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INTEGRATING TINY HOUSES INTO THE AMERICAN URBAN FABRIC:
A COMPARATIVE CASE STUDY OF LAND USE POLICY
CHANGE IN THE CAROLINAS

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Planning, Design and the Built Environment

by
Krista Evans
May 2017

Accepted by:
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Matt Powers

ABSTRACT

The concept of the American dream, manifested in the ownership of a detached single family home, remains a driving force in the housing market. Historically, small homes have held a prominent niche in this dream in both urban and rural areas. However, the expansion of restrictive urban land use policies to protect property values, paired with the rapid diminishment of the American middle class, has made homeownership increasingly difficult to achieve. The tiny house movement has emerged as a means to promote small, affordable, and sustainable home ownership. However, the construction of tiny homes, or even the traditional cottage, is illegal in many places throughout the United States. Zoning, land use ordinances, and restrictive covenants swept the country in the early twentieth century, and often prohibit the construction of structures smaller than a certain square footage. The challenge that tiny house proponents face, therefore, is how to change existing urban land use policy to accommodate the legal allowance of tiny and small houses, while retaining good city form.

This dissertation examines how communities are altering land use policy in order to accommodate tiny and small houses. It does so through a mixed methods research design that involves both a comparative case study and visual preference survey. The case study locations of Asheville, North Carolina, and Horry County, South Carolina, are pioneering the way to creating land use policy that will accommodate tiny homes in the southeastern United States. However, each jurisdiction has developed different types of land use initiatives to integrate such homes. The implementation process and perceived success of these various initiatives are explored through archival analysis and interviews

with tiny house stakeholders at each community. Since public perceptions greatly influence the resulting built environment, (Nasar 1998) there is a need to investigate the relationship between individuals' perceptions of tiny house aesthetics and how those perceptions may affect resulting land use policy. In this study, this relationship is explored through the use of a visual preference survey instrument, which examines preferences for various design elements and the several ways in which tiny houses may be integrated into urban areas.

The case study portion of the research culminated in the development of ten themes. Seven of the resulting themes are common to both case site locations, whereas three are site specific. These themes assist in the development of an understanding of the various barriers to tiny house integration, and how and why each case site is crafting specific tiny house policies. The visual preference survey indicated that there are some differences in average preferences for various tiny house visual elements.

For example, the analyses revealed a significantly different, and lower, preference for the integration of tiny homes on their own lots among other housing types, and a significantly different, and higher, preference for traditional styles of architecture.

However, the results were mixed when analyzing if perceptions of tiny and small homes affect the resulting land use policy.

The research has resulted in several implications for tiny house advocates and planners. These implications have been crafted into five best practice recommendations for the integration of tiny and small houses into communities. Among them, the research has indicated that the primary driver behind tiny house integration is affordability.

Therefore, tiny house land use policy should reflect this desire to achieve housing affordability. It is hoped that the findings and implications from this research will assist proponents of tiny house living in the development of successful tiny house integration policy.

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CHAPTER ONE

INTRODUCTION

There is growing interest in tiny and small house living in the United States. In locations as diverse as Portland, Oregon; Spur, Texas; and Rockledge, Florida, individual tiny homes and, in some cases, entire communities of tiny houses are being initiated. There is no formal definition as to the specific size a “tiny” home must be. Many proponents regard anything smaller than 400 square feet to be tiny (Tiny House Talk 2015b). However, small homes, alternately referred to as cottages or bungalows, generally averaging 1,000 square feet or less, are also frequently included in the tiny house movement (Tiny House Giant Journey 2015). Tiny houses on wheels (THOWs) have become synonymous with the tiny house movement itself. These mobile structures allow the homeowner freedom of mobility: however, they face the greatest hurdles to legal integration into urban communities (Figure 1.1). As the average size of the American home has continued to increase from 1,535 square feet in 1973 to an average of 2,480 square feet in 2011, (Schwartz 2014, 20) the tiny house counter-culture movement makes a powerful statement.

There are several driving forces behind the growing interest in downsizing to live in tiny or small homes. Among them are increased environmental concerns, a growing dissatisfaction with excessive materialism, a greater cultural awareness of the American cycle of debt, and a desire to utilize small structures as a practical means of housing the poor and homeless (Gauer 2004; Light and Neha Tara Mehta 2014). Furthermore, the current boom in tiny home interest and construction, and recently, the challenging of

various municipal regulations that restrict or deny small homes, suggests that the tiny house movement is more than a passing fad. It indicates that we are on the edge of a new housing frontier in America. However, it remains unclear how jurisdictions will regulate and integrate tiny and small houses into the existing urban fabric.



Figure 1.1. THOWs offer freedom of mobility, however, they face numerous hurdles to legal integration in urban areas. This THOW was photographed at the 2nd Annual Tiny House Conference held in Asheville, NC, during Spring 2016 (Photo credit: Krista Evans).

Research Problem and Purpose

There is a need to explore the existing regulatory barriers to tiny home living, and to develop best practices for the legal integration of such structures into urban communities. The evidence indicates that tiny and small house living is growing in popularity. Social media is awash with tiny house blogs, floor plans and construction companies. Reality television shows, such as *Tiny House Nation*, *Tiny House Builders*,

and Tiny House Hunters have become increasingly trendy. What is problematic, is finding urban communities that allow new construction and integration of tiny and small homes within their jurisdictions, especially THOWs (Brown 2014; Roberts 2014). Due to zoning regulations, land-use ordinances, and restrictive covenants that swept the country in the early twentieth century, many communities do not allow the construction of structures smaller than 1,000 square feet. Furthermore, it is not unusual for requirements upward of 2,000 square feet to exist (American Planning Association 2014). As a result, the construction of tiny homes, or even traditional cottages, is illegal in many places throughout the United States.

In order to dodge the existing regulatory framework, tiny house enthusiasts have taken such measures as licensing THOWs with state plates in order that they may be classified as vehicles rather than structures, hiding THOWs in backyards, and building tiny homes in areas that are currently rural and/or un-zoned. Many small home proponents, however, are unhappy with the prospect of building in a rural area, or with the prospect of living illegally. In the former case, some small home dwellers would argue that one of the purposes behind small living is to promote environmentally and socially sustainable communities; not to reside in sparsely inhabited areas that require long commute times, increased resources for sufficiency, and may be socially isolating (Chapin 2011; Calfee and Weissman 2012). As a result, many tiny house enthusiasts are challenging the existing regulatory framework in order to make urban tiny house living a reality.

There is also a need to investigate the relationship between individuals' perceptions of tiny house aesthetics and how those perceptions may affect resulting land use policy. This is because research has indicated that public perceptions greatly influence the built environment (Nasar 1998). For instance, some communities may prohibit Accessory Dwelling Units (ADUs) and others may encourage them because of differing perceptions about ADU aesthetics, increased density standards, and the creation of rental opportunities. Examining perceptions related to various design elements and the several ways in which tiny houses may be integrated into urban areas may lead to a better understanding of how tiny house land use policy might best be crafted.

What remains to be examined is how municipalities can best integrate tiny and small houses into urban communities, while retaining good city form. This dissertation addresses this problem by providing an in-depth analysis of two jurisdictions in the southeastern United States that are crafting policy for the accommodating of tiny and small homes. The dissertation examines how each community is creating tiny house policy, the barriers along the way, and how tiny home perceptions influence policy outcomes. The research not only provides a holistic examination of the many facets involved in the creation of tiny house land use policy, but furthermore culminates in a discussion of potential implications for tiny house advocates and policy makers. It is hoped that this dissertation will aid in the development of best practices for tiny house integration policy.

Theoretic Paradigm

The dissertation has been approached from the epistemological paradigm of critical realism. It has been asserted that critical realism is the most suitable theoretic paradigm for the social sciences as it approaches research with the understanding that a concept under study is intricately linked to other phenomenon and is influenced by individual perceptions (Sayer 1992, 4-6). Critical realists assert that knowledge is furthered through the examination and analyses of these linked relationships. The critical philosophy further contends that to best understand social science, continual critique and revision of current knowledge is needed (Sayer 1992, 39). As the concept of tiny houses is associated with such fluid bodies of knowledge as housing policy, urban design, and economics, and is highly influenced by individual perceptions, the linked approach of critical realism is appropriate to the dissertation research.

The critical paradigm is furthermore integral to the research because it is advocacy oriented. Many of the proposed research questions have arisen from deeply held personal beliefs about how the world and society might be better off if people had a smaller ecological footprint, fewer fiscal restraints, and greater personal freedom. The critical paradigm is based upon social reform and action (Creswell 2013, 30-31), and it is hoped that the dissertation will assist in changing the current status quo of housing in America. Furthermore, because the proposed research is approached with the belief that both cultural norms (behavior) and the current housing status quo (institutions) need to change in order for tiny house living to be actualized, the theory of causality utilized in the proposed research may be classified as constructivist. Sayer (1992, 108) contends

that processes of change often involve the interaction of several causal mechanisms at once. The causal mechanism behind the growing tiny house movement is based upon the simultaneous and interactive relationship between the institutions that shape housing and land use policy and adapting social norms.

To a lesser extent, the theory of multiculturalism, or interpretivism, is also utilized as a lens for examining the dissertation research. One of the key concepts of multiculturalism is that culture is more of a verb than a concrete entity, and is constantly undergoing reinvention (Fay 1996, 37-9, 228-34). Knowledge is also in this process of perpetual reinvention and evolution. As so many of the cultural concepts surrounding the tiny house movement are continually being redefined, such as the notion of the “American dream” as applied to homeownership, the multicultural perspective is pertinent to the research. Furthermore, the epistemology of multiculturalism contends that knowledge and power are connected (Fay 1996, 2-3). For example, the work of Foucault reveals how scientific knowledge led to abuses with the domination and control of “undesirable” populations through prison and asylum structures (Fay 1996, 52). The dissertation research takes a somewhat similar approach by examining how institutions such as capitalism and land use law have been utilized in a manner that restricts the power of poorer classes; specifically in regard to the attainment of affordable housing.

Conversely, the theoretical methodologies of positivism and radical postmodern relativism are not appropriate for addressing the dissertation research. Positivism is better suited to the natural sciences and aims to isolate a phenomenon under study from influencing factors, rather than encouraging holistic examination. Radical postmodern

relativism asserts that truth is merely in the eye of the beholder, and does not encourage the search for universal certitude. The advocacy orientation paired with a linked approach to knowledge that is continually in the process of revision places the dissertation research firmly in the camp of critical realism with a slight aspect of multiculturalism. As the dissertation is rooted in critical realism, it is hoped that the work may add to the universal knowledge base by reducing illusion through the use of critical theory.

Some might assert that a theoretical framework of advocacy involves the introduction of personal bias into research, and is therefore inappropriate. However, others contend that some level of personal bias is inherent in any study and that critical theory is an excellent means of investigation in the social sciences (Flyvbjerg 2006; Yin 2009; Creswell 2013). It is believed that the dissertation research has resulted in a fully encompassing exploration of the many factors surrounding the integration of tiny houses into urban communities.

CHAPTER TWO

MAKING A PLACE FOR TINY HOMES

Definition of Terms

Tiny house – Though no formal definition exists, tiny houses are generally regarded as those less than 400 square feet, and small homes are generally regarded as averaging 1,000 square feet or less (Tiny House Giant Journey 2015; Tiny House Talk 2015b). The perception of “tiny” is often a matter of opinion.

Tiny house movement – The tiny or small house movement is a growing real estate trend where people are choosing to live in smaller homes in order to address issues such as housing affordability, environmental sustainability, and lifestyle simplification.

Accessory Dwelling Unit (ADU) – ADUs are second units on a single lot that are owned by the primary homeowner. They may be attached or detached to the main house. ADUs may alternately be referred to as granny-flats, in-law apartments, back yard cottages, and laneway houses.

Tiny Houses on Wheels (THOWs) – THOWs are tiny houses built on trailer frames with wheels, which offer the homeowner freedom of mobility. However, THOWs face the greatest regulatory barriers to legal integration in urban areas.

The American dream – The belief that every American should have the equal opportunity to achieve success. Much of the American dream emphasizes the attainment of a detached home on one’s own property (Wright 1983; Heskin 1983).

Vernacular architecture – A traditional architectural style based upon local materials and building customs.

Exclusionary Zoning – The application of land use regulations to exclude certain groups of people, such as the poor or racial minorities. In the first half of the twentieth century, exclusionary zoning was frequently used in order to effectuate homogenous, white, middle and upper class neighborhoods (Fischel 2004; Boudreaux 2011, 6-10).

Overlay districts – The creation of overlay districts allows for distinct regulations that supersede the ordinances of the underlying and previously zoned region (Roberts 2014).

Form-based codes (FBCs) - FBCs aim to achieve functional and desirable spatial patterns in communities. They focus on both physical built form and potential land uses. FBCs are often perceived as the best method for creating diverse housing types and mixed uses in a community (Talen 2012a, 6-7, 185).

Smart Code - The purpose of the Smart Code is similar to that of FBCs, but is distinct in its use of transects. Transects aim to facilitate the most sustainable land use development by taking an area's ecological footprint into consideration (Emerson 2006).

History of Small Houses

The concept of small homes is not a new one. Historically, small homes sprinkled the landscape of Western countries such as the United Kingdom, Germany, and the United States. Prior to the enactment of zoning regulations and modern banking practices it was common for people to build only within their means. Traditionally, small homes not only offered a means of affordable housing, but their designs took into account locally available building materials, climate, and the surrounding landscape (Downing 1969). Historic examples of vernacular small homes include the frontier log cabin, which is based upon traditional Scandinavian building techniques in order to keep snow loads off roofs and interiors warm in cold climates, and bungalows, which were originally developed in colonial India then embraced in the southern United States, and are designed to stay relatively cool in warm and humid climates (Comstock 1908; Walker 1987). Other distinctive traditional small home designs include cottages, shotgun houses, and camps.

Prior to the widespread application of zoning regulations it was also common for a large main house to have small housing units built on the same property (Hunter 1999, 43). These small structures traditionally served varying purposes: as housing quarters for

guests, servants or slaves, elderly parents, newlyweds not yet able to afford their own home, or as a means for the primary homeowner to earn rental income from tenants. This historic approach of allowing varied housing sizes within a community resulted in neighborhoods that were more diverse both socially and economically than the zoned communities of today (Talen 2012; Ross 2014). Considering the current economic climate in the United States, which is resulting in the diminishment of the middle class, some would assert that it makes good sense for communities to modify current zoning regulations in order to allow for the legal infiltration of these small homes, now termed accessory dwelling units (ADUs), once again (Wright 1983; Bernstein 2005; Calfee and Weissman 2012; Ross 2014; Lochner 2015).

There have been several periods in American history, including the present (Light and Mehta 2014), where there has been a shortage in the availability of affordable housing (Wright 1983; Tighe and Mueller 2013; Schwartz 2014). This problem was especially prominent shortly after WWI and as a result, the Architect's Small House Bureau was established in 1919 in order to assist returning veterans with homeownership (Hunter 1999). This organization provided architectural plans for homes that were compact (approximately 800-1,000 square feet), well designed, and suited for small lots (30 to 50 feet wide) at a nominal fee to potential homebuilders (Hunter 1999, 149). When the industrial assembly line swept across the nation as a popular means of production, affordable housing packages became common. For example, Sears and Roebuck offered mail order home kits that included all the necessary building materials and could be easily transported via train. Such homes were an immediate success.

Offering over 400 small home designs, (Gauer 2004, 19) Sears and Roebuck sold more than 100,000 home kits between 1908 and 1940 (Sears Brands LLC 2012).

As both the automobile and assembly line home-kits grew in popularity, a new type of small affordable housing emerged: one that has plagued communities with its lack of aesthetic appeal since its debut, that of the mobile and/or manufactured home. Mobile homes initially emerged as a means of providing nomadic housing for migratory workers after the Great Depression in the 1930s (Jackson 1985, 261). Early models were designed after compact railroad cars (Hunter 1999, 154). Soon, mobile homes offering prefabricated amenities were mass-produced and became increasingly popular among poorer classes. In 1976, federal regulations were enacted that created manufacturing standards for such homes, and the term “mobile home” was replaced with “manufactured housing” (Southwest Stage Funding LLC 2016). Since that time, companies have tried to promote the term “manufactured housing” in order to avoid the social stigma that has come to be associated with mobile homes and trailer parks; however, the latter terminology is still popularly utilized. Finally the term “modular home” was adopted to describe housing which was mass-produced by modular components in factories, and could be easily transported for assembly at a fraction of the cost of stick built home construction (Hunter 1999; Southwest Stage Funding LLC 2016).

Though the advent of manufactured/mobile homes offered an affordable housing solution for poorer classes, they instantly faced backlash from community members who not only found them to be aesthetically unattractive, but felt that they brought the problems associated with poverty, such as crime and decreased property values, with

them (Chernoff 1983, 235; Boudreaux 2011). In order to restrict mobile homes and the poorer classes associated with them from neighborhoods, zoning laws that either prohibited mobile homes or small homes less than a specific square footage were enacted in thousands of American communities (Chernoff 1983). Furthermore, municipalities created site-specific mobile home park zoning in order to relegate the poor to limited, and often, undesirable locations within urban areas (Chernoff 1983, 240). As shall be demonstrated in this dissertation, it is this backlash against mobile homes and their associated residents that has in part resulted in land use regulations that make it difficult for tiny and small house dwellers to find a place to call home.

The historic concept of the American dream also plays a large role in the evolution of small house living. Early in the history of the United States, land ownership was synonymous with citizenship (Heskin 1983; Shlay 2006). As time passed, full rights were available to those without land. However, the cultural norm associating homeownership with security and stability has remained. In *Tenants and the American Dream* Heskell (1983) writes, “Being a tenant has never been part of the ‘American Dream,’ and the status of tenants in this society has never been secure or comfortable.” The literature reveals that over time, however, the form and architecture of the ideal American home has changed (Wright 1983). Some historically popular American housing types include the communal Puritan home, cookie-cutter company housing, elaborate Victorian homes, and the suburban home resplendent with a sprawling lawn (Wright 1983; Jackson 1985). For many, the current economic and cultural climate is no longer conducive to the ownership of a large suburban home. Wages have stagnated,

families are smaller, and single person living is on the rise (Collins and Yeskel 2005, 14-36). However, the American dream continues to be a strong cultural impetus, and small house living may offer a means of attaining this dream of homeownership.

Today, tiny house dwelling has emerged largely as a counterculture movement. Many people are increasingly disillusioned with the American system of unchecked capitalism, which benefits the elite few at the cost of the many (Daly and Cobb 1989; Harvey 2013; Harvey 2014). Real wages have continued to fall, and employees have less time off and fewer benefits than in the past (Collins and Yeskel 2005, 14-17). As a result, small living is increasingly attractive to many people because it offers the opportunity for more affordable housing options on smaller wages. People might choose to work fewer hours or pursue a vocation they truly enjoy but pays little, in order to live a fulfilling and meaningful life, rather than one that many perceive as a form of corporate slavery. Because of driving factors such as these, the tiny house movement can be loosely linked to the various alternative communities that arose in the 1960s and 70s for similar reasons. Intentional communities and communes were established for people who sought simplified, meaningful lifestyles that put people, relationships, and value systems ahead of commercialism and consumerism (Manzella 2010). A scholar of alternative and counterculture communities writes about the purpose of adopting such a lifestyle, "... it means encouraging human-friendly, compassionate workplaces, and redesigning and human scaling neighborhoods so they meet the real emotional and communal needs of people" (Manzella 2010, 43).

The precursors of some of today's tiny house designs were developed in these alternative communities. Aiming to live simple, sustainable, and socially significant lives, inhabitants of counterculture communities sometimes built unique small structures such as geodesic domes, hay bale homes, and buses converted into dwellings. Some of these design elements are captured in today's THOWs and more architecturally creative tiny homes. Furthermore, the recent trend of eco-villages, which incorporate many of the principles of early intentional communities, but have a specific focus on "green" sustainable living, suggests that the alternative communities of the 1960s and '70s were more than a passing fad (Manzella 2010; Kellogg and Keating 2011). People are still searching for alternative living arrangements that would allow individuals to pursue meaningful and holistic lives in a system that many perceive to be oppressive. Some people view tiny house living a potential way to achieve such a counterculture lifestyle.

Land Use Policy and Small Homes

The concept of zoning was developed by Reinhard Baumeister, a German engineer (Talen 2012a, 22). Zoning originated in the 1870s, an era when cities were rife with problems resulting from rapid industrialization. Early zoning measures aimed to quell the social problems associated with crowded urban areas, such as poor sanitation and fire hazards (Fischel 2004; Glaeser and Gyourko 2009; Boudreaux 2011). Furthermore, zoning was utilized to ameliorate issues associated with poor urban design and aesthetic concerns, such as rapidly increasing building heights, and noxious odors and sounds from factories and slaughterhouses. Baumeister and other German proponents of early zoning measures, however, were adamant about maintaining compact

communities that met the needs of the citizenry (Talen 2012). They designed zoned cities where both the upper and lower classes could easily walk to work, retail areas, and civic spaces. Unfortunately, this initial focus on equity and compact urban form was lost when zoning was adopted in the United States.

New York City was the first American city to adopt comprehensive zoning in 1916 (Talen 2012a, 23). As in Europe, early zoning initiatives were rooted in populist interests that aimed to protect citizens from the evils associated with crowded inner cities, such as disease and crime. American cities embraced the spirit of social reform and zoning spread like wildfire throughout the country. By 1927, half of the U.S. population lived within zoned areas (Talen 2012a, 29). The earliest American zoning measures were straightforward; they primarily aimed to separate residential neighborhoods from the perils and nuisances associated with industrial areas. However, the United States had two unique components that its European counterparts lacked; lots of space, and the grid system. The Land Ordinance of 1785 resulted in the entire United States west of the Appalachian Mountains being subdivided into squares and grids in order to more easily settle and sell lands, regardless of the topography (Talen 2012a, 40). When zoning fever struck the United States, large square tracts of land were zoned with little forethought to the underlying urban, regional, or geographic form. Furthermore, early zoning and land use regulations failed to take into account the cultural landscape, or how societal values influence the built environment (Arntzen 2008). Early zoning regulations ignored critical aesthetic components of cultural landscapes in favor of simplicity and uniformity. After

a century of such zoning practices, the result is disjointed, sprawled, segregated, and inhospitable communities (Emerson 2006; Boudreaux 2011; Ross 2014).

The literature on zoning and land use regulations contends that American zoning took on two additional purposes apart from its original intent of social reform, safety, and quality of life. Zoning was quickly recognized as an effective method of racial and class segregation, in addition to serving as a means of maintaining property values (Fischel 2004; Talen 2012a; Ross 2014; Silver 2015). During eras thick with ethnic and racial tension, zoning, deed restrictions, and covenants were utilized as tools of segregation in the United States (Silver 2015, 8). Prominent land planners, along with the U.S. government, under the auspices of the Federal Housing Authority (FHA) designed neighborhoods and implemented regulations that segregated communities by race with the unjustified belief that racial homogenization led to better communities (Talen 2012a; Ross 2014; Silver 2015). For example, zoning regulations were instated that banned Chinese and Jews in neighborhoods in California, and Atlanta, Georgia, zoned its residential neighborhoods into black, white, and mixed sections (Talen 2012a, 92). Even after this practice was banned by the U.S. Supreme Court in *Buchanan v Warley*, 245 U.S. 60 (1917) covenants and deed restrictions were employed for decades as a means of achieving racial segregation (Fischel 2004, 330).

In addition to being utilized as a method of racial segregation, zoning has also been used to marginalize social classes in the United States (Pendall 2000; Fischel 2004; Boudreaux 2011). Some scholars have persuasively asserted that our entire system of American land use law is biased towards the affluent homeowner (Boudreaux 2011;

Bratt, Stone, and Hartman 2013). The founding fathers of zoning never intended this; as a matter of fact, historic German zoning practices aimed to mix social classes as a means of achieving diverse communities that met the various needs of residents (Talen 2012a, 94-5). In the United States, however, zoning has been employed as a method to keep poverty out of sight and to relegate the poor to small, usually undesirable sections of communities (Fischel 2004; Boudreaux 2011). It has been used as a tool to promote the interests of Not-in-My-Backyard (NIMBY) factions (Pfeiffer 2014). This practice has become especially prominent in the United States after the Supreme Court ruled that single-family-only residential neighborhoods were constitutional in *Village of Euclid, Ohio vs. Ambler Realty Co.*, 272 U.S. 365 in 1926 (Ross 2014, 28). The result has been thousands of communities across the United States that were zoned to exclude multifamily housing, apartments, and small homes, in order to promote the interests of the wealthy at the expense of the poor (Boudreaux 2011). Arguably, this ruling has led to increasingly unaffordable housing practices in much of the United States, and has been a thorn in the side of proponents of tiny houses and integrated neighborhoods.

As cities expanded, affluent residents, developers, and real estate speculators urged municipalities to zone more and more land as single-family residential and pushed for greater and greater square footage requirements (Ross 2014). The impetus was that zoning in this manner would create upscale neighborhoods with high property values that would add to a community's tax base. The purpose for zoning in this manner then became twofold; by allowing only one large dwelling per lot, poorer classes would be excluded, and theoretically, property values could be maintained in perpetuity (Fischel

2004, 320). As poorer classes have historically had little advocacy in development decisions, zoning measures that promote small homes on small-sized lots have rarely been implemented (Fischel 2004; Boudreaux 2011). The exception has been the mobile home or trailer park, usually unattractive and relegated to the outskirts of town or near an area zoned as industrial, in order to separate it from the rest of the community (Chernoff 1983, 240). Municipalities that are beginning integrate tiny house-specific communities would benefit from learning from the zoning mistakes associated with the mobile home park. For example, some tiny home enthusiasts are expressing concern with how tiny house villages are being integrated in areas far from the urban core with little access to services or public space (Tiny House News 2015). As a result of archaic and exclusionary zoning practices, those trying to construct small homes in urban communities are often at a loss as to where to build (Sanders and Mosen 1982; Calfee and Weissman 2012). These outdated and unjust zoning regulations need to be overhauled in order for citizens to be able to downsize and live affordably within metropolitan areas.

Time has additionally demonstrated that exclusionary zoning, which promotes big houses on large lots, does not always result in the maintenance of high property values. For example, in the early twentieth century, many neighborhoods in Detroit, Michigan, were zoned to allow only for large estates and had covenants and deed restrictions in place that excluded black residents. As African Americans began to move into surrounding neighborhoods in the 1960s, banks began to refuse home loans and mortgages in a discriminatory process known as “redlining” (Silverman 2005). During

an era of irrational racial prejudice, many white residents chose to completely abandon these neighborhoods and flee to the suburbs. Now, many large stately mansions, and in some cases, entire neighborhoods, stand deserted, windowless, burnt, and vandalized. More recently, the housing bubble collapse of 2007-08 has resulted in the total abandonment of “McMansion” communities in places such as coastal Florida. Developers and land speculators believed that implementing exclusionary zoning that only allowed for huge mansions at these popular tropical destinations was a recipe for certain economic prosperity. Instead, the total desertion of these properties after the housing collapse proves that this is not always the case. Some would assert that this crash was a result of unchecked capitalism and irresponsible banking, lending, and housing policies that aimed to serve the interests of the wealthy over those of the average citizen (Boudreaux 2011). Unfortunately, the adoption of more sustainable zoning practices has yet to occur in most of the United States. For instance, instead of municipalities taking the initiative to rezone the defaulted McMansion neighborhoods, thereby allowing them to be divided into affordable multi-family units or apartments, they stand vacant and rotting, while housing affordability remains an issue (Ross 2014, 113-15). This type of zoning for maximum profit is problematic in the U.S., as it does not lend itself to creating affordable housing options, nor towards creating diverse and socially just neighborhoods (Bratt, Stone, and Hartman 2013).

Current banking practices and home assessment methods are also based on the faulty premise that large single-family dwellings in single-use residential neighborhoods always offer the best investment opportunities (Gauer 2004; Boudreaux 2011; Ross

2014). Many people erroneously believe that mixed-use neighborhoods will result in decreased property values and investment opportunities. Recently, however, a New York City neighborhood was re-zoned from single-family dwellings to allow for mixed-residential uses (single-family homes, duplexes, and apartments) and the result was an increase rather than decrease in property values (Talen 2012a, 112-13). The same phenomenon has occurred in mixed-use neighborhoods in Boston, Massachusetts, (Ross 2014, 25) Chicago, Illinois, and Portland, Oregon (Talen 2012a, 117-18). People are finding these mixed-use neighborhoods highly desirable as they lead to vibrant communities that meet all of the residents' needs within a compact area (Cullen 1971; Langdon 1997).

The American focus and preoccupation with the large suburban single-family home has not aided in the creation of affordable housing options. The literature reveals that affordable housing alternatives are lacking for many Americans (Sanders and Mosena 1982; Wright 1983; Calfee and Weissman 2012; Ross 2014; Schwartz 2014). It is frequently recommended that households do not spend more than 30% of their income on housing (Glaeser and Gyourko 2009, 16), yet over 50% of Americans are paying more than 30% of their earnings for housing (Glaeser and Gyourko 2009; Dewan 2014). Furthermore, a shocking 27% of renters are paying more than 50% of their income on housing (Schwartz 2014, 32). The primary reason for the increasing problem with unaffordable housing in the United States is the widening gap in income inequality, (Collins and Yeskel 2005; Glaeser and Gyourko 2009; Schwartz 2014) paired with the

fact that American housing and land use policy has been crafted to predominantly serve the interests of the wealthy (Boudreaux 2011; Bratt, Stone, and Hartman 2013).

If an individual or family cannot afford to own or rent a large single-family home, the immediate solution that comes to mind is to downsize in order to live within one's means. However, there simply is a shortage of available small houses and/or apartments in the United States (Infranca 2014). There is not enough available low-income housing period (Shlay 2006; Schwartz 2014). One housing scholar estimates that in the United States, there is currently a shortfall of 4.9 million affordable units (Schwartz 2014, 44). Tiny house building companies have sprung up all over the country to meet the growing demand for small affordable housing. However, due to outdated and poor zoning regulations, paired with finance practices that promote the construction of large homes on substantial lots, many potential small home dwellers find themselves unable to find a place to legally build; the exception being trailer parks and/or unzoned areas far from urban activity. Schwartz (2014) explains that part of the problem around housing affordability is current regulations that dictate the, "... size, density, and quality of homes that make them unaffordable through zoning and building codes" (48). He follows up with, "... families may be able to afford, say 500 square foot homes, but units of this size may fall below the minimum requirement" (48).

Potential Solutions to Small Home Barriers

In order to create vibrant, diverse, and affordable communities, current land use regulations need to be altered to accommodate small dwellings. As the tiny house movement continues to gain momentum, how might communities overcome restrictive

zoning ordinances in order to integrate small houses into neighborhoods in a manner that is both affordable and aesthetically pleasing? This dissertation explores that question; however, the literature presents several options.

The solution to tiny and small house implementation is clearly not the complete abolition or absence of housing regulations. One only has to look as far as the un-zoned, and sprawl-ridden city of Houston, Texas, to recognize that this strategy would not result in quality urban form (Talen 2012a, 90). In order to allow for more small and affordable homes in communities, municipalities might choose to increase density standards, decrease lot size requirements, (Sanders and Mosena 1982, 8) and/or decrease residential square footage requirements (Chapin 2011). This may be achieved by changing current zoning ordinances to allow for greater flexibility, or moving to form-based codes (FBCs), which aim to achieve functional and desirable spatial patterns in communities (Chapin 2011; Boudreaux 2011; Talen 2012a). FBCs are often perceived as the best method for creating a diversity of housing types and uses in a community (Talen 2012; Ross 2014). Examples of FBCs are those that allow living and working to take place in the same structure or neighborhood, those that aim to curb urban sprawl, and sustainability codes that focus on affordable and environmentally sensitive design (Talen 2012). The adoption of FBCs is growing in America; as of 2011 over 200 U.S. cities had adopted them (Talen 2012a, 187). However, the literature reveals that some scholars feel that FBCs are restrictive and, "... inhibit the natural evolution that makes for diverse neighborhoods" (Hough 1994). It may be conversely argued, however, that FBCs offer the best method for achieving sustainable and aesthetically pleasing urban growth.

Regardless, codes have not yet been developed that specifically address tiny houses and their implementation into the urban fabric.

Some scholars even recommend adopting a specific type of FBC known as the Smart Code (Emerson 2006; Duany, Andres, Jeff Speck, Mike Lydon 2010). The Smart Code is unique in its consideration of the concept of transects. Transects aim to facilitate the most attractive and sustainable urban development by taking an area's ecological footprint into consideration (Emerson 2006, 8). For example, a rural transect would require different building forms and styles than one classified as urban. Like FBCs, the Smart Code does not expressly address tiny homes, however, it does include recommendations for cottages (Emerson 2006, 48). With an emphasis on creating aesthetically pleasing communities that take into consideration building scale and style, FBCs and/or the Smart Code might prove an excellent tool for incorporating tiny homes into urban areas. Implementing such stringent codes may result in communities integrating small homes in a manner that avoids the stigma associated with the tarpaper shack or house trailer.

Another method of incorporating tiny and small homes into urban communities is by making legal allowances for accessory dwelling units (ADUs) (Calfee and Weissman 2012; Talen 2012a; Roberts 2014; Infranca 2014). ADUs are often constructed on large back or side lots, and may serve as housing for an elderly or young family member, or as a means of earning additional income from a rental unit. The acceptance of ADUs is growing as cities such as Berkeley, California; Santa Cruz, California; Portland, Oregon; and Denver, Colorado, have all recently enacted policies that increase density standards

and allow for this type of small home in order to address housing affordability concerns (Bernstein 2005; Calfee and Weissman 2012; Infranca 2014; Lochner 2015). However, it should be noted that all of these cities have excellent mass transit systems. In a nation that is heavily automobile dependent, these cities are somewhat unique in that they offer residents alternative means of transportation. As ADU integration measures have faced opposition due to infrastructure concerns that may result from increasing density standards, it is imperative that potential policies address parking concerns (Chapple et al. 2011, 1). Regardless, many metropolitan areas intentionally or unintentionally discourage the construction of ADUs with such measures as burdensome and expensive permitting processes, and costly connection fees to sewer, water, and electricity. Strategies that allow communities to achieve ADU infiltration more easily consist of amended fee structures for ADUs as well as streamlined permitting processes (Calfee and Weissman 2012). It is important to acknowledge, however, that though making legal allowances for ADUs may result in greater economic diversity in neighborhoods and allow for more affordable rental options, ADU integration does not foster tiny and small homeownership opportunities. As the ADU is generally under the proprietorship of the primary homeowner, this method of tiny home permeation does not meet the needs of those hoping to achieve a greater degree of economic freedom by paying off and owning their own small dwelling.

The literature also suggests that new types of zoning measures could be created specifically to accommodate small houses. Examples of newly created zones include the creation of the first “urban gardens district zone” in Cleveland, Ohio, in 2007 to

accommodate urban farming, and the first “eco-village zone” in Yarrow, British Columbia, in 2004 which allows a community of small houses that encourage environmentally sensitive living (Calfee and Weissman 2012). In November 2015, Rockledge, Florida, adopted new zoning regulations that allow for two tiny house pocket neighborhoods, a concept developed in the Pacific Northwest by architect Ross Chapin (Stephens 2015). Pocket neighborhoods are generally comprised of twelve to sixteen homes each no larger than 975 feet (Chapin 2011, 9, 60). However, though the neighborhoods have not been constructed yet, it is anticipated that the homes will be much smaller than standard pocket neighborhoods, as the emphasis in Rockledge is on tiny living. Pocket neighborhoods are built around a shared green space and emphasize community (Chapin 2011, 9). Such small-scale neighborhoods allow for frequent interaction among residents, increased walkability, and are often perceived as visually appealing (Chapin 2011; Gehl 2013). Furthermore, the City Manager of Rockledge, James McKnight, asserts that by allocating tiny houses to a neighborhood specifically of their own, surrounding property values should not be adversely impacted because of the homes’ small sizes (Stephens 2015).

In order to address issues of housing affordability, some municipalities have enacted inclusionary zoning regulations, which require that all new housing developments include a certain percentage of low-income housing (Shlay 2006; Ross 2014; Schwartz 2014). However, there have been very wide interpretations of “low-income” in inclusionary zoning policy. In some instances, scholars would assert that the homes constructed via inclusionary zoning measures haven’t served the truly low income

at all (Schwartz 2014). Furthermore, the required percentage for such housing never seems to meet demand for affordable housing. However, the adoption of such zoning measures may result in jurisdictions facilitating small home infiltration.

Another potential solution to overcoming current land use restrictions that inhibit tiny home integration is the creation of overlay or floating districts (Shlay 2006; Roberts 2014). Overlay districts have their own distinct regulations, which supersede the ordinances of the underlying and previously zoned region. They can be as small as one or two blocks, or may be more extensive (Roberts 2014). Atlanta lawyer and tiny house advocate, Elizabeth Roberts Esq. (2014) recommends using overlay districts for the allowance of the ADU in neighborhoods that were previously zoned for large-lot single-family dwellings. This type of policy would again foster small home rental opportunities rather than small homeownership. However, it remains to be examined if overlay districts could be created which would allow the division of large lots and thereby facilitate tiny home ownership opportunities.

In order for tiny house infiltration to be supported by communities, some would suggest that the homes must be aesthetically pleasing (Roberts 2014). Therefore, Roberts has created a legal template in order to create overlay districts that address aesthetic concerns related to small home integration. This generic legal template, which Roberts provides on-line for free, includes several aesthetic provisions for proposed ADU/tiny house infill. For instance, the document states that a potential tiny home must “maintain neighborhood character” with a paved walkway to its entrance, and have exterior finish materials and windows that match those of the primary dwelling (Roberts 2014). Though

strict adherence to aesthetic standards such as these will certainly belay the fears of those hoping to avoid unsightly housing in their neighborhoods, some might argue that the standards are so high that they squelch the driving motivations behind the tiny house movement; affordability and freedom. Some scholars have even argued that if tiny house integration policies do not take affordability into account, it may actually lead to gentrification (Moore and Palleroni 2008, 3). For instance, if an ADU is required to have the same windows and exterior materials as the primary dwelling, in addition to a paved walkway, it likely will be neither cheap to build nor rent, and may actually drive housing costs up. However, Roberts's legal template makes an important contribution in that it may foster aesthetically pleasing ADU integration in communities that have formerly restricted them.

Tiny house enthusiasts owe Roberts for yet another legal tool designed to promote the construction of well-crafted and aesthetically pleasing structures. Roberts founded the "Tiny House Community" whose members worked to develop "Guidelines for Tiny Houses on Wheels" standards as THOWs generally face more legal barriers than other types of small homes (Tiny House Community 2016). Initially entitled "Tiny House Alliance Certification", the standards require THOWs to be built safely, wisely, and soundly in order to meet the guidelines. Though originally designed as certification standards, tiny house proponents felt that using the word "certification" would confuse the process with the legal certification process required of recreation vehicles (RVs), therefore the term "guidelines" was instead adopted. The guidelines include such measures as requiring that quality materials be utilized in THOW construction, (must

meet International Building Code (IBC) standards or equivalent, even if salvaged materials are used), egress windows be included in lofts and bedrooms as fire exits, proper ventilation and heating systems for small spaces be installed, and that the homes be able to withstand 130 mph winds. Currently, the guidelines are not affiliated with any government or lending institution (Tiny House Community 2016). If widely adopted, these standards may lead to increased cost in tiny home construction. However, such guidelines may be beneficial in that they provide a starting point for tiny house dwellers to establish small house living as a viable housing option. The standards may furthermore aid in the establishment of sorely needed banking, lending, and insurance practices that accommodate small home construction and financing (Brown 2014).

Social housing cooperatives and land trusts are another possible means of accommodating small house living and addressing affordability issues. The purpose of social housing arrangements is, "...to ensure security of tenure and permanent affordability" (Stone 2008, 67) via collective ownership and decision-making. There are two types of social housing methods that may be utilized to accommodate tiny and small homes; community land trusts (CLTs) and limited equity cooperatives (LECs). However, the use of either arrangement first requires that a property be zoned or have regulation in place that allow for small structures. CLTs involve the creation of a nonprofit land trust that ensures that a property will be held in nonspeculative ownership in perpetuity (Stone 2008, 75). In this arrangement, the land is held as a common resource and individuals may hold long-term leases on individual structures, such as houses. The leases allow lifetime tenure, and are inheritable and renewable (Stone 2008, 75). In *The Community*

Land Trust Reader, Davis (2010, 28) writes, “What CLTs do best is to preserve affordability when economic times are good and protect its homes and homeowners when times are bad.” Conversely, with LECs, individuals purchase a “share” in the cooperative, which is either a home or apartment. The share price is established by a predetermined formula rather than the housing market, in order to ensure that speculative gain is not part of the process (Stone 2008, 73). This arrangement fosters affordability and allows shareholder input in property management decisions.

Both CLTs and LECs compose a very small part of the overall housing market. Currently, there are only approximately 240 CLTs (Davis 2010, 3) or about 6,000 housing units (Stone 2008, 76) in the U.S, many of them in rural areas. As of 2003 it was estimated that there were 425,000 units of LEC housing, the vast majority of which are located in New York City (Stone 2008, 72). There are several reasons such housing arrangements aren't more widespread. During the housing boom that occurred shortly after WWII, Americans were unlikely to support measures that used the word “cooperative” because terms that suggested communal arrangements were associated with the ideology of communism (Stone 2008, 73). CLTs, which often involve the preservation and management of open space, as well as housing accommodations, demand a lot of upfront capital (Davis 2010, 33). CLTs are often created on land that has been purposefully donated for land preservation and community establishment. The amount of capital that is required upfront to establish a CLT may make this strategy a challenging option for those struggling with housing affordability issues. Furthermore, the prominence of the American dream, which promotes independent home and land

ownership, may deter individuals from considering social housing options. Stone (2008, 71) notes that many people perceive such living arrangements as less than ideal because, "... residents ostensibly have no opportunity to realize any of the psychological, social and economic benefits of homeownership." However, he follows up by stating that property paradigms are evolving and that people are willing to consider new living arrangements in order to secure affordable and stable residences. He furthermore predicts that CLTs will continue to increase in popularity in order to address growing affordability issues (Stone 2008, 76).

Neither the CLT nor LEC was developed to specifically accommodate tiny or small houses. However, both arrangements address cost-effectiveness associated with housing. As the tiny house movement and housing affordability often go hand in hand, tiny house enthusiasts may increasingly turn to such arrangements. For example, the Lopez CLT, located on Lopez Island in the state of Washington, boasts eleven small houses (Mitchell 2009). The community was recently created to accommodate sustainable living and agriculture practices. However, the success of the housing program has made it a potential model for CLT tiny house arrangements. There is also a growing interest in merging tiny home integration with LECs, especially in dense urban areas, such as San Francisco, a city known for both its increasing unaffordability and counterculture leanings (Morris 2015). CLTs and LECs are social housing methods that may prove extremely useful in the process of instituting tiny house living arrangements.

Small Home Living and an Alternative Economy

Thus far, this chapter has explored the bodies of literature associated with the history of small homes in America, the land use barriers which stand in the way to the integration of such homes, and potential strategies for incorporating small and tiny homes into the American urban fabric. Finally, the paper will explore the literature that asserts that our current economic system of unchecked capitalism is resulting in less than ideal socioeconomic outcomes (Daly and Cobb 1989; Harvey 2000; Sagoff 2007; Fainstein 2010; Bratt, Stone, and Hartman 2013; Harvey 2014). This literature is important to the research, as many tiny and small house advocates are pursuing downsized living as a countercultural method of achieving a higher quality of life and more just society. From this platform it could be argued that the tiny house movement represents one of the ways in which the foundation of capitalism is being chipped away.

The literature reveals how capitalism works and how it faces growing contradictions (Harvey 2000; Collins and Yeskel 2005; Harvey 2013; Harvey 2014). For instance, David Harvey details how capitalism leads to an ever-increasing disparity between the few of excess wealth who control the system, and the masses of poor, who are dependent upon it. At a certain point, however, the populace cannot afford the vast consumption of products that are required for the system to continue its trademark expansion, and capitalism collapses upon itself. The neo-Marxist literature also suggests that capitalism leads to a lack of meaningful livelihoods as people are subjected to long hours of unrewarding labor, and even free time is spent in pursuit of capitalist mass consumerism practices that are ultimately unfulfilling (Collins and Yeskel 2005; Harvey 2014). There is a growing recognition that people have little authentic free time to enjoy

what matters most in life, such as personal relationships and meaningful work. Harvey (2014) writes, “The ‘market-based order’ is fundamentally challenged when people find out that not all values are quantifiable, that money cannot buy everything, and that what it cannot buy is something essential, or is even the essential thing” (275). Important aspects of a quality life, such as time with family and loved ones, creative expression, advocacy work, and self-realization are often compromised by capitalist economic arrangements. This realization has led some people to take small steps towards lifestyles that offer aspects of an alternative economy.

The impetus behind the tiny house movement is to create housing options that allow people to live more affordable, satisfying, and sustainable lives. In order to achieve this some would assert that communities and individuals must develop alternatives to oppressive institutions that make the living of a simple life either difficult or illegal (Daly and Cobb 1989; Harvey 2000; Harvey 2014). Zoning ordinances that prohibit any type of housing other than large single-family dwellings, and banking practices that deny loans to small house builders or buyers are examples of the many ways in which institutions aim to maintain the status quo of ever-increasing profits for the well-off at the expense of commoners (Bratt, Stone, and Hartman 2013; Tighe and Mueller 2013). Harvey (2014) writes that one of the goals to be pursued by society as capitalism falters should be that, “New technologies and organizational forms are created that lighten the load of all forms of social labor, dissolve unnecessary distinctions in technical divisions of labor, liberate time for free individual and collective activities, and diminish the ecological footprint of human activities” (295). This might be partially

achieved through the legalization of tiny house living. Living small may allow individuals to break away from the current status quo of long hours of work, with little quality time available to spend with friends and family and the pursuit of individual passions. Furthermore, tiny and small house living may result in people acquiring less personal debt and having less of an environmental impact.

Some scholars would assert that small steps against the current capitalist system are beginning to take place, and provide hope for an increasingly value-driven, rather than profit-driven society (Harvey 2000; Fainstein 2010; Harvey 2013; Harvey 2014). An example of such steps includes the rise of nongovernmental organizations (NGOs) and non-profits, as people seek more humanistic approaches to solving problems rather than leaving them to market forces (Harvey 2014 282-293). Other scholars do not believe that capitalism is faltering, but instead, that incremental steps are being taken toward a more just system (Daly and Cobb 1989; Fainstein 2010). Fainstein (2010) states that many hybrid capitalist/socialist structures are arising under the umbrella of capitalism itself, without capitalism completely disappearing. Perhaps jurisdictions taking steps to allow legal small house living offer such an example of a capitalist/socialist hybrid. Such measures provide people with a way to live simplified and more meaningful lives, while living within a primarily capitalist system.

Other literature is less critical of capitalism but more so of the discipline of economics as a whole (Daly and Cobb 1989; Sagoff 2007). In *Economy of the Earth*, Sagoff (2008) primarily discusses issues that arise by trying to economically measure and/or justify exploitation of the natural environment for the sake of policy development.

Several of the concepts in this work are also pertinent to the tiny house movement. For instance, many people choose the tiny house lifestyle because of quality of life factors, which some scholars argue cannot be fully measured with such economic concepts as “willingness to pay” (WTP) (Sagoff 2007; Fainstein 2010). However, Sagoff believes that capitalism is not the root problem, but instead, government policies that inhibit the free market. What Sagoff fails to consider is that in the United States this “buying” of government control and regulation is occurring *because* of capitalism. Bratt et al. (2013) succinctly refute Adam Smith’s theory of “invisible hand” economics by writing, “It appears that we have forgotten that markets are social creations, operating on the basis of legal and economic incentives and disincentives established and enforced by government” (60). Sagoff likely envisions a capitalist system that is upheld by high moral principles and equality measures, of which we have no good example. Scholars such as Harvey and Sagoff both acknowledge that the common citizen is being unjustly oppressed, they just disagree on what the primarily oppressing institution is; capitalism or government. This is somewhat like the chicken and egg quandary. Harvey’s argument may hold the upper hand, however, as he demonstrates that in the U.S., both institutions are working in tandem in order to exploit workers and the natural environment at a previously unprecedented scale. These scholars agree upon the fact that a more democratic and just economy is needed. Tiny and small house living may represent a small step towards this goal.

Theoretical Foundation

Investigating how to best integrate small houses into communities is significant in that there currently is a lack of scholarly literature pertaining to the tiny house movement. Historic literature is available that focuses on the construction of small American homes such as cottages and row houses (Comstock 1908; Downing 1969; Wright 1981; Hunter 1999). More recent literature discuss tiny house living, however, these works focus almost entirely on small house design and aesthetics (Walker 1987; Susanka 2002; Gauer 2004). Works are available which discuss the history of zoning in the United States and how it has been used to exclude certain populations, (Pendall 2000; Fischel 2004; Glaeser and Gyourko 2009; Boudreaux 2011; Talen 2012a; Ross 2014; Silver 2015) even specifically related to mobile home owners (Chernoff 1983; Boudreaux 2011). There is a branch of literature, primarily under the umbrella of new urbanism, which reveals the desirability of neighborhood diversity with respect to housing type, building design, socioeconomic class of residents, and available services (Sanders and Mosena 1982; Calfee and Weissman 2012; Talen 2012a; Talen 2012b; Ross 2014). There is a large body of literature that discusses affordable housing policy (Stone 2008; Glaeser and Gyourko 2009; Davis 2010; Boudreaux 2011; Tighe and Mueller 2013; Schwartz 2014). Finally, there is literature that suggests that our current economic system of unchecked capitalism is unjust (Daly and Cobb 1989; Harvey 2000; Sagoff 2007; Fainstein 2010; Bratt, Stone, and Hartman 2013; Harvey 2013; Harvey 2014). However, the growing tiny house movement is not expressly addressed in any of this literature. As the contemporary tiny house movement is situated at the edge of the research frontier, most of what can be learned about tiny and small living and policy issues can be found in

webpages, blogs, and news stories. Research that explores how tiny houses can best be incorporated into the American landscape, with a focus on urban communities, is needed. It is this gap in the literature that this dissertation aims to address.

CHAPTER THREE

RESEARCH DESIGN

Overview of the Research Methodology

The dissertation research design involves both an exploratory component that examines what is emerging in the tiny and small house policy arena, and descriptive analysis that investigates how stakeholders perceive the infiltration of small homes into the urban landscape. The primary unit of analysis is the tiny and small house regulation process. However, the study also includes an embedded unit of analysis, which addresses the relationship between how tiny and small houses are perceived and the resulting policy. This embedded unit of analysis is individuals' perceptions of tiny houses. Therefore, the dissertation research may be classified as both a mixed methods and multiple-case embedded design and is summarized in Table 3.1.

Table 3.1. Overview of the research methodology utilized in this study.

	Case Study	Survey Method
Research Method	Case study interviews and archival analysis	Visual preference survey (VPS)
Timing	Prior to launching the visual preference survey	After the interviews were completed
Rationale	To explore key stakeholders' perceptions of tiny house setting, design elements, and policy in detail	To assess a larger group of stakeholders' perceptions of tiny house setting, design elements, and policy
Questions Addressed	How are the jurisdictions of Asheville and Horry County adapting land use policy to accommodate the legal allowance of tiny homes? What is the process of altering land use policy to accommodate small homes? What are the challenges associated with adopting such policies? Which tiny house use regulations are perceived as the most successful among tiny home enthusiasts? How has the tiny house movement come about in each municipality?	What visual elements are associated with preferences for small homes? Is there a difference in the average preference among the three ways in which a tiny home may be situated (ADU, tiny home village, or urban infill)? Is there a difference in the average preference among the four specified design elements (vernacular vs. non-traditional, wheels vs. no wheels, and building materials)? Do perceptions of tiny house situation and design affect the resulting land use policy?
Population/ Participants/Place	Interviews were conducted with key stakeholders in the tiny/small house integration such as: planners, real estate specialists, city commissioners, and tiny home proponents.	The e-mail survey tool will be sent to an extensive list of small home stakeholders such as neighborhood associations, realtors, planning boards, and tiny homebuilders.
Sample and Sample Acquisition	stakeholders, purposive sampling, nonprobability N=11	stakeholders, purposive sampling, nonprobability N=136
Data Analysis	Coding, content analysis utilizing MAXQDA software, development of themes	Descriptive statistics, comparison of means (ANOVA and Tukeys pairwise comparison) utilizing JMP software

Validity and Reliability	Triangulation of methods and sources of evidence, pilot testing of interview instrument, member checking, addresses rival explanations, and theoretic replication logic (two case sites)	Triangulation of methods and sources of evidence, focus group/sort and rank task to determine photos in survey, pilot testing of survey instrument, and use of Chronbach's alpha reliability test for Likert scale accuracy
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The principal method for examining tiny and small house integration policy in this study is through a multiple-case study of the jurisdictions of Asheville, NC, and Horry County, SC. Case studies are often regarded as the best means of answering “how” and “why” questions (Maxwell 2005; Yin 2009; Creswell 2012). The case study is highly regarded among the social sciences as a way of a providing an in-depth examination of a phenomenon within a specific context (Flyvbjerg 2006; Creswell 2012). Therefore, it is the most appropriate method for studying tiny and small house integration efforts within a specific city or region.

Case study research involves the rigorous exploration of a subject matter in a bound system (Creswell 2012, 97). The bound systems under study in this research are the city limits of Asheville, NC, and the Horry County, SC. At these case site locations, small house integration measures will be examined. These jurisdictions have been chosen as case sites because they are pioneering the way to changing existing land use policy to accommodate tiny and small homes in the southeastern United States. Furthermore, each of the case site locations is adopting different types of land use policy to accommodate tiny homes. The southeast has a culture and environment that make it distinct from other places that have already worked to integrate tiny and small homes into communities, such as Portland, Oregon, or Santa Cruz, California. Furthermore, other communities in the Carolina region where interest in tiny house living is growing, such as

Greenville, SC, are looking to cities such as Asheville for guidance in the development of tiny house policy (Tiny House Talk 2015a).

An embedded visual preference survey (VPS) was also part of the research in order to investigate individuals' perceptions of tiny homes and how such perceptions might influence resulting policy. In this method, first utilized in the field of planning design by Anton Nelessen (Ewing et al. 2005), participants rate images in terms of personal preference which aids in understanding place and design perceptions.

Perceptions of tiny home aesthetics are of great importance in this study in that they may influence the development of policies that allow or disallow such structures. Therefore, the VPS in this study has been implemented in order to examine people's perceptions of the several ways in which tiny homes may be incorporated into communities, and key design features.

There is a body of literature that examines the role and importance of aesthetics and preferences in relation to the built environment. In *The Evaluative Image of the City*, Nasar (1998) explains the importance of understanding public perceptions of the built environment, and argues that taking those perceptions into account when designing urban environments is critical. Otherwise, Nasar argues, the result will be a built environment akin to Garrett Hardin's "tragedy of the commons" where individual preferences result in an "ugly aggregate" (Nasar 1998, 2). However, examining public aesthetic preferences is multifaceted. Some scholars contend that aesthetics need to be abstracted into quantifiable concepts such as building scale or percent horizon in order to produce truly meaningful results (Stamps 2000; Ewing et al. 2005). These researchers feel that words

and phrases such as “harmonious”, and “in-context” are too vague for understanding visual preferences. They assert that the use of such words to describe and analyze visual preferences in research represents a threat to the studies’ validity and reliability (Stamps 2000, 8; Ewing et al. 2005, 270). Other researchers argue that the incorporation of such intangible concepts as feelings and meaning is critical to the research process involving perceptions (Nasar 1998, 8). Scholars such as these do not aim to quantify all of their data; instead, they often aim to present a holistic description of visual preferences by gathering data through such methods as interviews or open-ended survey questions. The visual preference survey utilized in this study may be viewed as somewhat of a hybrid between the purely quantitative and qualitative-driven preference studies. The survey controlled for some of the independent variables that affect preference, but also allowed individuals to elaborate on preferences through fill-in multiple-choice options and limited open-ended survey questions.

Research Questions and Propositions

The purpose of this study is to abstract different types of information in order answer several predefined research questions. The questions explore how and why small house policy is being developed at each case site location, and examine individuals’ perceptions of tiny homes.

RQ1: How are the jurisdictions of Asheville, NC, and Horry County, SC, adapting land use policy to accommodate the legal allowance of tiny and small homes?

(exploratory/descriptive)

RQ2: What is the process of altering land use policy to accommodate small homes?

(explanatory/descriptive)

RQ3: What are the challenges associated with adopting such policies?

(exploratory/explanatory)

RQ4: Which tiny house land use regulations are perceived as the most successful?

(exploratory/explanatory)

RQ4a: Which regulations are perceived as the most successful by small home dwellers?

RQ4b: Which regulations are perceived as the most successful by city policy-makers?

RQ5: What visual elements are associated with individuals' preferences of small homes?

RQ5a: Is there a difference in the average preference among the three ways in which a tiny home may be situated (ADU, tiny-home-specific community, or urban infill)?

RQ5b: Is there a difference in the average preference among the four specified design elements (traditional/vernacular vs. non-traditional/modern, tiny houses on wheels (THOWs), and various building materials)?

RQ6: Do perceptions of tiny house situation and design affect the resulting land use policy? (exploratory/explanatory)

The research also included propositions. These propositions are rooted in the literature that discusses land use regulations, homeownership, and urban design.

P1: It is proposed that the greatest challenges to adopting land use policies that accommodate tiny homes occur in communities where the residents have a very conservative paradigm of property rights. Though conservatives usually claim that people have the right to do as they please with their property, this only goes so far, as they are generally more concerned with protecting their investments (maintaining property values) than with issues associated with social justice and welfare. This is based on the literature of Ross (2014) and Boudreaux (2011) that examines land use policy, NIMBY-ism, and housing justice.

P2: It is proposed that small home dwellers will prefer land use initiatives that allow for homeownership over rental status (as in the case of ADUs) based on the literature that demonstrates the cultural importance of the American dream/homeownership. This is based on Wright's (1983) work, which examines the evolution of housing types and policies in America.

P3: It is proposed that in places where a significant portion of the population works in tourism-based industries and/or are transplants from elsewhere there will be a greater acceptance of tiny and small homes, and faster implementation of them into the urban fabric. Having many low-wage, tourism-sector jobs requires increased access to affordable housing. Furthermore, transient and transplant populations are less likely to have developed firm place attachments, and thus, little desire for a place to remain the same.

Case Study Design

Case study research involves extensive and in-depth data collection for analysis. This study not only involved the analysis of archival materials, such as city plans and maps, but interviews were conducted with key stakeholders involved in the development of tiny house policy at both case sites. Because the research relies heavily on the insights, perceptions, and participation of individuals, the study went through the institutional review board process at Clemson University. The project was thoroughly explained to contributors and a consent form was given to each interviewee before participating.

The interviewees in this study were purposefully sampled. This involved the selection of stakeholders who could provide specialized information that led to a greater understanding of the phenomenon under study (Singleton and Straits 2010). This included city planning officials, developers, building code specialists, commission members, an architect, and a small home enthusiast. The face-to-face interviews were semi-focused in format, tape-recorded, and later transcribed in order to develop codes and themes. A pertinent line of questions was first honed through the use of a pilot test. The semi-structured interview questions asked:

- How has the tiny house movement come about in your area?
- What are the regulatory policies your jurisdiction has adopted (or is in the process of adopting) in order to accommodate small homes?
- Describe the process of implementing these policy changes.
- What are the challenges to accommodating tiny homes in your jurisdiction?

- Has this/these land use policy changes received support from the community?
- Which tiny house policies are perceived as the most successful?

The interviews also involved a photo-elicitation component; a process where photos are utilized to stimulate discussion (Harper 2002; Bignante 2010). In this study, photographs of tiny and small homes situated in differing contexts and featuring a wide variety of architectural styles were introduced in order to encourage and facilitate discussion.

Because the interviews were extensive in this study, MAXQDA, a qualitative data software program, was utilized in the process of coding transcripts and the development of themes. The coding process assists in reducing vast amounts of data being to meaningful categories (Maxwell 2005). After codes are developed, they are then analyzed and themes are generated. The result is a summation of information and the formation of generalizations that may then be applied to similar places and situations (Creswell 2012, 191). In this study, the coded topics and developed themes aided in developing a holistic understanding of what is occurring with tiny and small house policy and integration measures at the case site locations.

In addition to the interviews, the case study research utilized several additional sources of evidence. Of high importance were sources such as e-mail correspondence with tiny and small house stakeholders, administrative reports on land use policy and building codes, and news stories and social media posts relating to tiny house initiatives at each jurisdictions. Archival documents such as comprehensive plans, housing assessment reports, and land use and zoning maps were also examined at each case site.

To a much lesser extent, direct observations were also incorporated into the data collection process; for example, what was observed at the Tiny House Conference held in Asheville during April 2016.

The method of analysis utilized in this study is cross-case synthesis. This technique involves the examination and comparison of evidence gathered at each case study location. The researcher then searches for patterns or emergent themes to anchor the analyses (Yin 2009, 156). Some scholars assert that multiple-case study designs that utilize cases that are similar in context, yet offer diversity during the cross-case analysis, result in the strongest findings (Stake 2013, 39). The analysis is furthermore rooted in an in-depth literature review that addresses the data, possible rival explanations, and the most pertinent findings.

Threats to Case Study Validity and Reliability

Threats to the study's validity are addressed in several ways. External validity threats are concerned with how a study's results may be generalized. Case study results are generalizable to the developed theoretical propositions; they do not intend to generalize to entire populations (Yin 2009, 15). Therefore, it is not intended for the research to be generalized to other places; however, the results may be generalizable in regard to the resulting theory.

A threat to the study's construct validity, or measure of the operationalized theoretical constructs in a study, may occur when a researcher completely controls the line of interview questions and introduces unchecked personal bias (Flyvbjerg 2006). Some scholars, however, assert that the introduction of personal bias is inherent in every

study, and that the challenge for researchers is to clarify and explain their own personal bias and its role in their analyses (Creswell 2012; Creswell 2013). Others contend that personal bias is by no means a problem specific to qualitative case study research, by demonstrating how bias can be integrated in other research methods such as subjectively designed surveys (Flyvbjerg 2006). Regardless, researchers can ameliorate this threat to construct validity by attempting to collaborate with interviewees in a technique known as member checking (Creswell 2012, 252). In this method, the researcher discusses the initial interview findings with interviewees in order to ascertain that information has not been misconstrued or is missing (Creswell 2012). However, other scholars assert that member checking introduces a threat to a study's validity in that participants are presented with the opportunity to alter interview statements in order to present information in a different light after the data collection process is complete (Morse et al. 2002). In this study, limited member checking was performed in order to address construct validity threats. Interviewees were contacted via e-mail and phone in order to clarify or affirm statements that were potentially confusing or obscure. This allowed interviewees the opportunity to elucidate interview information that otherwise may have been misconstrued. Member checking was carried out shortly after the case study data was gathered in order to maintain the cross-sectional, or at-a-point-in-time, element of the research design.

The gathering of data from multiple sources of evidence and methods addresses both reliability and construct validity threats to this research. Termed triangulation, this technique allows researchers to pull from several different data sources and methods of

analyses in order to verify findings (Yin 2009; Creswell 2012; Stake 2013; Silverman 2015). Another way in which reliability threats were addressed in this study is by following a defined protocol, a tool that aids in replicability (see Appendix A). The research protocol involved several elements. It included an overview of the study, an explanation of how each research question would be addressed, field procedures for data collection, and a description of how the data would be evaluated. Finally, the protocol also addressed human subjects review documentation, interview protocol questions, archival documents to be examined, and the contact information of key stakeholders at each case site location.

Visual Preference Survey Design

The research investigates the relationship between individuals' perceptions of tiny and small houses and various design and aesthetic elements through the use of a visual preference survey (VPS). The target population for the survey is the residents of Asheville, NC, and Horry County, SC, who are stakeholders in the integration of tiny and small houses. The survey involved nonprobability and purposive sampling of those with knowledge and/or interest in tiny house integration measures within each case site location. The survey research design was cross-sectional, where data was examined "at a point in time," rather than over a longer time period, in order to complete the research in a timely manner (Singleton and Straits 2010, 272).

The photographs that were utilized in the survey instrument were obtained from the Internet. In order to avoid copyright infringement, photo-use permissions were obtained in as many instances as possible. However, in the occasions that the photo

sources were unknown, or responses were not received for photo-use permission requests, the use of such images may be protected under fair use doctrine for educational purposes (University Communications no date). The VPS instrument was developed and conducted via Qualtrics survey software and statistically analyzed with JMP software.

The objective of the survey was to attain measureable data concerning people's preferences for tiny and small house siting and aesthetics. Therefore, the survey aimed to isolate the dependent and independent variables. In this study, the dependent variable is individual preferences. The independent or influencing variables were several and were pre-identified in order to create multiple-choice selections for each image (Table 3.2). Of primary interest, the study examined if there was a difference in the average preferences for the various ways tiny homes may be integrated in urban communities, and for several design elements. The VPS investigated preferences for the three legal means of accommodating tiny homes in urban areas: as an ADU, in areas zoned or regulated to specifically accommodate a community of tiny and/or small homes, and as urban infill, with small homes on their own urban lots among other housing types. The four design elements which were addressed in the VPS were: traditional/vernacular architecture, nontraditional/modern architecture, THOWs, and various building materials.

The design elements under study were loosely based on Nelessen's (1994) theory that well regarded communities share certain characteristics. According to Nelessen, such attributes include: vernacular architecture, acceptable materials and colors, streetscape elements, and a diversity of acceptable design elements for windows, doors, and roofs (244). The survey instrument aimed to specifically isolate these variables

through the use of multiple choice questions where respondents were requested to indicate the visual element which most led to their level of preference for an image. The

Table 3.2. Independent variables addressed in visual preference survey.

VPS Image #	Independent Variables	VPS Image #	Independent Variables	VPS Image #	Independent Variables
1	ADU situated near primary dwelling, overall design of the small house, landscaping	11	context of surrounding structures, overall design of tiny/small house, landscaping, corrugated metal detailing, house color	21	overall design (vernacular), landscaping, cornice ornamentation, roof style, porch
2	ADU situated near primary dwelling, overall design of small house, landscaping, exterior building materials	12	context of surrounding structures, overall design of tiny/small house, house color, porch	22	overall design (vernacular), landscaping, porch, distinctive window
3	ADU sited by primary dwelling, overall design of small house, exterior building materials, built on trailer, deck, landscaping	13	house being on wheels, overall design of tiny/small house, exterior building materials, landscaping	23	overall design (vernacular), porch, fencing, house color
4	ADU sited by primary dwelling, overall design of small house, landscaping	14	house being on wheels, overall design of tiny/small house, landscaping, steps	24	overall design (vernacular), porch, landscaping, cornice ornamentation
5	context of several tiny/small houses together, overall design of the tiny/small homes, landscaping, fencing, porches	15	house being on wheels, overall design of tiny/small house, exterior building materials, porch	25	overall design (nontraditional), exterior building materials, landscaping
6	context of several tiny houses together, overall design of the tiny houses, proximity to nonresidential structure, landscaping	16	house being on wheels, overall design of tiny/small house, exterior building materials, porch	26	overall design (nontraditional), context of several tiny/small houses together, landscaping, exterior building materials
7	context of several tiny/small houses together, overall design of the tiny/small houses, house color, porches	17	exterior building materials, built on wheels, overall design of tiny/small house, paint trim	27	overall design (nontraditional), exterior building materials, entrance, landscaping
8	context of several tiny/small houses together, overall design of the tiny/small houses, landscaping, fencing, porches	18	exterior building materials, overall design of the tiny/small house, landscaping, door	28	overall design (nontraditional), built on wheels, exterior building materials, porch, steps
9	context of surrounding structures, overall design of the tiny/small house, fencing, house color	19	exterior building materials, overall design of the tiny/small house, landscaping, deck, house color		
10	context of surrounding structures, overall design of tiny house, landscaping,	20	exterior building materials, built on wheels, overall design of the tiny/small		

fence		house, paint trim		
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multiple-choice questions also included an “other” selection with a fill-in option to ensure that all possible visual elements that may impact individual preferences for the images of each tiny or small home were accounted for.

Prior visual preference research reveals that people prefer images of scenes they are familiar with (Kaplan and Kaplan 1989, 74-74). Therefore, the VPS images did not include images of tiny homes in Asheville or Horry County. Instead, it included photos obtained of tiny and small homes located in other places in the country. The photos utilized in the VPS were carefully selected in order to avoid eliciting specific responses that may threaten the study’s validity (Harper 2002). An essential component to addressing validity threats in visual preference studies is establishing image comparability (Groat and Wang 2002, 215). Research reveals that people’s photo preferences can be dramatically altered by confounding variable issues such as black and white vs. color photographs, straight on vs. angled perspectives, and poor weather conditions (Stamps 2000; Ewing et al. 2005). In order to address this validity threat, the following criteria were established for the images that were included in the survey instrument:

- Photos displayed in landscape format,
- presented at a similar scale,
- emphasize the structure rather than the landscape,
- displayed in color rather than black and white,
- portrayed in benign rather than inclement weather conditions,

- and do not include people or animals.

The images chosen for the VPS were selected from a large collection of images that met the above requirements via a two-step sort and rank task. The rank and sort task has been recognized for its ability to establish consensus about the most representative photos in a visual preference study (Groat and Wang 2002, 232-36). In order to reduce bias, individuals unfamiliar with the research performed the task. The first portion of the two-step process, that of sorting, was performed by a focus group that consisted of six graduate students in their final year of the Master's of City and Regional Planning (MCRP) program at Clemson University. These individuals were chosen to participate in the focus group because of their knowledge of the planning profession and urban design issues. The participants consisted of six men and six women whose average age was 24.8. A worksheet that carefully explained the sort task and the seven research categories was presented to each participant (see Appendix B).

In a directed sort, images are chosen from predetermined categories (Groat and Wang 2002, 232-36). Thus, the predetermined categories relating to tiny house siting and design were verbally explained to focus group participants (and described in the sort worksheet) before the sorting task was performed. The focus group was presented with a stack of 78 tiny house photos, and was asked to sort each of the images into the category it best represented. The focus group determined that seven of the images were difficult to assign to a category, and as a result, the seven pictures were pulled from the shuffle and were not used in the next step of the sort and rank process.

The photos that were sorted by the focus group were next ranked in order from the most to least representative of each category under study. Ten PhD students in the Planning, Design and Built Environment (PDBE) program at Clemson University completed the ranking task. The students consisted of four males and seven females averaging 32 years of age. Five of the participants were foreign students, and as a result, two expressed concern that they were not familiar with the tiny house movement. Therefore, some of the students who participated in the ranking task may not have been as knowledgeable about the tiny house categories as desired. However, extra time was taken to explain the several categories to the focus group, and participants were asked to include comments/concerns relating to the ranking task on the provided worksheet. The contributors were given an identical shuffle of 71 photographs, each shuffle separated into the seven different categories as determined by the sorting-task focus group, and a worksheet to rank the images (see Appendix B). The participants then performed the rank task, where each photograph in the predetermined categories was ranked from “most” to “least” representation of each category.

Three participants included constructive comments about the rank task. One contributor stated that in their home country, small homes were associated with poverty, and therefore, they felt their perceptions might have been influenced by this preconception. However, as all 71 photographs were of tiny or small houses, it may be concluded that this cultural influence did not alter the ranking process, as there were only small homes to choose from. Two students stated that they found the bright colors of some of the tiny houses to be distracting, and that such colors could affect people’s

preferences in the resulting survey. One participant suggested that black and white photos be used in the survey to account for this confounding variable. However, as color photographs are the, "... medium of choice for design review" (Stamps 2000, 283) and visual preference studies, the survey was not designed in black and white. Finally, there were a few comments that expressed concern that variables such as landscaping, house styles in combination with building materials, and the design of structures surrounding the tiny homes may influence individuals' perceptions of the tiny homes depicted in the photographs.

The focus group comments were valid and were addressed in the following ways. As very little academic research has specifically been done on tiny homes, the research is very exploratory in nature. Therefore, the VPS aims to broadly explore people's perceptions of tiny homes in the several predetermined categories. Future research may be conducted that isolates very specific elements; such as window and door types, roofing materials, and color palette selections. This could be accomplished by utilizing a single tiny house image and altering specific design elements with software such as Photoshop, and then measuring the resulting preferences. However, such detail is not appropriate at this stage in the research. The purpose of the VPS in this study is to gain a holistic understanding of the primary influencing factors for tiny house preferences, and determine if these preferences affect policy. Issues with conflicting confounding variables, such as those mentioned by rank-task participants, were addressed through the use of the multiple-choice questions. Such concerns were further addressed by the addition of open-ended questions to the survey. The open-ended questions allowed

participants to elaborate on various factors pertaining to tiny and small homes and aided in the development of a greater understanding of how such variables influence perceptions. However, some of the concerns expressed by focus group participants turned out to be valid, as the VPS results revealed some difficulties in isolating influencing factors. These findings are discussed in detail in Chapter Five.

The literature on visual preference studies state that at least three scenes should be utilized to represent each category under study (Kaplan and Kaplan 1989, 209). Therefore, the four images that were rated most highly in each of the seven categories via the ranking task were included in the VPS instrument. This resulted in a total of twenty-eight images for survey inclusion. Survey participants were asked to rate each image based upon a five-point Likert scale, which is commonly used in preference studies (Kaplan and Kaplan 1989; Groat and Wang 2002). This resulted in quantitative data that was analyzed utilizing comparison on means and descriptive statistical techniques. The statistical analyses aided in developing an understanding of the relationship between the various independent factors and preferences. Finally, the VPS results were compared and contrasted with the case study findings and the studies theoretical framework and evaluated.

Threats to VPS Validity and Reliability

According to Yin (2009), internal validity threats deal primarily with questions with causal relationships (42-3). Because there are so many factors that affect both peoples' perceptions of small houses and policy development, this research does not aim to make hasty inferences. Furthermore, alternative explanations are taken into account in

the analysis. Internal validity threats as well as threats to the VPS finding's reliability are addressed through the utilization of Cronbach's alpha coefficient in the statistical analysis. Cronbach's alpha is a statistical construct that examines the internal consistency between items being measured in a survey. (Tashakkori and Teddlie 1998, 85). Internal validity threats are further addressed by discussing rival explanations of causal relationships. Threats associated with the studies statistical conclusion validity were confronted by having more than 100 participants complete the VPS (N=136). Having a somewhat large sample size results in a smaller statistical standard error and a more accurate representation of a population.

Pilot Study

The research methods utilized in this dissertation were tested via a pilot study during the Spring 2016 semester. The City of Greenville, SC, was chosen as the pilot test location for several reasons. First, Greenville is located near Clemson University, and offers the convenience of physical proximity. The nearby pilot site also offered established contacts with planners who volunteered to participate in the pilot study. Furthermore, with 61,397 individuals, the city of Greenville is similar in population to the case site location of Asheville, which has a population of 87,236. And importantly, Greenville is located in a portion of the southeastern United States that shares a similar climate and culture to the case site locations of Asheville, NC, and Horry County, SC. Because of these factors, Greenville served as an appropriate pilot study site.

The pilot study allowed for the formalization of both the interview and survey instruments. This was accomplished with the assistance of eight volunteers who work in

a planning capacity for either the City or County of Greenville, SC, and one real estate expert who works for Clemson University. The planning participants held such varied positions as community planner, planning and zoning development planner, and community administrator. The research instruments were improved by receiving feedback from the pilot study volunteers. These pilot study findings are summarized in Table 3.3. Refinements to the research instruments strengthen the study’s construct validity, assuring that each mechanism is measuring what it is intended to.

Table 3.3. Summary of results from the pilot study.

Research Question	Questions to Data	Data Source	Pilot Study Findings
How are the jurisdictions of Asheville and Horry County adapting land use policy to accommodate the legal allowance of tiny homes?	Interview questions: How has the tiny house movement come about in your city? What are the regulatory policies your city has adopted (or is in the process of adopting) in order to accommodate small homes? Archival sources: ordinances, articles, and city council meeting minutes about tiny house initiatives	Interviews, archival sources, land use maps	Proposed methodology worked appropriately. Interviewees described tiny house initiatives in their community and pointed researcher towards appropriate archival sources.
What is the process of altering land use policy to accommodate small homes?	Interview question: Describe the process of altering existing land use policy to accommodate tiny/small homes. Archival sources: articles and city council meeting minutes about the process of tiny house policy adoption	Interviews, archival sources	Proposed methodology worked appropriately. Interviewees succinctly described the process of adopting land use policy.
What are the challenges associated with adopting such policies?	Interview questions: Describe the process of implementing these policy changes. What are the challenges to accommodating tiny homes in your city? Has this/these land use policy changes received support from the community? Archival: articles, blogs and city council meeting minutes about tiny house initiatives and challenges	Interviews, archival sources	Interviewees described several challenges to adopting tiny house land use policy. It was recognized that a building code specialist should be interviewed in the dissertation research in order to understand the challenges associated with building construction regulations in addition to land use ordinances.

Which tiny house land use regulations are perceived as the most successful? Which regulations are perceived as the most successful by small home dwellers? Which regulations are perceived as the most successful by city policy-makers?	Interview question: Which tiny house policies are perceived as the most successful? Participant observations and archival sources (articles, blogs, and city council meeting minutes) related to perceived success of tiny house initiatives from both the perspective of small home dwellers, city residents, and policy-makers	Interviews, participant observations, archival sources	Proposed methodology worked appropriately. Interviewees responded in terms of the feedback they have received from residents and the experiences they have had as planners.
What visual elements are associated with individual's preferences of small homes?	VPS (Likert scale and heat mapping questions analyzed with descriptive stats), interviews (photo-elicitation component)	VPS, interviews	The VPS revealed a need to switch from heat mapping to multiple-choice questions in order to clearly isolate variables associated with preferences. Photo-elicitation component worked appropriately.
Is there a difference in the average preferences among the three ways a tiny house may be situated (ADU, tiny home village, or urban infill)?	VPS (Likert scale questions analyzed with ANOVA), interviews (photo-elicitation component)	VPS, interviews	VPS is crucial for answering this research question. The interviews were helpful but inconclusive in that they were somewhat based on individual preferences.
Is there a difference in the average preferences among the four specified categories of design elements (vernacular vs. non-traditional, wheels vs. no wheels, and building materials)?	VPS (Likert scale questions analyzed with ANOVA), interviews (photo-elicitation component)	VPS, interviews	VPS is crucial for answering this research question. The interviews were helpful but inconclusive in that they were somewhat based on individual preferences.
Do perceptions of tiny house situation and design impact the resulting land use policy?	Archival/interview/VPS cross-comparison (do the unfolding tiny house policies in each city reflect overall stakeholder perceptions?) Look at data in aggregate and separate out by jurisdiction.	Archival, interview, VPS	Triangulation of the pilot study data revealed that perceptions of tiny houses appear to influence the policies that are being developed to accommodate such homes.

Six individuals elected to complete the VPS and then participate in a focus group to discuss the survey instrument. The participants included both those who support and

those who do not support the integration of tiny houses into urban areas. This was revealed in the two open-ended response questions built into the survey that ask respondents about their perceptions and opinions of tiny home integration. Some replies that revealed a positive perception of tiny homes include:

- “Tiny houses are great and provide an opportunity to promote affordability in our community.”
- “I would be supportive [of a tiny house being built in my neighborhood] as long as the tiny house is consistent in the design as the surrounding neighborhood.”

Responses that indicated a negative perception of tiny houses include:

- “The wheels really threw me off. It seems too unsafe and also seems like it would drive property values down.”
- “Tiny homes might have a place in some communities. As for a traditional residential community, I feel that it has no place for existence. There are many reasons. Will be an eye sore, next to other traditional homes. Will bring the value of other homes down in that community. Etc.”

This balance of perspectives in the pilot study was important, as it allowed the survey to be improved without emphasizing bias for or against tiny homes.

A VPS focus group, comprised of all six survey volunteers, convened and provided integral feedback on the pilot survey. The most significant feedback from the focus group concerned the initial use of heat-mapping questions in the survey to explore people’s perceptions of various visual elements related to tiny/small homes. Prior to meeting with the VPS focus group, response analysis was used to indicate potential

problems with the survey instrument. In this method, questions that are frequently left blank, always receive the same response, or reveal little consensus are examined to see if bias has been introduced from the researcher perspective (Singleton and Straits 2010, 348-9). An examination of heat-mapping responses indicated very little consensus, a potential indicator of confusion among participants.

Such confusion with the heat-mapping questions was confirmed during the VPS focus group discussion. Several participants stated that they enjoyed the interactive heat-mapping questions, however, they felt it was difficult to describe their level of preference for a tiny/small house by clicking on one place on an image. For instance, one individual stated that she did not know how to indicate her preference for an image when she liked the overall design of a tiny house. Should she indicate this preference by clicking on the side of the house? The roof? The porch? Other respondents indicated similar issues. It became apparent that the heat-mapping questions were not isolating the factors that determine people's preferences for tiny homes. Several alternative means of obtaining this information were considered; from allowing multiple clicks on heat-mapping images, to requesting that participants circle influential elements, and finally, to switching the question format to multiple choice. The latter option was ultimately chosen as it allows respondents to choose one response from an unambiguous selection of dependent variables. In addition to the pre-defined multiple-choice selections, an "other" choice was included, allowing respondents to write in an influential variable that was not provided in the multiple-choice selections.

The focus group provided additional input regarding the phrasing of several of the survey questions. Participants found the wording corresponding to the Likert scale to be confusing with the use of such terminology as “I like it a little” and “I’m ok with...”. This feedback allowed the predetermined answer choices to be modified with terminology that is less ambiguous. Finally, the focus group confirmed that the time required to complete the survey was appropriate.

The pilot study also involved the testing of the interview instrument and protocol. Three planners and one real estate expert from Greenville were interviewed and notes were taken during the process. After each interview one-on-one discussions about the interviews were held, and follow-up e-mails were sent to obtain further feedback about the interview pilot. Important insights were procured through this process. First, it quickly became apparent that the interviews needed to begin with a discussion of the terminology surrounding tiny and small homes. For example, interview responses could vary greatly if participants had differing interpretations about the size of homes being addressed in this study. As a result, the dissertation interviews all began with an explanation of the various square footages comprising tiny and small homes and of the various ways tiny and small homes may be integrated into urban areas. The second insight gained from the pilot interviews was that a building code official would need to be interviewed at each case site location. Such an individual possesses specialized knowledge about legal construction requirements that differs significantly from the planner’s expertise on land use ordinances and zoning. Finally, the use of photo-elicitation during the pilot interview process proved extremely beneficial for fostering

discussion. However, in order to attribute specific comments to individual photos, it was learned that the photographs needed to be numbered for future interviews.

CHAPTER FOUR

CASE STUDY FINDINGS

Introduction

Case study research involves an in-depth examination of a phenomenon in a bound system (Creswell 2012, 97). The bound systems in this research are the city of Asheville, NC and Horry County, SC, and the phenomenon under investigation is tiny house integration. The jurisdictions of Asheville and Horry County have been chosen as case sites as they are leading the way in the development of tiny house integration policies in the southeastern United States. This is particularly the case in Asheville, where there has been a growing interest in the tiny house movement for several years. In South Carolina, Horry County appears to be the first municipality to develop and adopt tiny house land use regulations. Though both case sites are located in the southeastern U.S., each has a distinct culture, and as a result, each place is taking different approaches to the adoption of land use policy that will accommodate tiny and small homes.

This chapter examines the development of tiny and small house policy at each case site location. Furthermore, the following research questions are specifically addressed:

RQ1: How are the jurisdictions of Asheville, NC, and Horry County, SC, adapting land use policy to accommodate the legal allowance of tiny homes?

RQ2: What is the process of altering land use policy to accommodate small homes?

RQ3: What are the challenges associated with adopting such policies?

At each location, key stakeholders in the development of tiny and small house policy were interviewed. The interviews were conducted during the first two weeks of May 2016. In Asheville, interviewees included a tiny house dweller and advocate, a city council member who is a proponent of tiny homes, the city's Chief Code Official and Building Plan Review Coordinator, a city planner working on the development of tiny/small house regulations, a real estate developer, and a tiny home builder. Some of these interviewees are involved with various tiny house advocacy committees such as SHAC (Asheville Small House Advisory Committee) and Tiny House Asheville. In Horry County, interviewees included a Horry County planner responsible for the development of tiny house regulations, an area architect who is also a tiny house advocate for homeless veterans, the Deputy Director of Code Enforcement for the County, a real estate developer who is also a tiny house advocate, and three planners from the city of Myrtle Beach. Three of these individuals serve on the Tiny House/Shipping Container Ad Hoc Committee for Horry County. Each interviewee had specialized knowledge pertaining to an aspect of potential tiny home integration at one of the case locations.

In addition to the interviews, the case study research involved an archival component. Land use ordinances, comprehensive plans, housing affordability studies, land use and zoning maps, and city council meeting minutes pertaining to small and tiny

home integration were examined at each case site location. News stories and newspaper articles, small house advocacy webpages, and in the case of Asheville, several Facebook page forums related to tiny house integration and initiatives were also examined. This chapter synthesizes the interview and archival data in a holistic assessment of tiny and small house integration at each case site location.

Case Site Background: Asheville, NC

Asheville is a city of 45.3 square miles located in western North Carolina within the Blue Ridge Mountain Range. As of 2010, the city had a population of 83,393 individuals or 1,683.4 people per square mile. The city is located within Buncombe County, which is 660 square miles and has a total population of 238,318. Though interest in tiny house dwelling extends beyond Asheville's city limits and into the more rural portion's of Buncombe County, the county itself was not chosen as a case site location. This is because there is little going on with the development of tiny house policy and there are fewer regulatory barriers to building tiny and small homes at the county level. In a personal email, Buncombe County Planning Director, Jon Creighton stated, "Tiny houses are going into the county, but nothing like the city" (Creighton 2016). Like Asheville, Buncombe County has concerns with the integration of THOWs because of the lack of consensus on the legal status of such structures. Some may call THOWs homes, whereas others may argue that such structures are recreational vehicles (RVs), mobile homes, or manufactured units. However, due to the highly rural nature of the area, county officials have little knowledge of where and how many THOWs might exist in the county. Furthermore, the county is not working to adopt policies that address

THOWs at this time. In a personal e-mail, the Planning Director for Buncombe County stated that the county is currently treating THOWs as RVs. He asserts that THOW owners in the county should be aware that, “They [THOWs] can only stay on the property for 180 days at which time they must be moved. You can move it out one day and bring it back the next and then the 180 days starts again” (Creighton 2016). Because the county is not specifically addressing tiny house policy at this time, as is the city of Asheville, Asheville, rather than Buncombe County was chosen as a case site location.

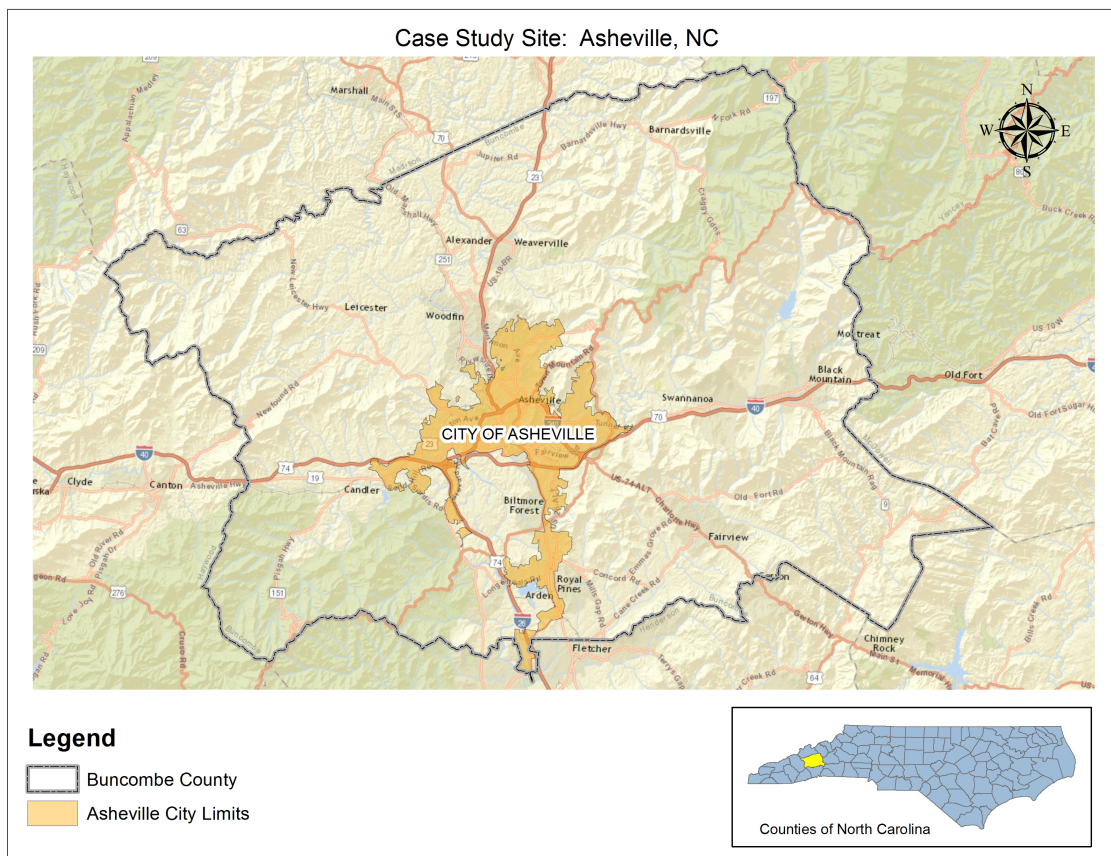


Figure 4.1 Asheville, NC, case site location. Map sources: Esri, City of Asheville, TIGERweb

Founded in 1784, Asheville’s history has evolved as a result of its geography. Its location on the French Broad River allowed for easy trade, while the nearby mountains

attracted tourists in search of beautiful vistas and easy access to the Great Smokey Mountains, Blue Ridge Parkway, and nearby state and national forests (see Figure 4.1). After struggling for decades to recover from the Great Depression, Asheville began to attract progressive residents in the late 1970s and early 1980s. In the early 1990s, the city began to accommodate and promote this “creative class” in an effort to establish a distinct cultural identity for the city (LaRue Scherer 2007). Within approximately fifteen years, the city’s revitalization efforts resulted in a massive boom in tourism and economic development.

Asheville continues to promote a counterculture image that attracts residents and tourists with its art districts, farm-to-table restaurants, numerous breweries, tattoo parlors, opportunities for outdoor recreation, and cultural events. Perhaps it is this prevalent emphasis on counterculture lifestyle that has resulted in greater interest in the tiny house movement in Asheville than in other places in the Southeast. However, the attractiveness of tiny houses could also be due in part to the city’s housing affordability crisis. As the city continues to grow and prosper, the housing supply is experiencing significant strain and gentrification is on the rise. A recent housing needs assessment report indicates that 43% of Asheville’s current population is severely cost burdened in regard to housing (where greater than 50% of household income goes towards housing) and finds only a 1% physical vacancy rate for rentals (Bowen 2015, 5-7). As a likely a result of both the current housing crisis and prevalent counterculture, Asheville residents and city officials are interested in integrating tiny and small houses into the urban community.

Overview of Tiny and Small House Regulations in Asheville

The city of Asheville has recently been very proactive in the development of policies that allow for the integration of tiny and small houses into the urban community. This is in response to both citizen interest in the tiny house movement as well as a means of addressing the city’s affordable housing crisis. The city is so receptive to the possibilities associated with tiny house integration that they even specifically address tiny houses in their 2036 Vision Plan. Written in future tense, the Asheville City Council envisions that twenty years from now:

Innovative and historic housing options, from tiny homes and co-housing to apartments and single-family homes are available throughout the city. Asheville’s former public housing communities have been transformed into a diverse mix of affordable and market rate homes within vibrant neighborhoods. (Asheville City Council 2016)

As a result, the city has made it a priority to reduce barriers to tiny and small house integration in several ways (see Table 4.1).

Table 4.1 Summary of tiny and small house policies in Asheville, NC.

ADUs	Tiny/Small House Communities	Urban Infill
<p>-New ordinance allows ADUs on nonconforming as well as conforming lots (June 2015, passed)</p> <p>-New language allows for larger sized ADUs: up to 70% of primary dwelling but not larger than 800 sq. ft. (detached) or 1,000 sq. ft. (attached). (June 2015, passed)</p> <p>-Currently examining ways to streamline ADU permitting process (summer 2016, in process)</p>	<p>-Creation of Cottage Development Code (2005, passed)</p> <p>-Discussion on creation of potential THOW district halted during summer of 2016 (no regulations being developed at this time)</p>	<p>-Discussion has begun on potentially reducing lot size requirements within established neighborhoods (July 2016, in process)</p>

The city of Asheville has never established a minimum square footage requirement for homes and only dictates that new home construction is in compliance with state building codes. According to the city's Chief Code Official, to be in compliance with such codes a home would need to be a minimum of 240-270 sq. ft. (Matheny 2016b). The exception is neighborhoods and developments that have restrictive covenants with mandatory home size requirements. Historically, such covenants were not pervasive in Asheville, and as a result, there are many small homes in the 600-800 sq. ft. range sprinkled throughout the city's older neighborhoods.

At the Asheville case site, a recurring theme, which is explained in greater detail later in the chapter, is that residents have gotten away from building small homes because of increasingly restrictive banking and lending practices. As land prices continue to escalate over time, it makes less and less fiscal sense to build small homes, because there is a tipping point when the land is worth more than the house itself. Lending institutions generally do not support such an arrangement. Banks encourage investments where maximum profit can be realized. This is also the case with insurance companies.

Under the current lending structure, building small within the city limits only makes fiscal sense if small lot sizes are allowed. This would prevent the lot from being worth drastically more than the home itself. However, many of the zoned neighborhoods in Asheville require lots to be a minimum of 5,000 sq. ft. (Satvika 2016b). In a personal interview Asheville city planner Vaidila Satvika, stated that the city is starting to look at potential ways to decrease lot size standards in order to allow for small home infill within

the city (2016). The primary concern with such an initiative, however, is how to allow for such infill without affecting the property values of pre-existing homes. The city has received a significant amount of public input and the Planning Department has recommended that changes be made which will increase density standards while still maintaining good city form. The city is currently developing zoning amendments to foster such infill opportunities and they will be presented to City Council in the early months of 2017 (City of Asheville 2016).

The city already has language in place that allows for the construction of several tiny or small homes within a “cottage development.” Such developments may ameliorate property value concerns associated with small house infill. The cottage development code, which was passed in 2005, allows for five to twelve tiny and/or small houses within a minimum development of 30,000 sq. ft. (City of Asheville 2015b, 12-15). The cottage development code was crafted to, “... allow small infill development of small single-family homes as a means to increase the stock of housing affordable at the ‘workforce’ and ‘affordable’ housing levels” and “...be designed to fit into the context of the surrounding existing neighborhood” (City of Asheville 2015b, 12).

To date, no tiny-house-specific developments have been actualized under this code. One developer, also the Chair of Asheville’s Affordable Housing Advisory Committee, Barry Bialek, asserts that this is for two reasons. First, he contends that current land use regulations, including the cottage development code, are really only conducive to small rather than tiny home construction, because of the amount of capital required upfront for such developments. He asserts that creating a development that

would meet the current restrictive standards would be extremely costly: for example, the cottage development code requires a significant amount of a land to be left as green or community space. In such a case, a developer would not profit from building and selling tiny, and generally, more economic, homes. Bialek originally intended to create a THOW development, but quickly switched to small home construction after realizing how extensive the land use and financial barriers are for THOW integration.

Furthermore, because of financial implications, Bialek stated that many people might find small home living preferable to tiny house living. He has seen a great demand for small homes within the 640 to 1,200 sq. ft. range (Bialek 2016). This interest in building small versus tiny homes could be due in part to the fact that the construction of a new foundation-built home requires certain costly expenditures regardless of the final square footage. An Asheville city planner stated:

They [the developers] could build them 300 square feet, but really ... it is going to be more profitable to make units that more people will like. If you're building them for the tiny house market, it's still going to be expensive to build. You still have to build a bathroom, you still have to do a foundation, you still have to do the expensive things without the benefit of a little bit of room and flexibility. (Satvika 2016)

Therefore, several interviewees at the Asheville case site asserted that people might prefer small rather than tiny homes, that offer a little more room, when the overall construction cost between the two would not significantly differ. Further research that specifically examines the cost differences between tiny and small home construction based on such factors as design and house site would be beneficial.

The second possible reason why no tiny house communities may have been actualized under the cottage development code, is that the ordinance has been described

as, "... not an easy tool to use" (Bialek 2016). Bialek stated that since the adoption of the ordinance, there have only been six attempts to create cottage developments, and that most of the projects have fallen by the wayside. One of the six attempted projects is his own, and is currently on hold. He contends that the development process is lengthy and cumbersome under the cottage development ordinance. Bialek asserts that building small home developments under the regulations for Planned Unit Developments (PUDs) is much more streamlined, and ultimately, profitable. He states that developers such as him have found an advantageous loophole; if they build twenty or more units in a PUD, state land use law supersedes city development regulations (Bialek 2016). The state law allows for smaller lot sizes, as with cottage development language, but the development process is significantly streamlined and a potential developer can put in many more units. Bialek is currently using this loophole in the construction of a development of forty-five small homes. Bialek asserts that unless the city works to make the cottage development code less restrictive, developers will continue to use the PUD loophole to integrate small homes into the community.

Asheville has been very proactive with the development of policies that allow for small house infill as ADUs. The city has a long history of legal allowance for ADUs. The first policies for such dwellings were adopted as part of the 1948 Zoning Ordinance Governing Land Use and were later updated in 1997. Historically, however, ADU integration in Asheville has been somewhat restrictive in that such units were only allowed on conforming lots and owners of smaller-sized homes were very restricted in regard to the size ADU they could build on their lot. If the primary unit was not very

large, it was difficult to build an ADU that was anything other than very tiny. In 2014, however, Asheville's Affordable Housing Advisory Committee proposed amending the city's ADU regulations because, "ADUs are a relatively inexpensive way for the city to increase housing supply, and for a city like Asheville that is facing a housing supply crisis, the revised ADU rules give more flexibility to property owners so that more ADUs can be built" (City of Asheville 2015a).

The new ADU ordinance update allows ADUs on nonconforming as well as conforming lots, and states that the size of a new detached ADU may be to be up to 70% of the square footage of the primary dwelling with a cap of 800 sq. ft. Attached ADUs may also be as large as 70% of the square footage of the primary dwelling with a maximum allowance of 1,000 sq. ft. (see Table 4.2). The new ordinance allows for much larger units, as the previous language required ADUs to be a maximum of 25% of the gross floor area of the primary dwelling, or 500 sq. ft.; whichever is greater. And in no instance could the ADU be larger than 50% of the gross floor area of the primary dwelling (Satvika 2016a). Therefore, the primary dwelling would have to be a minimum of 1,000 sq. ft. in order for the ADU to be 500 sq. ft. The city asserts that the new ADU regulations will allow for much needed infill housing opportunities and have little impact on existing infrastructure (City of Asheville 2015a). For example, under the new ADU standards, if a newly constructed unit is located within one mile of the central business district, it is not necessary to create additional parking for the new ADU (Satvika 2016b). This is because the city is focusing on increasing density and emphasizing walkability in this area. Elsewhere in the city, however, primary homeowners are required to create an

off-street parking space per each ADU. The new regulations were adopted on June 23, 2015, and as a result, the city has seen a dramatic increase in ADU interest and ADU permit applications. Because of the growing popularity of ADUs, the city began tracking ADU permits at the start of 2016. Prior to 2016, ADUs did not have their own permitting category, therefore permits for such structures and were filed under a multitude of other categories, such as “home addition” (Matheny 2016c). As a result, the number of ADU permits filed for on an annual basis prior to 2016 is unknown. However, the Chief Code Official for the city says that he would estimate that applications for ADUs have increased by at least three fold since the new regulations have been instituted (Matheny 2016c). In 2016, 94 ADU permits were filed with the city of Asheville (Matheny 2016b).

Table 4.2 Summary of new ADU regulations adopted June 23, 2015 in Asheville, NC. Table adopted from summary table provided on the city’s website (City of Asheville 2015a).

Name	Detached ADU	Attached ADU
Parking	One additional parking space required, unless located in the central business district.	
Max Size	Up to 70% of the primary dwelling, but no larger than 800 sq. ft.	Up to 70% of the primary dwelling, but no larger than 1,000 sq. ft.
Min Size	No min sq. ft. requirement	
Max Height	25 ft. (top of ceiling)	Per residential district standard
Max Footprint	800 sq. ft.	1,000 sq. ft.
Lot Type	Conforming or nonconforming	
Setbacks	Min 6’ setbacks	Per residential district standard

Finally, there has been a lot of interest in THOW integration in the city of Asheville. Tiny house advocates have been promoting THOW integration, and the city has looked into the creation of a THOW-specific district. However, as will be explained

in depth later in the chapter, THOWs face a myriad of integration obstacles. As a result, the discussion on potential THOW integration was halted during the summer of 2016, and the city has decided to instead focus on the integration of small homes on foundations (Satvika 2016a; LaVoie 2016a).

Case Site Background: Horry County, SC

Comprised of 1,255 square miles, Horry County is the largest county in South Carolina. As of the 2010 U.S. Census, the county had a population of 289,650 individuals or 237 persons per square mile. The county is located within the Pee Dee River Basin and borders the Atlantic Ocean to the east. The county seat is the city of Conway, however, the larger cities of Myrtle Beach and North Myrtle Beach are also located within Horry County. Conway has a long history, with the city being founded in 1732. Horry County, however, was not incorporated until 1801.

For much of its history, the Horry County area was geographically segregated from the rest of South Carolina by an extensive network of swamps, wetlands, and rivers. As a result of its isolation, a distinctive culture has developed in the region and is reflected in the county's unofficial nickname as the "Independent Republic" (Horry County Government 2016). The historic geographic isolation furthermore prevented the region from trading and commerce with other areas. Therefore, the economic history of Horry County is rooted in small farms. In the 1950s, however, engineering advancements allowed for numerous road and bridge construction projects in the area. Paired with the rapidly growing popularity of the automobile, Horry County experienced a tourism boom, as Myrtle Beach and surrounding communities became popular beach

vacation destinations. Currently, Horry County attracts over 12 million visitors per year (Horry County Government 2016).

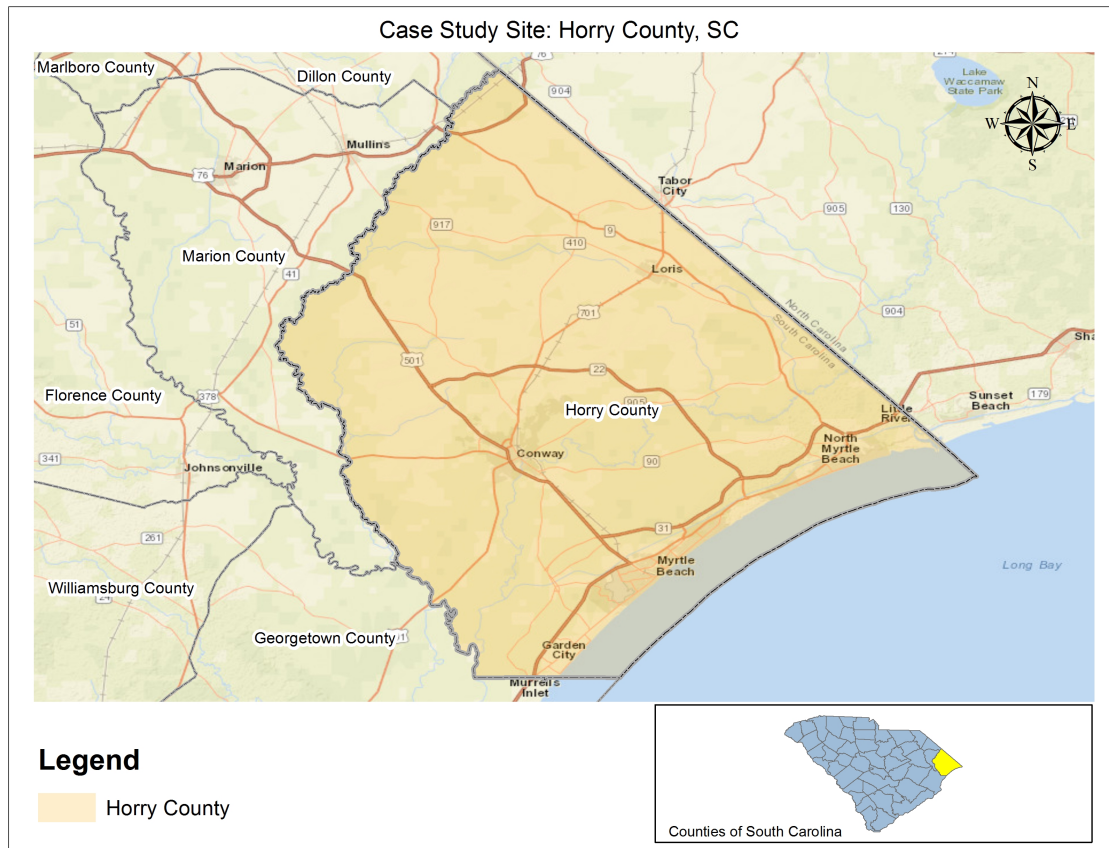


Figure 4.2 Horry County, SC, case site location. Map sources: Esri, TIGERweb

Horry County is the fastest growing county in the state and is experiencing a population growth rate that is double the rest of the state (Horry County Planning and Zoning 2008, 12). The Horry County economy is heavily dependent on tourism, where 35% of county residents work in retail, entertainment, recreation or the food service industry (Horry County Planning and Zoning 2008, 172). However, such jobs generally offer only minimum wage opportunities. Because such a large percentage of the Horry

County population is sustained by low wage jobs, and because much of the growth in the area accommodates tourists and/or affluent residents, affordable work force housing is in very short supply. The Horry County 2008 Comprehensive Plan reports that a typical minimum wage worker would have to work 102 hours a week to afford an average two bedroom apartment in the county (172). Furthermore, the comprehensive plans for both Horry County (2008) and Myrtle Beach (2011) state that creating affordable workforce housing is among their primary concerns and objectives. As a result of the growing need for affordable housing, Horry County stakeholders may be especially receptive to tiny and small house integration.

Overview of Tiny and Small House Regulations in Horry County

Though Asheville has been working to integrate tiny homes for several years, Horry County has just initiated the process. Compared to Asheville, Horry County has very few small and no known tiny houses. Like Asheville, Horry County does not have minimum square footage requirements, and only dictates that new homes meet building code regulations. However, unlike Asheville, Horry County does not have many historic small homes scattered about. Asheville urbanized earlier and at a faster rate than Horry County, which may account for such homes. Conversely, Horry County experienced much of its development in the last few decades: at a time when standardized zoning and restrictive covenants were in place throughout much of the county. Therefore, developments that have restrictive covenants that regulate square footage requirements are quite pervasive in Horry County (Hyman 2016a). It is also likely that the area has seen little infiltration of tiny and small homes due to current lending practices. As with

Asheville, several Horry County interviewees mentioned that it does not make fiscal sense to build a small house on a lot where the land is worth more than the home.

Finally, Horry County does not have the prominent counterculture that draws so many individuals to the tiny house movement. Despite, these differences, there is growing interest in tiny and small house living in Horry County, and the county is beginning to take steps that will allow for their legal infiltration into the area.

The issue of legal tiny house integration first emerged in Horry County during the summer of 2015. During that time, a private developer approached the city of Myrtle Beach proposing a tiny house community on two lots he owned which were in close proximity to the beach. He petitioned the city to decrease mandatory lot size requirements in order that he could build a development consisting of eleven tiny homes of 312 square feet each (Noell 2015). The city eventually turned down the proposal because of concerns about neighborhood crowding and infrastructure strain (Hardin 2016). It was this proposal, however, that brought tiny house integration to the attention of Horry County. County officials felt it was predictable that the national growing interest in tiny house dwelling would eventually reach the area (Hyman 2016b).

Therefore, they decided to take proactive measures in order to have a legal framework in place for future tiny and small house integration. In this instance, Horry County, rather than Myrtle Beach, was chosen as the case site location because it is the county, rather than the city, that has taken the initiative to craft tiny and small house policy.

As a result of the failed tiny home development proposal in Myrtle Beach, the Horry County Council's Infrastructure and Regulation Committee appointed a Tiny

House/Shipping Ad Hoc Committee in August of 2015 to develop standards for tiny house infill in the area (Allen 2015a). The ad hoc committee was composed of three planning commission members, a county planner, an architect, and a builder. The architect and builder were specifically approached and asked to serve on the committee due to their expertise and interest in tiny and small homes. During the course of this research, three of the ad hoc committee members were interviewed about the development of tiny house policy in Horry County.

Table 4.3 Summary of tiny and small house policies in Horry County, SC.

ADUs	Tiny/Small House Communities	Urban Infill
-No new ADU regulations being developed at this time -Current ADU ordinance requires a double lot and that the unit be occupied by a relative of the owner of the primary dwelling	-New tiny home ordinance allows developments of tiny/small homes on decreased lot sizes (July 2016, passed)	-No tiny/small house infill regulations being developed at this time

One of the ad hoc committee members, who is also an architect, was previously part of a non-profit group that aspires to build a village for homeless vets in Horry County that would be constructed of shipping containers (See Figure 4.3). The proposed development has come to be known as “Veterans Village.” Though shipping container homes may be classified as small rather than tiny, the proposed village has faced many of the same land use barriers that potential tiny house development do. Primarily, the Veterans Village proponents seek legal allowance for reduced lots sizes for the shipping container development. Furthermore, as with tiny homes, shipping container home advocates face hurdles associated with aesthetic concerns. With both types of homes,

residents may be apprehensive that property values might be adversely impacted if the resulting developments are not aesthetically pleasing. Because of the similar hurdles facing tiny and shipping container home integration, shipping container developments were a part of the initial discussion on tiny house policy development in Horry County.

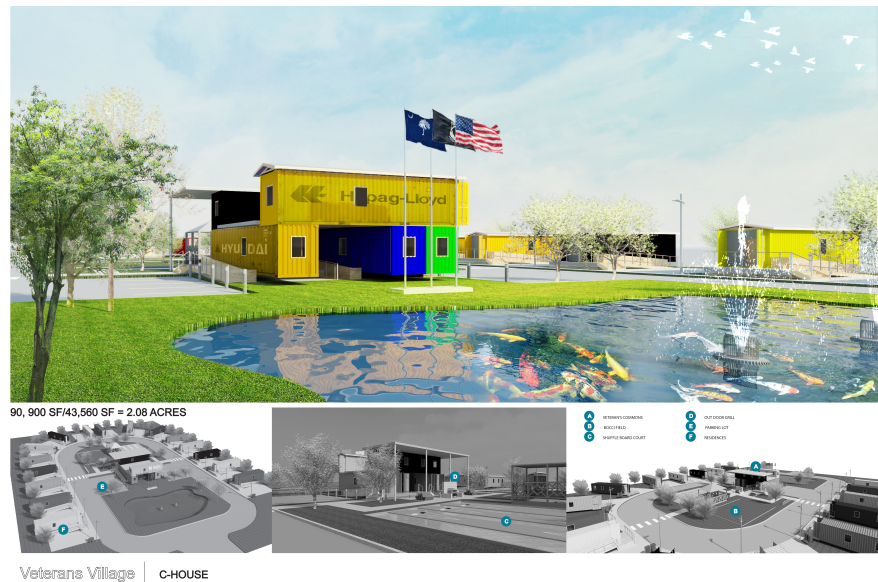


Figure 4.3. Architectural rendering of the proposed Veterans Village in Horry County, SC. (Photo credit: Veterans Housing Development, Chris R. Clark, AIA Architect and Som Souvong, Assoc. AIA)

As the conversation moved forward, however, shipping container language was dropped from the developing regulations. Though the proposed Veterans Village enjoyed substantial press coverage and support from the public, the nonprofit organization, Veterans Housing Development, LLC, temporarily halted the project due to a change in leadership (Clark 2016). However, the Tiny House/Shipping Container Ad Hoc Committee continued their discussion about shipping container aesthetics and integration. Finally, during the committee’s March 3, 2016 meeting, it was concluded that because Horry County does not regulate other types of building materials, they do not have the

authority to regulate shipping container homes and buildings based solely upon building materials (Horry County Planning and Zoning 2016). The committee thereby determined that if structures made of shipping containers meet building code requirements, they are legally allowable in the county. The real issue, they concluded, was the lack of land use regulations that would allow for the creation of tiny or small home communities, regardless of the building materials utilized for such homes.

The committee then turned their focus to the creation of policy that would allow for aesthetically pleasing small home developments; whether they are made of shipping containers or other materials. However, proponents of the proposed Veteran's Village feel that obstacles continue to block successful integration attempts because of the shipping container materials. Under new leadership, the nonprofit organization is once again pursuing the Veterans Village shipping container development. In a personal phone call with Thomas Costello (2016), who serves as the Director of Construction and Fundraising for Veterans Housing Development, LLC, it was stated that the project faces significant NIMBYism (Not in My Back Yard). He stated that though Veteran's Village receives much positive publicity and fiscal support, they cannot find a supportive place to build. In two instances, landowners in Horry County volunteered to donate land for the development, but in both cases, community backlash was significant enough that the project was not carried forward (Costello 2016). He asserts that the NIMBYism is attached to both the shipping container building materials, and to the possibility of low-income residents. Furthermore, Costello is skeptical of the recent tiny house initiatives created by the county. Though shipping container materials are not expressly prohibited

in the new regulations, the policy requires a proposed project to go through an approval process. Costello feels that the Veterans Village may be turned down at that stage because the board will not approve of the site design with shipping containers. Regardless, Veteran's Village advocates are still in the process of trying to find a suitable site for the proposed project. To date, Horry County does not have any known shipping container homes. However, they have recently received permit applications for several shipping container fruit stands which are in the review process (Hyman 2016a).

The creation of tiny house policy has been driven in part by real estate development interests in Horry County. Individuals in the community involved in various facets of real estate development expressed interested in building small homes to address the growing demand for affordable housing in the area. For instance, one Horry County resident and Myrtle Beach developer, Ed Jackson, initially became interested in small house integration when participating in the Hurricane Katrina relief effort. During that time he was introduced to Marianne Cusato's small Katrina Cottages that have become synonymous with the relief effort. Jackson was convinced that the small, colorful, craftsmen-type cottages would be well received in the Myrtle Beach area (Allen 2015b). Therefore, in 2014 Jackson proposed a development of such homes, which were eventually actualized in the Myrtle Beach bedroom-community of Garden City. The development is called the Cottages at Addison and is comprised of 28 small homes ranging between 560-640 sq. ft., all of which were sold before the development was even completed (Allen 2015b). However, because Horry County had no regulations in place for tiny or small house-specific developments, Jackson faced several regulatory hurdles.

His primary obstacle was finding a way to decrease lot size requirements for the project. In order to accomplish this, and ultimately get the development approved, Jackson first worked with the county to get the cottages classified as condominiums. Though condominiums are generally used for multi-family housing units, such an ownership pattern has smaller lot size requirements than single family zoning arrangements (Coleman 2016b). In order to further decrease lot size regulations, Jackson then acquired variances for lot setbacks and spacing between units. He was ultimately successful in carrying out the development of densely placed small homes. Because the development was a fiscal success, and because other developers have expressed similar interests, county officials felt that it was important to create regulations that would streamline such endeavors.

The ad hoc committee had a lot to consider when crafting the tiny house development ordinance. Though the cottages built in Garden City sold quickly, not everyone perceived the development favorably. Though some planning officials approved of the small house development, others were not so enthusiastic. One planner mentioned that they had had “high hopes” for the project, but were disappointed in the final product; especially the lack of green space in the development. The planner stated, “I think he [Jackson] had great intentions, but when he got down to the actual development plan, I think it was just easier to asphalt everything. I told him what we envisioned when we started working on it; that there would be some type of community green in the middle” (Coleman 2016a). A visit to the development confirmed that the vast majority of the development was space for parking with very little green space (see

Figure 4.4). As a result of negative perceptions such as these, the Tiny House Ad Hoc Committee aimed to create regulations that would allow for the development of tiny and small house communities while maintaining good urban form.



Figure 4.4 The vast majority of the Cottages at Addison development has been covered in asphalt for parking, leaving very little green space. (Photo credit: Krista Evans).

Until a sufficient tiny house policy could be developed, Horry County decided to enact place-holding regulations to ensure there was no attempt to integrate tiny houses in a way that might be negatively perceived by the community. Thus, in the fall of 2015, the county established temporary regulations requiring newly built homes to be a minimum of 500 sq. ft. unless they are part of an approved planned development district. The place-holding regulations were repealed on July 12, 2016 when the tiny house development ordinance was officially passed.

Ordinance 42-16 is very specific as to what types of tiny house developments are acceptable in the county. Homes in such a development must be 750 sq. ft. or smaller

and on a permanent foundation. The ordinance is very specific in its prohibition of THOWs, RVs, and of any type of manufactured housing unit. Tiny house developments will be allowed in multi-residential districts (MRDs). For proposed tiny house developments, potential developers must apply to the county to have the land re-zoned MRD. The county has different unit density requirements for MRDs based upon whether the proposed development is located in a rural, suburban, or urban area as classified in their comprehensive plan and the Future Land Use Map of Horry County. This is summarized in Table 4.4. However, regardless of density requirements, tiny house developments are exempt from the setback standards required of conventional single family and multi-family homes developments (Horry County 2016.).

The ordinance allows a developer to increase the unit density if sustainable design practices, such as preserving a significant amount of green space or incorporating a community garden, are integrated into the site plan. Initially, the ordinance also encouraged affordable units by granting developers increased density standards if 10% of the homes met HUDs definition of affordable housing, which is defined as monthly costs not exceeding 30% of median income in a county. However, the affordable housing language was eventually struck out because the committee felt they did not have any kind of regulatory mechanism in place to track whether potential units were affordable or not (Hyman 2016a)

Table 4.4 MRD Density Characteristics. Table adopted from Article VII, Section 752, of Horry County Code of Ordinances (Horry County 2016.).

Land Use District	Rural Density ¹	Suburban Density ²	Urban Density ³
Conservation/Preservation			
Rural Areas	X		
Rural Communities	X		
Rural Corridors	X		
Transitional Growth Areas	X	X	
Suburban Corridors	X	X	
Urban Communities		X	X
Urban Corridors		X	X
Economic Activity Centers		X	X

1. Rural density areas support (3) or fewer units per acre; the exception may be made when sustainable development initiatives are incorporated into the development.

2. Suburban density areas support (6) or fewer units per acre; an exception may be made when sustainable development initiatives are incorporated into the development.

3. Urban density areas support (15) or fewer units per acre; an exception may be made when sustainable development initiatives are incorporated into the development.

Originally, the ad hoc committee was also working to create some minor provisions for increasing ADU integration, as current ADU regulations are very restrictive in Horry County. For instance, under the current ordinance, ADU integration requires two complete lots so that the primary house and ADU can be subdivided into two separate standard lots if desired. The current rules also require that the ADU tenant be a relative of the owner of the primary unit. In order to increase ADU infill opportunities, the ad hoc committee developed language that would lift the requirements for double lots and for family member occupancy for ADUs within MRDs. The proposed regulations would only apply to MRDs and the old ADU standards would

remain in place in other types of residential districts. However, the new ADU regulations were ultimately not adopted. This is because ad hoc committee members felt there was significant NIMBYism (Not in my Back Yard) associated with ADUs in the county. During a March 3, 2016 ad hoc committee meeting, it was stated that the climate wasn't right in Horry County for making changes to ADU regulations. One committee member said, "We're not addressing ADUs now because it'll create more problems than what we have now," and another followed up with, "People aren't clamoring for change with ADUs right now" (Horry County Planning and Zoning 2016). The discussion included concerns about ADU aesthetics and increasing density standards in established neighborhoods. As a result of this conversation, the committee decided against adopting new ADU integration regulations. A comparison of the tiny and small house policies at each case site is provided in Table 4.5.

Emergent Themes

The case study interviews were transcribed and then coded utilizing MAXQDA software. Because the research is exploratory in nature and there is little academic literature specifically on the tiny house movement, the transcribed interviews were first coded inductively. However, the study has a theoretical framework based upon the literature on land use regulation, housing affordability, homeownership, urban design, and counterculture movements. As a result, the interviews were then coded deductively based upon this framework. This process culminated in the development of meaning clusters and the emergence of several prominent themes (see Table 4.5). The left column of Table 4.5 indicates the inductive codes that were developed, while the column on the

Table 4.5. A comparison of the tiny house policies at each case site.

Means of Accommodation	Asheville, NC	Horry County, SC
ADUs	<p>-New ordinance allows ADUs on nonconforming as well as conforming lots (June 2015, passed)</p> <p>-New language allows for larger sized ADUs: up to 70% of primary dwelling but not larger than 800 sq. ft. (detached) or 1,000 sq. ft. (attached). (June 2015, passed)</p> <p>-Currently examining ways to streamline ADU permitting process (summer 2016, in process)</p>	<p>-No new ADU regulations being developed at this time</p> <p>-Current ADU ordinance requires a double lot and that the unit be occupied by a relative of the owner of the primary dwelling</p>
Tiny/Small House Communities	<p>-Creation of Cottage Development Code (2005, passed)</p> <p>-Discussion on creation of potential THOW district halted during summer of 2016 (no regulations being developed at this time)</p>	<p>-Discussion has begun on potentially reducing lot size requirements within established neighborhoods (July 2016, in process)</p>
Urban Infill	<p>-Discussion has begun on potentially reducing lot size requirements within established neighborhoods (July 2016, in process)</p>	<p>-Discussion has begun on potentially reducing lot size requirements within established neighborhoods (July 2016, in process)</p>

right displays the deductive codes. Seven of the resulting themes are common to both case site locations, whereas three are site specific.

The inductive coding process was done prior to the deductive coding in order to introduce less bias into the analysis. However, in many cases, it was expected that the

inductive themes would be supported by the literature that is foundational to this study, and is a basis for the deductive code development. For example, based upon the literature that examines land use policy and property rights by such authors as Ross (2014) and Boudreaux (2011), one would expect to find instances of exclusionary housing policies in places that put property values as a paramount concern, and more inclusionary policies in places that aim to foster values such as diversity and equity among residents. Similarly, the alternative economy literature, by scholars such as Harvey (2000, 2013, 2014) and Daly and Cobb (1989), contend that fiscal profit will be put before personal values in places that have a predominantly capitalist economy, and that values will be put before profit in places that pursue an alternative economic system. In these instances, the inductive findings reflected what was expected deductively.

However, in other instances, the inductive findings did not support what was expected deductively. For example, the literature on homeownership and the American dream by authors such as Wright (1983) asserts that the ideal housing arrangement in the United States is the ownership of a detached home on a piece of land. Therefore, one would expect the creation of policies that encourage such housing arrangements above all others. In this study, however, the inductive coding process revealed an about equal interest in creating both tiny house ownership and rental opportunities. Similarly, the literature on urban design by scholars such as Talen (2012a, 2012b), indicates that people have a preference for diversity in both housing design and type. However, the inductive findings revealed a significant preference for tiny houses that were “in context.” In many

instances, stakeholders indicated a preference for tiny house integration measures where the size and/or style of a small home are similar to surrounding residences.

Table 4.6. Summation of the codes and clusters of meaning developed during the inductive and deductive coding phases utilizing MAXQDA software. Larger circles represent repetition of a code.

Code System	Inductive Coding	SUM	Code System	Deductive Coding	SUM
GREEN	9		YELLOW	2	
Design Issues	7		BLUE	6	
small not tiny	3		RED	4	
green space issue	1		Design/Talen, etc.	2	
infrastructure	5		uniformity	7	
cheap construction	2		diversity	8	
modern	6		GREEN	5	
vernacular	6		PropertyRights/Ross,Boudreaux	3	
design review	7		exclusionary	8	
safety	7		inclusionary measure	8	
changing codes to accomodate tiny	1		ControllingNeighbors/Lifestyle	5	
context	5		AlternativeEconomy/Harvey,etc.	2	
THOW: rv/mobile home issue	8		profit over values	3	
RED	2		values over profit	7	
Home ownership vs. profiteering	3		SteadyMassConsumptionPractices	5	
vacation home	1		Homeownership/Wright	1	
homeownership	3		rental/other	6	
short-term rentals	5		homeownership	7	
rental option	3		Σ SUM	89	89
BLUE	9				
Perception of tiny houses	4				
regionalism	2				
percieved as mobile homes	5				
positive perceptions	9				
NIMBYism/negative	9				
Regulation	9				
increasing density standards	2				
developer driven	4				
following by example	4				
THOW	9				
tiny house neighborhood	9				
Integration on own lot	8				
ADU	8				
public participation component	3				
Other	6				
YELLOW	5				
Affordable Housing	8				
expensive	4				
homeless	5				
banking practices	5				
gentrification	4				
working class	4				
MAGENTA	7				
Counterculture	3				
capitalism	2				
"anti-capitalism"	1				
nonconventional living	6				
freedom	4				
minimalism	5				
under the radar	5				
gaining momentum	7				
Σ SUM	259	259			

Shared Themes

1. The primary impetus behind tiny/small house integration is housing affordability.

A significant theme at both case sites is that housing affordability serves as the primary driver behind the enactment of tiny and small house integration efforts. This theme emerged during the inductive coding phase. Other motivations for tiny house living were discussed, such as a means of addressing environmental concerns, simplification of lifestyle, and as a method of achieving greater personal freedom, but none so often or repeatedly as housing affordability. Stakeholders at both case site locations expressed numerous concerns related to increasing housing costs and lack of work force housing options. Furthermore, in Asheville, problems associated with gentrification were mentioned several times.

Interviewees at both locations felt that steps need to be taken to assist working people in the attainment of affordable housing options. Furthermore, they suggested that tiny and small house infill might ameliorate such problems because downsizing should generally result in fewer fiscal constraints. A tiny house advocate in Asheville stated in regard to both increasing gentrification concerns and the need to achieve work force housing:

You have an entire culture of people, whether they are artists or people in the service industry, that have to keep going further and further out of town to find housing that is affordable. If we can bring them back to town, the artists and the people in the service industry, people who make this town what it is, continue to make this town what it is, without them, you do not have the tourism, you don't have the culture, so we want to bring them back here. (LaVoie 2016b)

Similarly, a tiny homebuilder described the affordable housing problem in Asheville and how legalizing tiny house infill options may ameliorate the problem:

I think the vacancy rate is below one percent... which translates to high rent, and most people are being pushed outside of the city, people who actually work here; the artists and service people. It is a classic situation; we have all the gentrification going on as well, people coming in from outside the city and building second and third homes. It's a real construction boom and tiny homes are playing a part, at least they are part of the discussion. (Brown 2016)

Such sentiments were also expressed in Horry County. An area developer said:

There is a tremendous need for low-income and affordable housing. I joke now, it used to be low-income housing was for the people that didn't have jobs, that needed a place to stay. Now I know a lot of people that have jobs, they can't afford a house. (Green 2016)

Statements such as these correspond with archival sources that also assert housing affordability issues need to be addressed at the case site locations. For instance, the comprehensive plans for both Horry County (2008) and the City of Myrtle Beach (2011) state that achieving housing affordability is among their top priorities. In Asheville, the Housing Needs Assessment Report (2015) and comprehensive plan (2003) strongly advocate the integration of affordable housing measures. Asheville even specifically mentions tiny houses as a potential solution in their 2036 Vision Plan (Asheville City Council 2016). Furthermore, news articles and social media websites repeatedly mention housing affordability as the impetus behind tiny house interest at both case sites. For example, news sources in Horry County reported that the cottage development in Garden City was popular primarily because of the affordability of the smaller units (Perry 2015;

Allen 2015b). The Facebook pages for Asheville Small Home Advocacy Committee (SHAC) and Tiny House Asheville are full of article posts and personal testimonials related to housing affordability.

The case study research found that housing affordability issues are driving the crafting of tiny and small house regulations at both case sites. This is demonstrated in both the interviews and archival component of the study. This finding is further verified in the open-ended questions of the VPS survey and is explored in detail in Chapter Five.

2. Stakeholders at both case site locations expressed a desire to achieve a delicate balance between aesthetics and affordability with tiny/small house design.

At both locations stakeholders indicated they were striving to achieve a delicate design balance between affordability and aesthetics. This theme became apparent during the inductive coding process. As discussed in the last section, the primary impetus behind tiny and small house integration at both sites is housing affordability. However, many interviewees expressed a preference for tiny and small houses that are more elaborate, and as a result, more expensive, than more utilitarian and cost-effective models. This became especially apparent during the photo elicitation component of the interviews during the case study research. Interviewees generally made positive remarks about images of ornate craftsmen-style tiny homes and less favorable comments about mass-produced and no-frills varieties. A preference for homes that had costly external features, such as substantial landscaping or fencing was also noted. Such findings reveal a desire for tiny homes to be integrated in a manner that maintains a balance between affordability and aesthetics.

For instance, during the photo elicitation component of the interviews, several individuals made favorable remarks about the design of an embellished vernacular tiny house (See Figure 4.5, left). However, it was noted that such detailing comes at a cost, “This house is super sweet. This one has little fancy pieces that add four or five grand to the cost” (Smith 2016b). Another ornate tiny cottage also received positive comments (see Figure 4.5, right). An Asheville developer remarked, “This is very attractive, but the cost of that, the cost of the features on it starts driving the price up” (Gilley 2016). Interviewees not only indicated a personal preference for such designs, but that they thought these styles of homes would be viewed positively in the community. However, they also acknowledged that such homes were not necessarily the most affordable option.



Figure 4.5 Many interviewees perceived these two ornate tiny houses favorably. (Photo credits: left: *motherearthnews.com* , right: *hgtv.com/shows/tiny-house-builders*).

Interview participants did not perceive homes that are generally more affordable as highly. Such homes may be less expensive because of cheaper building materials, mass-produced components, lack of detailing, and lack of green space or landscaping. Interviewees often indicated negative perceptions of these low-budget type houses and felt that communities would not be receptive to the integration of such homes.

Furthermore, many of the negative comments about such homes involved terminology associating them with trailer parks. During the photo elicitation component of an interview, a Horry County architect remarked on an image on a minimalist THOW, “This might get the NIMBYs going, ‘Well, now we have a trailer park.’ ” (Clark 2016). A planner for the City of Myrtle Beach stated that the tiny house development proposed during the summer of 2015 was turned down largely in part to the trailer park-like site plan. Because the proposal incorporated minimalist tiny homes and lacked green space, it ultimately lacked community support, “It was unfortunately just another mobile home park” (Coleman 2016a).

During the photo elicitation section of the interviews, two images were frequently commented upon negatively. One image depicts an affordable Quonset-hut style home (Figure 4.6, left) and the other is of a village of THOWs that was constructed for the homeless in Madison, WI (Figure 4.6, right). Asheville planner Vaidila Satvika (2016), commented on the Quonset-hut image:

One complaint that we have seen, and you can see from driving around mobile home parks, is that you just see a swath of rows [of homes] just on gravel. Where you see lots of plants it really helps to makes the space feel better. The design [of the tiny house] itself is questionable but then you have no green space, even a little fern, or whatever, to help to make it a little more hospitable.

Of the THOW village for the homeless, Myrtle Beach planner Carol Coleman (2016) stated, “This is very close to what I think people fear.” She went on to explain that these are the type of tiny homes that people do not want in their community because they lack aesthetic appeal. She expressed further concerns that area developers may not be

concerned about achieving aesthetic desirability. Coleman (2016) remarked that many developers are more interested in profit than achieving visual harmony in neighborhoods:

I have been here 16 years. My experience here and experiences that have been relayed to me by people that have been here longer, is that the developers here will take and stretch the code as much as they can make their money with. The thing is, they just do the very bare minimum, make their money and leave. We as a community don't want the bare minimum.



Figure 4.6 Many interviewees perceived these utilitarian tiny house designs negatively. (Photo credits: left: *tinyhousefor.us/builders/* , right: *tinyhousevillage.com*).

There was one notable exception regarding the finding on achieving balance between affordability and aesthetic quality. In the instance of potentially creating housing for the homeless, interviewees were generally accepting of the most minimalistic and affordable designs. However, such housing was only found to be satisfactory if located “in the right context” or “in specific areas”. Stakeholders did not want such housing to be integrated into existing neighborhoods, but instead, thought it might be acceptable in places created specifically for the purpose of housing the poor. Similar to the negative connotations often associated with public housing, stakeholders expressed concerns that tiny housing for the homeless may have unwanted social ramifications and may negatively impact nearby property values. This study does not specifically

investigate utilization of tiny houses for the homeless, as this is not a focus at either case site location. However, in the case of creating housing for the homeless, the overall sentiment seemed to be that though such homes may not be aesthetically appealing, they are acceptable because they address the greater problem of homelessness. A Horry County developer referring to the issue of homelessness and tiny houses said:

A roof over your head is essential, you [have] got to have a roof over your head and there is no luxury about this. But I will tell you what... a lot of people get caught up in the tiny house thing, oh they are cute, they are unique and all that, but I think the bigger purpose of this is that they fill a need that could be filled easily with this. (Green 2016)

Therefore, an exception to the finding on balancing affordability and aesthetic appeal was noted when the purpose of tiny house integration was to serve the needs of the homeless.

Municipalities may find it difficult to create regulations that aim to achieve a balance between affordability and aesthetics with tiny home integration. For instance, in late 2015, North Carolina passed a law stating that municipalities had no authority to regulate the appearance of private residences. The only exception is in historic districts and in neighborhoods with established restrictive covenants (Owens 2015). Though not South Carolina state law, Horry County has similar regulations in place regarding the design of private homes. Therefore, these jurisdictions may have little authority over determining the balance between affordability and aesthetically pleasing home design. This is especially the case with tiny and small homes that are integrated into urban areas on their own lots in neighborhoods without restrictive covenants. The balance may be somewhat easier to attain with tiny home developments. For instance, Horry County's tiny house development ordinance requires proposed projects to go through an approval

process during the rezoning procedure. Therefore, in an instance such as this, municipalities may have influence over home design and aesthetics.

Though jurisdictions might have little enforceable influence on tiny home design, they do have some authority over the aesthetics of where a home is sited. For example, Asheville's ADU ordinance dictates that such structures must be built in side or rear yards, not in front of primary homes (City of Asheville 2015a). Furthermore, Asheville has a landscaping requirement, which may ameliorate visual concerns associated with lack of greenery and vegetation. Horry County's tiny house development regulations require a certain percentage of a proposed site plan to be devoted to green space in order to be approved. Though landscaping and green space requirements may add an additional cost to tiny house integration, such measures may aid in the avoidance of negatively perceived infill.

3. Safety concerns present a formidable obstacle to tiny house integration.

Another recurrent theme in the case study research is that there are numerous safety concerns relating to tiny house design. This finding emerged during the inductive coding process. Stakeholders expressed concern with the "do-it-yourself" (DIY) nature of the tiny house movement, and the lack of building and safety regulations in place to address these concerns. Such safety concerns represent a formidable obstacle to the integration of tiny houses into the urban environment.

Safety concerns were especially apparent with THOWs. For example, interviewees pointed out that a person who constructed their own THOW might not understand or follow the different weight and size restrictions for trailer beds. THOWs

aren't expressly addressed in the safety regulations that are in place for other mobile units such as campers and RVs. A Horry County developer stated:

There are literally guys going to the cheapest trailer place and saying, "Yep, that will work". It [the trailer] is not rated for it [for building a home on it] and my fear is my wife and kids are going to be riding down the road behind one of these, and they are going to come apart, and they are going to get hurt by a house on wheels. (Green 2016)

The mobile aspect of THOWs was only one of many safety issues expressed regarding THOWs. Interviewees mentioned THOWs built without proper egress windows, therefore not allowing for evacuation in case of fire. Stakeholders in Horry County expressed concerns that DIY THOWs might not be built to meet the wind speed requirements that have been established for structures in the hurricane-prone area. And because THOWs aren't held to the legal standards that are in place for RVs and modular homes, there is concern about DIY THOWs being wired incorrectly and resulting in fire hazards. An Asheville THOW builder discussed how he recognized this latter safety issue as an obstacle to THOW integration. He commented on the benefits of the safety regulations developed for RV and manufactured homes:

So an inspector can come and look at an engineer stamped home, a modular or manufactured home and say, "Ok its has an engineer sign off on this process, I know it's safe." If they look at a tiny home [THOW] they'd say, "I don't know what is behind those walls." There is no one to approve the framing or the electrical, and what are the standards for this? (Brown 2016)

As a result of concerns such as these, he is in the process of attaining RV certification for his THOW building company, Wishbone Tiny Homes.

Safety concerns, however, are not merely relegated to THOWs. For instance, regardless of whether a tiny house is a THOW or on a permanent foundation, there are

safety issues surrounding heating and ventilation in small spaces. A building code specialist in Asheville explained that many building codes evolved in order to protect people from health and safety hazards associated with living in confined and cramped quarters. As small and tiny homes increase in popularity, building code officials must be cognizant of such safety issues. He commented upon the potential hazards involved with heating and ventilation in a tiny house:

One thing you have to watch out for is if you are using solid fuel [such as burning wood], or gas. If you are using a fuel-fired appliance, then you are in a confined space. There are a lot of fuel-fired appliance manufacturers that won't allow you to have that in a certain square footage, because the CO₂ can't dilute. Even if there is a direct vent out, there is still a little bit of spillage or whatever just from producing the heat... The Code used to really define what confined space is but it has gotten out of that because the manufacturers [of the fuel-fired appliances] are so specific about it now. With these tiny homes you really have to watch with the heat source. If it is fuel-fired, we generally have a concern with it. (Matheny 2016b)

Lack of awareness about the hazards associated with heating and ventilation in small spaces could potentially result in disastrous accidents such as carbon monoxide poisoning.

Another potential safety threat is fire hazards in developments of several closely placed tiny homes. A few interviewees mentioned that density standards were historically established to decrease health and fire issues associated with overcrowding. Allowing increased density standards for developments of tiny houses may lead to increased fire concerns. Therefore, tiny home development regulations should thoroughly address such issues. Some interviewees, for example, mentioned developing language that would require high-density tiny home developments to have sprinkler systems.

Safety concerns surrounding tiny homes surfaced several times during the case study research. Stakeholders discussed safety issues associated with the design of tiny homes, construction practices, and integration methods. If such concerns are not addressed, they may represent a formidable barrier to the assimilation of tiny and small homes into urban communities.

4. THOWs face the greatest hurdles to tiny/small house integration because there is a lack of consensus on what a THOW is.

The research inductively revealed that of the several varieties of tiny and small houses, THOWs face the greatest challenges to being integrated into the urban fabric. This is somewhat ironic, because the THOW has come to be associated with the tiny house movement itself. The problem is that there is little consensus as to what a THOW technically is, and therefore, how they should be regulated. As discussed in the last section, the problem with THOW classification has led to safety concerns because DIY projects are not held to the same regulatory standards as other mobile units. The THOW classification issue, however, lends itself to a myriad of other problems. The debate as to whether a THOW is a home, an RV, manufactured unit, hybrid, or something new and distinct, has implications for home and land financing, property valuation, insurance coverage, and ultimately, the development of land use policy.

Safety concerns have resulted in some people pursuing RV classification and regulatory standards for THOWS. RV classification may also allow for more THOW financing options. In some instances, THOW builders are seeking RV certification so that buyers can finance the THOW as a RV. However, many tiny house advocates would

assert that there is a big difference between a THOW and a RV. They would contend that a THOW is a permanent home, whereas a RV is for temporary use. This classification issue presents a dilemma, as not many individuals want a home that is considered a temporary structure. Furthermore, many people likely do not want a neighbor who is living in a temporary housing arrangement. Neighborhood residents might perceive THOW/RV dwellers as nonpermanent and unstable. Therefore, RV classification may ultimately impede THOW integration efforts. A THOW owner and member of Asheville's Small Home Advocacy Committee (SHAC) summarized such concerns in the city:

What they are trying to avoid is having people park RVs in their back yard and say that these are their tiny houses. It is not that anyone is anti-RV, but obviously there is a difference in construction and use and things like that. So one of the things that we are trying to get across, these houses that have wheels on them, these are adorable houses. They aren't just campers and there is a difference, these are actually buildings. (LaVoie 2016b)

The lack of consensus on THOW classification also leads banking and land value issues. RVs are considered to be a continually depreciating asset whereas a standard stick build home generally increases a property's value. By being classified as an RV, a THOW will depreciate with time. This may result in property value concerns in neighborhoods. A planner for the City of Myrtle Beach explained:

Once it is on wheels, it's a recreational vehicle. It is taxed as a recreational vehicle so it is not a stick built home. You have to take the axels off for it to be a stick built on ground home. In the state of South Carolina, you can take the axles off a mobile home and tie it to the land and then it becomes real estate. Instead of a mobile home that will go down in value, it actually increases in value as the property increases. (Hardin 2016)

However, the mobile aspect is what makes THOWs attractive to many and they aren't interested in "tying it to the land." But by not doing so, under current finance practices a THOW on a lot is considered to be a depreciating asset, which may leave surrounding property owners concerned. An Asheville builder elaborated further by stating that banks and lending institutions don't know how to address THOWs because they are uncertain how to classify such structures, "Banks don't know how to value them [THOWs], there is not a third party or Blue Book value for a tiny home on wheels. That is not done. Does it depreciate? Does an RV, yes. There are always questions when banks don't know how to classify it and value it as a resale" (Brown 2016).

Because of the classification problem, THOW advocates also face issues with insurance coverage. Insurance companies do not consider RVs to be permanently habitable structures. Therefore, if classified as an RV, THOWs would not be considered permanently habitable for home insurance purposes. However, it would also be difficult to insure a THOW as a permanent home. Insurance rates are determined in part by where a home is located with such factors being taken into consideration as extreme weather threats and distance from fire stations. Therefore, it would be difficult for an insurance company to provide a homeowners policy on a THOW that is on the move (Anderson 2016).

A code enforcement specialist in Asheville suggests that THOWs seek manufactured housing certification rather than RV status because the state building code doesn't recognize RVs as permanently habitable. He stated, "North Carolina does not allow an RV to be a permanent home. So if they even get to the point they [THOWs] can

even be an RV, they still can't use it as a permanent home" (Matheny 2016b). He then explained that manufactured housing meets building code requirements and is considered permanently habitable. This classification may ameliorate some of the problems associated with THOW financing. However, this classification would only pertain to THOWs that have gone through a certified manufacturing process at a plant. This may be unappealing to many THOW advocates who are interested in building their own home or having a craftsmen-built one. Furthermore, building code requires manufactured homes to be a minimum of 320 square feet, which would preclude most THOWs, as they are generally in the 200 square foot range (Tiny House Community 2016). Finally, there is a significant stigma associated with manufactured housing. Many people associated manufactured homes with negative connotations of mobile home or trailer parks. Though manufactured home standards have replaced mobile homes since 1976, resulting in prefabricated structures that are safer and more aesthetically pleasing, negative perceptions surrounding such housing remains strong. Therefore, seeking manufactured housing classification for THOWs may not aid in integrating such homes into communities.

As a result of the many issues surrounding THOW classification, lawyer and tiny house advocate Elizabeth Roberts has developed THOW construction guidelines. Her hope is that adherence to these guidelines may result in THOWs being built safely and for such structures to be recognized as a new and distinct type of permanent home. However, these guidelines are in no way sanctioned or recognized by any type of governing agency at this time (Tiny House Community 2016). For instance, many states

may still consider THOWs a RV because of the structure being on a vehicle chassis. However, perhaps developing new standards that are THOW-specific is what is needed to ultimately remedy the classification issue that leads to so many problems for THOW proponents.

The case study sites, along with many municipalities throughout the country, have not gotten very far in the development of land use policy that would allow for the integration of THOWs. Asheville has been receptive to the idea of THOW integration, and has even considered the possibility of creating a THOW District. However, the numerous classification problems associated with THOWs have made it difficult for proponents to move forward with the creation of such policy. As a result, during summer 2016, the city and SHAC decided to put aside THOW integration efforts, and instead, focus on developing policy for the integration of tiny houses on foundations (LaVoie 2016a; Satvika 2016a). Therefore, though there are several people dwelling in THOWs in Asheville, most are doing so illegally. In Horry County, interviewees were not aware of anyone inhabiting THOWs at the time of the research. At both sites, however, THOWs currently are only legally allowed in areas that are zoned for RV or camping uses, with such classification as RV zones and destination park districts.

Municipalities that are interested in accommodating THOWs may benefit from following the groundbreaking THOW policy adopted by the city of Rockledge, Florida on August 19, 2015. The city has avoided the classification problem that thwarts so many THOW integration efforts by creating specific definitions and standards for THOWs. In Ordinance 1680-2015, the city defines a THOW as a home intended for full

time residency, contrary to the definition of RVs (American Tiny House Association 2015). They acknowledge that the home is built on a trailer for the purpose of mobility, and specify that the trailer must be registered at the Florida Department of Motorized Vehicles (DMV). In order to address the several safety issues that have resulted in some builders turning to RV or manufactured housing certification, the Rockledge ordinance requires all THOWs to meet American Society of Civil Engineers (ASCE) standards as established in the state of Florida. The city will allow tiny houses in pocket neighborhood developments, and 25% of these neighborhoods may consist of THOWs. Finally, in order to address visual concerns resulting from the mobile aspect of THOWs, such homes are required to install both front and rear porches to conceal the trailer hitch and frame (American Tiny House Association 2015). Rockledge has developed an innovative land use policy that allows for the legal integration of THOWs while addressing many of the classification problems related to aesthetics, property values, and safety. However, it remains to be seen how successful this initiative will be and how such integration will be perceived. Over a year after the passage of this ordinance, no tiny house pocket neighborhoods have been approved or built. However, a Rockledge planner has stated that a tiny house pocket neighborhood development site plan has been proposed to the city and is currently undergoing review (Bernard 2016).

Interestingly, Horry County planning officials have stated that the tiny house development ordinance that they have crafted is heavily based upon the ordinance created in Rockledge. However, in Rockledge, THOW integration has been an impetus from the beginning. A resident approached the city interested in developing a framework for

legalized THOW and foundation-built tiny home living (Stephens 2015). Conversely, Horry County is not interested in accommodating THOWs. There was actually significant NIMBY-ism associated with THOWs at this case site. However, Horry County may have utilized the Rockledge language when developing other aspects of the ordinance, such as site plan guidelines. Regardless, the Rockledge, Florida, tiny house pocket neighborhood regulations are significant in that they incorporate language and regulations that are THOW specific. Such a strategy may ameliorate the many integration problems that have arisen as a result of classification issues with THOWs.

5. Land use policy is not necessarily the greatest barrier to legalizing tiny and small house integration. The problem is rooted more deeply in current finance practices.

Proponents of tiny house living, especially THOWs, assert that their greatest obstacle is current land use regulations. However, both the inductive and deductive coding processes demonstrated that the problem is not merely one of land use regulation. The issue is more deeply rooted in current finance policies; such as lending, asset appraisal, and insurance practices.

Though the research has shown that the primary impetus behind tiny house dwelling is affordability, banking institutions generally have a different objective, and that is to maximize profit. The aim of such institutions is to earn the greatest return on their investments. Therefore, banking institutions don't maximize their profits by assisting those aspiring to minimize their fiscal constraints. In the case of lending policy, for example, it is much more profitable for banks to be proponents of the large house on the large lot. An Asheville developer said, "I think lenders are not always particularly

lender friendly to things that don't bring them a big return: particularly the larger banks that answer to their shareholders" (Gilley 2016). The financial institutions that provide an exception to the profit maximization objective are credit unions. Credit unions are not-for-profit financial institutions that aim to serve the needs of its members, who are also co-owners of the cooperative. They focus on consumer loans and serving the needs of their membership. As a result, some tiny house advocates assert that credit unions are a better option than banks for securing lending opportunities for tiny and small homes (Gabriella 2015). An Asheville tiny home builder stated, "Credit unions are kind of known to be a little more open minded than your larger institutions" (Brown 2016).

This is problematic for tiny and small house advocates in that current land use policy is generally tied to financial institution practice. For example, in order for an individual to finance the construction of a new home, they need to work with both a lending institution and a homeowner's insurance company. In the case of THOWs, if neither institution even considers the structure to be defined as a "home", the project will have great difficulty moving forward, regardless of the underlying land use regulations regarding THOWs. Furthermore, land use policy is largely based upon property value concerns (Boudreaux 2011; Talen 2012a). Financial institutions are responsible for determining asset valuation. Therefore, if banks and insurance companies deem THOWs to be a continually depreciating asset, there is little that can be done on the land use planning side to ameliorate property value concerns. This example shows that in order to successfully integrate tiny houses into urban areas, changes need to be made to both land use and financial institution policy.

As delineated earlier in the chapter, these problems are especially prevalent with THOW integration. Because of the lack of consensus on THOW classification, it is especially difficult for financial institutions, governing bodies, and THOW advocates to work together. However, the problem with financial practices and extends beyond THOWs to a variety of types of small homes. For example, it may prove difficult to finance the construction of any type of small house when the lot is valued higher than the potential home. An Asheville tiny house dweller and advocate explained the problem, “Nobody will loan you the money to do that. If you are building a 300 square foot house on a 5,000 square foot property, the bank is going to say, ‘That is ridiculous. That house is not going to be worth anywhere near what the land is worth, so we’re not going to do that’ ” (LaVoie 2016b).

Therefore, one way in which land use policy-makers may assist with the creation of tiny house urban infill is by decreasing lot size requirements. Generally, a small lot is fiscally worth less than a larger-sized lot. This may make it easier for proponents to acquire funding for small home construction under the current lending structure. An Asheville planner described the problems associated with larger lot sizes and the potential that may be actualized by decreasing lot sizes to accommodate small homes:

Because we have minimum lot standards, and land costs are significant component of total building costs, currently there isn’t a mechanism that really supports tiny homes. It really is almost an incentive to build large. Like, a lot of the zoning districts minimum lot size is 5,000 square feet. You can go with a 4,000 square foot home if you want, or you can choose to build a 500 square foot home. When you already spend \$5,000 and up on the land, you have an incentive to build as much as you can for that. So we have been looking at, and investigating, and thinking about, is whether it makes sense to create some sort of a lot standard that is smaller. That can bring down those costs so if you want to live small you can do that, a way to incentivize small living. (Sativika 2016b)

As a result, the city of Asheville sought public comment on the possibility of decreasing lot sizes during the summer of 2016. This was part of a larger project that examines a variety of ways of encouraging infill development in order to address the housing shortage in the city. Though the city will not present its recommendations until late fall 2016, most of the public input has been receptive regarding the decreasing of lot sizes. For example, the city created a website that allowed public input on various methods of infill development during the summer of 2016. The on-line survey had 220 responses. One question asked people their opinions on the reduction of lot sizes by 20% within the city of Asheville. Responses indicated that 63% thought this was a reasonable measure, 27% did not support the idea, and the remaining 10% were unsure or needed more information (City of Asheville 2016). This indicates that Asheville residents may ultimately support decreased lot size standards.

Similar to lending institutions, insurance company practices currently do not facilitate tiny or small house endeavors. As with lending, insurance policies are in part based upon square footage requirements. Current practices dictate that value increases with square footage. Therefore, all things being relatively equal, a large house is generally considered a more valuable asset than a small house. Having homeowners insurance is a legal requirement and tiny homeowners face some issues with this. Insurance companies won't insure THOWs as homes because of their mobile nature, which precludes them from being insured by a fixed location (Anderson 2016). And because of safety concerns THOWs can't be insured as RVs unless they are certified from a manufacturer. But even foundation-built tiny homes face insurance challenges. Some

tiny house advocates have expressed concern that insurance policies won't cover the actual value of the home in case of a total loss. They assert that tiny houses are often worth more than a traditional house on a square footage basis because space is at a premium (Green 2016). Insurance coverage is also directly linked to lending policy. A bank may not offer adequate lending opportunities for small home construction because insurance companies contend such homes are of little worth based solely upon square footage. A Horry County developer explained the problem:

The other problem that you run into is insurance companies. Insurance companies are also saying the insured value per square foot [is less] when you get that small. [For building tiny] the cost per square foot goes up even though it is a lesser total amount [total square footage]. Their recovery amount that they insure for does not meet the recovery value. Let's say we build a house this big [indicating a tiny house] and you spent \$50,000, well the insurance company says it is worth \$20,000. Well the bank says we are only going to loan you \$20,000 to build it because that is all we can get the insurance on it. (Green 2016)

In summary, many of the problems associated with financing tiny and small homes are rooted in current capitalist finance practices that encourage large investments; in both cost and square footage.

Tiny house proponents are getting creative in order to overcome such financing obstacles. These strategies sometimes, however, lead to further classification issues. For example, Tumbleweed Tiny House Company, based out of Sonoma, California, reclassified their THOWs as trailers in February of 2015 in order to offer customers RV loans for their product as customers expressed difficulty obtaining traditional loans (Waldman 2015). However, RV loans are problematic in that they are generally offered at a higher interest rate and must be paid off more quickly than a traditional home mortgage. Furthermore, such loans require a permanent residence address, and as RVs

aren't legally considered homes, this is sometimes challenging for those aiming to live in the small home they need financing to attain (Waldman 2015). Teal Brown, co-owner of Wishbone Tiny Homes in Asheville, stated that he was pursuing manufactured-home-certification for a similar reason. These strategies allow THOW enthusiasts financing options that were previously unavailable under traditional banking standards. However, these strategies may result in greater problems: homeowners may have difficulty finding a lot or homeowners insurance for a structure classified as a RV or manufactured unit.

Perhaps the most auspicious approach tiny and small home financing lies with growing peer-to-peer lending ventures. Peer-to-peer lending ventures are generally backed by investors who support specific initiatives. Such initiatives are generally based in values rather than profit maximization (Waldman 2015; Griswold 2015). To date, perhaps the most successful of such ventures is the Tiny House Lending Corporation. Launched in 2015 by Kai Rostcheck, who became popular in tiny house circles for developing TinyHouseDating.com, a dating site specifically for tiny house dwellers, the finance organization is increasingly making arrangements with investors who support tiny house initiatives (Gabriella 2015). As a result, Rostcheck has developed a framework where qualified individuals may borrow up to \$100,000 for a period of 84 months (Gabriella 2015). Such initiatives may also develop in the insurance coverage realm. In an interview with a homeowner's insurance specialist it was stated that there are some popular misconceptions concerning tiny house insurance coverage. The interviewee pointed out that because THOWs are a recent development, insurance companies do not yet know how to classify them, nor do they have a lot of data available

on what kind of coverage is needed for such structures (Anderson 2016). He hypothesized that because of their growing popularity, a niche market company will step in to fill this need. He even creatively suggested that insurance companies might start using GPS tracking devices such as LoJack to track THOWs in order to determine how to insure them (Anderson 2016). He asserted that because of the rapidly growing interest in THOWs, the market will intervene to fill the need and insurance barriers will soon come down.

Such innovative measures may allow an increasing number of tiny home enthusiasts to actualize their goal of building a small home. However, until such initiatives gain momentum, land use policy makers have their hands somewhat tied in terms of what they can accomplish with tiny house integration measures. This is because land use policy is intricately linked to several financial practices that impact the ability of individuals to achieve tiny or small home ownership.

6. Overall perceptions related to tiny and small home integration are positive when associated with affordable housing for residents and negative when linked to profiteering ventures that would primarily benefit nonresidents.

Another important finding became apparent during the inductive coding process. At both case site locations there was an overall positive perception of tiny and small house integration when the goal was to address issues associated with housing affordability for local residents. Stakeholders at both locations recognized the need to address housing affordability, and acknowledged that tiny houses may offer a potential solution. Conversely, overall perceptions were markedly negative when small house

integration was associated with profiteering schemes, especially ones that have little benefit for local residents. Profiteering may be defined as a venture that results in disproportionate, unfair, or excessive profits. Though labeling specific business enterprises as profiteering schemes may often be controversial, such ventures are generally associated with situations of exploitation or scarcity. Perhaps because the case site locations are experiencing a shortage of affordable housing, stakeholders generally expressed negative reactions to the use of tiny and small houses for lucrative business ventures rather than for providing affordable housing options. For the most part, people were generally unhappy with the prospect of tiny house infill opportunities being utilized for profiteering ventures such as short-term neighborhood rentals or vacation homes.

Interviewees had favorable perceptions of policies that would foster both affordable tiny house ownership and rental opportunities. The opportunity to own one's own home appeals to many. An Asheville planner stated that perhaps methods that encouraged small home ownership were being perceived positively, "... because the cost of housing is going up everywhere and people want a sense of ownership that is feasible" (Satvika 2016b). However, a desire for affordable long-term rentals was also noted. An Asheville tiny house advocate and dweller commented on the benefits of creating small rental options through ADU integration, "If you are a homeowner in town, you can essentially build a small house in your backyard that you can then rent out for long-term housing, which will give you the flexibility to earn more income, and someone else the flexibility to live affordably in town" (LaVoie 2016b).

Perceptions associated with tiny and small home integration went from primarily positive to negative, however, when the impetus was not the generation of affordable housing options for residents, but instead, the creation of profiteering opportunities. For example, interviewees from both case sites stated that residents would likely be unhappy with tiny house infill that resulted in continual short-term or vacation rentals. Nearly every Asheville interviewee mentioned that there is an ongoing debate in the city as to whether ADUs should be allowed as short-term rentals. Some people feel that ADUs offer residents a great opportunity to earn extra income with the growing popularity of the online rental marketplace, Airbnb. An Asheville city councilman asserted that proponents of such measures feel that it allows the primary homeowner a better investment option than renting a unit long-term (Smith 2016b). It is currently illegal in Asheville to rent a house or ADU as a short-term rental, though homestays where one rents a room in one's house short-term is permitted (Smith 2016a). However, because of the short-term rental controversy, a special task force was appointed to investigate the issue and is expected to make recommendations to the city at the end of 2016 (Smith 2016b).

Opponents of tiny home short-term and/or vacation rentals assert that such housing options ultimately do not benefit a community. In Horry County, a Myrtle Beach planner stated that a proposed tiny house development was turned down during the summer of 2015 when it became apparent that the development would be for short-term beach rentals rather than long-term occupancy (Coleman 2016a). She followed-up by stating that in her experience, short-term rentals resulted in a strain on infrastructure,

primarily in regards to parking near the Beach. She also felt that such rentals lead to increased crime and diminished neighborhood cohesion. Finally, short-term rental opponents argue that such measures may actually decrease, rather than increase, the number of affordable housing options in a city, which defeats the entire purpose behind the movement. Instead of creating affordable housing infill, short-term rentals may actually intensify, rather than ameliorate, gentrification issues if long-term rental options decline as more profitable short-term rentals increase.

This negative perception was especially pervasive when a potential tiny house profiteering venture was to be carried out by a developer or landlord who was not an area resident. In such an instance, the benefactor is neither a resident acquiring affordable housing, nor a local investor. Stakeholders felt that tiny house integration should serve the needs of the community as a whole, not the interests of outsiders. For example, a member of Asheville's Small House Advisory Committee (SHAC) stated, "What they [city officials] are trying to avoid is people buying up Asheville real estate from another state and then just renting the house...It's this kind of non-owner-dwelling rental situation that seems to be tripping a lot of people out" (LaVoie 2016b).

The overall perception at both case sites is that the integration of tiny and small houses will result in a positive outcome if it addresses housing affordability concerns and benefits residents. Tiny house integration is perceived negatively when it is viewed as a profit-maximizing scheme, and especially one that does not benefit local interests. Stakeholders want housing affordability to remain the impetus behind tiny and small

house infill. They also expressed a desire for integration measures to serve the interests of residents over those of non-residents.

7. In concordance with the literature on the American Dream, there is a marked preference for the tiny or small single-family detached house over other affordable housing options. However, though the American Dream emphasizes homeownership, stakeholders seemed interested in creating both tiny/small house ownership and rental opportunities.

The final theme that was found at both case site locations pertains to the role of the American Dream in tiny house integration measures. This theme emerged during the deductive coding process. Gwendolyn Wright (1983) has asserted that though the form and style of housing has changed throughout time in the U.S., the drive to own a home on one's own piece of land has remained consistent. This appears to hold true at the case site locations in regards to the integration of tiny and small homes. At both case sites, stakeholders asserted that downsizing might offer people the opportunity to live more affordably. However, in none of the conversations did the development of micro-apartments or other small living arrangements come up. Perhaps they were not mentioned because the semi-structured interview questions did not specifically ask about such living arrangements. A cursory web search, however, did not locate any micro-apartment developments or stories about public interest in such ventures at either case site location. It is more likely that they were not mentioned because there is little interest in this type of housing situation at either case site location. In concordance with the American Dream, people are interested in living in a single-family detached home with a

yard. A Myrtle Beach planner described people's enthusiasm for tiny houses over other housing options:

They [tiny houses] would probably be more attractive to more people, because what we have found out, the reason that single-family [houses] are so popular, even though they are on small lots and close together, ... even if you can stand between some of the houses and almost touch, side-by-side. People still have four walls [with tiny houses] and that is the attraction. That is why people like tiny houses, they might have more space in an apartment, but then they got somebody beside them, below them, above them, whatever. There is something to be said to having your own unit. (Coleman 2016a)

The case study findings that indicate a preference for detached single-family unit living arrangements are in concordance with the American Dream. However, the research also resulted in a finding that is not in accordance with this cultural norm. Initially, this study included a proposition which predicted that stakeholders would encourage tiny and small house integration measures that fostered homeownership instead of rental options, because of the prominence of the American Dream in housing. However, this did not prove to be the case. The research revealed a preference for initiatives that would result in both tiny home ownership and rental options. For instance, the comment from a Horry County planner which was noted above, indicates a preference for detached housing, but as rental not ownership status.

The importance of the American Dream in regards to homeownership was not insignificant at either case site. Interviewees commented on the benefits that could potentially be realized through tiny house ownership. Stakeholders said such opportunities might result in smaller mortgage payments and the opportunity for a homeowner to quickly pay off a house. A Myrtle Beach planner commented on the fact

that tiny house living may be especially attractive in the area because Southern culture regards homeownership as especially favorable (Coleman 2016a).

Perhaps due in part to the attractiveness of the American Dream, both case sites are developing land use policy that will foster small homeownership opportunities. This is demonstrated in Horry County's new tiny house development ordinance and Asheville's current initiative to potentially decrease lot size requirements in order to accommodate tiny house infill. Both these measures could assist those aspiring to achieve the American Dream of homeownership. However, such measures could also aid in the creation of detached single-family units that could be utilized as rentals. This is a likely scenario as stakeholders at both case sites indicated a desire for increasing affordable rental options.

The desire for small rental options is demonstrated in the growing popularity of ADUs in Asheville. The new regulations were put in place only a year ago, and since then, the City has been overwhelmed with ADU permit applications (Matheny 2016b). The city has not tracked ADU permits in the past, but has begun to do so because of their increasing popularity. From January through September of 2016, the city received 94 permits for ADUs (Matheny 2016a). Of these permits, approximately 70 were for the construction of new ADUs, the remainder being for remodeling existing units. In fact, the city has been so overwhelmed with permits, that they are now looking to create a streamlined ADU permitting process (Satvika 2016b). ADUs are generally built in order to create rental options. The growing popularity of these units in Asheville indicates a desire for small and affordable rental opportunities. At this time, Horry County has not

moved forward with the creation of relaxed ADU standards that would foster such rental opportunities. However, the research indicates that residents are interested in such options. The visual preference survey (VPS) revealed positive perceptions of ADUs at both case site locations and is discussed further in the following chapter.

This finding is in accordance with the American Dream in regards to a cultural preference for detached single-family housing, but in disagreement with the gold standard associated with homeownership. This study does not examine the demographics of those interested in specific tiny house initiatives. However, such analysis may prove significant. For example, prior research indicates that younger people are increasingly less interested in homeownership (Matthews 2015). Therefore, examining the demographics of tiny home renters and owners may lead to a better understanding of tiny house integration preferences. However, it may be surmised that both homeownership and rental options are perceived favorably at the case site locations because they both address the need for housing affordability.

Location-Specific Themes

8. The emergence of small/tiny house land use policy has been driven primarily by the public in Asheville, and those with development interests in Horry County.

The research also indicated distinct differences between the case site locations regarding tiny and small house integration. One of the ways in which the case sites differ is that the creation of tiny house land use policy has been primarily prompted by citizen interest in Asheville, and is developer-driven in Horry County. This theme became

apparent during the inductive coding process. This is important, because the resulting regulations may reflect the interests of those pursuing tiny house initiatives.

In Asheville, a city known for its strong counterculture movement, citizen interest in tiny houses arose shortly after the turn of the last century. This interest coincided with the introduction and nearly immediate popularity of well-crafted THOWs by builders such as Jay Schafer of Tumbleweed Tiny House Company (LaVoie 2016b). Not long thereafter, a handful of DIY THOWs were built in the Asheville area, and a few THOW building companies, such as Wishbone Tiny Homes, materialized. As enthusiasm for tiny houses grew, however, proponents quickly ran into legal barriers that were preventing them from integrating tiny houses into the city of Asheville. As a result, tiny house advocates began to approach the city with their concerns. Soon thereafter, tiny house advocacy organizations were established, city council appointed taskforces to examine tiny house initiatives, and an Asheville tiny house social-media presence was initiated. Therefore, in Asheville, citizen impetus and public participation greatly influenced the development of small house policy. A tiny house advocate explained:

We [Asheville's Small Home Advocacy Committee or SHAC] started a few years ago, myself and a few other volunteers came together to say the city of Asheville is interested in doing this [integrating tiny houses], but they don't have the language, they don't have the information. They have way too much else they need to worry about than filtering through the tiny house information. So we can provide that and we can also bring the community into the conversation and let the city know that people really want this to happen. ... We sent letters to the city; we encouraged other people to send letters to the city. We also encouraged people to come to the actual hearing at the city council meeting. I think those numbers, is how change happens, especially in a relatively small city like Asheville. It's public input and things like that. (LaVoie 2016b)

Curiously enough, there has been very little development impetus in tiny homes in Asheville. A SHAC member stated that initially, the group actively sought out someone with such development interests to serve on the committee, but could not find anyone interested in participating (LaVoie 2016a). Though a few of the SHAC members, such as the owner of a local THOW building company, stood to benefit fiscally from tiny house integration measures, the movement has largely been driven by the public.

Interest in small and tiny house policy has evolved differently in Horry County. The county has not witnessed public involvement in the tiny house movement the way that Asheville has. None of the interviewees were aware of people building or living in THOWs in the area, nor are there tiny house advocacy organizations or a social media presence for tiny houses in Horry County. Though the development of tiny house regulations has received significant news coverage in the area, there has been little noticeable public involvement. At the three county council meetings where the proposed tiny house ordinances were read, there were no comments or input from citizens.

Instead of being propelled by the public, tiny house land use initiatives have been driven primarily by development interests in Horry County. Beginning with the fiscally successful small home development in Garden City, several builders and developers have realized there is potential to profit by capitalizing on the desire for small and affordable homes in the area. In the last year, both a tiny home development in Myrtle Beach and a village of small shipping container homes for veterans have been proposed in the county. Because of such proposals, a Horry County planner said that they decided to develop tiny house policy in order to be prepared for future initiatives (Hyman 2016b). She stated that

the county wanted tiny house integration to be done in a manner that is perceived favorably by the community. As a result, the Tiny House Ad Hoc Committee worked on creating policies that would allow for tiny and small home developments that are aesthetically pleasing and do not adversely impact surrounding property values. Unlike Asheville, there was no discernable citizen impetus for the creation of THOW integration or for tiny house infill in existing neighborhoods. One ad hoc committee member commented on the process of creating the policy with little public input or interest, “We [the ad hoc committee] just basically hammered it out on what we thought would be best for the community, basically, for the County” (Clark 2016).

The case study findings indicate that at each location, different groups of individuals have been responsible for promoting tiny house policy. In Asheville, citizens advocated for tiny house integration measures. In Horry County, development interests propelled the creation of policy. The tiny and small house initiatives that have been crafted at each site reflect the concerns and desires of those promoting tiny home integration policy.

9. In Asheville, tiny/small house integration is being pursued primarily as a means of accommodating an alternative economy, whereas in Horry County, such integration generally reflects standard capitalist interests.

The research resulted in another finding closely related to the previous theme, which concerns the groups of people who are driving the development of tiny house policy at each case site location. However, this theme emerged during the deductive, rather than inductive coding process. When coding the interviews based upon the

literature that explores capitalism and alternative economies, it became apparent that tiny house integration methods are being pursued from differing economic paradigms at each case site. In Asheville, the general consensus is that tiny house integration may help support an alternative counterculture economy. In Horry County, no such counterculture impetus was discernable. Instead, individuals are pursuing tiny house integration as a means of pursuing capitalist interests.

The Asheville community is steeped in alternative lifestyle options. Residents and visitors are often drawn to the city because of its counterculture atmosphere. Tiny and small house advocates in the city often view small living as a way to increase personal freedom. Having less fiscal constraints may allow individuals to focus on values not related to economic gain. People could then have the freedom to pursue such ventures as art and creative work, advocacy efforts, outdoor opportunities, and personal relationships. A tiny house advocate in Asheville summarized the situation:

I think there are two things driving the interest in tiny houses in Asheville, one, is that we have always been kind of known as a sort of a counterculture community. Where there is a lot of artists, a lot of writers, musicians, people that don't necessarily hold down nine-to-five jobs that live here and are interested in living life a little bit differently than say counterparts in Atlanta or Charlotte. You don't move to Asheville because there are jobs here, you move to Asheville because you like the lifestyle. So tiny houses, investing in tiny houses makes sense in that you can have the freedom to do more things if you don't have to pay as much for housing. (LaVoie 2016b)

Through this lens, tiny house integration measures are being crafted in order to allow for an alternative economy where personal value systems are put before the dollar. This is in concordance with the literature on alternative economies that asserts that there is a growing need to alter economic structures in order to emphasize values over fiscal profit

(Daly and Cobb 1989; Harvey 2014). The creative ways in which tiny house advocates in the city are attempting to crack the foundations of institutions that have blocked such living arrangements by making them either illegal or difficult to pursue, is also in agreement with the literature that asserts there is a need for an economic system that is more just than unchecked capitalism (Bratt, Stone, and Hartman 2013, 53-71; Harvey 2014). This is demonstrated, for example, in the current movement to decrease lot sizes in existing neighborhoods in order to thwart traditional banking practices that encourage the large home on a large lot. Another example is the growing interest in finding a way to accommodate THOWS, a type of home that is not currently defined or recognized by lending institutions or government housing agencies.

Tiny house integration policy is being pursued from a different paradigm in Horry County. The cultural norm in Horry County is not one that fosters counterculture movements. Like much of South Carolina, the area is known for a politically conservative population. Conservative political systems generally encourage standard capitalist policy (Thoma 2016). In Horry County, this overarching political and social preference is manifested in the new tiny house development standards. During the crafting of these standards, there was no mention of allowing small living in order to accommodate alternative lifestyles. Furthermore, NIMBY-ism associated with THOW integration in the county was significant. Proponents of tiny and small house living at this case site seem to view tiny homes as an excellent opportunity to capitalize on the demand for more affordable housing options in the area. An alternate economic system is not propelling tiny house ventures in Horry County, but instead, opportunities for fiscal

gain for both developers and future tiny house dwellers. A Horry County builder summarized, “We want to get developers to say, ‘Hey, this makes sense, let’s do this.’ Money is going to drive this to get it going” (Green 2016). The research revealed that not only are different interest groups driving tiny house integration at the case sites, but so are prevailing economic and cultural norms.

10. Horry County aims to integrate tiny houses in an exclusionary manner; where there is a heavy emphasis on protecting property values. Conversely, Asheville, is striving to integrate such homes in a more inclusionary manner, where community values are paramount to individual investments.

Finally, the research reveals that developing tiny house regulations will likely result in dissimilar urban forms at the case site locations because of the distinct political and cultural paradigms driving such integration measures. This finding emerged during the deductive coding process. The finding also supports the first research proposition in this study that predicted it would be more difficult to integrate tiny houses into communities where a conservative outlook on property rights prevails. Such a paradigm results in an emphasis on property values over community, and exclusionary policies generally result. Conversely, inclusionary patterns of development may be found more often in places that emphasize on fostering community relationships over economic interests. This finding is based upon the literature that examines housing justice, land use policy, NIMBYism, and urban form (Fischel 2004; Talen 2012a; Ross 2014)

The use of the term “exclusionary” to describe urban policy and form may be somewhat contentious. In the most basic definition, exclusionary policies aim to deny

access to specific resources to a certain group of individuals, such as those in a low-income bracket. However, exclusionary policies may be viewed negatively or positively based depending on prevailing political and cultural paradigms. Generally, in liberal communities, exclusionary policies are viewed negatively. They are often perceived to be unjust and inequitable. Many would argue that such policies lead to segregation and societal breakdown. Conversely, conservatives often view exclusionary policies positively. They are perceived as an extension of individualism and property rights. They contend that economic status is generally a result of individual choices, and that it is justifiable to create policies that segregate property by value. They might argue that it is appropriate to create places that cater specifically to housing either the rich or the poor. As a result of the differing overarching political paradigms found at each case site, the term “exclusionary policy” may be perceived as either a negative or positive outcome.

Because of the counterculture atmosphere and public involvement with tiny house integration at the Asheville case site location, small house integration is occurring in a more inclusionary manner. These factors indicate that Asheville citizens place great emphasis on creating a sense of community. The resulting urban form is expected to reflect the prominence of community values. For example, though the conversation is still occurring in Asheville, there is a great deal of support for creating regulations that would decrease lot size requirements thereby allowing the infiltration of tiny houses within existing neighborhoods. Though opposition was expressed based upon concerns related to property values and infrastructure strain, there appear to be far more supporters than detractors for the measure (City of Asheville 2016). The emphasis on community

cohesion is also reflected in the growing popularity of ADUs in the city. Infill measures such as these are inclusionary and allow people from differing socioeconomic statuses to live in the same area (Talen 2012a). It is predicted that the resulting urban form will consist of mixed house and lot sizes within neighborhoods. This may result in a more equitable access to neighborhood services and opportunities for people of varied socioeconomic backgrounds. Some may express concern that such urban form will result in decreased property values, however, prior research has revealed that such a mix may actually increase property values; as people often find diverse neighborhoods to be appealing (Talen 2012a). However, it remains to be examined if the allowance of tiny homes within Asheville neighborhoods will result in an increase or decrease in property values.

The implementation of new tiny house regulations in Horry County is expected to result in a much different urban form. At this case site, there is an emphasis on creating smaller and more affordable housing options for people in specific pockets of development in order to address concerns associated with surrounding property values. At this case site there is currently no impetus to relax ADU standards or create regulations that would allow tiny houses to be integrated into existing neighborhoods in a more inclusionary manner. The more exclusionary approach to tiny house integration at this case site is likely a reflection of a more conservative and capitalism-driven cultural norm that places a heavy emphasis on property rights and property values. Such an approach may further reflect the fact that tiny house integration efforts appear to be promulgated by development interests in Horry County. The resulting urban form in

Horry County is expected to consist of exclusionary pockets of tiny home developments. However, this is not to suggest that they will take on the negative aspects associated with the mobile home or trailer park, which are often viewed as failed exclusionary developments (Fischel 2004). On the contrary, the county has crafted an ordinance with several requirements, such as green space, that should encourage aesthetically pleasing developments. However, as no tiny house developments have yet been built under the new regulations, much remains to be seen with respect to urban form. For instance, it is unknown if residents of future tiny home developments will have access to other neighborhoods through sidewalks, bike trails and other means of connectivity. It also remains to be examined if such residents will have comparable access to services, job opportunities and public amenities to that of other neighborhood residents.

Conclusion

This chapter has explored why and how each case site location is crafting land use policy in order to accommodate tiny and small homes. It also explores the several themes that became apparent during the analysis of the transcribed interviews and archival documents (Table 4.7). Some of these themes were arrived at inductively and others deductively, deriving from the study's theoretical framework relating to principles of urban design, land use regulation, and alternative economies. Furthermore, some of the themes were common to both locations, whereas others are site specific.

It is hoped that the analyses leads to a better understanding of they myriad of challenges facing proponents of tiny house integration. Such challenges include: crafting policy that results in aesthetically pleasing tiny house integration while maintaining

affordability, addressing safety and property value concerns, developing a consensus on what THOWs are and how they should be regulated, and deciding whether tiny house integration policies should solely create affordable housing options or allow for profiteering ventures, such as short-term and vacation rentals. And perhaps the greatest challenge facing tiny and small house advocates is how to alter the underlying finance policies that inhibit tiny house integration; such as lending and insurance practices. These finance practices then result in land use policies that either prohibit tiny house integration, or make such integration difficult to achieve.

The findings also reveal why tiny house integration is evolving differently at each case site location, and examines potential implications for the resulting urban form. The chapter has not, however, examined individual's perceptions of the several ways in which tiny houses may be integrated into urban areas, or the various design components associated with them. Developing an understanding of such perceptions may ultimately lead to the crafting of best-practice tiny house land use policy. Therefore, it is to the exploration of individual's perceptions of tiny houses that the analysis now turns.

Table 4.7. Summary of the ten case study themes.

Theme	<u>Asheville, NC</u>	<u>Horry County, SC</u>
<p>1. The primary impetus behind tiny/small house integration is housing affordability. (inductive)</p>	<p>Interviewees stated that tiny house integration could accommodate workforce and artisans, and address gentrification and housing shortage concerns. Tiny house integration expressly mentioned as a means to address affordability in the city's 2036 Vision Plan.</p>	<p>Interviewees stated that tiny house integration could accommodate low-income and workforce housing shortage.</p>
<p>2. Stakeholders at both case site locations expressed a desire to achieve a delicate balance between aesthetics and affordability with tiny/small house design (inductive).</p>	<p>Interviewees (primarily during photo elicitation component) stated preferences for well-crafted/intricate tiny homes, and negative associations with minimalist styles. Interviewees also indicated poor association with "trailer-park-like" designs.</p>	<p>Interviewees (primarily during photo elicitation component) stated preferences for well-crafted/intricate tiny homes, and negative associations with minimalist styles. Interviewees also indicated poor association with "trailer-park-like" designs.</p>
<p>3. Safety concerns present a formidable obstacle to tiny house integration (inductive).</p>	<p>Interviewees expressed concern about the lack of regulation/DIY nature of THOWs, and specifically addressed concerns related to fire hazards, electrical wiring, heating, and ventilation.</p>	<p>Interviewees expressed concern about the lack of regulation/DIY nature of THOWs, and specifically addressed concerns related to fire hazards, over-crowding, and hurricane-force winds.</p>
<p>4. THOWs face the greatest hurdles to tiny/small house integration because there is a lack of consensus on what a THOW is (inductive).</p>	<p>Stakeholders expressed contradictions on whether a THOW is a home, RV, camper, manufactured home, trailer, or a hybrid. Because of the confusion, AVL's proposed THOW District is currently on hold.</p>	<p>Stakeholders expressed contradictions on whether a THOW is a home, RV, camper, manufactured home, trailer, or a hybrid. Significant concerns over THOWs effecting property values were expressed in HC.</p>
<p>5. Land use policy is not necessarily the greatest barrier to legalizing tiny and small house integration. The problem is rooted more deeply in current finance practices (inductive).</p>	<p>Interviewees indicated that there were other factors besides land use policy, such as banking and insurance practices, that were inhibiting tiny house integration. In order to address such barriers, AVL is looking at decreasing minimum lot sizes.</p>	<p>Interviewees indicated that there were other factors besides land use policy, such as banking and insurance practices, that were inhibiting tiny house integration.</p>
<p>6. Overall perceptions related to tiny and small home integration are positive when associated with affordable housing for residents and negative when linked to profiteering ventures that would primarily benefit nonresidents (inductive).</p>	<p>Interviewees indicated positive perceptions of tiny and small houses being used to address housing affordability within the city, but negative perceptions around such housing used as short-term rentals. AVL currently debating the use of small houses for Airbnb rentals.</p>	<p>Interviewees indicated positive perceptions of tiny and small houses being used to address housing affordability within the city, but negative perceptions around such housing used as vacation rentals. City of Myrtle Beach denied a proposal for a tiny house community that was to be used for beach rentals in August 2015.</p>

<p>7. In concordance with the American Dream, there is a marked preference for the tiny or small single-family detached house over other affordable housing options. However, in contradiction to the American Dream, stakeholders seemed interested in creating both tiny/small rental and homeownership options, rather than solely promoting homeownership (deductive).</p>	<p>Stakeholders indicated about equal interest in creating tiny/small house rental and ownership options. AVL is looking to decrease lot sizes to accommodate small homeownership options. The cities new ADU regulations foster rental opportunities.</p>	<p>Stakeholders indicated about equal interest in creating tiny/small house rental and ownership options. HC has created a tiny house development ordinance that will foster homeownership opportunities. The VPS results reveal a preference for ADU rental opportunities in the community as well.</p>
<p>8. The emergence of small/tiny house land use policy has been driven primarily by the public in Asheville, and those with development interests in Horry County (inductive).</p>	<p>Tiny/small house integration measures have been spearheaded by citizens in Asheville. There has been much public involvement in the development of small house policy and there is a large social media presence.</p>	<p>Tiny/small house integration measures have been fostered by those with development interests in Horry County. The immediate fiscal success of the Cottages at Addison development has led other developers to pursue similar interests.</p>
<p>9. In Asheville, tiny/small house integration is being pursued primarily as a means of accommodating an alternative economy, whereas in Horry County, such integration generally reflects standard capitalist interests (deductive).</p>	<p>Stakeholders stated that tiny/small house integration could accommodate the Asheville lifestyle; which includes countercultural values such as freedom and the pursuit of the arts. Furthermore, there is significant public interest for accommodating THOWs, which do not align with the traditional property-rights paradigm.</p>	<p>Stakeholders indicated that tiny/small house integration measures offered both developers and consumers opportunities to capitalize on housing investments.</p>
<p>10. Horry County aims to integrate tiny houses in an exclusionary manner; where there is a heavy emphasis on protecting property values. Conversely, Asheville, is striving to integrate such homes in a more inclusionary manner, where community values are paramount to individual investments (deductive).</p>	<p>Asheville is working to integrate tiny and small homes in an inclusionary manner into existing neighborhoods through the creation of ADU standards and potentially decreasing lot size requirements.</p>	<p>Horry County stakeholders have expressed significant concerns about tiny house integration and property values. The tiny house development ordinance created in HC is predicted to result in exclusionary pockets of tiny house developments.</p>

CHAPTER FIVE
VISUAL PREFERENCE SURVEY FINDINGS

Introduction

The visual preference survey (VPS) was primarily utilized in this study in order to quantitatively address one of the study's research questions:

RQ5: What visual elements are associated with individuals' perceptions of small homes?

RQ5a: Is there a difference in the average preferences among the three ways a tiny house may be situated (ADU, tiny/small home community, or as urban infill)?

RQ5b: Is there a difference in the average preferences among the four specified categories of design elements (traditional/vernacular, non-traditional/modern, tiny houses on wheels (THOWs), and building materials)?

These questions are explored in this chapter through statistical analysis of the VPS results. The survey also included several follow-up questions and two open-ended questions pertaining to preferences of tiny and small homes. The follow-up questions were analyzed with descriptive statistics and the qualitative findings from the open-ended questions were triangulated with the case study data and statistical analyses in order to more fully answer another question posed in this research:

RQ6: Do perceptions of tiny house situation and design affect the resulting land use policy?

This data was especially revealing when the survey responses were examined in aggregate, and then separated by case site location. In some instances, results were the same for both the combined and individual case site data. However, in other instances, dissimilarities in preferences for tiny and small homes were noted and indicate differing cultural and political norms.

The objective of the survey was to obtain a wide array of input from stakeholders at each case site location. This diverse group includes residents, planning officials, tiny house advocates, neighborhood association members, developers, builders, and real estate specialists. The initial aim was to develop a sampling frame of such individuals by compiling a list of stakeholder e-mail addresses, and then sending the web-based survey to the sampling frame. It quickly became apparent that this method would be unsuccessful as the majority of contacts indicated they did not feel comfortable releasing e-mail addresses of other stakeholders. However, many contacts were agreeable to forwarding the web-based VPS via an embedded link to other stakeholders. As a result, planners, real estate organizations, tiny house advocates, building and architectural associations, and city commissioners were asked to forward the VPS survey link to their e-mail membership. Additionally, the administrators of several stakeholder Facebook pages were contacted, and the survey link was posted on the Facebook pages of such organizations as Tiny House Asheville, Asheville Tiny Home Association, the City of Asheville, Real Estate- Horry County, and Myrtle Beach City Government. Because the survey link was posted on social media in addition to being forwarded via e-mail to an unknown number of individuals, the exact survey response rate is unknown.

The survey was open from May 16, 2016, to June 10, 2016. In that time frame, 155 individuals started the survey and 144 completed it. Survey participants who were neither residents nor property owners at either case site were determined to be ineligible as primary stakeholders, and their responses were excluded from the analysis, leaving N=136. When separated by case site location, 78 of the respondents were from Asheville and 58 from Horry County.

Respondent Demographics

Demographic data collected in the survey revealed that participants were primarily Caucasian (95%), female (75%), educated (75% hold a bachelors degree or higher), and homeowners (73%). Several of these results are consistent with a 2013 survey done by tiny house advocate Ryan Mitchell, whose survey intent was to learn more about the demographics of those interested in tiny house dwelling. His target population was tiny house dwellers and those who may be interested in doing so in the future. Mitchell created a web-based survey and posted the link on numerous blog pages pertaining to tiny house dwelling. The survey had 3,171 respondents of which 15% indicated that they lived in a small or tiny house. Similar to the demographics in this study, Mitchell's survey participants were primarily Caucasian (90%) and educated (61%) (Mitchell 2013). However, contrary to the high percentages found in this study, the participation of women and homeowners was closer to 50% in Mitchell's study.

The Asheville case site had slightly higher representation with 57% of respondents being either residents or property owners in Asheville, whereas 43% were residents or property owners in Horry County. Survey participants in this study were

primarily dwellers of larger (greater than 1,000 sq. ft.) single-family homes (59%), with 14% living in small homes between 400 and 1,000 sq. ft., and only 3% living in tiny homes of 400 sq. ft. or smaller. The remaining 24% live in a variety of other housing types, including apartments and condos (See Figure 5.1). More respondents were married (58%) than other relationship statuses such as single (16%), divorced (12%) or single but co-habiting with significant other (9%). The survey was taken by slightly fewer long-term residents, with 36% living at one of the case locations five or less years, 30% six to fifteen years, 16% sixteen to twenty-five years, and 17% twenty-six years or longer. Age representation was rather evenly distributed.

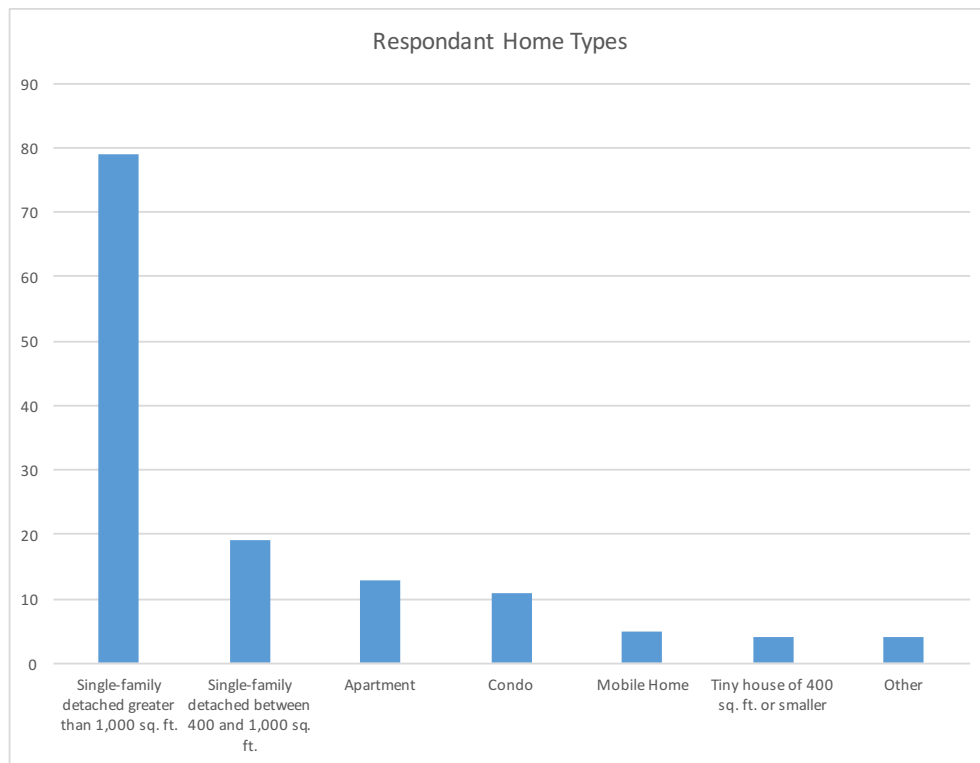


Figure 5.1. Housing arrangements of VPS participants.

Minority participants were underrepresented comprising only 2% of respondents. This 2% consisted of individuals who identified as mixed race, Native American, or Hispanic. No participants identified as African American/black, or as Asian American. Furthermore, 3% of participants chose not to respond to the question inquiring about racial identity. The underrepresentation of minorities completing the survey is inconsistent with 2010 census data which states that 20.7% of Asheville and 20.1% of Horry County residents are minorities who identify themselves with a race other than Caucasian (U.S. Department of Commerce 2015). The lack of diversity among survey participants may be indicative of a problem with the survey distribution strategy, or it may suggest that minorities generally have less cultural interest and/or knowledge about the tiny house movement. Future research that involves more engagement with diverse stakeholders may lead to a more holistic representation of perceptions of tiny house integration.

Scale Reliability

A 5-point Likert scale was utilized to measure individuals' preferences for tiny and small houses in seven categories. In order to assess whether the Likert scale used in the survey was reliable, Cronbach's alpha coefficient was calculated. Cronbach's alpha coefficient measures the internal consistency, or extent to which items correlate with one another in a category. In general, Cronbach's alpha values greater than 0.70 are acceptable, and values greater than 0.80 are ideal (O'Rourke and Hatcher 2013, 103). However, the use of Cronbach's alpha is highly subjective (DeVellis 2012, 109). There is

no mandatory or advocated scale interpretation. As a result, some social scientists find values less than 0.70 to be acceptable (O'Rourke and Hatcher 2013, 103)

Utilizing JMP software, Cronbach's alpha coefficient was analyzed for each of the seven categories in the survey: Accessory Dwelling Units (ADUs), tiny/small house communities (THC), tiny house urban infill (UI), tiny houses on wheels (THOWs), building materials (MAT), traditional (vernacular) architecture (TRAD), and modern (non-traditional) architecture (MOD) (Table 5.1). The Cronbach's alpha coefficient was found to be within what is generally considered acceptable limits (>0.7) in six of the seven categories. The exception was the ADU category, where Cronbach's alpha was found to be questionable or undesirable in most academic applications of the scale (DeVellis 2012, 109-10). However, as the ADU scale was not found to be in the poor or unacceptable classification, the results obtained from the survey questions in this category were included in the analyses.

Comparison of Means

Analysis of variance (ANOVA) and Tukey's pairwise comparisons were utilized to examine if differences existed in the average preference for the three ways in which tiny and small houses may be situated (ADUs, tiny/small house communities, and tiny house urban infill) and the four different design elements under study (THOWs, building materials, traditional (vernacular) architecture, and modern (non-traditional) architecture). Furthermore, a random participant ID effect was incorporated into the mixed effect model in order to account for the repeated measurements of individuals, or the fact that

Table 5.1. Cronbach’s alpha coefficient analyses for the seven VPS categories

Scale Category	Cronbach’s alpha¹ across entire set	Number of items
Accessory Dwelling Units (ADUs)	0.62	4
Tiny/Small house communities	0.76	4
Tiny house urban infill	0.78	4
Tiny Houses on Wheels (THOWs)	0.94	4
Building Materials	0.71	4
Traditional (vernacular)	0.79	4
Modern (nontraditional)	0.72	4

1. Cronbach’s alpha coefficient with values > 0.7 are generally considered acceptable whereas <0.7 are generally considered poor.

respondents answered questions in all seven categories under study. The analysis assists in answering the following research questions:

RQ5: What visual elements are associated with individual’s perceptions of small homes?

RQ5a: Is there a difference in the average preferences among the three ways a tiny house may be situated (ADU, tiny/small home community (THC), or as urban infill (UI))?

RQ5b: Is there a difference in the average preferences among the four specified categories of design elements (traditional (TRAD), modern (MOD), tiny houses on wheels (THOWs), and building materials (MAT))?

The statistical analysis was first done for all of the participants, and then separated by individual case site location (Tables 5.2 and 5.3). The analysis indicated that there are

some differences in the average preferences for the three ways in which tiny and small houses may be integrated into the urban fabric. With the case sites combined, there is a significant difference in the preferences for urban infill (UI versus ADU: $t(2)=6.21$, $p<0.0001$; UI versus THC: $t(2)=3.95$, $p=0.0003$), but the mean preference for ADUs and tiny home communities do not significantly differ (ADU vs THC: $t(2)=2.26$, $p=0.064$). Furthermore, the mean preference for urban infill was found to be lower (3.52) than for ADUs (4.01) or tiny house communities (3.87). These results coincide with the case study findings that indicated that stakeholders at both case site locations had significant concerns about tiny house integration within existing neighborhoods because of property value concerns.

When separated by case site location, the findings were similar for Horry County (UI versus ADU: $t(2)=5.24$, $p<0.0001$; UI versus THC: $t(2)=4.82$, $p<0.0001$; and ADU versus THC: $t(2)=0.43$, $p=0.9037$). However, in Asheville, there was a significant difference in average perceptions of ADUs (ADU versus THC: $t(2)=2.93$, $p=0.0109$; ADU versus UI: $t(2)=3.71$, $p=0.0009$), and the mean preference for tiny house communities and urban infill did not differ significantly from each other (THC versus UI: $t(2)=0.78$, $p=0.7172$). Also, the preference for ADU's (4.0) was higher than for tiny house communities (3.78) and urban infill (3.72). This significantly different and higher preference for ADUs in Asheville may be reflective of the recent adoption and popularity of land use regulations that facilitate ADU integration. However, the finding could also indicate that the recent ADU policies are a reflection of citizen preferences.

Table 5.2. Least squares mean estimates (standard deviations) for the ways tiny houses may be integrated*.

	<u>Case Sites Combined</u>	<u>Asheville</u>	<u>Horry County</u>
ADU	4.01(0.68) ^a	4.00(0.66) ^b	4.02(0.70) ^a
Tiny House Community	3.87(0.75) ^a	3.78(0.71) ^a	3.98(0.79) ^a
Urban Infill	3.62(0.89) ^b	3.72(0.76) ^a	3.47(1.02) ^b

*Means with the same letter in each column do not significantly differ

Table 5.3. Least squares means estimates (standard deviations) for design elements*.

	<u>Case Sites Combined</u>	<u>Asheville</u>	<u>Horry County</u>
Materials	3.63(0.83) ^{a,b}	3.76(0.75) ^{a,b}	3.44(0.91) ^{a,b}
Nontraditional/ Modern	3.77(0.82) ^a	3.84(0.71) ^{a,c}	3.68(0.95) ^{a,c}
Tiny Houses on Wheels (THOWs)	3.51(0.99) ^b	3.53(0.98) ^b	3.49(1.02) ^{b,c}
Traditional/ Vernacular	4.18(0.66) ^c	4.09(0.67) ^c	4.31(0.61) ^d

*Means with the same letter in each column do not significantly differ

The difference of means analysis also revealed that there are some significant differences in perceptions of the four design elements under study. Taken as a whole, the mean preference for traditional architecture differed significantly from the other three design elements (TRAD versus MAT: $t(3)=-7.05$, $p<0.001$; TRAD versus MOD: $t(3)=-5.22$, $p<0.001$; TRAD versus THOW: $t(3)=-8.54$, $p<0.001$). Furthermore, the mean preference for traditional architecture was higher (4.18) than the other three design elements (3.63, 3.77, and 3.51). When separated by case site location, the findings were again similar for Horry County (TRAD versus MAT: $t(3)=-7.78$, $p<0.001$; TRAD versus

MOD: $t(3)=-5.69$, $p<0.001$; TRAD versus THOW: $t(3)=-7.36$, $p<0.001$). In Asheville, however, the mean preferences for traditional and modern architecture do not significantly differ from one another (TRAD versus MOD: $t(3)=-2.32$, $p=0.0975$). The mean preference for traditional architecture (4.09) was still higher than the mean preference for modern architecture (3.84) in Asheville, which was also the case with Horry County and with the sites combined.

The lowest average preference rating for the combined survey data was for THOWs (3.51). When broken out by case site location, THOWs also had the lowest mean average score in Asheville (3.53). However, the Materials category scored slightly lower in Horry County (MAT=3.44; THOW=3.49). This may be a result of the publicity surrounding the proposed shipping container village for veterans, which may have made stakeholders more aware of the various building materials for tiny and small homes. The lower mean preference score associated with THOWs corresponds with the case study research, which found that THOWs are the most difficult type of tiny home to integrate into communities because of confusion about how such structures should be classified and regulated. It therefore stands to reason that the overall mean preference scores for THOWs would be lower, reflecting individual's apprehension of such homes.

Descriptive Statistics

Descriptive statistics were utilized to examine preferences for the individual images that comprise each of the seven categories. This allows for a more in-depth exploration of the many factors influencing people's perceptions of tiny homes. For each image, mean preferences and 5-point Likert scale responses (5= I like it very much, 4= I

like it, 3= Neutral, 2= I dislike it, and 1= I dislike it very much) were examined by individual case site and combined. This analysis is available in its entirety in Appendix D. Among the photos that examine the various ways tiny and small houses may be integrated into urban areas, an image that depicts a community of Katrina cottages received the highest overall mean preference score (4.5) (see Figure 5.2 and Table 5.4). In aggregate, 49% of respondents indicated they liked the image very much, while another 39% stated they liked it.



Figure 5.2. This photograph of a community of Katrina cottages received the highest overall mean preference score among the images of the various ways tiny and small houses may be integrated into urban areas. (Photo credit: www.seasideacademicvillage.wordpress.com/2011/05/19/houses-for-the-village/).

Table 5.4. Likert scale responses demonstrating individual’s preferences for Figure 5.2.

	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
Total N=129	2% (2)	5% (6)	6% (8)	39% (50)	49% (63)	4.3(0.9)
Asheville N=73	1% (1)	7% (5)	8% (6)	45% (33)	38% (28)	4.1(0.9)
Horry County N=56	1% (1)	1% (1)	4% (2)	30% (17)	63% (35)	4.5(0.8)

The tiny house community category also contained the individual image that received the lowest overall mean preference score (2.9). Figure 5.3 depicts a village of tiny houses built for homeless individuals. In aggregate, only 6% of participants stated that they disliked the image very much, however, 39% of participants stated that they disliked the image (Table 5.5).



Figure 5.3. This photograph of a village of tiny houses for homeless individuals received the lowest overall mean preference score for the various ways tiny and small houses may be integrated into urban areas. (Photo credit: Leah Nash *BuzzFeed*).

Table 5.5. Likert scale responses demonstrating individual's preferences for Figure 5.3.


	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
Total N=129	6% (8)	39% (50)	23% (29)	19% (24)	13% (17)	2.9(1.2)
Asheville N=73	3% (2)	37% (27)	27% (20)	23% (17)	9% (7)	3.0(1.1)
Horry County N=56	11% (6)	42% (23)	16% (9)	13% (7)	19% (10)	2.9(1.3)

As the tiny house community category had both the highest (4.3) and lowest (2.9) scored images for the ways in which tiny and small houses can be integrated into urban areas, further investigation was warranted. After participants selected a Likert scale response indicating their level of personal preference for an image, a follow-up question asked which visual factor *most* influenced the participant's decision. These responses were also analyzed with descriptive statistics and the full results may be found in Appendix E.

In an analysis of the various visual factors in the image that received the highest rating, (Figure 5.2) 50% of the total respondents indicated that their preference was based upon the context of several tiny/small houses together (Table 5.6). Another 29% indicated that their preference was linked to the overall design of the tiny/small homes, which is a traditional cottage style. Because 79% of participants chose these two visual elements, and because the image was rated so highly, it may be inferred that many people have a preference for tiny house communities of vernacular style architecture. However, a small percentage of responses indicated that preferences were related to such elements

as landscaping, fencing, and porches on the homes. Therefore, these details may lead to higher preferences for tiny home communities.


Table 5.6. The four top ranked visual elements leading to individual’s preference for Figure 5.2. (only top four elements included in chart).

	the context of several tiny/small houses together	the overall design	landscaping	porch
Total N=129	50% (65)	29% (37)	6% (8)	5% (7)
Asheville N=73	47% (34)	33% (24)	8% (6)	4% (3)
Horry County N=56	55% (31)	23% (13)	4% (2)	7% (4)

An examination of the lowest ranked image depicting the various ways in which tiny houses may be integrated into urban areas (Figure 5.3), indicated that 36% of participant’s based their rating of the image upon the proximity of a nonresidential structure to the tiny house village (Table 5.7). The second most chosen visual element was the context of several tiny houses together (32%). Also, compared to other images, this image had a relatively large percentage (11%) of participants who chose the “other” with fill-in response option. The fill-in responses indicated a generally negative perception of the village’s industrial-like setting and the overall design of the tiny homes with the provision of comments such as, “it looks like slum housing,” “both shed-like design and proximity to industrial,” and “tiny houses good, surroundings bad.” These results suggest a disdain for tiny house communities that are in a nonresidential environment, have more minimalistic designs, and lack potentially aesthetically-pleasing

elements such as picket fencing and landscaping. The results partially correspond with the case site findings that revealed a desire for tiny home integration measures to achieve a delicate balance between affordability and aesthetics. They also substantiate the importance of implementing tiny homes into places that are perceived as the proper context for such infill opportunities.

Table 5.7. The four top ranked visual elements leading to individual’s preference for Figure 5.3. (only top four elements included in chart).

	the context of several tiny/small houses together	the overall design	proximity to nonresidential structure	other
Total N=129	32% (41)	15% (19)	36% (47)	11% (14)
Asheville N=73	29% (21)	16% (12)	34% (25)	12% (9)
Horry County N=56	36% (20)	13% (7)	39% (22)	9% (5)

In the categories that examined various design elements relating to tiny and small homes, traditional or vernacular architecture not only had the highest mean preference score (4.18), but the category additionally contained the highest rated image (4.3) in all four design categories (see Figure 5.4). In aggregate, 90% of respondents either rated the image as “I like it very much” or “I like it” (see Table 5.8).



Figure 5.4. The photograph of this small home built in a traditional architectural style had the highest ratings of the images of various design elements. (Photo credit: Tumbleweed Tiny Homes).


Table 5.8. Likert scale responses demonstrating preference for Figure 5.4.

	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
Total N=126	0	2% (2)	8% (10)	47% (59)	43% (54)	4.3(0.7)
Asheville N=73	0	1% (1)	10% (7)	49% (36)	40% (29)	4.3(0.7)
Horry County N=53	0	2% (1)	6% (3)	44% (23)	48% (25)	4.4(0.7)

This preference for traditional architecture is mirrored in a further breakdown of design element specifics (Table 5.9). Of the overall respondents, 83% indicated that their preference for the image was based upon the overall design of the small house, which is traditional/vernacular. This preference is in accordance with the comparison of means

analysis, which indicated a higher and significantly different preference for tiny homes built in a traditional architectural style. This finding is also supported by the case study research. During the photo elicitation component of the interview process, the many interviewees expressed positive perceptions of tiny homes built in a vernacular style. There were also several comments that pertained to the appeal of traditional architecture at both case site locations.

Table 5.9. The four top ranked visual elements leading to individual’s preference for Figure 5.4. (only top four elements included in chart).

	the overall design of the small house	porch	distinctive window	other
Total N=126	83% (105)	6% (8)	6% (8)	2% (3)
Asheville N=73	82% (60)	5% (4)	7% (5)	4% (3)
Horry County N=53	85% (45)	8% (4)	6% (3)	0

The overall lowest rated image (2.9) in the design elements section of the survey was in the category that examined various building materials. The image is of a small modern shipping container home (Figure 5.5 and Table 5.10). In aggregate, 37% of individuals liked the image, and 27% liked it very much. However, the overall rating was lowered by the 22% who indicated they did not like it, and the 6% who did not like it at all. Furthermore, there is a distinctive difference between the responses from the case site locations. In Asheville, 74% of respondents stated that they liked the small home very much, or liked it, whereas only 53% chose these Likert scale responses in Horry

County. Conversely, in Asheville, only 19% of participants asserted that they either disliked the image very much, or disliked it. However, 39% of the Horry County participants chose one of these responses. Furthermore, every participant who ranked the photo as “I dislike it very much” hailed from the Horry County case site. This corresponds with the comparison of means analysis, which revealed a significant difference in Horry County between perceptions of traditional and modern architecture styles, whereas no such difference was present for Asheville.



Figure 5.5. The photograph of this small modern shipping container home had the lowest mean rating of the images that depicted various design elements related to tiny and small homes. (Photo credit: www.criticalcactus.com/beautiful-recycled-homes/).


Table 5.10. Likert scale responses demonstrating preference for Figure 5.5.

	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
Total N=126	6% (7)	22% (28)	7% (9)	37% (47)	27% (35)	2.9(1.2)
Asheville N=73	0	19% (14)	7% (5)	41% (30)	33% (24)	3.9(1.1)
Horry County N=53	13% (7)	26% (14)	8% (4)	32% (17)	21% (11)	3.2(1.4)

Because the image depicts both modern architecture and a home made of unique building materials further investigation into specific visual elements was warranted (Table 5.11). An investigation of design specifics leading to image ratings revealed that in aggregate, 52% of respondents based their preference upon the home's exterior building materials, which are that of a recycled shipping container. Another 38% based their preference level upon the overall design of the small house, which is non-traditional or modernist in design. The findings for each case site location were very similar to the aggregate results. This is of interest, because the Likert scale analysis revealed that a greater percentage of Asheville residents had positive perceptions of the shipping container home than did Horry County residents. An analysis of the design-element specifics revealed that people's perceptions for the shipping container home were primarily based upon the same two factors; exterior building materials and overall design. This indicates a somewhat different preference in architectural styles at the case site locations, which may be rooted in prevailing cultural norms. However, the overall lower

rating for the image in comparison to others, suggests that many people may be apprehensive about the integration of small, modernist, shipping container homes.

Table 5.11. The four top ranked visual elements leading to individual’s preference for Figure 5.5. (only top four elements included in chart).

	the overall design of the small house	exterior building materials	house color	other
Total N=126	38% (48)	52% (65)	4% (5)	3% (4)
Asheville N=73	39% (28)	48% (35)	5% (4)	5% (4)
Horry County N=53	38% (20)	57% (30)	2% (1)	0

The descriptive analysis of individual images furthermore revealed a high preference for tiny and small homes made of high quality wood building materials. This finding was not apparent when analyzing the comparison of means, because images of high quality wood homes were dispersed throughout several categories. Furthermore, the survey block that looked at building materials had only one high quality wooden tiny home: the other images depicted small homes made of other building materials such as brick and corrugated metal.

The high preference rating for quality wooden homes was not only demonstrated in the building materials block, but across categories; such as the ADU, modern (non-traditional) architecture, and THOW categories. Though in different categories, all tiny homes made of high quality wood received relatively high mean preference scores (see Appendix D). For example, Figure 5.6 is an image in the Materials category that depicts

a tiny home made of high quality wood with shingle detailing. The image received a relatively high aggregate mean preference rating (4.3) despite being both modern in design and a THOW; two characteristics that the research has revealed to often be approached with apprehension by respondents (Table 5.12).




Figure 5.6. Located in the block that examines perceptions of tiny homes made of various building materials, this image of a non-traditional THOW made of high quality wood received a relatively high mean preference score. (Photo credit: Zyl Vardos, Olympia, WA).

Table 5.12. Likert scale responses demonstrating preference for Figure 5.6.

	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
Total N=126	5% (6)	14% (18)	14% (18)	38% (48)	29% (36)	4.3(0.8)
Asheville N=73	5% (4)	14% (10)	11% (8)	41% (30)	29% (21)	3.7(1.2)
Horry County N=53	4% (2)	15% (8)	19% (10)	34% (18)	28% (15)	3.7(1.2)

An analyses of specific design elements indicated that most individuals' preferences were based upon the overall design of the tiny house (61%), which is non-traditional, and secondly, upon the home's exterior building materials (23%) (Table 5.13). The findings for the individual case sites were very similar to the aggregate results for this image.

Table 5.13. The four top ranked visual elements leading to individual's preference for Figure 5.6. (only top four elements included in chart).

	the overall design of the small house	exterior building materials	house being on wheels	other
Total N=126	61% (77)	23% (29)	10% (13)	3% (4)
Asheville N=73	62% (45)	25% (18)	8% (6)	4% (3)
Horry County N=53	60% (32)	21% (11)	13% (7)	2% (1)

Because exterior building materials were the second instead of top-rated factor for this image, it seems to suggest that there is a preference for tiny homes featuring non-traditional architecture instead of high quality wood exterior. However, the preference for high-quality wood exteriors is seen across categories. Images of non-traditional THOWs with high quality wood exteriors received the highest mean preference rating in both the Materials (4.3) and Modern (4.2) categories, making it difficult to determine if the ratings were due to the architectural style, building materials, or a combination of both. However, the image with the highest median score (4.3) in the ADU category depicts a high quality wood home in a more traditional architectural style (Figure 5.7 and

Table 5.14). Finally, an image of a traditional (vernacular) high quality wood tiny home also had the highest median preference score (3.7) in the THOW category (see Appendix D).



Figure 5.7. This photograph of a high quality wood ADU had the highest mean rating of the images in the ADU category. (Photo credit: *www.chastainparkinfo.com*).


Table 5.14. Likert scale responses demonstrating preference for Figure 5.7.

	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
Total N=130	0	5% (6)	6% (8)	41% (54)	48% (63)	4.3(0.8)
Asheville N=74	0	3% (2)	7% (5)	43% (32)	48% (36)	4.4(0.7)
Horry County N=56	0	7% (4)	5% (3)	39% (22)	48% (27)	4.3(0.9)

An investigation of design element specifics (Table 5.15) again indicated that individual's preferences for the home were based primarily upon the overall architectural

style, and secondly, upon the exterior building materials. However, the ADU depicted in Figure 5.7, and the high-quality wooden tiny home that scored the highest mean preference score in the THOW category, both featured traditional, rather than modern or nontraditional, architecture. This seems to suggest that people have a preference for tiny homes made of high quality wood, regardless if the architectural style is traditional or modern.

Table 5.15. The four top ranked visual elements leading to individual’s preference for Figure 5.7. (only top four elements included in chart).

	the overall design of the small house	exterior building materials	landscaping	other
Total N=130	53% (69)	27% (35)	14% (18)	4% (5)
Asheville N=74	57% (42)	24% (18)	14% (10)	5% (4)
Horry County N=56	48% (27)	30% (17)	14% (8)	2% (1)

Because the study is exploratory in nature, it aims to broadly examine a myriad of factors that may influence tiny home preferences, rather than solely focus on building materials. However, an examination of the descriptive statistics associated with individual images in the VPS indicated that high quality wooden exteriors are a significant factor in individuals’ preferences for tiny and small homes. Further research that specifically focuses on building materials for tiny homes may be warranted.

Open-ended questions

The survey included two open-ended questions, which paired with the statistical analysis and case study findings, allowed for a more holistic understanding of the factors that influence people's perceptions of tiny and small houses (see Appendix F). The first open-ended question asked participants to describe how they would feel if their neighbor put a tiny house on the lot adjacent to theirs. In total, 118 individuals responded to this question; 69 from Asheville and 49 from Horry County. Of the aggregate responses, 63% (74) indicated favorable or receptive connotations to such an occurrence, 14% (17) were negative, and 23% (27) of the comments were classified as neutral or other. The final question asked participants to make any comments that they felt were important in developing an understanding of people's preferences for tiny and small homes. This question received 85 responses; 50 from Asheville and 35 from Horry County. Both of the questions were met with many insightful responses that aided in the development of a further understanding of perceptions of tiny homes.

One of the most common themes that emerged from the open-ended questions was that perceptions of tiny home integration are highly context dependent. Respondents felt that the result could be positive if tiny homes "fit in" with the surrounding community. Conversely, tiny home integration measures that do not mesh with the surrounding neighborhood character may be perceived negatively. Some of the comments that emphasize the importance of proper context for tiny house integration included:

- "I think that it is about fitting into the existing context of a neighborhood more than a specific style, materials or look."

- “I would prefer the exterior of the tiny home to blend into other homes in the neighborhood.”
- “The design really, really, really needs to fit the surroundings.”
- “Depends on design and how it fits in overall neighborhood.”

Comments such as these indicate that people’s perceptions of tiny home integration are not necessarily based on individual tiny homes, but instead, are dependent upon considerations for the surrounding community. The importance of context was also noted in the case study interviews several times. Interviewees at both locations commented upon the importance of developing tiny house policy that would result in tiny house integration that meshed well with surrounding neighborhoods.

The open-ended question responses also affirmed many of the themes established during the case study portion of the research. For instance, the open-ended responses reinforced the finding asserting that affordability is the primary driver behind tiny house integration measures. Participants at both case sites commented on how the integration of tiny and small homes could provide a means of addressing housing affordability concerns:

- “Tiny homes would give single dwellers and couples more affordable options.”
- “We need more affordable housing options in this city.”
- “This would make life so much easier for me as I would have an affordable place of my own.”

These comments denote positive perceptions of tiny home integration measures that address housing affordability issues. However, the open-ended responses also indicated a strong desire among respondents to fulfill the American dream of homeownership through tiny house living. This finding differs somewhat from the case study results which revealed an about equal desire among stakeholders to integrate both tiny home rental and ownership opportunities. The open-ended survey responses are more in accordance with the study's research proposition that predicted there would be a preference for tiny house initiatives that encouraged homeownership because of the driving force of the American dream in U.S. culture. Survey comments that revealed support for the cultural impetus of homeownership in regards to tiny houses included:

- "I feel that in our economy, the tiny house is a viable option for many people to achieve homeownership."
- "Maybe the only way some hardworking people will ever be able to have a home of their own."
- "I can see their appeal, especially if they help people have their own houses at a more reasonable price than a conventionally sized one."

The open-ended survey responses also supported the case study finding asserting that people are generally more supportive of tiny house integration measures that promote housing affordability for residents, rather than those that may be utilized as profiteering schemes. Though there were two comments that revealed support for the creation of short-term tiny house rental options, there were several comments that expressed negative

connotations with the possibility of tiny house infill being used for profiteering ventures, including short-term rentals, instead of being used as a means of addressing housing affordability concerns. One respondent succinctly stated, “I think intent is important. I get it, but like the idea for need instead of profit.”

The conflicting perceptions surrounding THOWS were also well represented in the open-ended survey questions. There were 17 comments in the open-ended questions that explicitly addressed THOWs. More of these comments revealed negative rather than positive connotations with such homes. Many of these statements expressed concern with property values and the transient nature of THOW inhabitants. One respondent summarized many of the issues surrounding THOWs:

“I think foundation built TH’s [tiny houses] are more visually appealing. They don’t look as transient. Almost all the THOWs I have seen just look like trailers, I don’t really understand it. Why not just buy a trailer? And I don’t want a trailer in my neighborhood. People would be coming and going, it’s not what I want near my house for property values or neighbors.”

However, some comments did indicate positive perceptions of THOWs. One individual from Asheville stated that their neighbor already had a THOW and that they had no problem with it. Another person wrote, “Personally, I want one that is on wheels, so I can take it, and set up in different destinations as I see fit!” Finally, several comments reflected the general confusion surrounding the classification of THOWs. One person indicated that they felt a THOW was basically the same as a mobile home, and two others asserted such homes are essentially just trailers. One participant succinctly stated how problematic it is to integrate THOWs when it is unclear how to classify them, “The main thing is to help a zoning administrator distinguish between a THOW and a ‘mobile home’

or temporary structure. Without clear definition and distinguishment, a THOW is very difficult to issue zoning approval.” The many and varied THOW-specific comments reflect the mixed perceptions surrounding such homes, and the turmoil surrounding the classification and potential integration of these houses into communities.

The open-ended questions also provided further insight into those that are pursuing tiny house integration because of counterculture interests. The case study research indicated a strong counterculture impetus behind tiny house integration at the Asheville case site. This was further reflected in many of the comments from Asheville survey participants. For instance, there were several comments that revealed a desire to lessen one’s environmental impact, or live a simplified and higher quality life through tiny living. Interestingly, however, contrary to the case study findings, the open-ended questions elicited some counterculture leanings out of Horry County respondents as well. One Horry County respondent commented that tiny house dwelling was not just about affordability, it was a lifestyle choice. Another individual mentioned that it offered personal freedom. And yet another comment stated that tiny houses are, “Adventurous and liberating.” Furthermore, some Horry County respondents indicated support for tiny house living as a way of addressing environmental concerns. Comments such as these indicate that stakeholders at both case site locations may have an interest in tiny home integration as a means of promoting counterculture values.

Finally, the open-ended survey responses offered insight into an issue that only emerged peripherally in the case study research. There were at least a dozen instances when phrases such as “jammed in”, “crowded”, “cramped”, and “on top of one another”

came up in the open-ended responses, as participants expressed concerns related to tiny house infill. These comments reveal stakeholder apprehension with tiny house integration methods that result in increased density standards. Respondents elaborated further by expressing concerns about diminished privacy and infrastructure strain, primarily regarding insufficient parking, which might result by increasing density standards. These comments are important, as they suggest that tiny house integration measures could be perceived unfavorably if municipalities do not take such concerns into account when increasing density standards to accommodate tiny homes.

The open-ended survey questions proved valuable as the response rate was high and the comments were insightful. Many remarks strengthened the case study research findings: others, however, emphasized stakeholder perspectives that hadn't previously emerged as significant. Therefore, an analysis of the open-ended survey questions, paired with the other research findings in this study, has allowed for a more holistic understanding of the many issues and concerns related to tiny house integration.

Perceptions and Land Use Policy

Finally, the pairing of the VPS and case study results aided in answering the following research question:

RQ6: Do perceptions of tiny house situation and design impact the resulting land use policy?

The statistical analysis has indicated that there are some differences in the average preferences for the ways in which tiny or small houses may be situated, and for the specific design elements being studied. Of the various ways tiny homes may be

integrated in urban areas, the ADU category received the highest mean preference scores. Furthermore, a multiple-choice question in the survey asked respondents specifically about their perceptions of potential ADU integration in their communities. Respondents from both locations expressed significant support for ADU integration measures that took into account such concerns as parking and aesthetic issues (see Table 5.16). This preference for ADU infill opportunities is reflected on the ground in Asheville, where much of the focus on tiny house integration has specifically been to accommodate ADUs. New regulations have recently been adopted in the city that allow for more flexibility with ADU integration. The new ordinance has been very popular and has resulted in many new ADU permit applications (Matheny 2016a). However, this preference for ADUs is not reflected in Horry County land use policy. The county has not created new ADU regulations because planning officials feel there would be significant opposition to such policies. As a result, the county continues to enforce the current ADU ordinance, which is very restrictive. However, policy makers may want to consider crafting more flexible ADU standards, as the vast majority of Horry County stakeholders have indicated support for ADU integration measures.

Table 5.16. A summary of preferences for ADU integration at the case site locations.

	Asheville N=74	Horry County N=56	Total N=130
I would support ADUs being allowed in my neighborhood.	35% (26)	25% (14)	31% (40)
I would support ADUs being allowed in my neighborhood as long as there are some rules about how they look.	4% (3)	7% (4)	5% (7)
I would support ADUs being allowed in my neighborhood as long as there are rules about how they look, how far they must be from property lines and issues with parking are addressed.	53% (39)	61% (34)	56% (73)
I am uncertain as to whether ADUs should be allowed in my neighborhood or not.	4% (3)	2% (1)	3% (4)
ADUs should not be allowed in my neighborhood.	4% (3)	5% (3)	5% (6)

The creation of land use policy that would accommodate tiny and small homes on their own urban lot among other types of housing seems to reflect perceptions at each case site location. The analysis of means found that there was a significantly different, and lower, preference for tiny homes integrated on their own lot among other housing types. A follow-up question found that there is more support for such measures in Asheville than in Horry County (see Table 5.17). Such preferences are demonstrated in the land use policy at each case site. In Asheville, tiny home advocates and the city are currently working on creating policy that would allow for smaller lot sizes, and thus, more tiny home infill opportunities. In Horry County, no such policy is being considered. This may be because the case study research indicated a heightened

emphasis on protecting property values at the latter case site. This emphasis on property values is reflected in a follow-up multiple-choice question that asked respondents about their support for measures that would create infill opportunities for tiny houses on their own urban lot among other housing types. The greatest number of Horry County respondents indicated they would only support this type of infill if property values were not negatively impacted.

Table 5.17. A summary of preferences for the integration of tiny homes on their own lots at the case site locations.

	Asheville N=73	Horry County N=54	Total N=127
I would support the integration of tiny/small homes on their own urban lots in my neighborhood.	45% (33)	26% (14)	37% (47)
I would support the integration of tiny/small homes on their own urban lots in my neighborhood as long as there are some rules about how they look.	18% (13)	20% (11)	19% (24)
I would support the integration of tiny/small homes on their own urban lots in my neighborhood as long as there are some rules about how they look and my property values are not adversely impacted.	26% (19)	37% (20)	31% (39)
I am uncertain as to whether tiny/small homes on their own urban lots should be allowed in my neighborhood or not.	10% (7)	9% (5)	9% (12)
The integration of tiny/small homes on their own urban lots should not be allowed in my neighborhood.	1% (1)	7% (4)	4% (5)

The summary of means analysis indicated a relatively high preference for tiny house-specific communities at both case site locations. A follow up question that asked

respondents specifically about their preferences for tiny house communities revealed support for such measures at both case sites (see Table 5.18). Horry County respondents indicated support for this type of integration if aesthetics and property value concerns were addressed. This is reflected in the recent tiny house policy that has been crafted in Horry County. The county's new tiny house ordinance has been designed to address property value issues by promoting integration measures that keep tiny and small homes in specific developments, and requires site plans to go through an approval process in order to address aesthetic concerns.

Preferences were somewhat different at the Asheville case site. The highest percentage of Asheville participants indicated support for tiny house-specific communities, but they were not as concerned with aesthetic or property value issues. These preferences are only partially reflected in the tiny house policies being created at this case site. The case study findings revealed a greater emphasis on inclusionary rather than exclusionary methods of tiny house integration at Asheville. This accounts for residents placing less of an emphasis on property values in Asheville. The mean preference ratings also indicated that there was no significant difference in the preferences for tiny houses of traditional and modern architecture in Asheville, whereas a significant difference in preferences for such architecture was found among Horry County participants. Perhaps as Asheville stakeholders do not have a strong preference for a specific architecture style, they are not placing a heavy emphasis on creating aesthetic guidelines for tiny house-specific communities. Where current tiny and small house policy in Asheville is not reflecting individuals' preferences, is in the fact that

regulations for tiny house-specific communities have not, and are not, being created. The city has a cottage development ordinance that is unwieldy and underutilized. Because Asheville participants have indicated a significant preference for tiny house-specific communities, it is puzzling that policies are not currently being created to accommodate such preferences.

Table 5.18. A summary of preferences for tiny and small house-specific communities.

	Asheville N=73	Horry County N=56	Total N=129
I would support a tiny or small house community in my neighborhood.	42% (31)	23% (13)	34% (44)
I would support a tiny/small house community in my neighborhood as long as there are some rules about how they look.	19% (14)	32% (18)	25% (32)
I would support a tiny/small house community in my neighborhood as long there are some rules about how they look and my property values are not adversely impacted.	26% (19)	36% (20)	30% (39)
I am uncertain as to whether a tiny/small house community should be allowed in my neighborhood or not.	7% (5)	5% (3)	6% (8)
A small/tiny house community should not be allowed in my neighborhood.	5% (4)	4% (2)	5% (6)

The difference of means analysis indicated a significantly different and higher preference for vernacular or traditional architecture among survey respondents as a whole. However, when broken out by case site, this finding only held true for Horry County stakeholders. Asheville respondents indicated they did not have a significantly different preference for vernacular or modern architecture. A follow-up question that

inquired about individuals' architectural preferences for tiny homes resulted in the same findings for Asheville residents (see Table 5.19). With the Horry County data, the greatest percentage of residents indicated that they also preferred both architectural styles about equally, though the percentage of individual's denoting this preference is lower than that found in Asheville. Therefore, the results from the mean preference score and architectural follow-up analyses are somewhat conflicting for the Horry County case site. Horry County respondents expressed a greater preference for vernacular architecture than Asheville participants, but also indicated an acceptance of modern architectural styles.

For Asheville, the stated preferences are in concordance with current policy. Recent state legislation has been enacted that prohibits municipalities from enacting architectural design standards in neighborhoods other than those that are designated as historic districts (Owens 2015). Therefore, Asheville tiny homes cannot be required to be of a certain architectural style unless a restrictive covenant has been established. However, such preferences are not necessarily reflected in Horry County policy. Though Horry County stakeholders have a greater preference for vernacular architecture than Asheville respondents, because of conflicting responses, it is not entirely clear how great this preference for traditional architecture is in Horry County. Under the new tiny house ordinance, developers must have a proposed tiny house community approved by both the planning commission and county council. Part of this approval process involves approval of a potential tiny house design and site plan. Therefore, such regulations may result in restrictions to the architectural styles that are allowed for tiny home developments. However, the planning commission and county council may approve of both traditional

and non-traditional architectural style developments. As the open-ended survey questions indicated a desire for tiny homes to be in the “proper context”, perhaps developments of both styles of architecture will be actualized.

Table 5.19. A summary of preferences for tiny homes of various architectural styles at the case site locations.

	Asheville N=73	Horry County N=52	Total N=125
I prefer tiny/small homes built in a traditional/vernacular style.	14% (10)	27% (14)	19% (24)
I prefer tiny/small homes built in a nontraditional/modern style.	12% (9)	6% (3)	10% (12)
I prefer tiny/small homes built in each of the styles of traditional/vernacular and nontraditional/modern about equally.	41% (30)	31% (16)	37% (46)
I am uncertain as to whether my preferences for tiny/small homes are influenced by the factors of traditional/vernacular and nontraditional/modern styles.	7% (5)	12% (6)	9% (11)
My preference for tiny/small homes is not influenced by the factors of traditional/vernacular and nontraditional/modern styles. My preference is influenced by other factor(s).	26% (19)	25% (13)	26% (32)

Of the various design elements examined in the VPS, THOWs had the lowest mean preference ratings both in aggregate and at each case site. The case study research indicated that THOWs face significant barriers to urban integration because of a lack of consensus on the terminology surrounding THOWs. Stakeholders also indicated concerns with property values and transient neighbors with potential THOW integration.

A follow-up survey question that asked survey respondents about their perceptions of potential THOW integration in their neighborhoods reflected the controversy surrounding THOWs. Though Asheville respondents indicated they were more receptive of such measures than those from Horry County, responses were varied (see Table 5.20).

The greatest number of Asheville participants indicated that they would be supportive of THOW integration. However, a greater number of individuals asserted that they were either unsure how they felt about THOW integration, or were not supportive of such measures. Perhaps this controversial mix of perceptions surrounding THOW integration is part of the reason that Asheville has not moved ahead with the adoption of THOW integration policy. At one point, there was enough public interest for the city and tiny house advocacy groups to look into the creation of such measures. However, proponents have run into significant barriers with THOW integration and are not moving forward with the development of THOW policy at this time.

With the Horry County data, the greatest number of respondents indicated support for THOW integration measures that addressed aesthetic concerns and the issue of attachment to utilities. However, as with Asheville, a greater number of participants indicated that they were either unsure or not supportive of THOW integration. Horry County has not considered crafting THOW policy, nor is there any known THOWs in the county at this time. Furthermore, the recently adopted tiny house ordinance specifically prohibits THOWs in such developments. Therefore, people's perceptions of THOW integration are generally reflected in the current land use policy in Horry County.

Table 5.20. A summary of preferences for THOW integration at the case site locations.

	Asheville N=73	Horry County N=53	Total N=126
I would support the allowance of tiny houses on wheels in my neighborhood.	32% (23)	13% (7)	24% (30)
I would support the allowance of tiny houses on wheels in my neighborhood as there are some rules about how they look.	12% (9)	13% (7)	13% (16)
I would support the allowance of tiny houses on wheels in my neighborhood as long as there are some rules about how they look and they are connected to city utilities.	19% (14)	32% (17)	25% (31)
I am uncertain as to whether tiny houses on wheels should be allowed in my neighborhood or not.	21% (15)	11% (6)	17% (21)
The allowance of tiny houses on wheels should not be allowed in my neighborhood.	16% (12)	30% (16)	22% (28)

Conclusion

This chapter has provided an in-depth analysis of the VPS results. The VPS was implemented in this study in order to gauge and more fully understand individuals' perceptions of various visual elements pertaining to tiny and small house integration. The difference of means analysis indicated a significantly different, and lower, preference for the integration of tiny homes on their own lots among other housing types, and a significantly different, and higher, preference for traditional architecture. The analysis of individual images revealed marked preferences for ADUs, tiny and small house-specific communities, and tiny homes with high-quality wood exteriors. Furthermore, both the analysis of specific images and the open-ended survey questions indicated a desire among

stakeholders for tiny homes to be integrated in a manner that takes neighborhood context into consideration.

Many of the VPS results affirmed the case study findings, such as emphasizing the confusion surrounding THOW classification and integration. Other results, however, introduced greater insights into people's perceptions of tiny homes. For instance, the open-ended survey responses revealed apprehension with tiny house infill measures that increase density and may result in crowding, loss of privacy, and infrastructure strain. The VPS analysis also allowed for a comparison between people's preferences for tiny houses and the land use policy at each case site. In many cases, it was discovered that such perceptions are reflected in current policy. However, there are instances when stakeholder preferences for tiny house infill are not reflected in current land use policy. For example, there is a lack of opportunities for ADU infill in Horry County. Finally, the last chapter of this dissertation will provide a synthesis of the research findings and discuss potential implications for planning professionals.

CHAPTER SIX

DISCUSSION AND CONCLUSIONS

Research Questions Addressed

This research has resulted in a holistic examination of tiny and small house integration policy at the case site locations. The study has explored a myriad of factors that have influenced tiny house integration measures through both case study and visual preference survey (VPS) analysis. The case study component of the study specifically addressed the research questions that asked how each location was crafting land use policy to accommodate tiny homes, and what the associated challenges to adopting such regulations are. The VPS confronted the research questions that investigated the visual elements that effect individuals' preferences for tiny homes. A combination of the case study and VPS analyses aided in answering the research question that asked if perceptions impact the resulting land use policy. Table 6.1 summarizes the research question findings.

Table 6.1. A summary of the research question findings.

Research Question	Answer
<p>RQ1: How are the jurisdictions of Asheville, NC, and Horry County, SC, adapting land use policy to accommodate the legal allowance of tiny and small homes?</p>	<p>Each jurisdiction is adopting different types of policies to accommodate tiny/small homes. Asheville has created policies that allow for increased ADU infill opportunities, and is working towards creating policies that may allow for easier tiny/small house integration by decreasing lot sizes. Horry County has created a policy that will allow for tiny-house-specific communities.</p>
<p>RQ2: What is the process of altering land use policy to accommodate small homes?</p>	<p>In Asheville, tiny/small house policy has largely been driven by citizen interest in the movement and housing affordability. Therefore, the development of policy has had a significant public involvement component. In Horry County, planning officials have taken preemptive measures to prepare for potential tiny house integration. Here, a task force primarily comprised of planners and development interests was appointed to craft tiny house policy. Members of the general public expressed little interest and participated minimally in the creation of such policy.</p>
<p>RQ3: What are the challenges associated with adopting such policies?</p>	<p>Because there has been a great deal of citizen involvement in Asheville, the greatest challenges to tiny house infill have been in the creation of policy that is agreeable to the community at large. For instance, the city is currently struggling with whether ADUs should be allowed for short-term rentals or not, as residents are divided on this issue. Because property value maintenance is so important to Horry County residents, the greatest challenge to the creation of policy at this case site has been potential NIMBYism. Policymakers have had to work to create regulations that will allow tiny house integration without negatively impacting surrounding property values.</p>

<p>RQ4: Which tiny house land use regulations are perceived as the most successful? RQ4a: Which regulations are perceived as the most successful by small home dwellers? RQ4b: Which regulations are perceived as the most successful by city policy-makers?</p>	<p>The study did not fully answer the fourth research question. The developed policies are too new to measure perceived success. For instances, no tiny house communities have yet been built in Horry County under the new regulations. However, some inferences can be made. For example, the growing popularity of ADUs in Asheville may lead one to conclude that ADU regulations are being perceived positively by both dwellers and policy-makers.</p>
<p>RQ5: What visual elements are associated with individuals' preferences of small homes?</p>	<p>The VPS analysis answered this question by examining the three different ways tiny/small houses may be situated, and four specified design elements (See RQ5a and RQ5b below). Furthermore, the VPS multiple-choice questions allowed for descriptive analysis of specific visual elements such as porches, windows, and landscaping. The full results of this analysis are located in Appendix E.</p>
<p>RQ5a: Is there a difference in the average preference among the three ways in which a tiny home may be situated (ADU (accessory dwelling unit), tiny-home-specific community, or urban infill)?</p>	<p>The VPS results indicated that with the case sites combined, there is a significantly different, and lower, preference for urban infill, and that the mean preference for ADUs and tiny home communities do not significantly differ. When broken out by case site, the findings were the same for Horry County. However, in Asheville, there was a significantly different, and higher, preference for ADUs, and no significant difference between the mean preferences for tiny home communities and urban infill.</p>
<p>RQ5b: Is there a difference in the average preference among the four specified design elements (traditional/vernacular vs. non-traditional/modern, THOWs (tiny houses on wheels) THOWs, and various building materials)?</p>	<p>The VPS results indicated that with the case sites combined, the mean preference for traditional architecture differed significantly than the other three design elements. Furthermore, the mean preference for traditional architecture was higher than the other three design elements. When separated by location, this was also the case with Horry County. However, with Asheville, there was no significant difference in the mean preference for traditional and modern architecture.</p>

<p>RQ6: Do perceptions of tiny house situation and design affect the resulting land use policy?</p>	<p>An encompassing examination of both the qualitative and quantitative findings suggests that land use policy is at least partially influenced by perceptions of tiny house siting and design. For example, the emphasis on property values in Horry County has resulted in the development of regulations for tiny-house-specific communities. However, the VPS indicated a high preference for both tiny-house-specific communities and ADUs in Horry County. At this time, current ADU policy continues to be very restrictive in Horry County, not reflecting these preferences. Tiny house preferences seem to be better represented in the policies created in Asheville. For example, the high preference for ADUs at this case site are reflected in the creation of policies that foster such infill. Furthermore, the lowest mean preference among the design elements was in the THOW category. This is reflected in the current halting of THOW integration measures in Asheville.</p>
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The answers to these research questions are significant because they often vary by case site location. Though both case sites are located in the southeastern United States, and as a result, are somewhat similar in regard to geography and culture, they are also different, especially from a sociopolitical standpoint. Because of such variances, the research has revealed that each case site has crafted different types of tiny and small house integration policies. Furthermore, the process of developing tiny house policies has been dissimilar at each location. Also, each case site faces its own unique set of challenges regarding the creation tiny house infill measures. The research has also revealed some distinct differences in the visual elements that influence individuals' perceptions of tiny homes. Finally, people's perceptions of tiny house siting and design have influenced the resulting policy differently at each case site location. Understanding

these differences is important for developing an awareness of how varied communities might best craft policies that would result in successful tiny house integration measures.

However, the research failed to fully answer one of the initial research questions proposed in this study:

RQ4: Which tiny house land use regulations are perceived as the most successful?

RQ4a: Which regulations are perceived as the most successful by small home dwellers?

RQ4b: Which regulations are perceived as the most successful by city policy-makers?

This is largely due to the fact that the tiny house land use policies that have been and are being enacted at each case site location are so recent that it is too soon to measure the perceived success or lack thereof of such regulations. For instance, though Horry County passed its tiny house development ordinance during July of 2016, no tiny house developments have yet been built. As a result, it is too early to assess the perceived success of such measures by tiny house dwellers.

However, a few inferences can be made to partially answer this research question. For example, Asheville's new ADU language has now been in place for over a year. The large number of ADU permits that have been filed since the regulations were passed, paired with the high preference rankings indicated for ADUs among Asheville stakeholders, leads to the conclusion that ADU infiltration measures are generally perceived positively by neighborhood residents, tiny house dwellers, and policy makers. Similarly, the lack of public opposition to the new tiny house development ordinance

crafted in Horry County, paired with high rankings for tiny-house-specific communities, may indicate that tiny-house-specific developments will be welcomed by both Horry County residents and policy makers. Nevertheless, future research that examines the perceived success of recently created tiny and small house integration policies is warranted.

Propositions Addressed

In addition to the research questions, the study also initially involved three propositions. Two of the three propositions were addressed in the case study analysis, and a third was not. Of the two that have been addressed, one proved to be supported by the evidence, and one was not (see Table 6.2). The proposition that there would be greater challenges to integrating tiny and small homes in places with very conservative paradigms of property rights was supported by the research findings. Because of heightened concerns over property values, Horry County is currently not interested in creating policies that would allow for ADU or tiny house urban infill options. Furthermore, the policies that are being crafted at this case site allow for a more exclusionary type of tiny house integration. Therefore, this research makes a contribution to theory by examining how tiny houses are being integrated in a more exclusionary manner in places that have a conservative paradigm of property rights. In such communities, tiny and small house policy is being crafted that relegates tiny houses to very specific developments in order to ameliorate property value concerns. The research investigates how such exclusionary policies are being developed in places where the

economy and political system promote capitalist interests over counterculture movements.

Table 6.2. A summary of the proposition findings.

Proposition	Findings
<p>P1: It is proposed that the greatest challenges to adopting land use policies that accommodate tiny homes occur in communities where the residents have a very conservative paradigm of property rights. Though conservatives usually claim that people have the right to do as they please with their property, this only goes so far, as they are generally more concerned with protecting their investments (maintaining property values) than with issues associated with social justice and welfare. This is based on the literature of Ross (2014) and Boudreaux (2011) that examines land use policy, NIMBY-ism, and housing justice.</p>	<p>This proposition is supported by the research. A more exclusionary approach to tiny house integration has been developed at the Horry County case site, a location that has a very conservative paradigm of property rights.</p>
<p>P2: It is proposed that small home dwellers will prefer land use initiatives that allow for homeownership over rental status (as in the case of ADUs) based on the literature that demonstrates the cultural importance of the American dream/homeownership. This is based on Wright's (1983) work, which examines the evolution of housing types and policies in America.</p>	<p>This proposition is only partially supported by the research. Though stakeholders indicated a marked preference for single-family, detached housing, which is a hallmark of the American dream, there was about equal interest in creating both tiny homeownership and rental opportunities.</p>
<p>P3: It is proposed that in places where a significant portion of the population works in tourism-based industries and/or are transplants from elsewhere there will be a greater acceptance of tiny and small homes, and faster implementation of them into the urban fabric. Having many low-wage, tourism-sector jobs requires increased access to affordable housing. Furthermore, transient and transplant populations are less likely to have developed firm place attachments, and thus, little desire for a place to remain the same.</p>	<p>This proposition was not supported by the research findings. No evidence was available to support the initial claims.</p>

Another proposition predicted that people would be more interested in policies that fostered tiny and small house ownership opportunities because of the cultural impetus of the American dream. However, the research revealed about equal interest in the creation of both tiny house ownership and rental opportunities.

The third proposition was not fully answered in the analysis:

P3: It is proposed that in places where a significant portion of the population works in tourism-based industries and/or are transplants from elsewhere there will be a greater acceptance of tiny and small homes, and faster implementation of them into the urban fabric. Having many low-wage, tourism-sector jobs requires increased access to affordable housing. Furthermore, transient and transplant populations are less likely to have developed firm place attachments, and thus, little desire for a place to remain the same.

No evidence was available to support this claim. A greater percentage of Horry County residents work in the tourism sector than in Asheville. However, the heavily tourism, vacation, and retirement-based economy in Horry County has not necessarily resulted in a community of transplants, nor has having fewer of these influences resulted in more long-term residents in Asheville. As a matter of fact, the demographic section of the VPS revealed a trend that was opposite of what was expected. Of the VPS participants from Asheville, 39% (30) indicated they had only lived in the city five years or less, 40% (31) had lived there for six to fifteen years, and only 6% (5) stated they had lived in the city for 26 or more years (N=77). In Horry County, 33% (19) indicated they have resided in the county for five or fewer years, 17% (10) for six to fifteen years, and 31% (18) for 26 or more years (N=58). Though the VPS participants may not be an accurate reflection of the case site demographics as a whole, the descriptive statistics reveal a high transplant

population in Asheville and a greater percentage of long-term residents in Horry County. Therefore, the predicted demographic trends on which the proposition was based are not accurate.

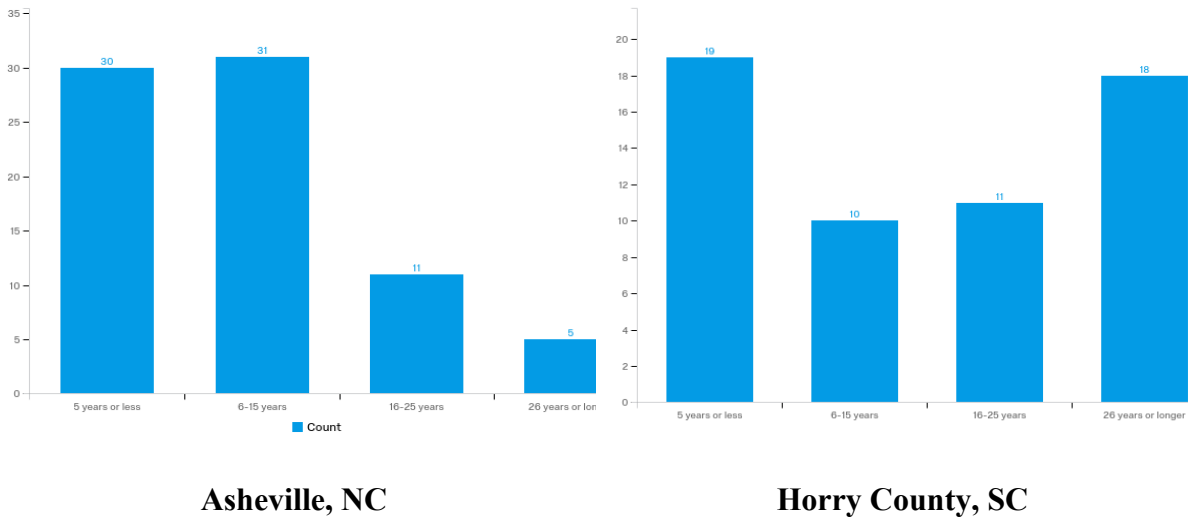


Figure. Length of residency at each case site location. Asheville is on the left and Horry County is depicted on the right.

Yet both case site locations have demonstrated a dire need for affordable housing, and stakeholders at both locations have asserted that tiny and small house integration policy may partially ameliorate this need. At first glance, it may appear that Asheville is creating tiny house policies more rapidly than Horry County. However, the tiny house movement has been gaining traction in Asheville for a while, and efforts to create such policies have been several years in the making. Conversely, Horry County is not experiencing a tiny house counterculture movement and small house integration efforts have been fairly recent. Now that the tiny house development ordinance has been passed, it is unclear how rapidly such homes will be integrated into the county.

Finally, because both locations have indicated a relatively high number of transplants, the part of the proposition that predicted a relationship between longevity and place attachment is not confirmed. A study that investigated long-term residents' perceptions of tiny house integration measures would be needed to further this hypothesis. The research did reveal a preference for "in-context" tiny house integration measures, but at no point did respondents indicate place attachments that were so strong that they opposed changes to the current urban fabric. Because of these reasons, the third proposition is not supported by the research findings.

Implications for Planners

An analysis of the case study and VPS results, in conjunction with a thorough discussion of the study's theoretical framework, research questions, and propositions, has resulted in an encompassing examination of tiny and small house integration efforts at the case study locations. It has also made a contribution to theory by examining inclusionary vs. exclusionary methods of tiny house integration that result from differing socio-political paradigms of property rights and economic systems. Furthermore, it has aided in the development of five implications for planners and policy makers who are interested in accommodating tiny and small homes in urban areas.

1. Tiny/small house integration measures should emphasize affordability.

Housing affordability was found to be the primary impetus behind tiny and small house integration efforts. This supersedes all other drivers, such as environmental concerns and lifestyle simplification measures. Both policy makers and tiny home advocates expressed interest in creating more affordable housing options through the

creation of tiny and small house policy. As a result, tiny and small house integration policy should reflect the desire for affordable housing. There are several ways that land use policy could be crafted to result in tiny house integration measures that feature green and sustainable living, or a specific aesthetic or craftsmanship. However, policy should be created that reflects the primary interests of stakeholders. Therefore, tiny house integration policy should incorporate such affordability measures as decreased lot size requirements and streamlined access to existing infrastructure.

2. Because the research indicated high preferences for ADUs and a desire for rental options, municipalities may want to consider ADU integration as an initial method of accommodating tiny/small homes.

The VPS results indicated high preferences for ADUs at both case site locations. Furthermore, the case study research revealed a desire for policies that would accommodate both tiny home ownership and rental opportunities at both places. Because of these aspirations, municipalities may want to consider the creation of policies that will allow for ADU infill as an initial means of accommodating tiny and small homes. Not only is it likely that communities will perceive such measures positively, but ADU integration does not require the implementation of costly new infrastructure. With the exception of additional parking, much of the other necessary infrastructure, such as roads, power, and sewer systems, are already in place. The creation of ADU-accommodating regulations would allow for the relatively quick and efficient integration of tiny and small homes in a manner that is generally perceived favorably.

3. Jurisdictions that aim to accommodate THOWs would benefit from developing specific language defining these homes and establishing clear regulations for their existence within the community.

The research indicated that THOWs face the greatest barriers to urban integration largely because there is a lack of consensus on what a THOW is. Stakeholders presented numerous contradictory definitions and beliefs as to whether a THOW is a home, RV, mobile home, manufactured unit, camper, or some type of hybrid. As a result of such ambiguity, municipalities that are hoping to achieve THOW integration would benefit from developing clear language about the type of THOWs they are willing to accommodate. A prime example would be Rockledge, Florida, where newly crafted tiny house regulations are very specific as to the standards that THOWs must meet. For example, THOWs must meet certain engineering and design criteria in order to be allowed into newly designated tiny-house pocket neighborhoods (American Tiny House Association 2015). By creating clear THOW definitions and criteria, communities might at least partially avoid the confusion surrounding such structures in regards to finance and insurance practices. Furthermore, unambiguous THOW language may ameliorate the fears of those who are concerned that THOW integration could adversely impact property values and community integrity.

4. Jurisdictions may want to integrate tiny and small houses through the creation of ADU regulations and tiny house development ordinances. Property value concerns and a preference for “in context” urban design seem to inhibit support for the integration of tiny/small homes on their own urban lots.

Of the three legal ways that tiny and small homes may be integrated into urban areas: as ADUs, in tiny/small-house-specific communities, and as urban infill on their own lots among various housing types, policy makers may want to consider the first two methods over the latter option. This is because the VPS analysis indicated a significantly different and lower preference for tiny house infill among various housing types from the other two options. Furthermore, both the case study research and open-ended survey responses revealed a desire for tiny house integration that is perceived to be “in context” with neighborhood surroundings. Stakeholders asserted that they were not only interested in tiny house infill “fitting in” to neighborhoods for aesthetic reasons, but that they did not want surrounding property values to be adversely impacted by the integration of such housing. Stakeholders were concerned that having THOWs or very small houses on their own lots juxtaposed among other housing sizes, might lower surrounding property values. As a result of property value concerns, and a desire to achieve aesthetic harmony in neighborhoods, municipalities may want to focus on integrating tiny and small houses through the development of regulations that accommodate ADUs and tiny-house-specific communities.

5. The research revealed a marked preference for tiny and small houses built in a traditional architectural style. Planners and developers may want to take such preferences into consideration.

The VPS results indicated a significantly different and higher preference for tiny and small homes built in a vernacular or traditional architecture style, over the other design elements that were examined. Many of the interview comments and open-ended

survey responses also revealed a fondness for traditional architecture. As a result, communities many want to take such preferences for tiny and small homes into account. For instance, municipalities that have design review boards may want to craft architectural and design criteria that would require tiny and small house infill to be of a vernacular style. Such regulations may result in tiny house integration measures that are perceived favorably by communities.

Research Limitations

The case study analysis culminated in the formation of ten emergent themes. These themes have assisted in the development of an understanding of why and how each case site is crafting tiny and small house integration policy. The VPS analysis provided insight into which visual elements impact individuals' perceptions of tiny and small homes. Taken in tandem, both analyses have aided in the creation of five implications for those interested in integrating tiny and small homes into urban communities. However, the research has several limitations.

First, the research design is cross-sectional, or conducted at a point in time. Therefore, the study does not take into account how tiny and small house integration efforts may change with time at the case site locations. It also does not take into account how peoples' perceptions of tiny and small homes may be altered after such integration efforts are actualized. This specific study does not possess longevity, where the phenomenon of tiny house integration is followed over a long period of time.

The research findings are also highly context dependent. The case study and VPS results are somewhat a product of the distinct cultural, political, socio-economic,

and geographic conditions found in the southeastern United States. Furthermore, though both case sites are located in the southeastern United States, distinct differences in tiny house integration measures and preferences were revealed at each case site location. Therefore, the research results aren't necessarily generalizable to other places.

A further research limitation is specific to the VPS results. Statistical analyses allowed for difference of mean preference comparisons among the seven categories being examined in the VPS. With the exception of the Materials category, the groups were comprised of images that not only represented a specific theme, but also were relatively similar to one another. However, the four images in the Materials category involved tiny and small homes that were all made of different building products; corrugated metal, adobe and brick, wood, and shipping container materials. Because of the various building materials depicted in the Materials category, examining the mean preference score for this block may not be the most appropriate method of analysis and is a limitation to the research findings. For the category examining the various building materials tiny homes may be comprised of, descriptive statistics for each image is the most suitable means of analysis.

Future Research

It is anticipated that several projects will stem from the initial dissertation research. Future research will examine the tiny and small house movement and policy at the national level rather than focusing solely on the southeastern United States. First, it will be important to examine tiny-house-dweller satisfaction and longevity. Many proponents of tiny and small house living seek to improve their quality of life. Advocates

believe that such factors as reduced fiscal constraints, decreased materialism, and freedom of mobility result in happier and more satisfying lives. However, it remains to be studied if this is indeed the case. Furthermore, because the tiny house movement is on the edge of the housing frontier, research is needed that investigates the longevity of tiny and small home dwelling arrangements. It is unclear whether tiny house dwelling generally occurs for a short duration during specific niche opportunities in people's lives, such as with young people fresh out of college and beginning a career, or if tenure is much longer.

Another future study will examine the urban form that results from developer vs. community-driven tiny house initiatives. This research will address social justice and equity concerns, such as tiny/small home dwellers access to transportation, green space, community services, and employment opportunities. It is hypothesized that developer-driven initiatives may take on some of the negative spatial aspects associated with the trailer park. If this is the case, tiny home dwellers in such developments may have poor access to important social networks and public infrastructure.

Next, research that explores the role that tiny house integration may play in increasing or decreasing gentrification will be conducted. This project will utilize both qualitative data and economic indicators to examine how tiny house integration may increase or ameliorate gentrification threats. The case study findings in this study indicated that stakeholders were generally supportive of measures that created affordable housing options for residents, and unsupportive of policies that resulted in profiteering schemes. It is hypothesized that communities that create policies that foster tiny house

short-term and vacation rentals may find themselves facing increased gentrification issues as a direct result.

Another future research project will investigate how tiny houses on wheels (THOWs) might be used as a sustainable housing option in areas that are increasingly facing problems related to climate change. The mobile aspect of THOWs may allow people to successfully move in and out of especially vulnerable locations, such as floodplains and hurricane-prone coastal regions. The use of THOWs, especially among poorer classes, may result in a decrease in the adverse effects associated with increasing climate change disasters, such as loss of life, property, and economic opportunity.

Conclusion

Current economic, political, and environmental conditions suggest that tiny and small house living is here to stay. As a result of current economic policies and dwindling natural resources, it is unlikely that future generations of American's will experience the vast and steady material wealth associated with decades such the 1950s or 1980s. The upcoming Millennials are the most educated generation in the history of the United States, but are saddled with enormous educational debt (Jayson 2010). Additionally, they must adapt to quickly changing economic conditions by frequently changing careers and moving for employment opportunities (Meister 2012). Future generations, therefore, are not in a position to be saddled with the traditional 30-year house mortgage, which relies on a steady stream of relatively high income. The trends of population growth, decreasing natural resources, less steady job prospects, lower wages, and burgeoning debt, suggests that interest in tiny and small home living will continue to grow in

popularity. As a result, there will be increased interest in integrating tiny and small houses into urban communities.

However, this dissertation has revealed that there are several legal and cultural barriers to tiny house integration measures. For example, property value concerns are deeply rooted in American culture and finance practices. People are unsupportive of tiny and small house integration measures that may adversely impact surrounding property values. The study also indicated a preference for “in context” neighborhood design at the case study locations. Stakeholders generally prefer tiny house integration measures that result in visual harmony in both housing type and design. By addressing various concerns related to tiny house infill when crafting policy, municipalities can create regulations that will allow for the legal integration of tiny and small houses while still maintaining good urban form. This research has indicated that tiny and small house integration measures can be achieved in a way that is perceived positively by community stakeholders.

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APPENDICES

APPENDIX A

Case Study Protocol

Purpose of Protocol and Introduction to the Case Study

The role of the protocol is to guide the proposed case study research. It increases the study's reliability by providing a standardized agenda for the research. The study involves several questions that aim to abstract different types of information. The questions explore what is occurring in relation to small house policy at the case site locations, and examine individual's perceptions of tiny homes.

RQ1: How are the jurisdictions of Asheville and Horry County adapting land use policy to accommodate the legal allowance of tiny homes? (exploratory/descriptive)

RQ2: What is the process of altering land use policy to accommodate small homes? (explanatory/descriptive)

RQ3: What are the challenges associated with adopting such policies? (exploratory/explanatory)

RQ4: Which tiny house land use regulations are perceived as the most successful? (exploratory/explanatory)

RQ4a: Which regulations are perceived as the most successful by small home dwellers?

RQ4b: Which regulations are perceived as the most successful by city policy-makers?

RQ5: What visual elements are associated with individual's perceptions of small homes?

RQ5a: Is there a difference in the average preference among the three ways in which a tiny home may be situated (ADU, tiny home village, or urban infill)?

RQ5b: Is there a difference in the average preference among the four specified design elements (vernacular vs. non-traditional, wheels vs. no wheels, and building materials)?

RQ6: Do perceptions of tiny house situation and design impact the resulting land use policy? (exploratory/explanatory)

The proposed research also includes propositions. These propositions are rooted in the literature that discusses land-use regulations, homeownership, and urban design.

P1: It is proposed that the greatest challenges to adopting land use policies that accommodate tiny homes occur in neighborhoods where the residents have very conservative paradigms of property rights. Though conservatives usually claim that people have the right to do as they please with their property, this only goes so far, as they are generally more concerned with protecting their investments (maintaining property values) than issues associated with social justice and welfare. This is based on the literature of Ross (2014) and Boudreaux (2011) which examines land-use policy, NIMBY-ism, and housing injustice.

P2: It is proposed that small home dwellers will prefer land use initiatives that allow for homeownership over rental status (as in the case of ADUs) based on the literature on the importance of the American dream/homeownership in American culture. This is based on Wright's (1983) work that examines the evolution of American housing forms and policies.

P3: It is proposed that places where a significant portion of the population works in tourism-based industries and/or are transplants will exhibit a greater acceptance of tiny homes, and a faster implementation of them into the urban fabric. Having many low-wage, tourism-sector jobs requires access to affordable housing. Transplant populations are less likely to have developed firm place attachment, or the desire for a place to remain the same.

Data Collection Procedures

The case study site locations are the cities of Asheville, NC and Horry County, SC. Listed are the current case study site contacts:

<u>Asheville</u>	
Gordon Smith, Asheville City Councilman	gordonsmith@avlcouncil.com
Mae Creadick, member of Asheville's Affordable Housing Advisory Committee	maecreadick@hotmail.com
Shannon Tuch, City of Asheville Planning Department	stuch@ashevillenc.gov
Alan Glines, City of Asheville Planning Department	aglines@ashevillenc.gov
Teal Brown, co-owner of Wishbone Tiny Homes	teal@wishbonetinyhomes.com
<u>Myrtle Beach</u>	
Carol Coleman, Director of Planning, City of Myrtle Beach	ccoleman@cityofmyrtlebeach.com
Allison Hardin, staff planner, City of Myrtle Beach	ahardin@cityofmyrtlebeach.com (843) 918-1059
Mary Catherine Hyman, Senior Planner, Horry County	hymanm@horrycounty.org (843) 915-5340

Because the proposed research relies heavily on the insights and perceptions of individuals, the study will need to go through the institutional review board process at Clemson University. The project will be thoroughly explained to contributors and each will be presented with a consent form before participating. Interviewees in this study will be those individuals who can provide information that leads to a greater understanding of the phenomenon under study. This may include city planning officials, commission members, small home enthusiasts and realtors at each case site location. During April and May of 2016, the researcher will contact the interviewees and set up an interview schedule for June 2016.

The interviews will be conducted face-to-face and be semi-focused in format, tape-recorded, and later transcribed in order to develop codes and themes. Therefore, before conducting the fieldwork, the primary researcher will need to purchase an audio recording device and decide upon transcription procedures. MAXQDA licensure must also be obtained during this time period in order to code and analyze the interview data once they are transcribed.

In addition to the interviews, the study will utilize several additional sources of evidence. Of high importance are documents such as e-mail correspondences, administrative reports on land-use policy, and news stories on tiny house initiatives in both cities. Archival records such as land-use and zoning maps of the case site locations will also be examined. During the site visits, the primary researcher will need to allow ample time to examine such public archival records. Before arriving, the researcher will need to ask permission for access and establish times to examine this data. Furthermore,

a laptop, notebooks, pens, and adequate change for making photocopies of pertinent archival materials must be brought into the field.

It will be important to plan ahead in order to gather as much data at once at each case site field visit. However, it is anticipated that follow-up visit(s) will need to be scheduled at each site. This is because it is unlikely that all interviewees are available during the established time frame, interviews of additional individuals may be required, and further archival data may need to be examined.

Case Study Questions

This portion of the protocol addresses how each of the primary case study research questions will be addressed.

RQ1: How are the jurisdictions of Asheville and Horry County adapting land use policy to accommodate the legal allowance of tiny homes?

- Collect information on each city's small house initiatives. This can primarily be accomplished through archival work, but also should be addressed in the interviews. Develop a chronological record of when/if small houses were banned in each city due to zoning/ordinances, and when these regulations began to be challenged. Collect the following info:
 - Historic ordinances banning small homes and when this occurred (if applicable)
 - Articles, website info, and city council meeting minutes about tiny house initiatives in each city
 - Specifics on each tiny house land use policy (who initiated, what proposed, when did it happen, and where in the community)
 - Interview questions: **How has the tiny house movement come about in your city? What are the regulatory policies your city has adopted (or is in the process of adopting) in order to accommodate small homes?**

RQ2: What is the process of altering land use policy to accommodate small homes?

- This question will be addressed through interviews with those involved in altering existing land use policy in order to accommodate small/tiny homes and examining archival resources to understand how various municipalities are handling this issue.
 - Interview question: **Describe the process of altering existing land use policy to accommodate tiny/small homes?**

RQ3: What are the challenges associated with adopting such policies?

- This question is best addressed during the interview process. This question will be posed to those active in the tiny house policy arena and tiny house enthusiasts.
 - Develop a chronological account of challenges faced by tiny house proponents at each case site.
 - Examine articles, webpages, and ordinances that are pertinent to these obstacles.
 - Interview questions: **Describe the process of implanting these policy changes. What are the challenges to accommodating tiny homes in your city? Has this/these land-use policy changes received support from the community?**

RQ4: Which tiny house land use regulations are perceived as the most successful?

RQ4a: Which regulations are perceived as the most successful by small home dwellers?

RQ4b: Which regulations are perceived as the most successful by city policy-makers?

- This question will be addressed through the interview process. It will be important to compare/contrast the information obtained from tiny home enthusiasts/dwellers to that of policy makers/planners and determine if there is a common thread.
 - Gather information that may contest the “positive perception” of tiny homes if there is backlash against such policies in either community. This may be gathered through articles, blogs, city council meeting minutes, and through participant-observations of neighbors of tiny home dwellers.

- Interview question: **Which tiny house policies are perceived as the most successful?**

RQ5: What visual elements are associated with individual's perceptions of small homes?

RQ5a: Is there a difference in the average preferences among the three ways a tiny house may be situated (ADU, tiny home village, or urban infill)?

RQ5b: Is there a difference in the average preferences among the four specified categories of design elements (vernacular vs. non-traditional, wheels vs. no wheels, and building materials)?

- Question will be primarily addressed through the visual preference survey. However, data can also be gathered during the interview process; especially if photo elicitation is utilized. Photographs utilized during this interview technique should include the different methods of siting urban tiny homes in addition to such elements as wheels, vernacular vs. nontraditional designs, and different construction materials.
 - Collect information on policies/ordinances and city council meeting minutes in each city that address the elements mentioned above.

RQ6: Do perceptions of tiny house situation and design impact the resulting land use policy?

- This question will be addressed by analyzing both the interview and VPS data. What is being seen in terms of policy creation at each site will be compared to the VPS results as a whole, and as split between each case site (VPS results from Asheville as opposed to Brevard).

Evaluation of the Data

Because the interviews will be extensive in this study, a computer software program, such as MAXQDA, will be useful in analyzing codes and themes in the resulting transcripts. The coded topics and developed themes will aid in the creation of a

holistic understanding of what is occurring at the case site locations in regards to small house implementation and policy.

The case study analysis will involve cross-case synthesis. This technique involves the comparison and examination of evidence gathered at each case study location. The researcher then searches for patterns or emergent themes. The analysis will be furthermore rooted in an in-depth literature review and addresses all the data, rival explanations, and the most pertinent findings. Additionally, the primary researcher will collaborate with interviewees in a technique known as member checking. In this method, the researcher discusses the initial interview findings with interviewees in order to ascertain that information has not been misconstrued or is missing (Creswell 2012).

The VPS will result in quantitative data that will be analyzed with such statistical techniques as ANOVA and Tukeys comparison of means. These statistical techniques will aid in understanding the relationship between the various independent factors and preferences. The statistical results will be compared and contrasted with the studies theoretical framework and evaluated. The analysis of the VPS will also be address rival explanations of causal relationships.

APPENDIX B

Photo Sort and Rank Task Worksheets

PHOTO SORT TASK

Thank you for participating in the photo rank task. This procedure will ensure that the photographs used in the visual preference survey (VPS) portion of the research are most representative of each category under study. This procedure should take approximately 30 minutes. The focus group will be given a stack of photographs and are asked to separate the photographs into piles that you feel (as a group) best meet the criteria of the 7 categories explained below. Some photographs may fit into more than one category, but please choose the category the group feels the photograph **best** depicts. Also, feel free to ask the primary researcher for further information/explanations about each of the categories.

Categories

Though no formal definition exists, tiny houses are generally regarded as those less than 400 square feet, and small homes are generally regarded as averaging 1,000 square feet or less. The images used for this task are closer to the definition of tiny than small. The research will examine individual's preferences for the different ways in which tiny or small homes have been integrated into urban landscapes and key design features that may affect various land use policies. The survey will investigate preferences towards the **three** legal means of accommodating tiny homes: in communities zoned specifically for tiny houses, on small or irregularly shaped lots among other housing types, and as an accessory to a larger residence. The **four** design variables to be investigated are loosely based on the literature that asserts that well perceived communities share certain design characteristics. The design elements under study are: vernacular vs. modern architecture, construction materials, and wheels vs. no wheels.

ADUs Accessory Dwelling Units (ADUs) are second units on a single lot. It may be attached or detached to the main house. In the majority of instances, ADUs are owned by the primary homeowner. **In this category choose the images that best depict a small house that share a lot with a primary dwelling.**

Urban Integration This category examines tiny homes that are on their own lot within an urban community. The lots are often small or irregularly shaped. The homes may be found among other housing sizes and types. **In this category choose the images that best depict a tiny house on its own urban lot (thus, other structures should be visible).**

Tiny House Community This category is concerned with places that have been specifically zoned for tiny houses. They are generally on small lots and all of the

surrounding homes are also tiny. **In this category choose the images that best depict a community of small houses (more than one tiny house should be visible).**

Vernacular This category examines tiny homes that are built in a traditional architectural style. They are often built with local materials and building methods. **In this category choose the images that best depict traditional/historic tiny house designs.**

Modern This grouping looks at tiny homes that are built in a non-traditional architectural style. These homes are often unconventional in their shape and/or use of building materials. **In this category choose the images that best depict modern/unconventional small home designs.**

Building Materials This classification looks at how the use of different building materials may impact individual's preferences of tiny homes. The category aims to examine some of the more unique building materials, such as stone, corrugated metal, and log. **In this category choose the images that best depict building materials that may positively OR negatively influence perceptions of the home.**

Wheels Many tiny houses are built on trailer frames with wheels. Such a design offer's the homeowner freedom of mobility, however, may or may not be well perceived. In this category, participants are asked to rank the images that best represent a wheeled tiny home. **In this category choose the images that best depict tiny homes that have wheels that may positively OR negatively influence perceptions of the home.**

First, please fill out the following demographic data:

Age _____

Gender _____

Ethnicity _____

Education Level _____

Education Specialty (for example, Architecture or Planning)

Comment Section

Thank you for your participation!

PHOTO RANK TASK SHEET

Thank you for participating in the photo rank task. This procedure will help ensure that the photographs used in the visual preference survey (VPS) portion of this research are most representative of each category under study. This procedure should take approximately 30 minutes. You will be given a stack of photographs that have been sorted into seven separate categories via a focus group. Each photo has a randomized number on the back. Please use the rank and sort table on the last page to record your preferences from MOST to LEAST representative of the seven categories explained below. Note that this does not mean you rate your preferences, but rate the photos that you feel best represent each category! There is only space for your top 6 preferences. If a category has more than 6 photographs, only record your top 6 preferences. Record the number on the back of the picture for your top choice in a given category in the available column slot. The second most preferred would go under that, and so forth. Finally, there is a space for comments and recommendations pertaining to the photographs.

Categories

Though no formal definition exists, tiny houses are generally regarded as those less than 400 square feet, and small homes are generally regarded as averaging 1,000 square feet or less. The images used for this task are closer to the definition of tiny than small. The research will examine individual's preferences for the different ways in which tiny or small homes have been integrated into urban landscapes and key design features that may affect various land use policies. The survey will investigate preferences towards the **three** legal means of accommodating tiny homes: in communities zoned specifically for tiny houses, on small or irregularly shaped lots among other housing types, and as an accessory to a larger residence. The **four** design variables to be investigated are loosely based on the literature which asserts that well perceived communities share certain design characteristics. The design elements under study are: vernacular vs. modern architecture, construction materials, and wheels vs no wheels.

ADUs Accessory Dwelling Units (ADUs) are second units on a single lot. It may be attached or detached to the main house. In the majority of instances, ADUs are owned by the primary homeowner. **In this category rate the images that best depict a small house that share's a lot with a primary dwelling.**

Urban Integration This category examines tiny homes that are on their own lot within an urban community. The lots are often small or irregularly shaped. The homes may be found among other housing sizes and types. **In this category rate the images that best depict a tiny house on its own urban lot (thus, other structures should be visible).**

Tiny House Community This category is concerned with places that have been specifically zoned for tiny houses. They are generally on small lots and all of the

surrounding homes are also tiny. **In this category rate the images that best depict a community of small houses (more than one tiny house should be visible).**

Vernacular This category examines tiny homes that are built in a traditional architectural style. They are often built with local materials and building methods. **In this category rate the images that best depict traditional/historic tiny house designs.**

Modern This grouping looks at tiny homes that are built in a non-traditional architectural style. These homes are often unconventional in their shape and/or use of building materials. **In this category rate the images that best depict modern/unconventional small home designs.**

Building Materials This classification looks at how the use of different building materials may impact individual's preferences of tiny homes. The category aims to examine some of the more unique building materials, such as stone, corrugated metal, and log. **In this category rate the images that best depict building materials that may positively OR negatively influence perceptions of the home.**

Wheels Many tiny houses are built on trailer frames with wheels. Such a design offer's the homeowner freedom of mobility, however, may or may not be well perceived. In this category, participants are asked to rank the images that best represent a wheeled tiny home. **In this category rate the images that best depict tiny homes that have wheels that may positively OR negatively influence perceptions of the home.**

First, please fill out the following demographic data:

Age _____

Gender _____

Ethnicity _____

Education Level _____

Education Specialty (for example, Architecture or Planning)

Photo Rank Table

	ADU's	Urban Integration	Tiny House Community	Vernacular	Modern	Building Materials	Wheels
MOST Representative							
LEAST Representative							

Comment Section

Thank you for your participation!

APPENDIX C

Visual Preference Survey Instrument



You are invited to participate in an academic research study being undertaken by Dr. Cliff Ellis, and PhD student, Krista Evans, both of Clemson University. The purpose of this study is to gain a better understanding of residents' perceptions of tiny and/or small houses in the jurisdictions of Asheville, NC and Horry County, SC. Though no formal definition exists, tiny houses are generally considered to be homes of 400 sq. ft. or smaller, and small homes are those less than 1,000 sq. ft. Your input is important, as the results of the survey may be used to help planners, housing officials, and academic professionals develop tiny house policies.

Your participation will involve completion of an electronic visual preference survey (Qualtrics). The majority of the survey involves pictures of tiny houses, which you are requested to indicate your level of personal preferences. The amount of time required for you to complete the survey is approximately 25 minutes. There are no foreseeable risks or discomforts associated with this research. Your participation in this study is voluntary. You may choose not to participate and/or you may withdraw from participation at any point in the study. You will not be penalized in any way should you decide not to participate or to withdraw from this survey.

Measures will be taken to protect your privacy. Survey responses are strictly confidential. Survey data will be stored and collected via a secure software program during the collection and analysis phases of the study. After the study is completed, survey responses will be destroyed. Individual identities will not be revealed in any publication that might result from this survey.

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Cliff Ellis at Clemson University at 864-656-2477 or cliffloe@clemson.edu. If you have any questions or concerns about your rights in this research study, please contact the Clemson University Office of Research Compliance (ORC) at 866-297-3071 or irb@clemson.edu. If you are outside of the Upstate South Carolina area, please use the ORC's toll-free number, 866-297-3071.

Clicking on the "agree" button indicates that:

- You have read the above information
- You voluntarily agree to participate
- You are at least 18 years of age
- Agree

Please answer the following demographic questions as it will allow for a fuller understanding of those participating in the survey.

Which of the following best describes your residency status:

- I am a resident of Asheville, NC.
- I am not a resident, but a property owner in Asheville.
- I am a resident of Horry County, SC.
- I am not a resident, but a property owner in Horry County, SC.
- I neither reside, nor own property in either Asheville or Horry County.

If you reside or own property in either Asheville or Horry County, approximately how many years has this been the case?

- 5 years or less
- 6-15 years
- 16-25 years
- 26 years or longer
- I neither reside nor own property in Asheville or Horry County

What type of home do you currently live in?

- Single-family detached home greater than 1,000 sq ft
- Single-family detached home less than 1,000 sq ft but not smaller than 400 sq ft
- Apartment
- Condo
- Mobile home
- Tiny house (about 400 sq ft or smaller)

- Accessory dwelling unit (ADU)
- Other

Which of the following best describes your living arrangement?

- I am a homeowner.
- I am a renter.
- Other

What sex are you?

- Male
- Female
- Transgender

Which age bracket best describes you?

- 18-30
- 31-45
- 46-60
- 61-75
- Over 75

Which of the following best describes your race? Check all that apply.

- African American or black
- Asian American
- Caucasian or white
- Native American
- Other
- Choose not to respond

Which of the following best describes your relationship status?

- Single
- Single but cohabitating with significant other
- In a civil union or domestic partnership
- Married
- Separated
- Divorced
- Widowed

Which of the following best describes your highest level of education?

- Less than high school
- High school degree or equivalent
- Some college

- Associates degree
- Bachelor's degree
- Master's degree
- Professional or Doctoral degree

Lastly, what is your current employment status? Check all that apply.

- Employed full-time
- Employed part-time
- Self-employed
- Unemployed
- Full-time student
- Retired

ADU Block

This part of the survey will examine your perceptions of accessory dwelling units (ADUs). ADUs may alternately be referred to as granny-flats, in-law apartments, back yard cottages, and laneway houses. ADUs are second units on a single lot. An ADU may be attached or detached to the main house. In the majority of instances, ADUs are owned by the primary home owner. Furthermore, the ADU classification sometimes allows homeowner's to park a tiny home on wheels on their lot.



For the above photo, please choose the response that best demonstrates your preference for the accessory dwelling unit (ADU) depicted in this image.

I dislike it very much I dislike it Neutral I like it I like it very r



Please select the one characteristic that most influenced your level of preference.

- ADU sited near primary dwelling
- Overall design of the small/tiny house
- Landscaping
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the ADU depicted in this image.

I dislike it very much I dislike it Neutral I like it I like it very much



Please select the one characteristic that most influenced your level of preference.

- ADU sited by primary dwelling
- Overall design of small/tiny house
- Landscaping
- Exterior building materials
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the ADU depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- ADU sited by primary dwelling
- Overall design of tiny house
- Exterior building materials
- Built on trailer
- Deck
- Landscaping
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the ADU depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- ADU sited by primary dwelling
- Overall design of small/tiny house
- Landscaping
- Other (fill-in)

From the following statements, please select the one that most closely represents your opinion about accessory dwelling unit's (ADUs) being allowed in your neighborhood.

- I would support ADUs being allowed in my neighborhood.
- I would support ADUs being allowed in my neighborhood as long as there are some rules about how they look.
- I would support ADUs being allowed in my neighborhood as long as there are rules about how they look, how far they must be from property lines and issues with parking are addressed.
- I am uncertain as to whether ADUs should be allowed in my neighborhood or not.
- ADUs should not be allowed in my neighborhood.

TinyCommunity Block

This category is concerned with places that have been specifically zoned for or legal allowances have been made for tiny/small houses. Homes in tiny/small house

communities are generally on small lots and the surrounding homes are also tiny/small. This section will examine your perceptions of tiny/small house communities.



For the above photo, please choose the response that best demonstrates your preference for the small homes depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very r



Please select the one characteristic that most influenced your level of preference.

- The context of several tiny/small houses together.
- The overall design of the tiny/small houses.
- Landscaping
- Fencing
- Porches
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the tiny homes depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- The context of several tiny houses together
- The overall design of the tiny houses
- Proximity to nonresidential structure
- Landscaping
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small homes depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very r



Please select the one characteristic that most influenced your level of preference.

- The context of several tiny/small houses together
- The overall design of the tiny/small houses
- House color
- Porches
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small homes depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- The context of several tiny/small houses together
- The overall design of the tiny/small houses
- Landscaping

- Fencing
- Porches
- Other (fill-in)

From the following statements, please select the one that most closely represents your opinion about having an area in your neighborhood created specifically to accommodate tiny or small homes.

- I would support a tiny or small house community in my neighborhood.
- I would support a tiny/small house community in my neighborhood as long as there are some rules about how they look.
- I would support a tiny/small house community in my neighborhood as long there are some rules about how they look and my property values are not adversely impacted.
- I am uncertain as to whether a tiny/small house community should be allowed in my neighborhood or not.
- A small/tiny house community should not be allowed in my neighborhood.

TinyIntegration

This category examines tiny/small homes that are on their own lot and integrated within an urban community. The homes are often on lots that are small or irregularly shaped. These tiny/small homes may be found among houses of varying sizes and types. This section will examine your perceptions of tiny houses integrated into urban communities.



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Context of surrounding structures
- Overall design of the tiny/small house

- Fencing
- House color
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very r



Please select the one characteristic that most influenced your level of preference.

- Context of surrounding structures
- Overall design of the tiny/small house
- Landscaping

- Fence
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very r



Please select the one characteristic that most influenced your level of preference.

- Context of surrounding structure
- Overall design of the tiny/small house
- Landscaping
- Corrugated metal detailing
- House color
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very r



Please select the one characteristic that most influenced your level of preference.

- Context of surrounding structures
- Overall design of the tiny/small house
- Color of house
- Porch
- Other (fill-in)

From the following statements, please select the one that most closely represents your opinion about the integration of tiny/small homes on their own urban lots in your neighborhood.

- I would support the integration of tiny/small homes on their own urban lots in my neighborhood.
- I would support the integration of tiny/small homes on their own urban lots in my neighborhood as long as there are some rules about how they look.
- I would support the integration of tiny/small homes on their own urban lots in my neighborhood as long as there are some rules about how they look and my property values are not adversely impacted.
- I am uncertain as to whether tiny/small homes on their own urban lots should be allowed in my neighborhood or not.
- The integration of tiny/small homes on urban lots of their own should not be allowed in my neighborhood.

Wheels

Tiny Houses on Wheels (THOWs) are tiny houses built on trailer frames with wheels. Such a design offer's the homeowner freedom of mobility. This section will examine your preferences of tiny houses on wheels.



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very r



Please select the one characteristic that most influenced your level of preference.

- House being on wheels
- Overall design of the tiny/small house

- Exterior building materials
- Landscaping
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

I dislike it very much I dislike it Neutral I like it I like it very much



Please select the one characteristic that most influenced your level of preference.

- House being on wheels
- Overall design of the tiny/small house
- Landscaping
- Steps
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- House being on wheels
- Overall design of tiny/small house
- Exterior building materials
- Porch

- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- House being on wheels
- Overall design of tiny/small house
- Exterior building materials
- Porch

- Other (fill-in)

From the following statements, please select the one that most closely represents your opinion about the allowance of tiny homes on wheels (THOWs) in your neighborhood.

- I would support the allowance of tiny houses on wheels in my neighborhood.
- I would support the allowance of tiny houses on wheels in my neighborhood as there are some rules about how they look.
- I would support the allowance of tiny houses on wheels in my neighborhood as long as there are some rules about how they look and they are connected to city utilities.
- I am uncertain as to whether tiny houses on wheels should be allowed in my neighborhood or not.
- The allowance of tiny houses on wheels should not be allowed in my neighborhood.

Materials

This section looks at how the use of different building materials may impact people's perceptions of tiny/small homes. This category examines some of the more unique building materials, such as stone, corrugated metal, and wooden shingles. This section will examine your preferences of tiny/small homes built with with specific building materials.



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

- I dislike it very much
 I dislike it
 Neutral
 I like it
 I like it very much



Please select the one characteristic that most influenced your level of preference.

- Exterior building materials
- House being on wheels
- Overall design of the tiny/small house
- Paint trim
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much I dislike it Neutral I like it I like it very much



Please select the one characteristic that most influenced your level of preference.

- Exterior building materials
- Overall design of the tiny/small house
- Landscaping
- Door
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Exterior building materials
- Overall design of the tiny/small house
- Landscaping
- Deck
- House color
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Exterior building materials
- House on wheels
- Overall design of the tiny/small house
- Paint trim
- Other (fill-in)

Traditional

This category examines tiny/small homes that are built in a vernacular or traditional architectural style. Traditional style homes are often built to reflect local styles, climate, and building methods. This section will examine your preferences for tiny/small homes built in a traditional style.



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Overall design of the tiny/small house
- Landscaping
- Ornamentation on porch column cornices
- Roof style

- Porch
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Overall design of the tiny/small house

- Landscaping
- Porch
- Distinctive window
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Overall design of tiny/small house
- Porch
- Fencing
- House color
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Overall design of the tiny/small house
- Porch
- Landscaping
- Ornamentation on porch column cornices
- Other (fill-in)

Modern

This grouping looks at tiny homes that are built in a non-traditional or modern architectural style. These homes may be unconventional in their shape, architectural details and/or use of building materials. This section will examine your preferences of tiny/small homes built in a non-traditional style.



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Overall design of tiny/small home
- Exterior building materials

- Landscaping
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Overall design of the tiny/small house
- The context of several tiny/small houses together
- Landscaping
- Exterior building materials
- Other (fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Overall design of the tiny/small house
- Exterior building materials
- Landscaping
- Entrance
- Other (Fill-in)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

I dislike it very much

I dislike it

Neutral

I like it

I like it very much



Please select the one characteristic that most influenced your level of preference.

- Overall design of the small house
- Exterior building materials
- House being on wheels

- Porch
- Steps
- Other (Fill-in)

From the following statements, please select the one that most closely represents your opinion about tiny/small homes built in traditional (vernacular) and non-traditional (modern) styles.

- I prefer tiny/small homes built in a traditional/vernacular style.
- I prefer tiny/small homes built in a nontraditional/modern style.
- I prefer tiny/small homes built in each of the styles of traditional/vernacular and nontraditional/modern about equally.
- I am uncertain as to whether my preferences for tiny/small homes are influenced by the factors of traditional/vernacular and nontraditional/modern styles.
- My preference for tiny/small homes is not influenced by the factors of traditional/vernacular and nontraditional/modern styles. My preference is influenced by other factor(s).

Final Questions

From the following statements, choose the one that most closely represents your opinion about living in a tiny/small home.

- The idea of living in a tiny/small home is appealing to me.
- The idea of living in a tiny/small home is appealing to me, though I would have some concerns about doing so.
- I am uncertain whether the idea of living in a tiny/small home is appealing to me or not.
- The idea of living in a tiny/small home is unappealing to me, but I understand why others may want to do so.
- The idea of living in a tiny/small home is unappealing to me.

Describe how you would feel about your neighbor putting a tiny/small house on the lot adjacent to yours. (Fill-in)

Please include any comments about tiny/small homes that you think may be important for understanding people's preferences for such homes. (Fill-in)

Thank you for your time and input; it is appreciated!

APPENDIX D

Statistical Analyses of Likert Scale Responses

ADU Block



For the above photo, please choose the response that best demonstrates your preference for the accessory dwelling unit (ADU) depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	2%(1)	9%(5)	9%(5)	41%(23)	39%(22)	4.1(1.0)
Asheville	3%(2)	11%(8)	25%(19)	39%(29)	23%(17)	3.7(1.0)
Total	2%(3)	1%(13)	18%(24)	40%(52)	30%(39)	3.8(1.0)



For the above photo, please choose the response that best demonstrates your preference for the ADU depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	7%(4)	5%(3)	39%(22)	48%(27)	4.3(0.9)
Asheville	0	3%(2)	7%(5)	43%(32)	48%(36)	4.4(0.7)
Total	0	5%(6)	6%(8)	41%(54)	48%(63)	4.3(0.8)



For the above photo, please choose the response that best demonstrates your preference for the ADU depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	11%(6)	5%(3)	30%(17)	54%(30)	4.3(1.0)
Asheville	3%(2)	5%(4)	11%(8)	46%(34)	35%(26)	4.1(1.0)
Total	2%(2)	8%(10)	8%(11)	39%(51)	43%(56)	4.1(1.0)



For the above photo, please choose the response that best demonstrates your preference for the ADU depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	4%(2)	16%(9)	30%(17)	30%(17)	20%(11)	3.5(1.1)
Asheville	3%(2)	9%(7)	18%(13)	31%(23)	39%(29)	3.9(1.1)
Total	3%(4)	12%(16)	23%(30)	31%(40)	31%(40)	3.7(1.1)

From the following statements, please select the one that most closely represents your opinion about accessory dwelling unit's (ADUs) being allowed in your neighborhood.

- I would support ADUs being allowed in my neighborhood. 31%(40)
- I would support ADUs being allowed in my neighborhood as long as there are some rules about how they look. 5%(7)
- I would support ADUs being allowed in my neighborhood as long as there are rules about how they look, how far they must be from property lines and issues with parking are addressed. 56%(73)
- I am uncertain as to whether ADUs should be allowed in my neighborhood or not. 3%(4)
- ADUs should not be allowed in my neighborhood. 5%(6)

TinyCommunity Block



For the above photo, please choose the response that best demonstrates your preference for the small homes depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	1%(1)	1%(1)	4%(2)	30%(17)	63%(35)	4.5(0.8)
Asheville	1%(1)	7%(5)	8%(6)	45%(33)	38%(28)	4.1(0.9)
Total	2%(2)	5%(6)	6%(8)	39%(50)	49%(63)	4.3(0.9)



For the above photo, please choose the response that best demonstrates your preference for the tiny homes depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	11%(6)	42%(23)	16%(9)	13%(7)	19%(10)	2.9(1.3)
Asheville	3%(2)	37%(27)	27%(20)	23%(17)	9%(7)	3.0(1.1)
Total	6%(8)	39%(50)	23%(29)	19%(24)	13%(17)	2.9(1.2)



For the above photo, please choose the response that best demonstrates your preference for the small homes depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	4%(2)	5%(3)	5%(3)	35%(19)	51%(28)	4.2(1.0)
Asheville	4%(3)	10%(7)	12%(9)	52%(38)	22%(16)	3.8(1.0)
Total	4%(5)	8%(10)	9%(12)	45%(57)	34%(44)	4.0(1.1)



For the above photo, please choose the response that best demonstrates your preference for the small homes depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	7%(4)	4%(2)	41%(23)	48%(27)	4.3(0.9)
Asheville	0	4%(3)	4%(3)	47%(34)	45%(33)	4.3(0.7)
Total	0	5%(7)	4%(5)	44%(57)	47%(60)	4.3(0.8)

From the following statements, please select the one that most closely represents your opinion about having an area in your neighborhood created specifically to accommodate tiny or small homes.

- I would support a tiny or small house community in my neighborhood. 34%(44)
- I would support a tiny/small house community in my neighborhood as long as there are some rules about how they look. 25%(32)
- I would support a tiny/small house community in my neighborhood as long there are some rules about how they look and my property values are not adversely impacted. 30%(39)
- I am uncertain as to whether a tiny/small house community should be allowed in my neighborhood or not. 6%(8)
- A small/tiny house community should not be allowed in my neighborhood. 5%(6)

TinyIntegration



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	11%(6)	25%(14)	15%(8)	35%(19)	15%(8)	3.2(1.3)
Asheville	1%(1)	25%(18)	15%(11)	38%(28)	21%(15)	3.5(1.1)
Total	5%(7)	25%(32)	15%(19)	37%(47)	18%(23)	3.4(1.2)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	13%(7)	24%(13)	9%(5)	35%(19)	20%(11)	3.3(1.4)
Asheville	4%(3)	21%(15)	16%(12)	32%(23)	27%(20)	3.6(1.2)
Total	8%(10)	22%(28)	13%(17)	33%(42)	24%(31)	3.4(1.3)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	9%(5)	9%(5)	35%(19)	47%(26)	4.2(1.0)
Asheville	0	3%(2)	1%(1)	44%(32)	52%(38)	4.5(0.7)
Total	0	5%(7)	5%(6)	40%(51)	50%(64)	4.3(0.8)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	7%(4)	31%(17)	13%(7)	27%(15)	22%(12)	3.3(1.3)
Asheville	1%(1)	29%(21)	14%(10)	36%(26)	21%(15)	3.5(1.2)
Total	4%(5)	30%(38)	13%(17)	32%(41)	21%(27)	3.4(1.2)

From the following statements, please select the one that most closely represents your opinion about the integration of tiny/small homes on their own urban lots in your neighborhood.

- I would support the integration of tiny/small homes on their own urban lots in my neighborhood. 37%(47)
- I would support the integration of tiny/small homes on their own urban lots in my neighborhood as long as there are some rules about how they look. 19%(24)
- I would support the integration of tiny/small homes on their own urban lots in my neighborhood as long as there are some rules about how they look and my property values are not adversely impacted. 31% (39)
- I am uncertain as to whether tiny/small homes on their own urban lots should be allowed in my neighborhood or not. 9% (12)

The integration of tiny/small homes on urban lots of their own should not be allowed in my neighborhood.
4%

Wheels



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	4%(2)	24%(13)	35%(19)	22%(12)	15%(8)	3.2(1.1)
Asheville	4%(3)	14%(10)	33%(24)	33%(24)	16%(12)	3.4(1.1)
Total	4%(5)	18%(23)	34%(43)	28%(36)	16%(20)	3.3(1.1)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	6%(3)	13%(7)	26%(14)	31%(17)	24%(13)	3.6(1.2)
Asheville	4%(3)	7%(5)	23%(17)	44%(32)	22%(16)	3.7(1.0)
Total	5%(6)	9%(12)	24%(31)	39%(49)	23%(29)	3.7(1.1)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	6%(3)	6%(3)	20%(11)	46%(25)	22%(12)	3.7(1.0)
Asheville	4%(3)	10%(7)	26%(19)	42%(31)	18%(13)	3.6(1.0)
Total	5%(6)	8%(10)	24%(30)	44%(56)	20%(25)	3.7(1.0)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	6%(3)	15%(8)	26%(14)	35%(19)	19%(10)	3.4(1.1)
Asheville	5%(4)	22%(16)	21%(15)	37%(27)	15%(11)	3.3(1.1)
Total	6%(7)	19%(24)	23%(29)	36%(46)	17%(21)	3.4(1.1)

From the following statements, please select the one that most closely represents your opinion about the allowance of tiny homes on wheels (THOWs) in your neighborhood.

- I would support the allowance of tiny houses on wheels in my neighborhood. 24%(30)
- I would support the allowance of tiny houses on wheels in my neighborhood as there are some rules about how they look. 13%(16)
- I would support the allowance of tiny houses on wheels in my neighborhood as long as there are some rules about how they look and they are connected to city utilities. 25%(31)
- I am uncertain as to whether tiny houses on wheels should be allowed in my neighborhood or not. 17%(21)
- The allowance of tiny houses on wheels should not be allowed in my neighborhood. 22%(28)

Materials



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	4%(2)	15%(8)	19%(10)	34%(18)	28%(15)	3.7(1.2)
Asheville	5%(4)	14%(10)	11%(8)	41%(30)	29%(21)	3.7(1.2)
Total	5%(6)	14%(18)	14%(18)	38%(48)	29%(36)	4.3(0.8)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	4%(2)	6%(3)	47%(25)	43%(23)	4.3(0.7)
Asheville	1%(1)	3%(2)	10%(7)	32%(23)	55%(40)	4.4(0.9)
Total	1%(1)	3%(4)	8%(10)	38%(48)	50%(63)	3.6(1.3)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	13%(7)	26%(14)	8%(4)	32%(17)	21%(11)	3.2(1.4)
Asheville	0	19%(14)	7%(5)	41%(30)	33%(24)	3.9(1.1)
Total	6%(7)	22%(28)	7%(9)	37%(47)	27%(35)	2.9(1.2)



For the above photo, please choose the response that best demonstrates your preference for the tiny home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	19%(10)	36%(19)	21%(11)	8%(4)	17%(9)	2.7(1.3)
Asheville	8%(6)	27%(20)	22%(16)	34%(25)	8%(6)	3.1(1.1)
Total	13%(16)	31%(39)	21%(27)	23%(29)	12%(15)	4.1(1.0)

Traditional



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	2%(1)	9%(5)	6%(3)	32%(17)	51%(27)	4.2(1.0)
Asheville	0	15%(11)	11%(8)	37%(27)	37%(27)	4.0(1.0)
Total	1%(1)	13%(16)	9%(11)	35%(44)	43%(54)	4.1(1.0)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	2%(1)	6%(3)	44%(23)	48%(25)	4.4(0.7)
Asheville	0	1%(1)	10%(7)	49%(36)	40%(29)	4.3(0.7)
Total	0	2%(2)	8%(10)	47%(59)	43%(54)	4.3(0.7)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	2%(1)	4%(2)	51%(27)	43%(23)	4.4(0.7)
Asheville	0	3%(2)	22%(16)	41%(30)	34%(25)	4.1(0.8)
Total	0	2%(3)	14%(18)	45%(57)	38%(48)	4.2(0.8)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	2%(1)	4%(2)	47%(25)	47%(25)	4.4(0.7)
Asheville	0	5%(4)	19%(14)	41%(30)	34%(25)	4.0(0.9)
Total	0	4%(5)	13%(16)	44%(55)	40%(50)	4.2(0.8)

Modern



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	8%(4)	19%(10)	8%(4)	32%(17)	34%(18)	3.7(1.3)
Asheville	3%(2)	14%(10)	11%(8)	33%(24)	40%(29)	3.9(1.1)
Total	5%(6)	16%(20)	10%(12)	33%(41)	37%(47)	3.8(1.2)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	15%(8)	28%(15)	15%(8)	19%(10)	23%(12)	3.1(1.4)
Asheville	8%(6)	37%(27)	22%(16)	18%(13)	15%(11)	2.9(1.2)
Total	11%(14)	33%(42)	19%(24)	18%(23)	18%(23)	3.0(1.3)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	1%(1)	13%(7)	12%(6)	35%(18)	38%(20)	3.9(1.1)
Asheville	0	4%(3)	14%(10)	44%(32)	38%(28)	4.2(0.8)
Total	1%(1)	8%(10)	13%(16)	40%(50)	38%(48)	4.1(1.0)



For the above photo, please choose the response that best demonstrates your preference for the small home depicted in this image.

Location	I dislike it very much	I dislike it	Neutral	I like it	I like it very much	Mean (SD)
HC	0	8%(4)	11%(6)	38%(20)	43%(23)	4.2(0.9)
Asheville	3%(2)	1%(1)	7%(5)	40%(29)	49%(36)	4.3(0.9)
Total	2%(2)	4%(5)	9%(11)	39%(49)	47%(59)	4.3(0.9)

From the following statements, please select the one that most closely represents your opinion about tiny/small homes built in traditional (vernacular) and non-traditional (modern) styles.

- I prefer tiny/small homes built in a traditional/vernacular style. 19%(24)
- I prefer tiny/small homes built in a nontraditional/modern style. 10%(12)
- I prefer tiny/small homes built in each of the styles of traditional/vernacular and nontraditional/modern about equally. 37%(46)
- I am uncertain as to whether my preferences for tiny/small homes are influenced by the factors of traditional/vernacular and nontraditional/modern styles. 9%(11)
- My preference for tiny/small homes is not influenced by the factors of traditional/vernacular and nontraditional/modern styles. My preference is influenced by other factor(s). 26%(32)

Final Questions

From the following statements, choose the one that most closely represents your opinion about living in a tiny/small home.

- The idea of living in a tiny/small home is appealing to me. 35%(44)
- The idea of living in a tiny/small home is appealing to me, though I would have some concerns about doing so. 29%(36)
- I am uncertain whether the idea of living in a tiny/small home is appealing to me or not. 4%(5)
- The idea of living in a tiny/small home is unappealing to me, but I understand why others may want to do so. 29%(37)
- The idea of living in a tiny/small home is unappealing to me. 3%(4)

Describe how you would feel about your neighbor putting a tiny/small house on the lot adjacent to yours. (Fill-in)

Please include any comments about tiny/small homes that you think may be important for understanding people's preferences for such homes. (Fill-in)

APPENDIX E

Statistical Analysis of Visual Elements (see uploaded Supplemental File)

Survey Population	AVL situated by primary driveway	The context of several small lots/houses together	Overall design of the tiny/small house (s)	Context of surrounding structures	Proximity to nonresidential structure	Landscaping	Deck	Fencing	Paint trim	Survey 3 Pop	House color	Roof style	Porch	Steps	Distinctive window	Entrance	Door	Built on trailer	House being on wheels	Exterior building materials	Compartments of metal detailing	porch column cornice	Other	
total	245(13)	445(27)	445(27)	275(33)	0	275(33)				AVL													75(9)	
Asheville	245(13)	445(27)	445(27)	275(33)	0	275(33)				AVL														175(9)
Horry County	245(13)	445(27)	445(27)	275(33)	0	275(33)				HC														25(1)
total	275(33)	575(42)	575(42)	445(10)	0	445(10)				AVL														45(5)
Asheville	0	445(27)	445(27)	445(10)	0	445(10)				AVL														55(4)
Horry County	275(33)	445(27)	445(27)	0	0	0				HC														25(1)
total	275(33)	445(27)	445(27)	175(12)	0	175(12)				AVL														65(8)
Asheville	0	445(27)	445(27)	175(12)	0	175(12)				AVL														75(5)
Horry County	275(33)	445(27)	445(27)	0	0	0				HC														55(3)
total	275(20)	605(76)	605(76)	475(4)	0	475(4)				AVL														155(19)
Asheville	275(20)	575(41)	575(41)	175(1)	0	175(1)				AVL														165(12)
Horry County	145(8)	605(77)	605(77)	75(4)	0	75(4)				HC														175(7)
total	305(65)	295(37)	295(37)	475(8)	0	475(8)				AVL														55(7)
Asheville	475(34)	375(24)	375(24)	475(8)	0	475(8)				AVL														55(4)
Horry County	575(31)	275(11)	275(11)	475(2)	0	475(2)				HC														55(3)
Survey Population	AVL situated by primary driveway	The context of several small lots/houses together	Overall design of the tiny/small house (s)	Context of surrounding structures	Proximity to nonresidential structure	Landscaping	Deck	Fencing	Paint trim	House color	Roof style	Porch	Steps	Distinctive window	Entrance	Door	Built on trailer	House being on wheels	Exterior building materials	Compartments of metal detailing	porch column cornice	Other		
total	175(41)	175(19)	175(19)	305(47)	0	305(47)				AVL													175(14)	
Asheville	275(21)	105(12)	105(12)	345(25)	0	345(25)				AVL														125(9)
Horry County	305(20)	175(7)	175(7)	395(22)	0	395(22)				HC														95(5)
total	345(44)	385(49)	385(49)	0	0	0				AVL														105(13)
Asheville	375(23)	385(28)	385(28)	205(34)	0	205(34)				AVL														105(7)
Horry County	385(21)	385(21)	385(21)	0	0	0				HC														115(6)
total	225(29)	375(45)	375(45)	275(17)	0	275(17)				AVL														65(8)
Asheville	215(15)	405(29)	405(29)	275(17)	0	275(17)				AVL														55(4)
Horry County	225(14)	295(16)	295(16)	0	0	0				HC														75(4)
total	275(29)	375(71)	375(71)	305(17)	0	305(17)				AVL														35(7)
Asheville	275(17)	375(40)	375(40)	375(17)	0	375(17)				AVL														75(5)
Horry County	275(12)	305(31)	305(31)	175(7)	0	175(7)				HC														45(2)
total	345(43)	305(27)	305(27)	275(2)	0	275(2)				AVL														95(11)
Asheville	305(21)	305(43)	305(43)	0	0	0				AVL														125(9)
Horry County	405(22)	375(29)	375(29)	475(2)	0	475(2)				HC														45(2)
Survey Population	AVL situated by primary driveway	The context of several small lots/houses together	Overall design of the tiny/small house (s)	Context of surrounding structures	Proximity to nonresidential structure	Landscaping	Deck	Fencing	Paint trim	House color	Roof style	Porch	Steps	Distinctive window	Entrance	Door	Built on trailer	House being on wheels	Exterior building materials	Compartments of metal detailing	porch column cornice	Other		
total	375(68)	175(22)	175(22)	275(30)	0	275(30)				AVL													25(3)	
Asheville	395(43)	175(11)	175(11)	275(15)	0	275(15)				AVL														35(2)
Horry County	45(25)	205(11)	205(11)	275(15)	0	275(15)				HC														25(1)
total	375(47)	275(34)	275(34)	0	0	0				AVL														25(2)
Asheville	345(25)	275(20)	275(20)	0	0	0				AVL														15(1)
Horry County	405(22)	295(14)	295(14)	275(17)	0	275(17)				HC														25(1)
total	305(46)	275(12)	275(12)	0	0	0				AVL														45(5)
Asheville	45(33)	175(13)	175(13)	0	0	0				AVL														55(4)
Horry County	605(44)	605(44)	605(44)	275(1)	0	275(1)				HC														25(1)
total	405(59)	305(27)	305(27)	275(1)	0	275(1)				AVL														15(1)
Asheville	405(59)	305(27)	305(27)	275(1)	0	275(1)				AVL														75(9)
Horry County	575(99)	375(99)	375(99)	0	0	0				AVL														105(7)
total	475(22)	475(22)	475(22)	0	0	0				HC														45(2)
Survey Population	AVL situated by primary driveway	The context of several small lots/houses together	Overall design of the tiny/small house (s)	Context of surrounding structures	Proximity to nonresidential structure	Landscaping	Deck	Fencing	Paint trim	House color	Roof style	Porch	Steps	Distinctive window	Entrance	Door	Built on trailer	House being on wheels	Exterior building materials	Compartments of metal detailing	porch column cornice	Other		
total	395(49)	475(53)	475(53)	475(33)	0	475(33)				AVL													55(6)	
Asheville	445(32)	315(17)	315(17)	475(33)	0	475(33)				AVL														55(4)
Horry County	315(17)	475(15)	475(15)	0	0	0				HC														45(2)
total	615(77)	275(34)	275(34)	0	0	0				AVL														35(4)
Asheville	625(45)	275(20)	275(20)	0	0	0				AVL														45(3)
Horry County	605(32)	275(14)	275(14)	275(17)	0	275(17)				HC														25(1)
total	385(73)	0	0	0	0	0				AVL														35(4)
Asheville	675(46)	0	0	0	0	0				AVL														45(3)
Horry County	515(27)	0	0	0	0	0				HC														25(1)
total	385(48)	0	0	0	0	0				AVL														35(4)
Asheville	395(28)	0	0	0	0	0				AVL														55(4)
Horry County	385(20)	0	0	0	0	0				HC														0
total	315(39)	275(22)	275(22)	0	0	0				AVL														45(5)
Asheville	345(25)	275(22)	275(22)	0	0	0				AVL														75(5)
Horry County	345(25)	0	0	0	0	0				HC														0
total	695(86)	175(16)	175(16)	275(1)	0	275(1)				AVL														45(5)
Asheville	675(49)	175(11)	175(11)	0	0	0				AVL														125(15)
Horry County	715(37)	0	0	0	0	0				HC														195(10)
total	835(105)	275(2)	275(2)	0	0	0				AVL														25(3)
Asheville	825(60)	175(1)	175(1)	0	0	0				AVL														45(3)
Horry County	85(45)	275(1)	275(1)	0	0	0				HC														0
total	685(86)	475(5)	475(5)	0	0	0				AVL														35(4)
Asheville	675(49)	175(1)	175(1)	0	0	0				AVL														

APPENDIX F

Open-ended Survey Question Responses

Describe how you'd feel about your neighbor putting up a tiny/small house (open-ended):

N=118

positive

I would love it.

The design, placement, and landscaping would all be of concern to me. Use of the home would also be of some concern. I don't see a great deal of difference in tiny/small house structures and standard homes. How well the style of the home matches the neighborhood would also be of concern.

I love the idea of tiny/small homes but in the right location

Love!

Currently not allowed by covenants, so, no.

great for them!

Good as long as it were done tastefully and safely

Not sure I would like.

I'd love it

Depends on style and context

As a renter, it is not an issue for me. As with anything else, it would depend on various factors. There is not one answer.

I would be ok with it, as long as the lot size remained the same.

they had one (THOW) for years, we were fine with it.

Too crowded, more people using road/driveway, and less privacy

Not any room for it so I am OK

I wouldn't mind it as long as it was nicely kept

Not real happy

fine as long as it was in compliance with city ordinance and well designed.

It depends on the building and site design.

if stand alone great if AUD not so much

Okay, if screened from me.

Cool with me

I wouldnt like it just because I feel like it would make my particular neighborhood crowded but I am in favor of a section of the neighborhood being set aside for a grouping of small houses.

Supported

As long as it was aesthetically pleasing, I am ok with it.

It wouldn't fit in with the rest of the neighborhood- many large homes

I wouldn't mind.

I would prefer the exterior of the tiny home to blend into other homes in the neighborhood. I am not a fan of tiny house on wheels, but considering I live 3 blocks from the beach it sounds like a good environmental idea.

My neighbor (and I) already have small houses. 1000 sf isn't particularly small.

Making better use of lot space is a great idea as long as it is done tastefully
neutral

I say great since we have one!

I live in a neighborhood of 1920's small cottages. I would be concerned about tiny/small houses being added to existing lots that already have houses. Would become very busy and crowded.

I would not mind it at all, providing it is done well, contributes to the neighborhood, and is done according to code.

depends on what and where, and why

A tiny home would have been more suitable than the mc mansion that is there now.

As long as the existing ADU requirements were followed it's completely fine.

Adventurous and liberating. Minimalistic and making the most of space.

Fine if it is setback a bit from my home/views

Style would have to fit the neighborhood

I already have many tiny and small homes in my neighborhood. I like when they are well thought out and use the lot well. There are some that are just stuck there and they look out of place

I would strongly argue against it.

Supportive, except if it's on wheels or a "mobile home". Fortunately the local historic district has design controls.

Fine

Happy

No problem if it is well done

don't like

Acceptable

If it didn't impact my sun or views (if I had any) I would be fine with it.

No problem.

Good

ok

Go for it

Not great because I live in an historic neighborhood with smaller lots and little off-street parking. It's dense and congested enough already.

would not mind

I would be fine with it as long as it is not being used as a str

I would feel just fine about that

If it fits into the overall vernacular of the neighborhood and is not on wheels I'm fine with it.

It depends on the attractiveness of the design, compatibility with existing buildings, landscaping, use of the home is not disruptive.

Because I live in a planned TND community, I would want some design standards. Size need not be an issue.

negative. our lots are tiny

I think it would be great!

Fine

People should be able to capitalize on their property investment and be allowed to make rent money in creative ways.

It would depend on who moved in

Fine

Cautious. Depends on design and how it fits in overall neighborhood.

Would be fine with it

I would be fine with my neighbor having a tiny home as long as it was visually interesting. I do not want a tiny home next to me that looks like a shack.

NO - they devalue mine while mine adds value to their home. Total bullshit.

good

I live in a very mixed-use neighborhood, so it would work perfectly in our area. We have every manner of home in this semi-rural area.

The lots are too small, backyards would seem crowded with less trees and green, and there is already limited street parking!

Ok.. Ned's setbacks. Not a short term rental

It's fine as long as it's attractive (not trailers camouflaged under rustic siding) and landscaped to fit into the site.

Totally fine with it, especially if there is off-street parking.

Would it be that home plus another one? If it was in addition to the home they have now I wouldn't love it.

fine

It would depend on what it looked like. I also think that foundation built tiny homes are more visually appealing, less transient looking, therefore are usually built better and look nicer. It would depend on whether they had enough parking for the extra people that would be living on that lot (I would feel the same way if the house was used as a rental property for a bunch of students vs a family). It would really depend on who was living in the tiny house, if they were a permanent resident I would feel better than if it were renters in general they take better care of a property and a tiny house/property would be less expensive than renting a normal size house so a different mix of people could end up living near me than would normally be able to afford the area. A good thing and a bad thing. Housing prices are insane, but I would really prefer to live in a homeowners' neighborhood than a renters' neighborhood

I would be supportive; we are considering doing the same

Awesome!

No problem, as long as it is not on wheels and is a cool design

great

Depends on which neighbor!

I don't mind it, but i wouldn't want to have one on every lot in the area.

Lots next door are full--a tiny house would look like a garage or outbuilding (not a good thing).

OK if it looks nice and parking is addressed and it's not a short-term rental

Fine

If it looked OK in its surroundings, fine. I'd prefer it to blend in than stick out too much.

Encouraged

Fine

Ok

Fine

Cool with me.

Great!!

I would move immediately

It would not bother me

I would not have a problem with it, however I would prefer that it look like the other homes in our neighborhood.

Present condo rules vdo not allow

Happy

no prob

I'm receptive to the idea.

great with it..

I'm OK with it to a certain degree.

i wouldn't mind. I'd like to have one myself.

It would depend on the design of the tiny home.

I would welcome it.

Fine by me

replacing their current home-fine. Additionally, given our small lots and lakeside view two structures would be difficult to place. but if done well fine.

Quality of the tiny house is key

Would have no objections as long as restrictions were in place and enforced

I wouldnt mind as long as there are rules like in a hoa

fine

Goid

I would be happy.

If it fit into the overall design of the neighborhood I wouldn't object.

Fine

Include comments about tiny houses that may be important for understanding your preferences towards such homes:

N=85

Tiny are small house have been around since our country was started. We have slowly removed them from most of our downtown area's. Now with the movement back on urban living and the desire for home ownership, they can fill the need.

My fear is that people will approach tiny/small house living with excitement but later find that being on top of each other is not the life style they want to live long term.

I think the tiny/small homes would be a great idea for mother in law suites/guest homes or in a community of only tiny/small homes
size doesn't matter
we need more affordable housing options in this city. and they add a great element of variety and intrigue to a neighborhood
affordable, efficient

Ones with wheels seem temporary and might make folks not want them nextdoor
If possible, keeping in with style of home in neighborhood OR not seen from the street.
It's cheaper and more eco-friendly to build and they can be accommodated on existing lots, so no further clearing of land or resources

A shed is not a tiny house. Design is key.

My big problem with my present neighboring ADUs is privacy. There needs to be a requirement for privacy fencing.

Plumbing, utilities and the long term feasibility of living in cramped conditions
Simplicity

I think them looking unique, and not just cheap or cost effective is a draw. It has to be a lifestyle choice, not just a cheaper smaller house. Nobody want to live in a trailer of the same size, but a unique home, they would
I like them very much!

I understand why people are interested in moving into tiny homes. I do wish city ordinances made it easier to move into smaller dwellings.

I live in 800 sf house. Perfect for 1 or 2 people. I think "small" and "tiny" are two very different categories.

Best for single people or couples
Options with a green space, defined walkway, porch, and an overall traditional design theme are important factors.

Here is a link to an explanation of why we went tiny on our blog at www.thebumblehack.com (which is down right now but will be back up later tonight 5/23/2016).

I love the idea of tiny/small houses. Have to be careful about where they are added. From the sample images, I think I prefer tiny houses that are grouped together. Or interesting modern ones that have their own space or lot.

I like the relatively low impact nature of tiny homes. They have a more efficient feel about them. They have a sense of humility that over sized homes lack.

I think intent is important. I get it, but like the idea for need instead of profit.

I believe that home's are to big these days. Tiny homes would give single dwellers and couples more affordable options.

I think that it is about fitting in to the existing context of a neighborhood more than a specific style, materials or look.

Less is more. Simple is better.

it's unusual, so celebrate its uniqueness! Make them fun.

Privacy rather than living in multi dwelling

Intentional, well thought out, decent materials and attractive design

The main thing is to help a zoning administrator distinguish between a THOW and a "mobile home" or temporary structure. Without clear definition and distinguishment, a THOW is very difficult to issue zoning approval.

N/A

I've followed the movement of tiny homes for years. Been troubled by lack of building sites here. This would make life so much easier for me as I would have an affordable place of my own.

value, safety

Should be permanent structures with sufficient landscaping

They should enhance their surroundings.

I like smaller homes with windows and green outdoor space.

I think the fear is that they will not be well taken care of.

I'd love to have one as an office/guesthouse

I think issues would arise if multiple tiny homes were built on one lot (or several lots) in a single family residential area. That many more folks would stress infrastructure, add to traffic (assuming residents drive)

Context and fit are key.

I think the biggest rub for most people would be the wheels...looks transient.

price

Lifestyle

Some may want to rent them to long term renters, some may want to rent them on a short term basis and reserve other times for visiting family and friends. People's family make up changes over time and the use of their property needs to be flexible to these fluxes.

It's an economic necessity

No wheels. Affordability. Need for housing.

Affordable housing for elderly parents or in laws

These are wonderful homes for low income groups, as well as those who are interested in being mobile or down-sizing from a traditional home. I would love to have one in my yard as a guesthouse!

Tiny homes should be with tiny homes or they should be guest houses to larger homes less is more! get outside often!

I have a family, but as my kids are getting older (teenagers now), I see all kinds of possibilities for them moving on in the form of tiny homes. I think tiny homes are a wonderful option for all kinds of people and I have seen a young person do great things with one he built by hand on a piece of property he purchased. Watching him has influenced me greatly.

I like the concept. They should not be jammed into neighborhood backyards.

Husband is 6'5". And our house is short for him already, not small just short.

I have loved cozy cabins and small houses all my life. I'd love a "cabin" in the woods to use as a getaway. But this so called Tiny House "Movement" is offputting to me. I call them Gluten-Free houses, a fad that people latch onto in hopes of finding The Answer to unresolved issues or to make oneself appear as The Enlightened. Foresee a lot of fancy toolsheds in the future.

The period in peoples' lives when they are raising children is less conducive to tiny home living. Right now, I have no interest in it, but if I were single, divorced, etc. I would absolutely want to.

I like the idea of these being put in specific designed communities rather than add ones to current homes unless there is a lot of yardage.

quiet neighbors and no tourists

I think foundation built TH's are more visually appealing. they don't look as transient. Almost all the THOWs I have seen just look like trailers, I don't really understand it. Why not just buy a trailer? And I don't want a trailer in my neighborhood. People would be coming and going, it's not what I want near my house for property values or neighbors. I think that there should be places to park tiny houses for sure, but not in a residential neighborhood. It would be cool if there were THOW parks. But I don't want them all over the place in my neighborhood. I live near the college, the last thing i want is to have a shit ton of college kids all around me.

less is more; keeping life simple leads to a better quality of life

I live in Asheville which is full of liberal control freaks who want to regulate every nuance of property usage. City of Asheville over regulates and changes the rules (taxes, permits, usage) every year making investments difficult to rationalize. Affordable housing is difficult to find yet the city govt is too shortsighted to realize that allowing Airbnb would create more construction thereby freeing up other spaces for section 8 and the like.

I believe tiny homes are a fad for many people. They would be great for vacation areas. I worry about tiny homes proving too small and so the owners start spreading out. An outbuilding for all the stuff that won't fit--sort of like RVs that pull a trailer behind them. The design really, really, really needs to fit the surroundings and the parking has to be addressed and fire retardant materials used if close to a main house

Easy to care for/Price

Personally, I want neither a massive McMansion nor something tiny which seems to be a kind of reaction to the ridiculous house sizes that have prevailed until recently. I like my privacy and being able to retreat even from those I love so I would never live in a tiny house - too claustrophobic, but I can see their appeal especially if they help people have their own houses at a more reasonable price than a conventionally sized one.

Small living has historical context.

They are awesome for people who live in a high cost of living area. The tiny homes on wheels would also be great for seasonal workers if the prices would come down on them. Affordability. Transitional and affordable housing. Small environmental footprint.

Simplifying one's life. Leaves more time to focus on other things rather than keeping up with homeownership and

I like the idea of tiny homes for the purpose of starting out or downsizing to a "granny flat." However, I prefer the "cottage" look with designated rooms (bedroom, bathroom, laundry room).

Make tiny villages of tiny homes, no wheels. Leave at least 20 feet between units

Affordability, unique,
eco friendly, \$ effective

I don't feel they need to be crowded into a lot. I also like the idea on the TROWs. It seems reasonable to have vacationers bring their tiny homes on wheels to set up during their vacation time. I personally would prefer vacationing in a tiny home over living in one permanently.

affordability. less homeless

Personally, I want one that is on wheels, so I can take it, and set up in different destinations as I see fit!

I think we need to downsize. I'm working on this myself.

I feel that in our economy, the tiny house is a viable option for many people to achieve home ownership.

I would welcome Senior Communities of them. place them in Cul-de-Sacs. This helps neighbors see each other. A community center and perhaps a building for a 24/7 Nurse on call. This is good for Seniors who need a little care, but can be on their own and yet have the comfort of knowing others are nearby.

freedom, price, live and let live.

tiny home vs. trailer, what's the difference other than one comes with preconceived limits and the other is a new movement/way of life

Let tiny houses in, especially accessory dwelling units

May be the only way some hardworking people will ever be able to have a home of their own

we need them

With aging population, small is needed and affordable. However, you still have something unique to your personality.

The efficiency of these homes is very appealing. For me cutting down on costs and up-keep is very desirable at this time.

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