, a coffee shop, restaurants, bars, entertainment, schools, civic uses, parks, and other amenities.*



Ideal for MMH

Walkable

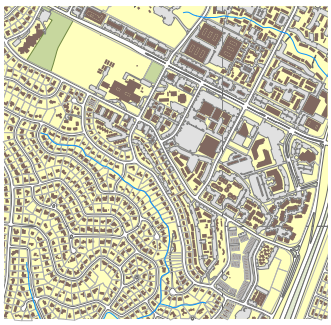
Small block lengths, a well-connected street network, and nearby services, shops, and restaurants on a local Main Street support a high degree of walkability for this historic neighborhood.



Appropriate for MMH

"MMH-Ready"

A well-connected street network with a mix of block lengths provides a walkable foundation that will support MMH types and enable pedestrian-scale redevelopment of adjacent commercial parcels.



Not Appropriate for MMH

Automobile-Oriented

Minimally-connected streets with frequent cul-de-sacs and commercial areas accessible primarily via higher-speed roadways do not provide a successful environment for MMH.

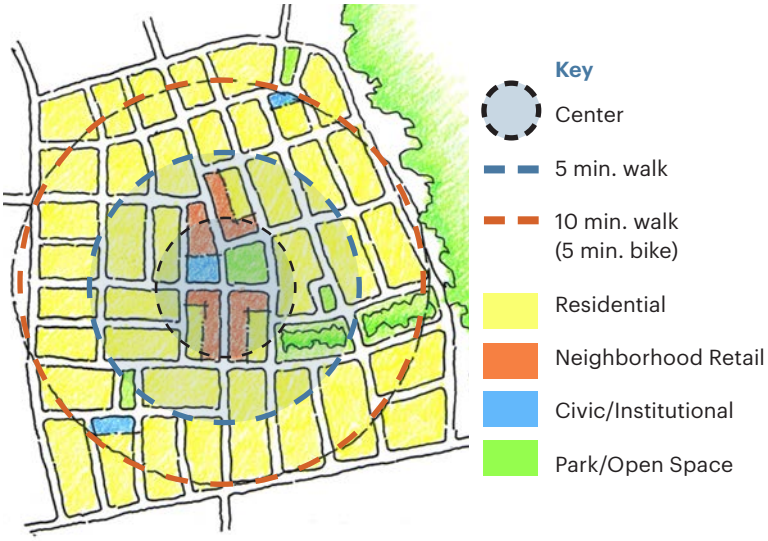


Figure 2.15 *Proximity to neighborhood retail, open space, and civic buildings helps to support walkable, MMH-Ready neighborhoods*

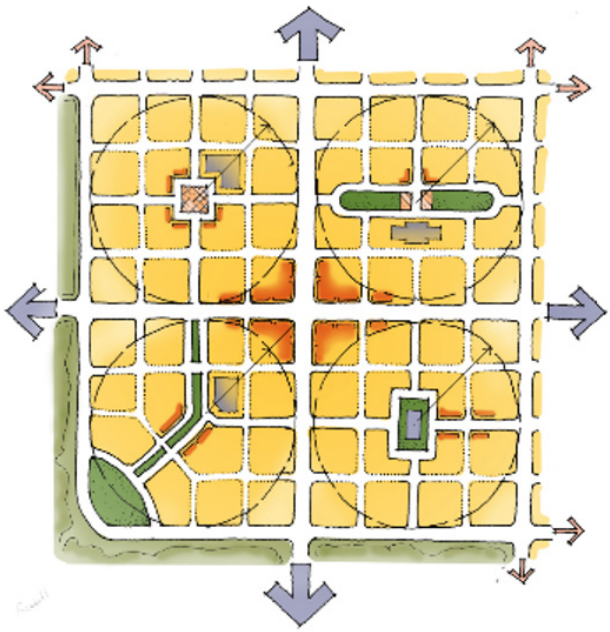


Figure 2.16 *How multiple walkable neighborhoods form a walkable environment around the intersection of two major roadways*

What Are the Characteristics of a MMH-Ready Neighborhood?

- **Smaller block sizes** that allow for better street network connectivity. Smaller block patterns encourage walkability by providing more route choices and reducing the walking distance to get between destinations. In general, dead-end streets, cul-de-sacs, and looping streets diminish an area's walkability, while through-streets tend to increase walkability.
- **Access to bicycle routes** to provide an alternative to driving for longer-distance destinations. Safe, convenient, and well-connected bicycle facilities provide transportation options for destinations that are too far away for walking.
- **Accessible to mixed-use areas** that make it possible to satisfy most daily needs — living, working, playing, shopping, dining, worshiping, and socializing — without needing to leave the neighborhood. While commuting for work, school, and special trips may still require transit or a car, most of the daily needs should be accessible within a ten-minute walk or one-half mile from housing.
- **Appropriate zoning** that allows for a variety of housing types and encourages compact development to support walkability.
- **Small to medium lot sizes** that promote house-scale development and disincentivize large tracts of identical housing types, where repetition of building forms leads to a diminished public realm.

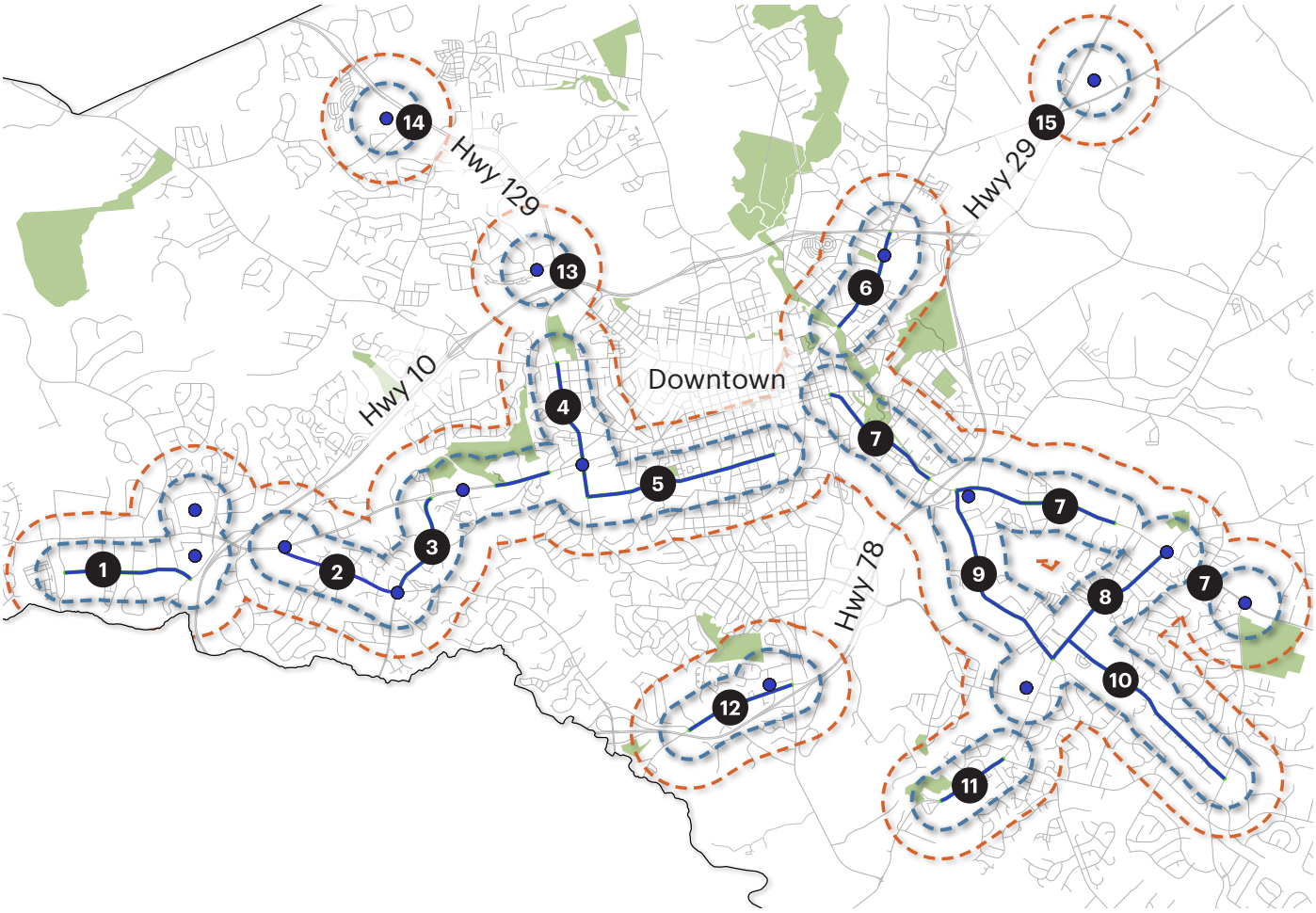
Support for MMH-Ready Neighborhoods

To support MMH outside of traditional neighborhoods adjacent to and around Downtown where walkability is high, ACC should consider making investments in MMH-Ready neighborhoods to make it more convenient for people to walk and bike from their homes to everyday destinations such as school, work, shopping, and recreation, if they choose to do so. A combination of infrastructure improvements and new or improved amenities can help to signal that MMH-Ready neighborhoods are available for new housing choices.

Where Are Athens Clarke-County's Missing Middle Housing-Ready Environments?

The map identifies the potential Walkable Centers and Corridors in MMH-Ready environments identified through this analysis.

Figure 2.17 *Potential Walkable Centers and Corridors in MMH-Ready environments*



Potential Walkable Environments

- Center (Auto-oriented/ Transformable)
- Corridor (Auto-oriented/ Transformable)
- 5 min. Walking Distance
- 10 min. Walking Distance, 5 min. Biking Distance

Auto-oriented/Transformable

Corridors

1. Jennings Mill Pkwy
2. Timothy Rd
3. Epps Bridge Pkwy
4. Hawthorne Ave
5. Baxter St
6. North Ave
7. Oconee St/Lexington Rd
8. Gaines School Rd
9. Barnett Shoals Rd
10. Cedar Shoals Dr
11. Whitehall Rd
12. Macon Hwy

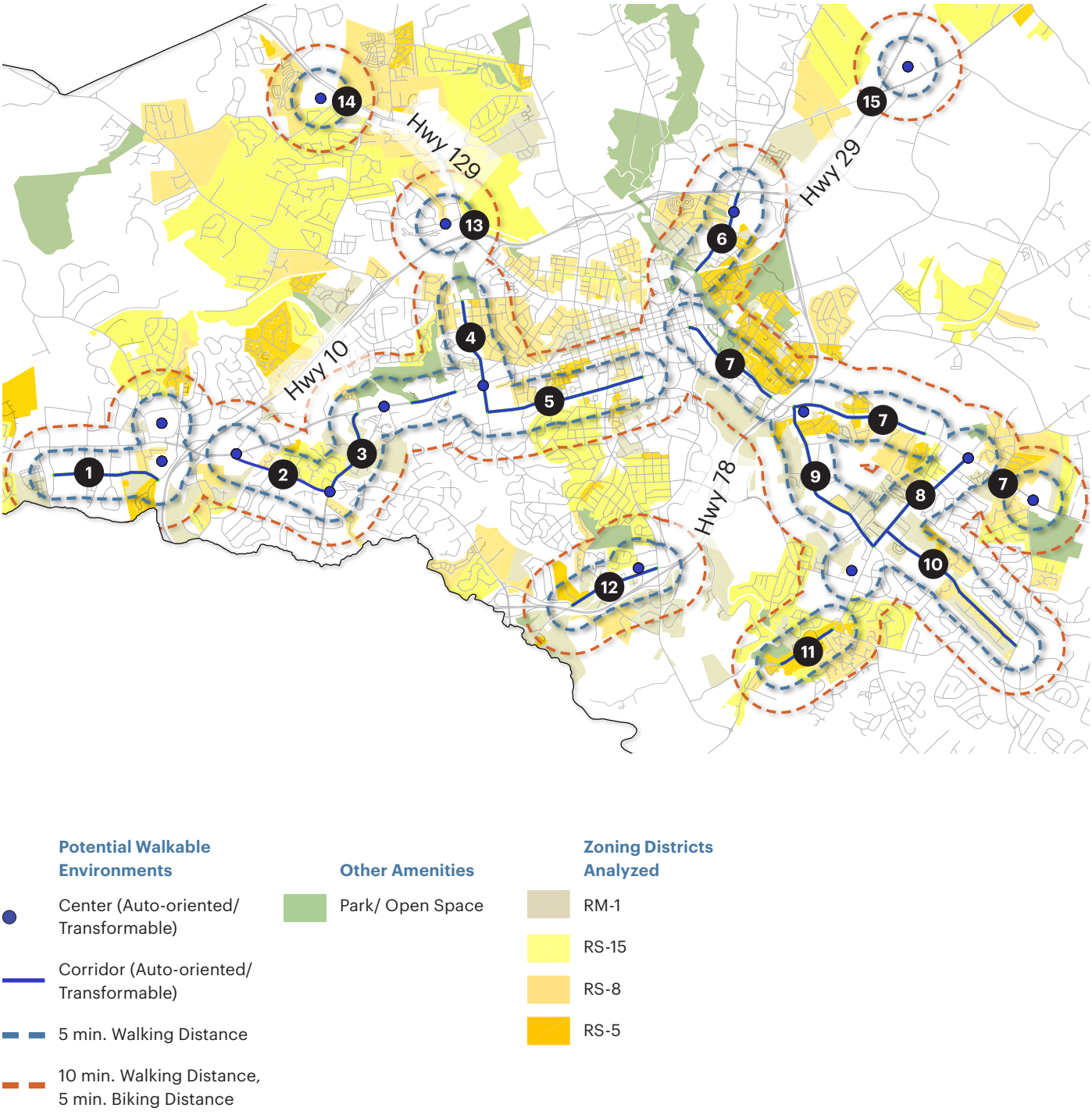
Centers

13. Intersection of Hwy 129 + Trinity Place
14. Intersection of Hwy 129 + Lavender Rd
15. Intersection of Hwy 29 + Hull Rd

Current Zoning within Missing Middle Housing-Ready Environments

The map shows the location of the four zoning districts analyzed in relation to the potential Walkable Centers and Corridors in MMH-Ready environments identified through this analysis.

Figure 2.18 *Location of four zoning districts analyzed and MMH-Ready environments*



Creating A New Walkable Center for MMH-Ready Neighborhoods

An important component of walkable neighborhoods is a destination to which to walk. Potential Walkable Centers provide that destination by creating space for neighborhood-serving retail, services, institutional and public uses in a pedestrian-oriented environment. These places already exist near ACC's traditional neighborhoods but either lack the walkable services, food uses, and shops, or these amenities are currently in auto-oriented environments. However in areas outside of the city core, the approach to create such places could involve transforming existing commercial centers, like an old mall or shopping center, or by developing a Walkable Center on undeveloped land.

New or redeveloped Walkable Centers have the potential to transition an area from an auto-oriented pattern of development to a more walkable environment that can transform nearby areas into MMH-Ready neighborhoods.

Figure 2.18 on the facing page (page 47) illustrates an example of transforming an existing commercial center (Georgia Square Mall).

Key Elements of A Walkable Center

An example from Austin, TX shows the transformation of a declining shopping center. While the scale of development in ACC would likely be different, the following characteristics still apply:

- ***Mixed-use** to satisfy the conditions of a vibrant active node that offers a variety of choices, from dining, entertainment, housing and amenities*
- ***Pedestrian-oriented** and active public spaces to create a more welcoming and safe environment for residents, employees, customers, and visitors.*
- ***Multi-modal access** that allows people living nearby to access the Walkable Center by biking, walking, or driving.*
- ***Transition areas** to ensure compatibility with adjacent residential neighborhoods.*

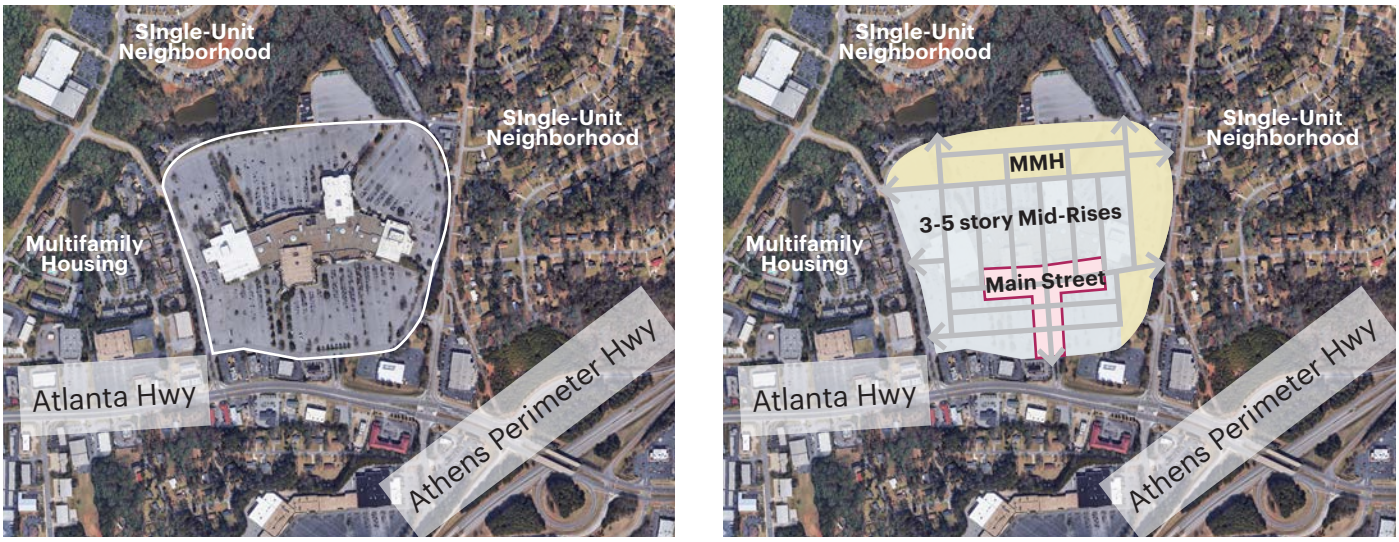


Figure 2.19 *Redevelopment of the Georgia Square Mall could result in a new potential Walkable Center that reconfigures the commercial uses into a community-level Main Street with a variety of housing that includes MMH as a transition to existing neighborhoods.*

1

Mixed-use Center as the Destination

2

Pedestrian-oriented Physical Character

3

Multi-modal Access

4

House-scale Transitions to Adjacent Neighborhoods

One-Size Doesn't Fit All

A Walkable Center is not limited to a certain size. Smaller centers, like a Neighborhood Center, or a small Community Center can do a lot to support nearby MMH-Ready neighborhoods. These small mixed-use areas can be easily embedded into or adjacent to residential neighborhoods because they are residential in scale and provide convenient services for nearby residents who can meet multiple daily needs in a single trip made by foot, bike, or car. These neighborhood-scale Walkable Centers can serve as nodes of local activity that help to enliven a neighborhood and build community.

Smaller block sizes allow for better street network connectivity and encourage walkability by providing more route choices and reducing the walking distance to get between destinations. In general, dead-end streets, cul-de-sacs, and looping streets diminish an area's walkability, while through-streets tend to increase walkability.

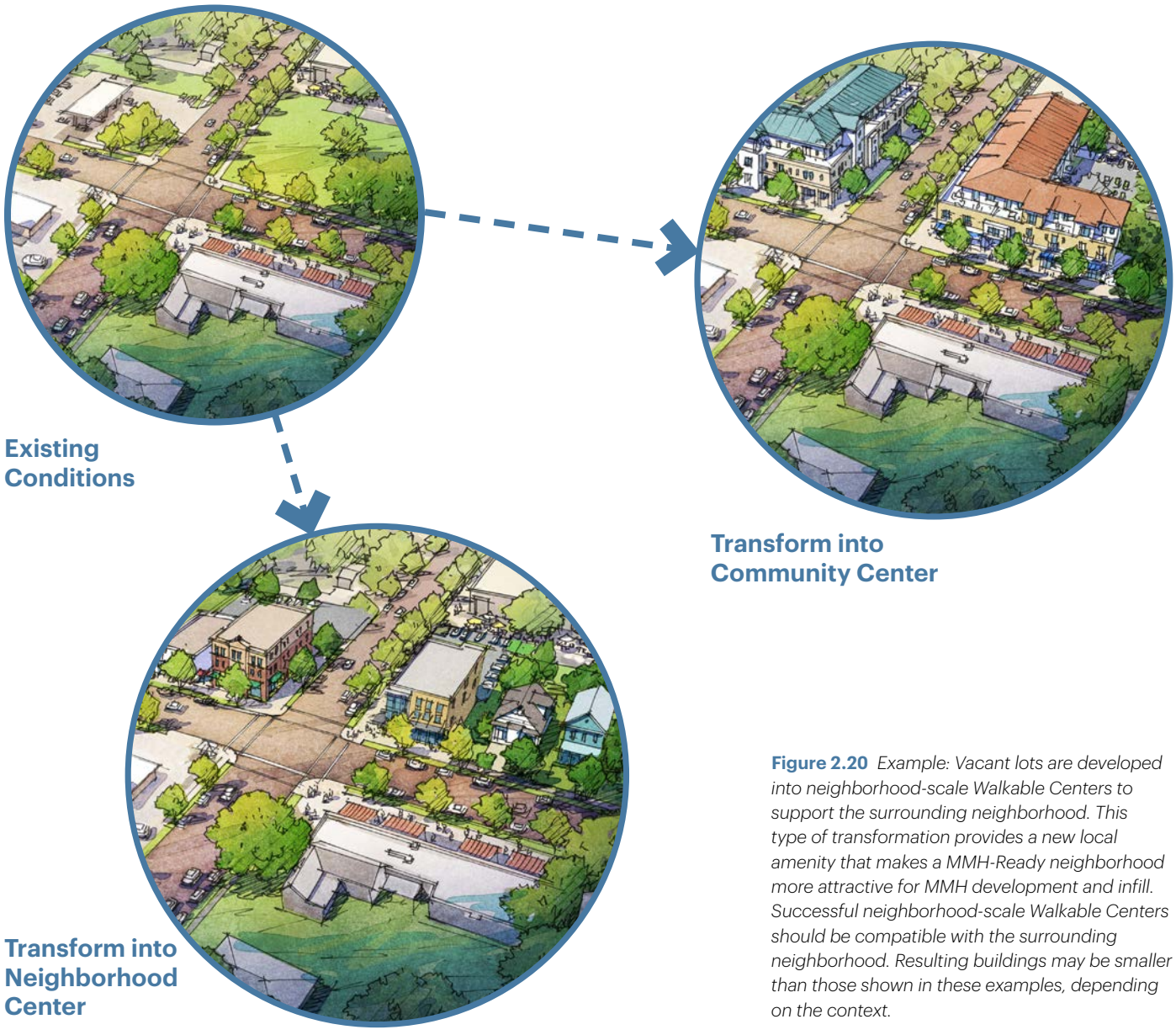
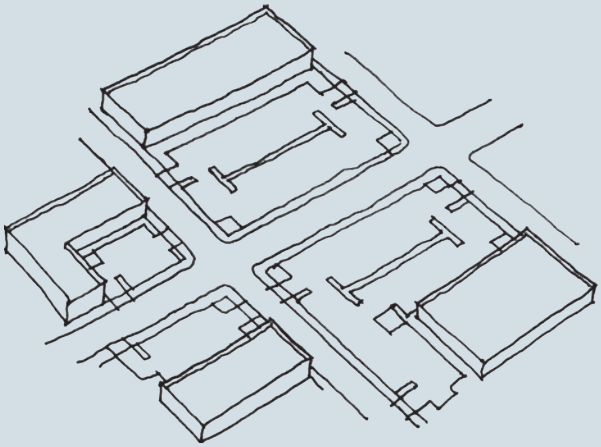


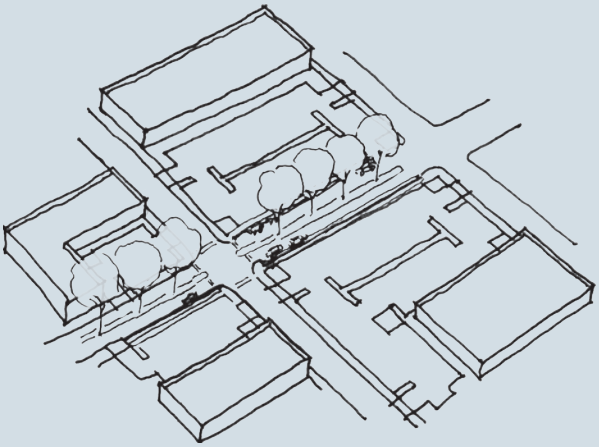
Figure 2.20 *Example: Vacant lots are developed into neighborhood-scale Walkable Centers to support the surrounding neighborhood. This type of transformation provides a new local amenity that makes a MMH-Ready neighborhood more attractive for MMH development and infill. Successful neighborhood-scale Walkable Centers should be compatible with the surrounding neighborhood. Resulting buildings may be smaller than those shown in these examples, depending on the context.*

Incremental Change

Small, incremental changes can be just as important in the long run as big, transformative change. The following incremental changes can lay the groundwork for a Walkable Center that can transform surrounding neighborhoods into MMH-Ready Neighborhoods and create suitable environments for MMH.

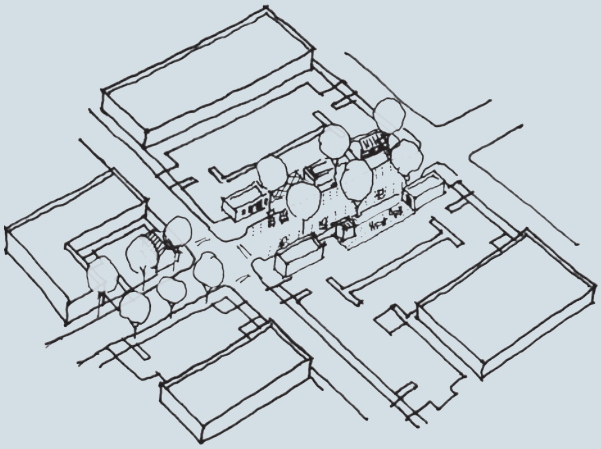


Existing Conditions



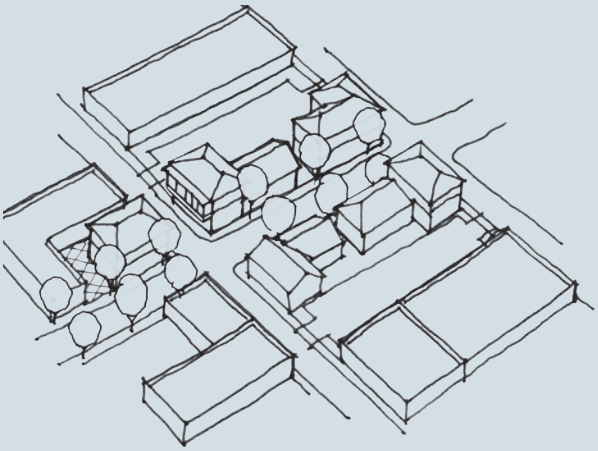
Step 1

Small changes could include landscaping, streetscape improvements and shared roads for bikes and cars.



Step 2

Temporary spaces for businesses at sidewalk edge can help form a center of activity. These small changes can be made where buildings and lots are privately owned and where major changes in near term are unlikely.



Step 3

Bigger changes may include infill, new development at the sidewalk edge or around public space in areas where they is a desire for urban character and new buildings.

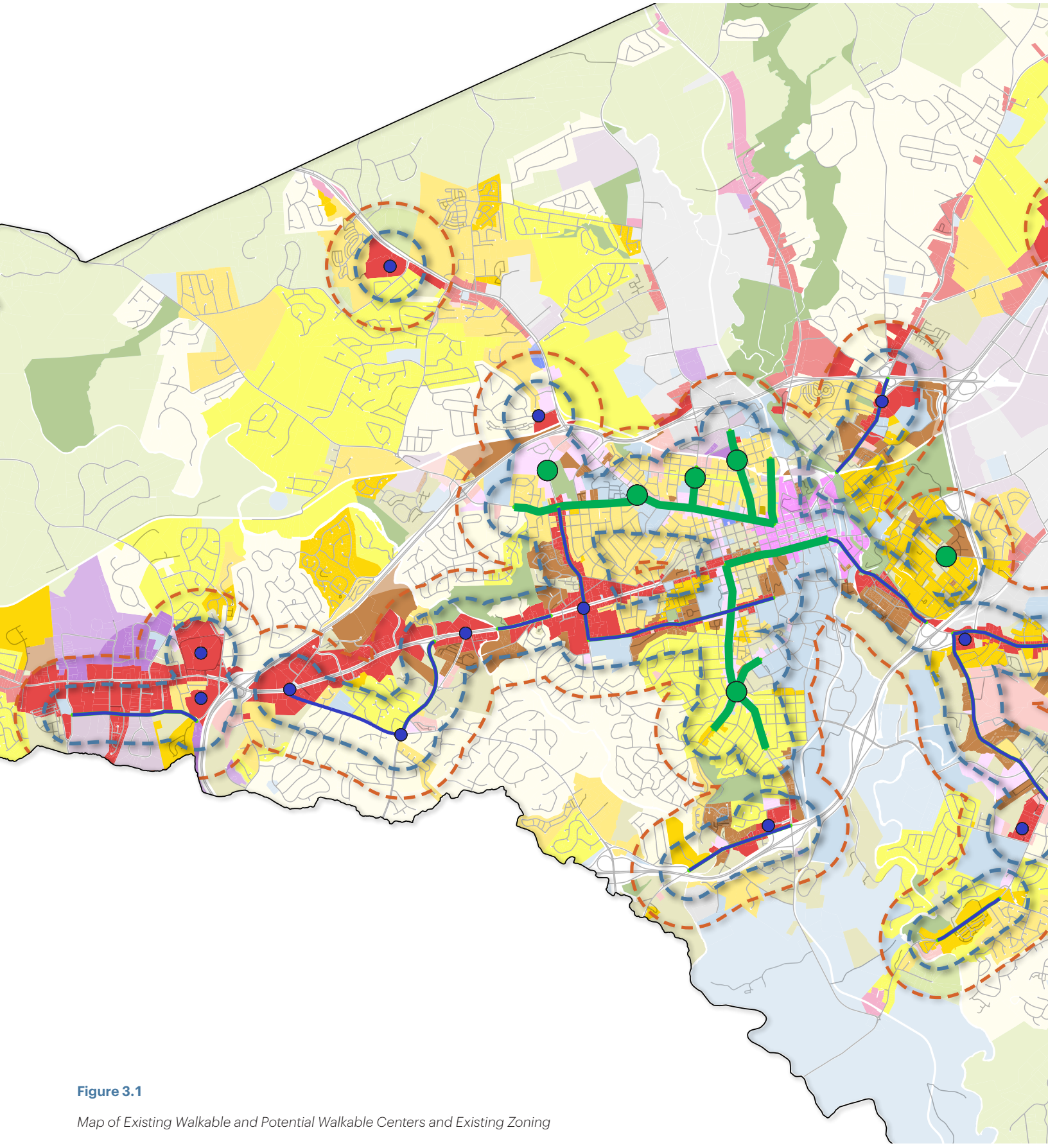
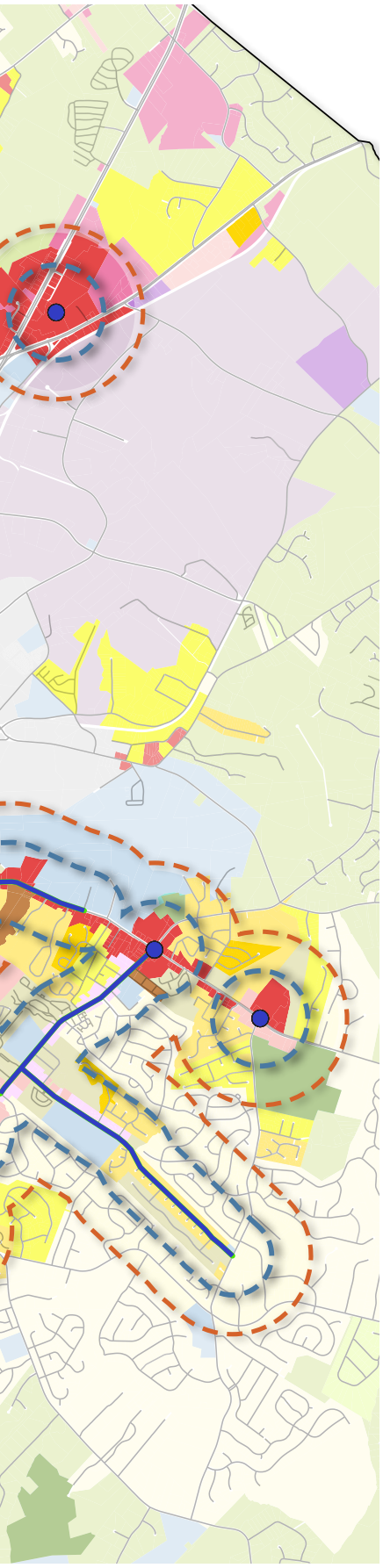


Figure 3.1

Map of Existing Walkable and Potential Walkable Centers and Existing Zoning



CHAPTER

3

Analysis of Barriers

In this chapter

3.1 Comprehensive Plan

The following analysis identifies which MMH Types are encouraged or enabled by current policy along with recommendations for addressing existing barriers to MMH.

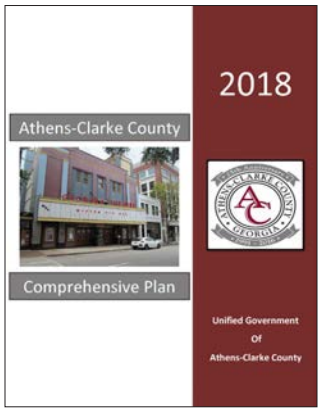


Figure 3.2

Athens-Clarke County Comprehensive Plan

The 2018 Athens-Clarke County Comprehensive Plan contains Community Goals/Needs and Opportunities which address the topics of Housing, Land Use, and Neighborhoods under the theme of Place, and the topic of Transportation under the theme of Foundation.

The Comprehensive Plan direction discusses making walkable environments through broad language in the Needs, Goals, Strategies, and Policies summarized in this section. Taken together, these broad descriptions touch on the key elements (mixed-use, pedestrian orientation, multi-modal access, and transition areas) that characterize a walkable environment supportive of MMH.

Based on this analysis, we have prepared recommendations for each issue/barrier.

Overall Recommendations

- **Recommendation 1:** The broad language of the Comprehensive Plan neither poses barriers to or explicitly promotes MMH. Future Comprehensive Plan updates should include clear statements explicitly promoting MMH in walkable environments.
- **Recommendation 2:** Distinguish between Auto-oriented centers/nodes and Walkable Centers/nodes and then aim MMH at the latter.
- **Recommendation 3:** Confirm the Auto-oriented Centers that are intended for transformation into Walkable Centers and MMH-Ready environments.
- **Recommendation 4:** Add a new policy stating, "MMH-Ready environments support the range of MMH types suitable to the context and are focused near walkable nodes that provide amenities (services, shopping, food, or transit) within short walking or biking distance."

Housing

"Needs and Opportunities: Pursue a reduction in the minimum floor area requirement for dwellings."

- **Recommendation 5:** Remove minimum unit size requirements for MMH developments in walkable environments. Further, specify that the lower end of the MMH spectrum (Duplexes, Fourplex, Cottage Court) have maximum unit sizes, to promote affordability.

Land Use

"Needs and Opportunities: Ensure that mixed-use development truly provides multiple uses amongst varying architecture and structure size. First-floor commercial should only be mandated in areas found to be appropriate; however, such areas then should strictly adhere to this requirement."

- **Recommendation 6:** Revise the above text to read: "Promote viable commercial development in mixed-use development by not requiring commercial uses for parcels at least 300 feet from the edge of an identified walkable environment."

"Needs and Opportunities: Consider contingency plans for the mall, including what it could eventually be used for: movie studio, senior living, or revitalized neighborhood."

- **Recommendation 7:** Revise the above text to add at the end of the sentence "...revitalized neighborhood, including MMH types as a transition between existing neighborhoods and the more intense corridor."

"Needs and Opportunities: Reexamine the zoning Code with a focus on building height; appropriate locations for urban design versus areas with suburban design; mandatory mixed-use retail space; and smaller dwellings."

- **Recommendation 8:** Revise the above text to add at the end of the sentence "... and house-scale buildings, including the range of MMH types."

"Needs and Opportunities: Attempt to reconfigure large, existing or proposed commercial centers into "blocks" that promote walkability. There are many available lots along corridors that could be purchased directly by Athens-Clarke County in order to achieve this and in turn be marketed for development."

- **Recommendation 9:** Revise the first sentence of the above text to read: "As large, existing commercial centers redevelop, reconfigure those sites into new blocks that promote walkability and a variety of housing choices, including MMH."

"Policy: Develop zoning standards and incentives to develop and/or redevelop quality multi-family options for a diverse group."

- **Recommendation 10:** Revise the above text to read: "Develop zoning standards and incentives to develope and/or redevelop house-scale multi-family options, including MMH types, in walkable environments."

Neighborhoods

"Needs and Opportunities: Transitional zoning is needed with respect to residential neighborhoods that abut commercial zoning to lessen the adverse impact the two opposite classifications can have on one another."

- **Recommendation 11:** Add the following sentence to the end of the text: "In areas where existing neighborhoods are house-scale, allow MMH types as a way to increase housing choices while providing a compatible physical transition between the corridor and the neighborhood."

"Needs and Opportunities: Identify areas that could potentially be developed for unique neighborhoods with smaller houses and a cohesive theme."

- **Recommendation 12:** Revise the above text to read: "Identify areas for development of unique neighborhoods with house-scale buildings, including MMH types."
- **Recommendation 13:** Add a new policy stating: "Offer a diverse range of housing choices by allowing some or all of the MMH types spectrum in neighborhoods, as best fits each neighborhood."

Transportation

"Policy: Provide high quality transportation nodes, or transit-oriented developments in association with previously completed studies. This may also spur the use of underutilized transit routes."

- **Recommendation 14:** Revise end of the above text to read: "...In walkable environments near transit that are intended as house-scale, allow MMH types to provide additional housing compatible with adjacent neighborhoods."

Future Land Use Designations

The Comprehensive Plan identifies two Future Land Use Designations that allow housing relevant to MMH. The two land use designations are "Mixed Density Residential" and "Traditional Neighborhood" and are summarized below:

Mixed Density Residential
Two of the four zones under analysis, RM-1 and RS-5, are consistent with this land use designation. It is unclear what intensity or types of housing are intended. Based on the phrase "higher density residential development is allowed and intended," this could result in large-scale apartment development rather than house-scale MMH types.

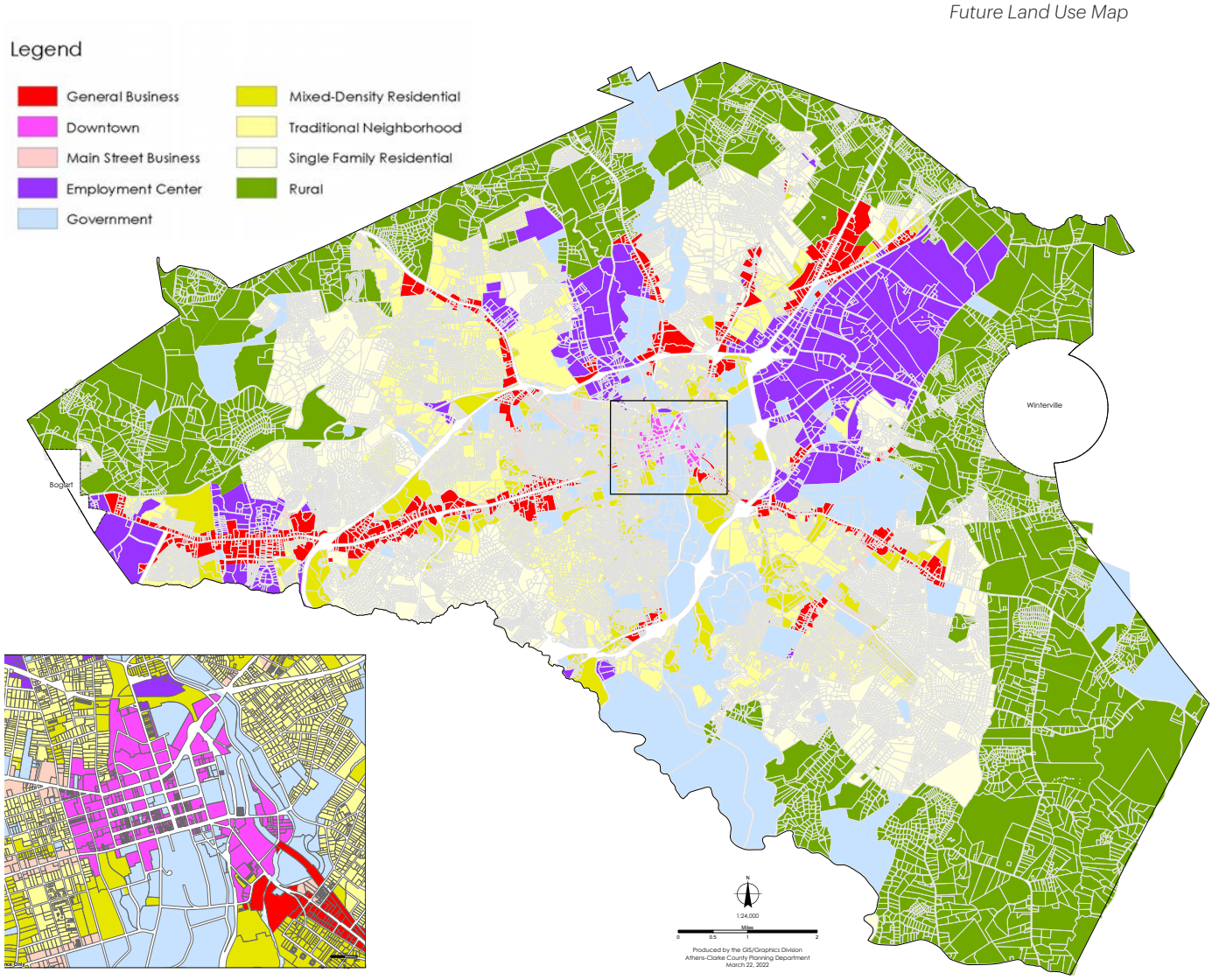
- **Recommendation 15:** Add new policy stating: "In walkable environments that are designated as Mixed Density Residential, the priority is for the Upper MMH (see pages 18-19) as distinct from conventional 'higher density' residential."

Traditional Neighborhood
All four zones under analysis, RM-1, RS-15, RS-8 and RS-5, are consistent with this land use designation. It describes a walkable environment with well-connected streets, sidewalks, street trees, limited neighborhood scale commercial and non-residential use, and access to transit. It mentions using a variety of housing types but only identifies two MMH types, Duplexes and Townhouses. However, the description contains the descriptive phrase "medium density neighborhood" which could support additional MMH types.

- **Recommendation 16**: Clarify that the 'medium density' term includes the full range/palette of MMH types.
- **Recommendation 17:** Add definition of walkable environment as "places within short walking distance where a person can walk or bike to fulfill some or all daily needs. These environments allow for use of automobiles but do not require one for every trip."

Figure 3.3

Future Land Use Map



3.2 Zoning Districts and Standards

The following analysis identifies which MMH Types are enabled by current Athens-Clarke County Zoning Code

Figure 3.4

The palette of MMH types ranges from buildings with 2 units to Courtyard Buildings with up to 20 units and represents a resultant density range of about 10 to 50 or 60 du/acre, depending on lot sizes.

RM Density Definition

Per the Zoning Code, for the purpose of calculating RM density, unit values are determined by counting the number of bedrooms: Studio/1 bedroom is equal to 1 unit, 4 bedrooms equals 4 units; etc.

RM-1 Density Calculation

16 bedrooms/ac
x 1 bedroom/unit
16 bedrooms/ac max. density

To build a fourplex with one-bedroom (1-BR) units, 0.25 acres are required:

16BR/ac x 0.25 ac = 4 1-BR units; or 4 BR per 10,890 sf of lot area.

Zoning Districts (Zones)

The following analysis focuses on the four zones (RM-1, RS-15, RS-8, and RS-5) selected for this study. The analysis identifies which MMH types are enabled in each zone regarding density, lot size /area, lot width, and distance between principal buildings. Other regulations including prioritizing MMH, applying the findings in this MMH Scan™, and making changes to zoning to enable MMH are analyzed in Section 3.6 (page 66). This analysis assumes that "multi-family dwelling" includes MMH types (e.g. Cottage Courts, Triplex/Fourplexes, Small and Large Multiplexes, or Courtyard Buildings) depending on the district.

- **RM-1:** This zone supports four MMH types: both Duplex types, Small Townhouse (depending on the lot size), and up to 4-unit 1 bedroom Cottage Court on a minimum 10,890 square feet lot. However, the zone's maximum allowed density (16 units/acre) poses a barrier to larger MMH types (Triplex/Fourplex, both Multiplex types, Courtyard Building, and Townhouse Large). The maximum density of this zone effectively requires a minimum lot area of 10,890 square feet for four units (see calculation in sidebar). This is especially limiting in infill conditions for existing lots 50 feet wide that can accommodate a Fourplex.
  Depending on the lot size and proximity to walkable neighborhood amenities, the parking requirement for this zone (1.5 spaces per unit for one-bedrooms less than 500 square feet and 2 spaces for larger units) is a barrier to MMH especially on existing infill lots less than 75 feet wide.

- **RS-15:** This zone does not support MMH due to the combined barriers of minimum lot area, density, and parking requirements.
  The minimum lot area of 15,000 square feet is too high for 7 of the 9 MMH types. However, if using larger lots than necessary, this zone does allow 4 of the 9 MMH types (Cottage Court, Multiplex Large, Courtyard Building, and Townhouse Large). While minimum lot area is a primary barrier, this zone's maximum allowed density (2 du/acre for lots greater than 2 acres) is a secondary barrier. Depending on the lot size and proximity to walkable neighborhood amenities, the parking requirement for this zone (minimum 2 spaces per dwelling unit) is a barrier especially to MMH on existing infill lots less than 100 feet wide.

- **RS-8:** This zone does not support MMH due to the combined barriers of minimum lot area, density, and parking requirements.
  This zone's minimum lot area of 8,000 square feet is greater than what is necessary for smaller-scale MMH types (both Duplex types, Triplex/Fourplex). Although the zone allows two attached

dwelling units on lots greater than 2 acres, the zone's maximum allowed density (3.8 du/acre for lots greater than 2 acres) requires the two units to be on a larger lot than necessary, presenting a barrier. Depending on the lot size and proximity to walkable neighborhood amenities, the parking requirement for this zone (minimum 2 spaces per dwelling unit) is a barrier to MMH especially on existing infill lots less than 100 feet wide.

- **RS-5:** This zone does not support MMH due to the combined barriers of density and parking requirements.
  This zone's maximum allowed density of 8 du/acre is too low and poses a barrier to all MMH types. Depending on the lot size and proximity to walkable neighborhood amenities, the parking requirement for this zone (minimum 2 spaces per dwelling unit) is a barrier to MMH especially on existing infill lots less than 100 feet wide.

Development Standards

Density for RM-1, RS-15, RS-8, and RS-5,

- **RM-1:** The zone allows up to 16 units/acre (see RM density definition on page 54). If each dwelling unit includes only one bedroom, this zone's density limit translates into a Duplex being possible if on at least a 5,500 square feet lot. Our experience shows that the Duplex can fit on a 5,000 square feet lot. The difference of 500 square feet doesn't sound like much, but when looking at existing, platted infill lots, that amount can mean needing to purchase five or more feet from the adjacent lot.
  The maximum allowed density is a barrier to 5 of 9 MMH types (Triplex/Fourplex, Multiplex Small, Multiplex Large, Courtyard Building, and Townhouse Large). See diagram on pages 32-33, and 62-63 for the resultant density ranges of each MMH type.
- **RS-15:** For lots greater than 2 acres, this zone allows up to 2 units/acre. This results in one unit on the minimum lot size, even with the 25% maximum density bonus. The maximum allowed density for lots greater than 2 acres does not currently support any MMH types, which begin at 11 du/acre.
  For lots less than 2 acres, the minimum lot area of 15,000 square feet translates into 2.9 du/acre; however, the zone doesn't regulate density, so this is not a barrier.
- **RS-8:** For lots greater than 2 acres, this zone has a 3.8 dwelling unit/acre limit. This only allows one unit on the minimum lot size, even with the 25% max imumdensity bonus. The maximum allowed density for lots greater than 2 acres does not currently support any MMH types, which begin at 11 du/acre.
  For lots less than 2 acres, the minimum lot area of 8,000 square feet translates into 5.45 du/acre; however, the zone doesn't regulate density, so this is not a barrier.
- **RS-5:** For lots greater than 2 acres, this zone allows up to 8 units/acre. This results in one unit on the minimum lot size, even with the 25% maximum density bonus. The maximum allowed density for lots greater than 2 acres does not support any MMH types unless the lot is large enough to not exceed 8 units/acre.
  For lots less than 2 acres, the minimum lot area of 5,000 square feet translates into 8.7 du/acre—still too low for any of the MMH types; however, the zone doesn't regulate density, so this is not a barrier.

- **Recommendation 18:** For MMH developments, do not regulate density. Instead, regulate maximum building footprint, height, and parking.

Lot Size/Area for RS-15 and RS-8

- **RS-15:** The minimum lot area is 15,000square feet, which translates into 2.9 du/acre. MMH types begin on lots between 4,000 and 5,000 square feet (40 to 50 feet x 100 feet), and include other types that need some additional area but only up to 15,000 square feet (100 feet x 150 feet) for the most intense types in the MMH spectrum.
- **RS-8:** The minimum lot size is 8,000 square feet, which translates into 5.45 du/acre. MMH types begin on lots between 4,000 and 5,000 square feet (40 to 50 feet x 100 feet), and include other types that need some additional area, but only up to 15,000 square feet (100 feet x150 feet). This zone's minimum lot size allows only the middle to upper end of the MMH spectrum (Townhouses, Courtyard Buildings, etc.) which might not be the best fit for all areas in the RS-8 zone. However, the zone's maximum density limit does not allow these types. This zone currently does not support any MMH types.

- **Recommendation 19:** For MMH developments, do not regulate minimum lot area. Instead, establish lot width and depth standards for each MMH type.

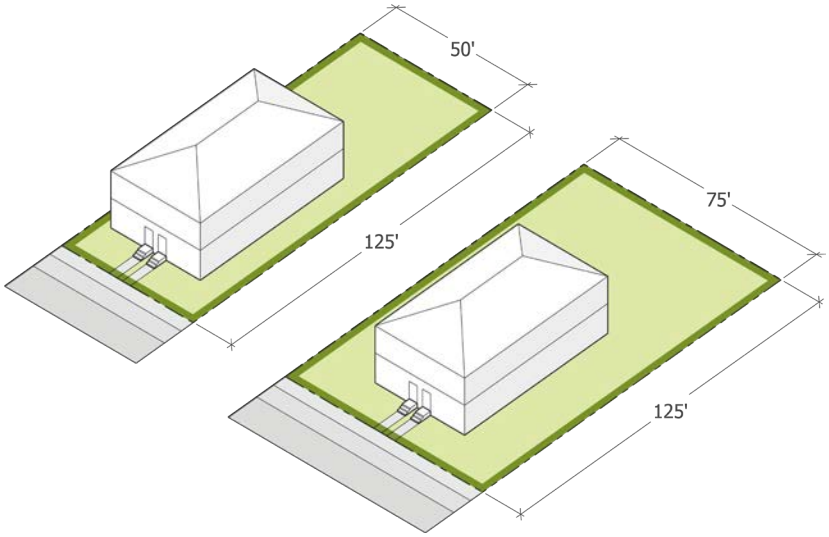
Lot Width for RS-15 and RS-8

- **RS-15:** The minimum lot width is 75 feet which enables the Cottage Court, both Townhous types, both Multiplex types, and Courtyard Building. However, the required width is more than what is needed for the lower end of the MMH spectrum, preventing both Duplex types and Triplex/Fourplex that are likely more appropriate in the RS-15 contexts.
- **RS-8:** The minimum lot width is 60 feet. The required width is more than what is needed for the lower end of the MMH spectrum, preventing both Duplex types. This width does enable the Triplex/Fourplex and Townhouses. Another 10 to 50 feet of lot width are needed for Cottage Court, Multiplex Small, Multiplex Large, and the Courtyard Building.

- **Recommendation 20:** For MMH developments, coordinate lot width and depth standards for each MMH type .

Figure 3.5

Minimum lot sizes required by zoning are often larger than necessary to enable MMH. For example, a Fourplex can function well on a 50-foot wide lot but typically is required to be on lots 2 or 3 times this size.



Distance between Principal Buildings for RM-1 lots greater than 2 acres

Per the Zoning Code, "Distance between principal buildings shall be at least one-half the height of the tallest buildings; provided, however, that in no case shall the distance be less than 12 feet." This requirement is an approach for large infill sites and greenfield sites. The intent to appropriately separate buildings on sites that might not have individual parcel boundaries around each building is understandable but limits the developable area on existing, platted infill lots.

- **Recommendation 21:** For MMH development, require a total of 12 feet as a side setback between individual MMH types. For example, a Fourplex adjacent to a Multiplex Small would be required to be 12 feet from the Multiplex Small. However, for the Cottage Court, each cottage would be separated from the others by an internal setback (minimum 5 feet) while the group of cottages would be setback from an adjacent MMH type by the required 12 feet.

CLOSER LOOK

Density Regulations on Infill Lots

Density regulations in most zoning codes do not consider or enable Missing Middle Housing (MMH). It's not necessarily because communities are against it. It's because the typical density approach favors large sites, not infill lots within existing blocks. For example, the typical multi-family project is on a site that's larger than what one building needs. The typical MMH type is on a lot that's the size of a lot for a single-unit dwelling.

Also, the typical multi-family project has multiple buildings and results in a density calculation that's lower than the single-lot, Missing Middle house-scale building. This might sound odd but it's because the more land you add to the calculation, the lower the density. Consider the two examples below:

• 21, 3-story buildings with a total of 502 units on a 53-acre site = 9.47 units/acre density

• 1, two-story, 8-unit Courtyard Building on a lot that is 100 feet wide by 120 feet deep = 29 units/acre density

These two projects are not similar in size, form or intensity. Yet, without seeing either, the 'density' number leads you to think that the lower density number means less units, less buildings, and a smaller project. Although they might be very nicely designed, the 3-story multi-family buildings, are taller and at least twice the footprint of the MMH Courtyard Building.

It's important to keep in mind that the density regulations are set up to calculate 'units per acre' reflecting the beginnings of this tool to help forecast population and infrastructure needs for large areas of a community or entire communities. However, when applied to existing infill lots (e.g., less than 100 feet wide), the approach to regulating density needs to change along with the current expectation that MMH on infill lots needs to conform to the current approach.

Parking

In RM-1, units smaller than a 500 square foot 1-bedroom or Studio require a minimum 1.5 spaces per unit, and units larger than a 500 square foot 1-bedroom or Studio require a minimum 2 spaces per unit. In the RS zones, parking for each residential unit requires a minimum 2 spaces.

- **Recommendation 22:** For MMH developments, revise parking requirements to maximum 1.25 spaces per unit with all guest parking on-street.

Driveway Width

The Zoning Code driveway access requirements pose a barrier to MMH. Developments of maximum 3 units on a private drive require an improved width of 20 feet and a dedicated easement width of 25 feet; this limits MMH developments to lots at least 70 feet wide.

- **Recommendation 23:** For MMH developments, revise the minimum driveway width to 9 feet with 2 feet of planting on each side.

In addition, it is not clear when a two-way driveway is required. The minimum width is 12 feet for one-way and 20 feet for two-way access.

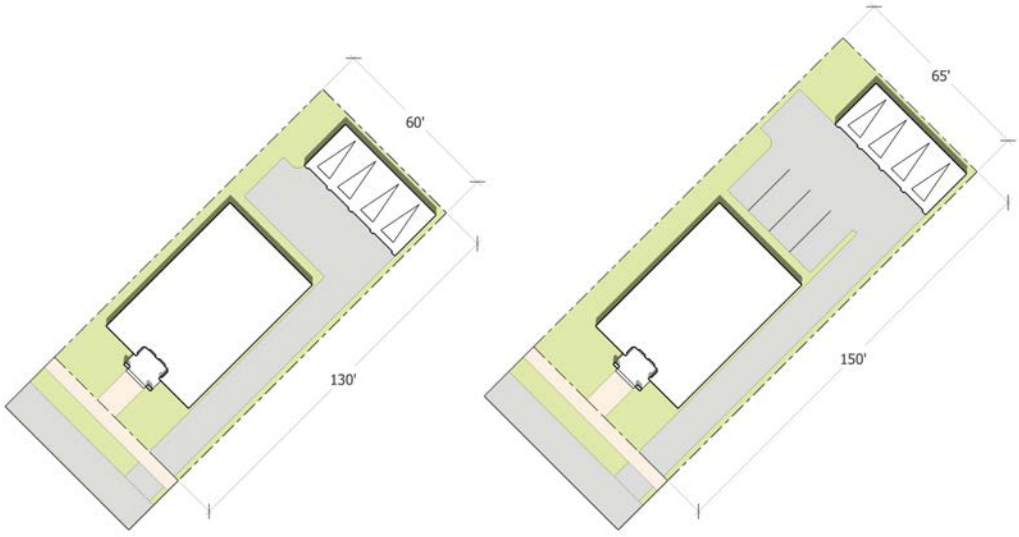
- **Recommendation 24:** For MMH developments, revise to not require two-way driveways for lots up to 150 feet wide and 150 feet deep.

Setbacks

The setback requirements do not pose barriers and are supportive of successful MMH. Of the zones analyzed, the greatest setbacks are in RS-15 which requires a minimum 20 foot front, minimum 8 foot interior sides, and minimum 20 foot rear setbacks. The other zones (RM-1, RS-8, and RS-5) require a minimum 15 foot front, minimum 6 foot interior sides, and minimum 10 foot rear setbacks. MMH typically functions with a 10-20 foot front setback, a 15-20 foot rear setback, a 5-10 foot interior side setback, and a 10-12 foot side street setback.

Figure 3.6

The impact of parking on MMH and affordability is large. This illustration shows how much more space is required to fit a Fourplex on a lot when 2 spaces are required per unit (right) versus 1 space per unit (far right).



Buffer Yards

There are no buffer yard requirements for RS-15, RS-8, or RS-5. In RM-1, buffer yards are a potential barrier to MMH when the rear and side yards are adjacent to single-family residences or districts. The RM-1 zone requires a 50-foot wide Natural buffer strip, 20-foot wide landscape buffer strip, or 10-foot wide landscape buffer wall. This requirement poses a barrier on existing, platted infill lots by reducing the amount of developable land. For example, on an existing lot that is 50 feet wide, the 20 foot landscape buffer strip and the required 6 foot side setback on the other side of the lot result in a building that is 24 feet wide. Certainly, a building of this width can be designed but it is likely to be a single Townhouse and not a Duplex, Triplex, or Fourplex.

- **Recommendation 25:** Remove buffer yard requirements on existing infill lots, and only apply them to greenfield projects.

Lot Coverage

Depending on the lot size, this may or may not be a barrier to MMH. The main concern with the RM and RS zone's maximum 40 to 50 percent lot coverage (depending on the zone) is that the standard does not prevent buildings that may be out of scale with neighboring buildings.

- **Recommendation 26:** Replace lot coverage requirements for MMH with maximum building footprint and height requirements to ensure House-scale buildings.

Units per Building

MMH typically includes a range of unit sizes from 1 to 4 bedrooms, based on the market demand and individual project goals. The RM-1 requirement of regulating bedrooms instead of units requires too much parking and presents barriers related to density. This approach also tends to result in studio units, furthering the imbalance of housing choice.

- **Recommendation 27:** For MMH types, do not regulate by bedrooms. Instead, regulate the number of units by MMH type, regulate the maximum size of units in Duplexes, Triplex/Fourplexes, and Cottage Court units while not regulating minimum unit size.

Open Space

The current requirements for open space are not a barrier to MMH. RM-1 requires 45 percent minimum landscaped area, which is not a barrier because the lots are large enough to accommodate a unit and landscaping. The RS zones in this analysis require a minimum of 5 percent for developments with a base density of at least 10 units. We understand this to mean that individual buildings have a base density of about 10 units/acre which is consistent with MMH.

Building Height

MMH types range in height from 1 to 2.5 stories (0.5 stories indicates an attic story), or about 30 to 35 feet overall in height. Building height is not a barrier in any of the four zones analyzed.

- **Recommendation 28:** Within the maximum 30 feet overall building height for the RS-15, RS-8, and RS-5 zones, clarify that only allow 2 stories are allowed instead of 3 stories which could technically fit. Also, clarify that the RM-1 zone maximum overall height of 40 feet only be allowed where Upper MMH is expected (see Upper MMH on pages 18-19).

3.3 Summary of Barriers

The table below summarizes Section 3.2 to graphically represent the various types of barriers to MMH within the Athens-Clarke County Zoning Code and which of the nine MMH types are possible under the current zoning regulations.

Key

- ✓ Enables All MMH Types
- ● Not a barrier, but does not prevent block-scale buildings in neighborhoods
- ✕ Barrier to 3 or less MMH Types
- ● Unclear/Potential Barrier
- ✕ Barrier to 4 or more MMH Types
- (# of 9) Standard enables "#" MMH Types

Summary of Regulatory Barriers for Housing in Athens-Clarke County

Development Standards

	Multifamily Zone	Single Family Zones		
	RM-1	**RS-15**	**RS-8**	**RS-5**
Density Maximum				
< 2 acre site	✕ (5 of 9 types if 1bd units)	✓	✓	✓
> 2 acre site	✕ (5 of 9 types if 1bd units)	✕ (0 of 9)	✕ (0 of 9)	✕ (0 of 9)
Lot Area Minimum	✓	✕ (3 of 9)	✕ (8 of 9)	✓
Lot Width Minimum				
< 2 acre site	✓	✕ (6 of 9)	✕ (7 of 9)	✓
> 2 acre site	✓	✓	✓	✓
Lot Depth Minimum	✕ (8 of 9)[1]	✕ (8 of 9)[1]	✕ (8 of 9)[1]	✕ (8 of 9)[1]
Setbacks Minimum	✓	✓	✓	✓
Distance between Principal Buildings	✕ (8 of 9)[1]	Side setback standards address this topic in RS zones		
Lot Coverage Maximum	●	●	●	●
Open Space Minimum	● (Landscaped Area)	✓	✓	✓
Buffer Yard Minimum	✕	Not required in RS zones		
Building Height Maximum	✓	✓	✓	✓

[1] Prevents Cottage Court on individual lot

Summary of Regulatory Barriers for Housing in Athens-Clarke County				
Development Standards				
	Multifamily Zone	**Single Family Zones**		
	RM-1	**RS-15**	**RS-8**	**RS-5**
Residential Uses Permitted (MMH Types)				
< 2 acre site	ADU	✗ (0 of 9)	✗ (0 of 9)	✗ (0 of 9)
> 2 acre site	● ADU, Duplex, Multifamily	✗ Multifamily not permitted	✗ Enables side-by-side attached (Up to 2 units)[2, 3]	✗ Enables side-by-side attached (Up to 4 units)[2,3]
Parking/Driveway Standards				
	RM-1	**RS-15**	**RS-8**	**RS-5**
Min. Parking Spaces per Unit	✗ 1.5 if < 500 sf, 2.0 if > 500sf too high	✗ 2.0 too high	✗ 2.0 too high	✗ 2.0 too high
Min. Private Drive Width Accessed by Max. 3 Units	✗ (2 of 9)	✗ (2 of 9)	✗ (2 of 9)	✗ (2 of 9)
Min. Driveway Width for 5 or more Spaces	✗ (0 of 9)	✗ (0 of 9)	✗ (0 of 9)	✗ (0 of 9)

[2] Subdivision standards apply to subdivisions creating lots less than or equal to 8,000 square feet or resulting in an overall density exceeding 2.5 units per acre.

[3] Lots containing attached single-family units must be 100 feet from the perimeter lot lines of a subdivision, and the individual common wall units are on separate lots designed to be sold individually.

3.4 Allowed Density

Allowed Density

According to the maximum allowed density, the RM-1 zone enables 4 of the 9 MMH types (Duplex Side-by-Side, Duplex Stacked, Cottage Court and Townhouse Small). No MMH types are enabled in the RS zones because current density limits are too low. However, simply increasing the maximum allowed density could create other issues such as large buildings that are not contextually appropriate for their neighborhood.

Increasing the maximum allowed density needs to be coordinated with carefully identifying the appropriate MMH building types for ACC's different areas and then incorporating the resultant density range of those types along with standards for maximum building footprint and lot width.

Key

- Range of MMH Type
- Range Enabled by Zoning
- ✓ MMH Type Enabled
- ✗ MMH Type Not Enabled

[1]Based on the minimum lot area per number of dwelling units, this is the implied density maximum.

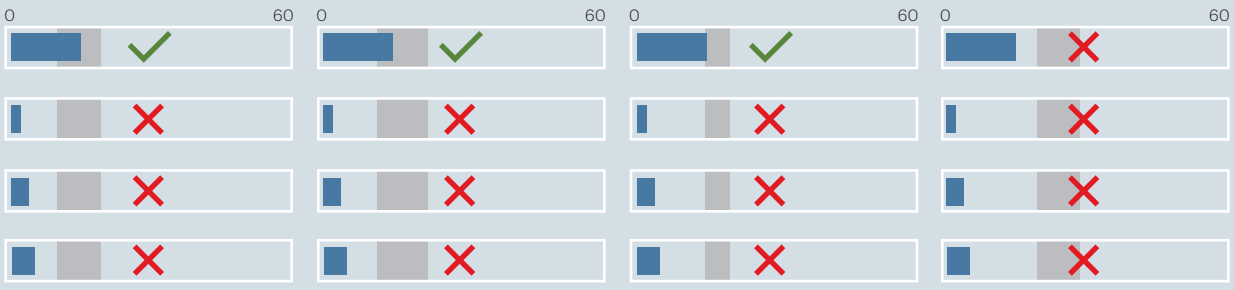
Duplex Side-by-Side
11-17.4 du/ac

Duplex Stacked
13-25 du/ac

Cottage Court
15-19 du/ac

Triplex/Fourplex
20-29 du/ac

Zoning and Density Limits:



RM-1
16 (4 on min. lot)[1] du/ac

RS-15
2 (2.9 on min. lot)[1] du/ac

RS-8
3.8 (5.45 on min. lot)[1] du/ac

RS-5
8 (8.7 on min. lot)[1] du/ac

MMH Types Enabled by Current Density Standards

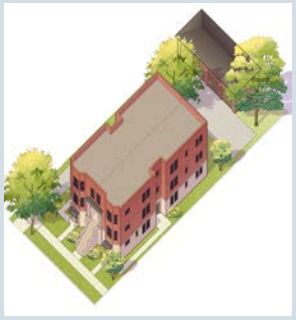
The chart below shows which and how much of each MMH type is enabled in each zone based on the maximum allowed density. When the gray and blue bars do not overlap, that MMH type is not enabled. The densities shown in this table result from the lot and width and depth scenarios on pages 32 and 33. The densities will decrease or increase depending on the actual lot width and depth applied.

- **Recommendation 29:** Increase the maximum allowed density for MMH types based on the lot size needs of each MMH type; or
- **Recommendation 30:** Do not regulate density. Instead, regulate MMH using building types with clear footprint and unit limits.

Depending on the support for changing existing zoning, the MMH types and their standards could be adopted as new zoning or as an overlay that only applies to identified walkable neighborhoods.

Multiplex Small

33.2-44.6 du/ac



Multiplex Large

37-55.3 du/ac

Courtyard Building

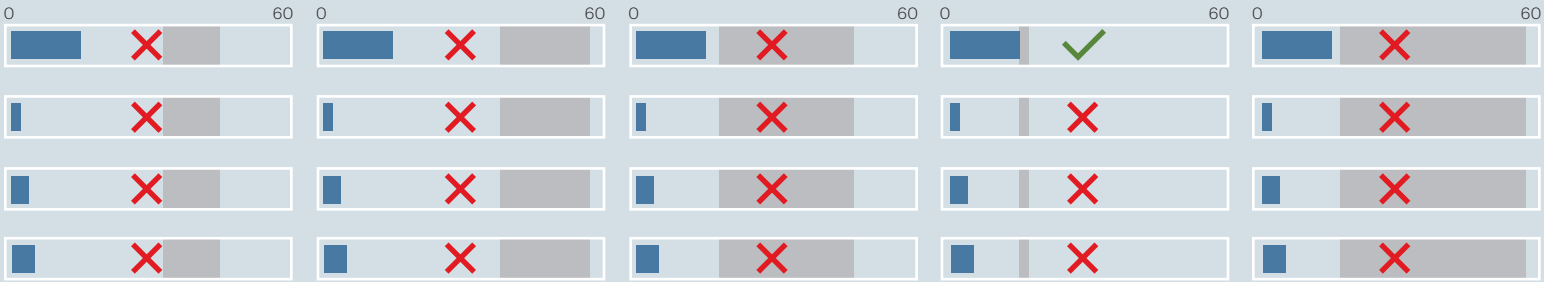
18-46.5 du/ac

Townhouse Small

16-17.5 du/ac

Townhouse Large

18.6-55.8 du/ac



3.5 Minimum Lot Area / Width

Importance of Lot Width

The existing zoning standards regulate minimum lot area. This is effectively another way to reinforce maximum allowed density. This reflects an approach that serves larger projects but not necessarily existing, infill lots on a block (less than 100 feet wide). The lot area approach ends up preventing some housing choices that are otherwise physically compatible with single-unit dwellings.

- **Recommendation 31:** Regulate lot width instead of lot area.

Lot "width" can be a more effective regulation than lot area because many projects can comply with the minimum lot area but still result in a building that is too large for its context. This often happens with low density housing like a Duplex that is allowed to fill up the building envelope and create a building that is within the density limits but is larger than nearby houses in the same neighborhood.

In contrast, regulating by lot width results in standards for maximum building footprint that are coordinated with a variety of lot widths are very helpful in lower intensity neighborhoods. This approach enables the palette of MMH types, increasing housing choices.

The Palette of Missing Middle Housing Types with Typical Lot Width Range

The palette of MMH types is provided for reference to the typical lot width range of each type. These lot width ranges include rear-loaded lots.

Duplex Side-by-Side
45' - 55'

Duplex Stacked
45' - 50'

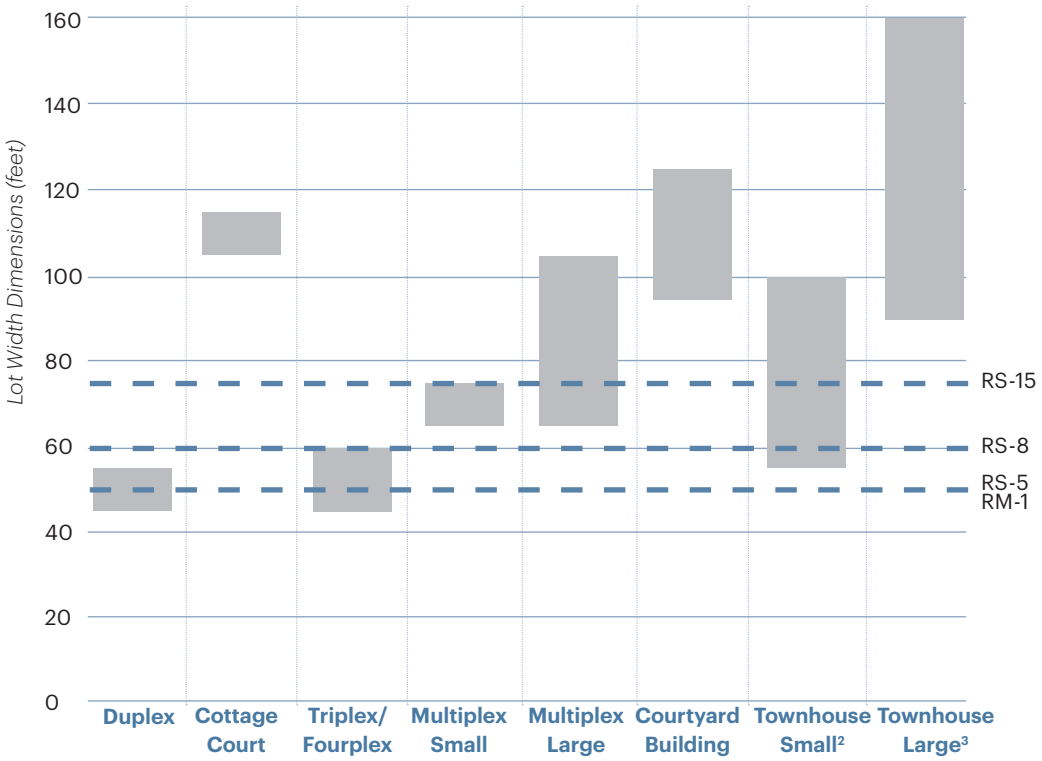
Cottage Court
105' - 115'

Triplex/Fourplex
45'-60'

MMH Types Enabled by Current Lot Width Standards

The gray bars show the typical lot width range for each MMH type based on front or rear vehicle access. Each zone's minimum lot width standard is shown horizontally by a dashed line to illustrate which MMH types, and how much of each, are possible

- **Recommendation 32:** Coordinate each MMH type with the existing lot sizes in the areas where MMH is intended. Then, apply this information to each relevant zone.



Key

Typical MMH Lot Width Range for Front-loaded and Alley-loaded lots (minimum to maximum)

Minimum Required Lot Widths

RM-1 (min. 50 ft)[1]

RS-15 (min. 75 ft)[1]

RS-8 (min. 60 ft)[1]

RS-5 (min. 50 ft)[1]

[1] If project is > 2 acres, minimum lot width of 40 feet for all zones in this analysis.

[2] Reflects the width for a group up to 4 Townhouse units in a row including 5-10 feet side setbacks for the group.

[3] Reflects the width for a group of up to 8 Townhouse units in a row including 5-10 feet side setbacks for the group.

Multiplex Small

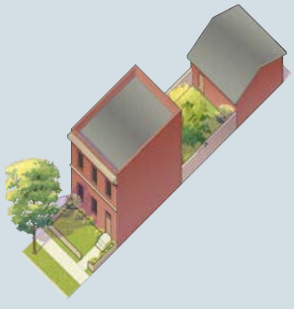
65' - 75'

Multiplex Large

65' - 105'

Courtyard Building

95' - 125'



Townhouse Small

18'-25' (single unit)
54'-100' (3-4 units in a row)

Townhouse Large

18'-25' (single unit)
90'-200' (5-8 units in a row)

3.6 Next Steps

Additional Recommendations for Implementing MMH

This MMH Scan™ (Analysis + Definition of Barriers to MMH) is the first of a two-part analysis and focuses on identifying barriers to MMH. If selected, the second part, MMH Deep Dive™ (Testing + Solutions for MMH) is a more detailed analysis of ACC's zoning to test-fit MMH types.

Part 2:

- Tests the existing zoning in walkable contexts on a variety of selected existing infill parcels to identify the number of dwellings allowed and the maximum building size under two scenarios:
  - Existing zoning, and
  - Existing physical conditions without limitation by existing zoning but within the context of the neighborhood. In other words, which MMH type(s) would fit well if allowed?
  - The above results are intended to provide further insight about recommended improvements and changes to existing standards.
- Identifies detailed recommended changes to zoning standards.

If Part 2 is not selected, we recommend the following:

- Work with the community and developers to understand the value of MMH and the findings and recommendations of this MMH Scan™.
- Prioritize MMH within the 5 to 10-minute walkable environments around the existing Walkable Centers.
- Apply the findings of this MMH Scan™ to the zoning within the 5 to 10-minute walkable environments around the existing Walkable Centers.
- Prioritize testing/fitting the desired MMH types to the actual lot sizes in specific walkable environments to identify additional changes needed to existing standards beyond those already recommended in this Scan.
- Work with the community and developers to determine which of the current Auto-oriented Centers are ready to transform into Walkable Centers, making the surrounding parcels "MMH-Ready" environments.
- If changing the standards of the RS-5, RS-8, RS-15, and RM-1 zones only where MMH developments are expected is not practical, enable MMH through a new MMH zone and standards, or through a set of overlay standards.

Current Zoning within Walkable Environments (Existing and Potential)

The map shows the location of the four zoning districts analyzed in relation to the existing Walkable Centers and Corridors and Potential Walkable Centers and Corridors in MMH-Ready environments identified through this analysis.

Figure 3.7 *Location of four zoning districts analyzed and Walkable environments (Existing and Potential)*