March 2019

Increasing the Supply of the Missing Middle Housing Types in Walkable Urban Core Neighborhoods: Risk, Risk Reduction and Capital

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Increasing the Supply of the Missing Middle Housing Types in Walkable Urban Core Neighborhoods: Risk, Risk Reduction and Capital

by

Shrimatee Ojah Maharaj

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Business Administration Muma College of Business University of South Florida

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Date of Approval:
December 7, 2018

Keywords: Missing Middle housing, diverse housing, traditional neighborhoods, housing supply, millennials, baby boomers, barriers, risk, risk reduction, capital

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DEDICATION

I dedicate this dissertation to my late parents, two eldest brothers, two sisters, two nieces, and a niece’s husband.

To my father, Pt. Karoo Ojah Maharaj, M. B.E., CMT (Gold), J. P., a second-generation son of Indian indentured laborers in Trinidad and Tobago whose parents (Surjan and Anupia) died at an early age and who was brought up by his three elder brothers (Doon Pundit, Pt., Satnarine and Angard) — you lived a life which was steeped in selfless service and the universality of humanity. Your dedication to education, independence, integrity and self-respect for your children lives on.

To my mother Sumintra, a second-generation daughter of Indian indentured laborers in Trinidad and Tobago, who from a young age was brought up by her widowed mother, Rookmin Singh, elder brothers, Ramjit and Balkaran, and sister Kowsil, after her father’s (Jemie) death at a young age. Growing up, she watched her brothers go off to school every day, while she and her elder sister, Kowsil, stayed at home. Her greatest desire was to go to school. As she said, she used to wish she “wore pants” so she could join her brothers to attend school. For your intelligence, wisdom, awareness, power, silent strength, and unwavering commitment to your children and their education, this is for you. Your independent nature, no-nonsense attitude, and ability to always rise with grace in the most difficult times is an inspiration to us. I needed to look nowhere else for inspiration but in you.
To my eldest brothers Sen. Bissoondath and Sohan, your love and unrelenting encouragement to always strive for higher motivate me.

To my eldest sister, Dhanrajie, and her husband Gayadath, your dedication to service, family and endless support continue to inspire us.

To my sister, Tomatee, your love for life and family, your strength and determination, along with your encouragement and wish for me to complete this degree, pushed me to persevere.

To my niece, Kavita, your love and pride in family and stress for education, integrity and self-respect is an inspiration to your two daughters and us.

To Della, my niece, your angelic nature has been our teacher and blessing.

And to Malli, your love of life, people and vivacious nature lives on for us.
ACKNOWLEDGMENTS

I would like to express my great appreciation to Dr. T. Grandon Gill for his valuable and constructive suggestions during the planning and development of this research work. His willingness to give his time so generously has been very much appreciated. He envisioned the USF DBA program and brought the program to reality. His frank disposition and untiring willingness to share his knowledge and support were greatly appreciated.

Also, I want to thank Dr. Mathew Mullarkey, Director of the DBA Program, who provided genuine support and encouragement to me. He inspired me to persist. His support was very helpful to me at a time in my life when my sister Tomatee was ill and eventually passed away.

I would also like to thank my committee co-chairs, Dr. Gil Gonzalez and Dr. Gert-Jan de Vreede for passing their experiences and guidance. They provided constructive suggestions throughout the whole process.

I want to give a special thanks to faculty committee member Dr. Jennifer Cainas whose quiet strength and expertise as my chief reviewer kept me focused.

I want to give thanks faculty to committee members Dr. Dirk Libaers and Dr. Delroy Hunter. They were willing to share their time, knowledge and experience to navigate this complex subject.
I would also like to thank the DBA staff: Michele Walpole, Lauren Baumgartner, and Donna Gonzalez for their guidance and support throughout the years and to the DBA Catering Team for meeting our needs.

To the thirty-nine participants who provided their expertise, wisdom, and vision: Thank you for your willingness to share your knowledge. Many have stated “I gave you my all” after the interview process. Thank you for your openess and eagerness to contribute to this study. It was invaluable!

I would also like to thank my NVivo user group—Dr. Gurlivleen (Minnie) Ahuja, Dr. Robyn Lord and Dr. Priya Dozier. Thank you for your late-night discussions and for providing me with encouragement and support.

To my colleague Minnie, thank you for your special guidance and encouragement.

To my DBA cohort: The time just went by—you made it easy.

I would also like to thank my dissertation team Dr. Hugh Bettendorf, Dr. Marlo Murphy-Braynen, Dr. Fred Gore, and Dr. Douglas Carter. Thank you for all your support and encouragement in this journey. Hugh–your relentless support is invaluable. Your constant checking in and encouragement to the team members and I was invaluable. You made this journey a lot easier.

To my friends and cousins: Thank you for checking in. Your provided words of encouragement and understanding my “absentia” in your lives in the past couple of years. Davin Persad, your support during Tomatee’s illness helped make this journey easier.

To my family members: my sisters Dhanmatee, Tara, Sursatee, and Seeta and brothers Sen. Deodath, Jai, Capil, and Balkaran, my nephews David and Omah and my nieces, Jenny Tiwari, Shanta Malli and Ardita Piralli: Your caring nature, support, and encouragement always
came at the most needed time. Shanta, your calls were appreciated—especially during those long days of work and research.

To John Bronga: you steadfastly stood by my side during those long days and nights; you always provided support, words of wisdom and encouragement to get it done. Thank you.
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ABSTRACT

There is a low supply of the missing middle housing types (MMH) in walkable urban core neighborhoods. That is a variety of compact low- to mid-rise housing in walkable areas that are accessible to entertainment, recreational and other amenities. The largest demographic, the millennials, followed by the baby boomers, prefer the MMH types. The MMH types is a new name for a variety of compact housing types that existed in traditional neighborhoods in urban areas pre-World War II. However, due to changes in housing preferences after World War II, the requisite land use and zoning changes facilitated larger single-family homes phasing out the MMH types. Efforts to reintroduce the MMH types is these areas are met with opposition.

This research investigates increasing the supply of the MMH types in walkable urban core neighborhoods. The literature review reveals, prior to this one, no academic study at this level was done to understand how to increase the supply of MMH types in these areas.

This research explores the views of stakeholders in urban planning and various professions related to housing and the MMH types in the Tampa Bay Area, to better understand the issues involved in the low supply of the MMH types in urban core areas.

The data for this qualitative research was guided by a grounded theory methodology (Corbin & Strauss, 2014) and was derived from thirty-nine semi-structured interviews with stakeholders to find out what factors inhibit and ways to improve the supply of the MMH types in the Tampa Bay area.
Five hundred and seventy-eight transcribed pages which resulted from thirty-nine hours of interviews of veteran professionals in the Tampa Bay area reveal their insights, the complex issues, and possible solutions to the MMH types.

The emergent factors provide a risk, theory/model to help explain the low supply and a risk reduction, capital infusion cooperative strategy to increase the supply. This study demonstrates the implications for housing in areas with limited availability of land, landlocked, and other areas with physical and geographical limitations and provides suggestions for sustained housing development. It lays out the complexities involved to accommodate the changing housing preferences which necessitate strong leadership, vision, collaboration and a steady commitment at a community-wide and regional level to meet the changing housing demand and needs.
The USF DBA dissertation proposal guidelines offer an option of a collection of articles or papers. This dissertation comprises three papers, as three chapters for this dissertation. All three papers were submitted for publication. Each of the three papers functions on its own with an executive summary and conclusion. The following is an overview of each of the papers/chapters, with a combined synopsis of the papers as the abstract.

**Paper One/Chapter One: What Factors Affect the Supply of the Missing Middle Housing (MMH) Types in Walkable Urban Core Neighborhoods? A Comparative Literature Review**

The Research Question Review (RQR) template from the Muma Business Review (MBR) was the basis of the format for Paper One/Chapter One. A literature review was conducted to find out what research was conducted on the RQR: What factors affect the supply of the missing middle housing types in walkable urban core neighborhoods? Because MMH types is a new name for a housing concept that existed pre-World War II in traditional neighborhoods, the researcher looked at research conducted on housing (mixed-use) in traditional neighborhoods, and the works by Daniel Parolek, the architect/urban planner who coined the term “Missing Middle Housing (MMH) Types.” Following the MBR template, the literature review consists of a summary of the literature reviewed in six tables: Housing Affordability, Density, Perception and Property Values; Characteristics of the MMH Types; Benefits of a Diversity of Affordable Housing Types in Neighborhoods; Millennials, Attraction...
to MMH Types and Why; Barriers to MMH Types; the findings of the MMH type in the academic literature and the contribution of the MMH Types to a Community as well as the MMH Initiatives in the Tampa Bay, FL area. This chapter/article is the basis of the factors that affect the MMH types in this research and provides areas for future research.

**Paper Two/Chapter Two: What Factors Affect Increasing the Supply of the Missing Middle Housing Types in Walkable Urban Core Neighborhoods? A Qualitative Study**

The Research Method Review template from the Muma Business Review (MBR) was the structure of the format for Paper Two/Chapter Two. Corbin and Strauss’s (2014) Grounded Theory Methodology (GTM) was used to study, What factors affect increasing the supply of the missing middle housing (MMH) types in urban core neighborhoods? This GTM was used to explore, guide and derive data from interviews of the various (stakeholders), policy makers/special interest groups, practitioners, developers and lenders in the Tampa Bay, Florida area. A risk, risk reduction and capital flow theme emerged from the data analysis on increasing the supply of the MMH types.

**Paper Three/Chapter Three: Increasing the Missing Middle Housing Types in Tampa Bay: A Cooperative Risk Reduction, Capital Strategy**

The Novel Idea template from the Muma Business Review (MBR) was the format used for Paper Three/Chapter Three. This paper utilized the factors which affect the supply of the MMH types, in the comparative literature review, those factors identified in the research for Paper Two/Chapter Two, and the theme of risk, risk reduction and capital flow to propose a cooperative, solutions-based, cooperative risk reduction, capital model. A Developers Alliance
model is proposed to help overcome the risks and to help increase the supply of the MMH types in Tampa Bay.

**The Compilation of the Three Papers/Chapters as Part of the Traditional Dissertation**

The three paper/chapter format outlined below was guided by a consistent approach to the research question leading to the completion of the dissertation. The research question: What factors affect the supply of the missing middle housing (MMH) types in walkable urban core neighborhoods?

- Paper One: Literature Review
- Paper Two: Qualitative Study, Grounded Theory Methodology (Corbin & Strauss, 2014)
- Paper Three: A Novel Idea which focused on the findings, discussion and conclusions of Paper One/Chapter One and Paper Two/Chapter Two to propose a model for increasing the supply of MMH Types in Tampa Bay, Paper Three/Chapter Three.

This format provided a systematic pathway to the dissertation. Paper One/Chapter One, the literature review, was in response to the research question. Paper Two/Chapter Two guided by Corbin and Strauss’s (2014) grounded theory methodology, in response to the research question, explored and revealed the insights of thirty-nine interviewees in the Tampa Bay area. These insights were the result of decades of practice, awareness and foresight to the changing preferences in housing types. This paper provides the findings the results, discussion and conclusion revealing the complexities of a comprehensive view of increasing the supply of the MMH types, with a theory. Paper Three/Chapter Three was the culmination of the study using the findings, discussions and conclusions of the previous two papers to propose a Novel Idea in response to the research question.
CHAPTER ONE:
WHAT FACTORS AFFECT THE SUPPLY OF THE MISSING MIDDLE HOUSING TYPES IN WALKABLE URBAN CORE NEIGHBORHOODS? A COMPARATIVE LITERATURE REVIEW

Tagline

There is a high demand for Missing Middle Housing types (MMH) (diverse low- to mid-rise, housing types) in walkable urban core neighborhoods but a lack of supply. This review investigates the reasons for the low supply and ways to meet the demand.

Keywords

Missing middle housing, millennials, baby boomers, traditional, neo-traditional neighborhoods, diversity of housing types, walkability, perception and design, perceived-density.

Executive Summary

Housing preferences are changing. According to Koebel, Lang, and Danielsen (2004), Kolson (2016), Myers and Ryu (2008), Shaver (2017), and Woo (2016), the largest demographic, the millennials, prefer low- to mid-rise housing units that are in the walkable urban core areas. These areas have access to cultural activities, entertainment, restaurants, shopping and other amenities such as parks. The retiring baby boomers who are downsizing from their single-family suburban homes are also seeking the same. As suggested by Parolek (CNU, 2015), the Missing Middle Housing types (MMH) are one possible solution to help meet the demand. However, the
demand is greater than the supply (Koebel et al., 2004; Kolson, 2016; Myers & Ryu, 2008; Shaver, 2017). This review discusses the factors that affect the supply of MMH types. It reveals that although these housing types once existed in the urban core, attempts to reintroduce them in the area meet with opposition from several stakeholders. Additional factors which hurt the supply of MMH types include land use and zoning regulations, a lack of developer interest to develop these units, and a lack of developer financing (Doherty, 2017).

Introduction

This literature review aims to investigate the factors that affect the supply of a variety of low- to mid-rise housing types in the walkable urban core neighborhoods to help meet the housing demand in urban core areas.

The Missing Middle Housing (MMH) types refer to housing that ranges between multistory units and single-family unit layout as seen in many cities (Figure 1). The term “missing middle housing types” was coined by Parolek in 2010 and described the housing types that existed in the urban core in the early 20th century (Opticos Design Inc., 2018). As seen in Figures 2–4, they include

- carriage houses,
- townhouses,
- bungalows,
- courtyard apartments,
- side by side stacked duplexes,
- fourplexes, small larger 5–15/40 plexes,
- condos, and
- work/live units.
Although MMH is a contemporary term, these types of homes were built pre-World War II (WWII) in urban core neighborhoods. As consumers’ housing preferences changed, the land use and zoning regulations altered to accommodate these preferences. Thus, these types of homes were no longer being built (Lucy & Phillips, 2006; Vision 2020 Delegates, 2002). MMH types were reintroduced as a possible solution in response to the recent demand by millennials and baby boomers for affordable, walkable housing in urban neighborhoods (Burks, 2017; Mich, 2017; Myers & Ryu, 2008; Parolek, n.d.; Sisson, 2016). According to Parolek, the MMH types are characterized by

- small footprints
- “perceived” low density (or “gentle density”)
- compact in design to fit the character of the neighborhood
- well-designed and simple construction
- requiring less off-street parking due to the walkability
- has shared spaces such as patios. (Bach et al., 2007; Leyden, 2003; Parolek, 2015, n.d.; Shaver, 2017)

The benefits of the housing types are:

- walkability due to the grid-like pattern of the street layout which encourages walkability and accessibility to services, entertainment, and public transport
- require less off-street parking due to the walkability in the neighborhood
- the human scale of the streets and pedestrian activities and amenities such as restaurants, parks, shopping and libraries in the neighborhood convey a sense of community and lifestyle which also fits their pocketbook (Parolek, 2016)

The compact design and density also provide the customer base necessary for public transportation (Cervero, 1996; CNU, 2018; Leyden, 2003; Parolek, 2016) which minimizes the need for off-street parking (Parolek, 2015). These characteristics are the result of a mix of land uses and the grid-like pattern of the street layout. They encourage walkability and provide
accessibility to services that are endemic to traditional neighborhoods. These inherent benefits were widely studied (Bach et al., 2007; Bergdoll & Williams, 1990; Greenwald & Boarnet, 2001; Kitamura, Mokhtarian, & Laidet, 1997; Leyden, 2003; Lidwell, Holden, & Butler, 2010; Lovejoy, Handy, & Mokhtarian, 2010; Ware, 2012; Wells & Yang, 2008). Although these land uses have been regulated out of the urban core neighborhoods, remnants of these housing types still exist. This decrease in the supply of the MMH types after WWII have contributed to the low supply today. However, attempts to increase the supply with new construction meet with opposition and other barriers (Doherty, 2017; Shaver, 2017) such as:

- land use and zoning restrictions
- neighborhood opposition
- lack of developer interest in building these units
- lack of developer financing
- limited land availability
- high land and construction costs

Despite the opposition and barriers, Parolek proposed the MMH types as a possible solution to help meet the housing needs (CNU, 2015; Parolek, n.d.).

![Figure 1. Missing Middle Housing Types](image-url)
Figure 2. Missing Middle Housing Types

Locally, there are three developments in the Tampa Bay area that have successfully built the MMH type of homes. Glencairn Cottages in Dunedin, Hayes Park Village in Oldsmar, and the rehabilitation of “casitas” (one room wide homes) in Ybor City, Tampa, all have characteristics of the MMH types (Figure 3). The “casitas” in Ybor City, Tampa were built in the 19th and 20th-century homes in this area are currently undergoing renewal (Forward Pinellas, 2017). Glencairn Cottages is adjacent to downtown Dunedin. This adjacency accommodates several benefits of the MMH types including walkability and amenities. Hayes Park Village in Oldsmar is also located close to amenities such as grocery shopping and a city park. A preliminary informatics review of the three developments and a discussion with one of the developers revealed that practitioners and policymakers collaborated with developers who had a specific affinity for the MMH types. Both developers specialized in small developments and were inspired by the housing types that existed in older neighborhoods (Burks, 2017).
Concepts and Meanings

Table 1. Concepts and Meanings

<table>
<thead>
<tr>
<th>Concept</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Housing</td>
<td>There are various ways of determining affordability for an area (Demographia, 2016; Koebel et al., 2004; Lucy &amp; Phillips, 2006). Affordable housing in this study is based on The Area Median Income (AMI) is established by the Housing and Urban Development (HUD) (Koebel et al., 2004). 30% of Annual Household Income on housing expenses (generally mortgage, insurance, and utilities). In this context, the housing type addressed is “market rate” or non-subsidized workforce housing. The Area Median Income for Tampa/St Petersburg is $59,800.</td>
</tr>
<tr>
<td>The Diversity of Housing Types</td>
<td>Various housing types (apartments, duplexes, triplexes, fourplexes, and higher, detached single family, attached townhomes).</td>
</tr>
<tr>
<td>Life Cycle Housing</td>
<td>Choices in housing that suits the needs based on the stage-of-life of an individual rental for single/couples first time home buyers; small family or townhouse; multi-family—smaller units for retirees—age in place; car-free residents.</td>
</tr>
<tr>
<td>Missing Middle Housing (MMH)</td>
<td>MMH housing types are referred to as a “transformative housing concept” (Opticos Design Inc., 2018). The housing types are typically between multistory units and large single-family units. They consist of carriage houses, townhouses, bungalows, courtyard apartments, side by side stacked duplexes, fourplexes, small larger 2-15/20-plexes, condos as well as work/live units. They are compact, walkable areas adjacent to amenities. They have small footprints with “perceived” low density that are well-designed with a simple construction. Due to the walkability, they have less off-street parking and have a sense of community and marketability in these areas (Opticos Design Inc., 2018).</td>
</tr>
<tr>
<td>“Step Up” Housing</td>
<td>Moving from one housing type to another such as rental to the townhouse to single family.</td>
</tr>
<tr>
<td>Stage of Life Housing</td>
<td>Age and needs of housing at that stage of life.</td>
</tr>
</tbody>
</table>
Table 1 (Continued)

<table>
<thead>
<tr>
<th>Concept</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Renewal, regeneration, revitalization</td>
<td>Pre-World War II Neighborhoods in urban areas. A process by which a dilapidated area redeveloped. Signs of decline could include broken sidewalks/roadways, windows, storefronts, overgrown trees and unkempt/abandoned yards and properties. It can also have high crime and poverty.</td>
</tr>
<tr>
<td>Traditional Neighborhoods (Old traditional, Urban Core Neighborhoods)</td>
<td>Neighborhoods built before World War II (WWII), in the early 1900s. The houses were characteristic of front porches, rear-parking with access from the alley and built on small lots, medium density. The neighborhoods were built on grid-like street patterns, with a mix of land uses encouraging walkability/pedestrian activity. The mix and density provided the opportunity for live/work situations and the customer base for economic activity and transit.</td>
</tr>
<tr>
<td>Suburban Neighborhoods</td>
<td>Neighborhoods built after WWII. They built away from the urban core and are characteristic of separated land uses, large lots, larger single-family homes, parking to the front, and the streets terminated with cul-de-sacs. Referred to as Planned Unit Developments (PUDs). They were built away from the jobs and community and were auto-dependent (Wells &amp; Yang, 2008).</td>
</tr>
<tr>
<td>Urban Sprawl</td>
<td>The result of the suburban neighborhoods. The spread-out of neighborhoods from the urban core. Auto-dependent, large roadway systems, and increase infrastructure. It reflects the negative aspects of sub-urbanism, such as long commute, traffic congestion, air pollution, and health issues due to the lack of walkability (Zeng, Liu, Liu, &amp; Qiu, 2014).</td>
</tr>
<tr>
<td>New Urbanism, Neo-Traditional Neighborhoods</td>
<td>Neighborhoods built after suburban neighborhoods (mid-to-late 80s) using the concept of the Traditional Neighborhoods. Diverse housing types of various low-rise densities to recapture of the Traditional Neighborhoods with Traditional Neighborhood Designs to correct the failings of PUDs (CNU, 2018).</td>
</tr>
<tr>
<td>Walkability</td>
<td>The prerequisites to walkability are the mixed uses for living, work, shop, school and play without having to drive. A mix of uses found in older cities where, offices, apartments exist over retail stores and corner shops located in residential neighborhoods (CNU, 2018).</td>
</tr>
<tr>
<td>Barriers</td>
<td>Factors that prevent or inhibit.</td>
</tr>
<tr>
<td>Cohorts</td>
<td>Cohort Effect unique to that cohort may cross over with impact in the future, the millennials are the most diverse adult generation (57%), non-Hispanic whites (61% Gen X), 72% baby boomers and 78% silent (Pew Research Center, 2015).</td>
</tr>
<tr>
<td>Baby Boomer</td>
<td>Individuals born between WWII (1943–1960) a period when there was a significant rise in births (Pew Research Center, 2015, based on 2014 data).</td>
</tr>
</tbody>
</table>
Protocol

Keywords: Affordable housing, missing middle housing, millennials, baby boomers, traditional and neo-Traditional neighborhoods, diversity of housing types, walkability, perception and design and perceived density, suburban and urban sprawl.

Novelty of the Subject Matter A New Name

The missing middle housing (MMH) types is a new name given to low-rise diverse housing types in traditional neighborhoods. Thus, academic literature in MMH types is limited. However, research has been widely conducted on traditional and suburban neighborhoods. The benefits ascribed to the MMH by Parolek (n.d.) are based on those studies. Consequently, searches on keywords such as traditional, suburban neighborhoods produced thousands of articles. The most highly cited articles were selected from the first one to two pages. These articles were further screened by year and relevancy to the subject.

Databases. Databases searched were Google and Google Scholar. Specific search words were: “the missing middle housing types,” “diversity of housing types,” “affordable housing,” and “traditional and suburban neighborhoods,” “millennials,” and “boomers.” Top-tier peer-reviewed journals, such as the Journal of American Planning Association, were selected. References from pertinent academic articles were helpful resources. Several MMH type articles were blogs, magazines, newspaper articles, and practitioner sites such as the Congress of New Urbanism, Urban Land Institute and Forbes magazine. One master’s thesis on MMH types in the Greater Boston area was found. Other local studies cited were obtained through conversations with local urban planners and thought leaders.
Literature Summary

The following tables are a summary of the findings of the literature reviewed for this study. They are arranged into seven tables. Table 2: Housing: Affordability, Density, Perception and Property Values; Table 3: Characteristics of the Missing Middle Housing types. The Missing Middle Housing Types is a new term that is based on traditional neighborhoods. Studies on traditional/Neotraditional neighborhoods are used to illustrate the benefits. Table 4: Benefit of a Diversity of Affordable Housing Types in the Neighborhoods—Based on Studies in Traditional and Neo-Traditional Neighborhoods. Table 5: Millennials, Attraction to MMH Housing Type and Why? Table 6: Barriers to the MMH. Table 7: MMH Findings in the Academic Literature; and Table 8: The Tampa Bay Area: Missing Middle Initiatives.

Table 2. Housing: Affordability, Density, Perception and Property Values

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<tr>
<th>Source</th>
<th>Contribution/Findings</th>
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<tbody>
<tr>
<td>Anenberg, E., &amp; Kung, E. (2018) Can more housing supply solve the affordability crisis? Evidence from a neighborhood choice model.</td>
<td>• Based on the model design on 2014 ACS (American Community Service Data) 2104. The survey investigated whether new housing supply can improve housing affordability. Small reductions alone in factors that affect supply will not reduce rents noticeably. Instead, the study found that rent is more closely related to the number of amenities in a neighborhood.</td>
</tr>
<tr>
<td>Tiedsdell, S. (2004) Integrating affordable housing within market-rate developments: The design dimension.</td>
<td>• The design aspect of the housing policies in England was studied. Early 2000s, British planning required mixed housing. Based on the size, part of the development must be integrated with diverse communities. The main design aspects are the layout and design which was used for the design strategies and outcomes with affordable housing. The study revealed, high-density housing was perceived with poverty, deteriorated conditions and poor management.</td>
</tr>
<tr>
<td>Koebel, C. T., Lang, R. E., &amp; Danielsen, K. A. (2004) Community acceptance of affordable housing.</td>
<td>• A Report to the National Association of Realtors (National Center for Real Estate Research) covered the various ways affordable housing may be defined (p. 10). In 2003, the study determined there is insufficient land supply zoned at densities to support affordable housing (p. 3). The study revealed affordable housing elicits fear in neighborhood resident. The fear or property devaluation, negative government and anti-poor feelings, prejudices, and segregation (p. 61). The survey results from this report showed support for affordable was high (80%) if it fits the neighborhood and is well- designed and maintained (Chicago). Further research is needed.</td>
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Table 3. Characteristics of the Missing Middle Housing Types

<table>
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<tr>
<th>Source</th>
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<tr>
<td>Parolek, D. (2015) 21st-century zoning: Responding to the demand for walkable urban living.</td>
<td>• Characteristics of the Missing Middle housing: walkable context, medium density, low perceived. 16/du/acre - 35 du/acre appears like low density and matches the neighborhood. This density takes a neighborhood to an average of 16 du/acre. The threshold needed to support transit, and walkable retail services. Affordability comes from the small footprint, well designed smaller units, less or no off-street parking, simple construction and shared facilities creating community spaces, with front porch entryways.</td>
</tr>
<tr>
<td>Kolson, A. (2016) Will U.S. cities design their way out of the affordable housing crisis?</td>
<td>• Problems of urban housing in Washington D.C. Barriers included opposition to increased density, outmoded land use, and zoning regulations. The article questioned the affordability of missing middle housing. Parolek claimed affordability is derived from the design of efficient spaces, common areas and adjacencies to public transit and amenities.</td>
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Table 4. Benefit of a Diversity of Affordable Housing Types in the Neighborhoods – Based on Studies in Traditional and Neo-Traditional Neighborhoods

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<tr>
<td>Bergdoll, J. R., &amp; Williams, R. W. (1990) Density perception on residential streets.</td>
<td>• Study based on people’s perceptions of density on urban residential streets. Evaluated three streets in San Francisco based on visual features. The optical elements such as colors, materials, patterns and different unique features of forms. There are three aspects of design linked with low density 1) high articulation, 2) segmented facades to appear smaller, 3) make buildings appear like a house (p. 15).</td>
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<tr>
<td>Walk Score Professional (<a href="https://www.walkscore.com">https://www.walkscore.com</a>)</td>
<td>• A website that provides information on neighborhood walkability, amenities, transportation options for commuting, lifestyle, crime, ambiance. Build Apps, Data and Analysis</td>
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<tr>
<td>Leyden, K. M. (2003) Social capital and the built environment: The importance of walkable neighborhoods.</td>
<td>• The importance of traditional neighborhoods on community-social capital, is the social networks and interactions that elicits trust and reciprocity among citizens (Leyden, 2003). • The study examined the relationship between neighborhood design and social capital. Factors related decline, long commutes, lack of socialization linked to sub-urbanization (p. 1546). Social capital is the social networks and interactions that inspire trust and reciprocity among citizens (p. 1546). Social Capital has also been linked to enhanced economic development, prevention of crime promotes trust and a feeling of safety. Traditional or “Complete Neighborhoods” found in older cities, neighborhoods and rural areas have mixed uses and walkable streets encouraging daily activities, grocery shopping, other services, coffee shops, local bars, houses of worship. Social capital and the Linkage of the community to the MMH types</td>
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Table 4 (Continued)

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<td>Bach, A., Gupta, P. K., Haughey, R., Kelly, G., Pawlukiewicz, M., &amp; Pitchford, M. (2007) Ten principles for developing affordable housing.</td>
<td>• Provides guidelines for developing and working with a community on affordable housing. Opposition to affordable housing is based on misperceptions of the potential clients and on the appearance and type of structures. Suggestions to educate the public to mitigate negative perceptions on the actual residents who may be elderly couples on a fixed income, working families, professionals, college graduates’ parents or children of residents of the community. Various housing types create a lively city, and most importantly, is a sustainable community. That is, different housing types that can support socio-economic and demographic diversity (p. 3). Adjacency to work in crucial to an area’s economic well-being (p. 4). When contrasted to suburbia which is socio-economically homogeneous, and automobile-dependent, with an emphasis on privacy.</td>
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Table 5. Millennials, Attraction to MMH Housing Type and Why

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<tr>
<td>Fry, R. (2018) Millennials projected to overtake Baby Boomers as America’s largest generation.</td>
<td>• Descriptor population of the various generations with an emphasis on the baby boomers and millennials indicating the millennials has overtaken the baby boomers (75.4 million vs. 74.9 million).</td>
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| Myers, D., & Ryu, S. (2008) Aging baby boomers and the generational housing bubble: Foresight and mitigation of an epic transition. | • In 2008, Myers et al. studied what might happen when baby boomers begin to sell off their high-priced homes to a small and less affluent generation. This generation (approximately 78 million), has driven the demand for housing since 1970. The authors concluded:  
  • 85% of home sales were by existing homes owners. Seniors (aging population). The authors predicted the ratio of seniors to working-age residents would increase by 67% over the next two decades and thus the ending the generational housing bubble and younger generations will not be able to afford housing. Authors proposed planners could mitigate the effects of this projection. Authors predicted the retirement of baby boomers could be the end of suburban planning with declining demand for low-density housing and the rise of more compact development calling for planners to use new strategies and market and keep baby boomers. Question? Did this occur? The authors predicted a diminishing of the demand for low-density housing and a focus on compact development. |
<p>| Abrahms, S. (2016) 5 Questions about the ‘Missing middle housing: AARP Livable Communities, Housing. | • Interview with Daniel Parolek. Provided insights into the housing types, definition, applicability/use, and the future of housing needs, the role of developers and policymakers in these housing types. Parolek indicated the baby boomer generation needs what the young want—less auto dependence, amenities and to be part of a connected community. He emphasized the importance of walkability. Missing Middle tends to be in communities that are age diverse. |</p>
<table>
<thead>
<tr>
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<tr>
<td>Shaver, K. (2017) Cities turn to ‘missing middle’ housing to keep older millennials from leaving.</td>
<td>• Transportation Section of the <em>Washington Post</em>. The plight of affordable housing in cities like Washington DC is highlighted looking at the Missing Middle as a possible part of the solution. The focus is on the older millennials that are forming couples and unable to find a larger affordable place for the new family. Yolanda Cole (ULI &amp; architect), stated city residents have grown up there and not sure where to go. Cities are looking at the Missing Middle as a solution. Millennials prefer MMH type housing that is close to amenities and services. The question of what price point would be affordable for the market rate builders in areas of areas with high land and building costs. Developers proposed allowing two times the density on the same parcel of land, smaller bedrooms, and parking under, shared patios can reduce costs by half. Concerns that increased density will bring opposition from single-family residential areas due to fears of neighborhood, and schools overcrowding, high traffic, and noise. Planners, like Parolek, proposed increase density in walkable neighborhoods close to transit will also accommodate retiring baby boomers who are downsizing.</td>
</tr>
<tr>
<td>Fry, R., Igielnik, R., &amp; Patten, E. (2018) How Millennials today compare with their grandparents.</td>
<td>• Ages 18–33 in 2014. Most educated generation to date (but not in the STEM). More females with bachelors than men. More women are working at a younger age. Millennials entered the workforce during tough times. Millennials are twice as likely not to be married. Millennials are more likely to look for diversity, proximity to friends’ home and amenities.</td>
</tr>
<tr>
<td>Sisson, P. (2016) Millennials look to the suburbs, not cities, for first homes.</td>
<td>• Profile on Millennials: Denver developer Kyle Zeppelin, developers and consumers are not aligned. Developers are concerned about ROI/sq. ft, whereas, consumers (millennials) are seeking value. Small, efficient and functional spaces with amenities to suit their lifestyles and cost less than $1,000. They seek more free time to do what they want. The millennial’s financial reality is due to the recession, high student debt, difficult job market. Low home ownership is due to high real estate prices and above.</td>
</tr>
<tr>
<td>Woo, A. (2016) The affordability crisis: What happens when Millennials can’t afford to buy homes?</td>
<td>• Survey indicated 79% of millennials want to buy a home but cannot afford it. The lowest level of home ownership in 50 years (63.4% in Q2, 2015) mainly with millennials. As attributed to high rents, student loans, postponed marriages. They planned on home-ownership for 3-4 years. Housing affordability was the biggest problem (77%). Woo suggested millennials may take up to ten years or more to save for a down payment.</td>
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### Table 6. Barriers to the MMH Types

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<tr>
<td>Doherty, C. (2017) The great American single-family home problem.</td>
<td>- Economy Section. The article relates to the plight of affordable housing in Berkeley, California. Higher density in SF neighborhoods to increase the housing supply. Pros, Neighborhood opposition to density and “missing middle” housing types as a possible solution for starter homes for young families. The article provided examples of neighborhood barriers to development with graphic illustrations of the potential of three houses on single-family lots. Doherty cited opposition and impediments as a trend for the rest of the nation.</td>
</tr>
<tr>
<td>Kolson, A. H. (2016) Will U.S. cities design their way out of the affordable housing crisis?</td>
<td>- Examples of development (Washington, DC), barriers (up-zoning, opposition from residents, outmoded land use, and zoning regulations. The article questioned its affordability. Parolek claimed affordable based on the design, due to efficiency in space, shared spaces and proximity to public transit and amenities.</td>
</tr>
<tr>
<td>Mattson-Teig, B. (2017) Why aren’t more small apartment projects built? An, B., Bostic, R. W., Jakabovics, A., Orlando, A., &amp; Rodnyansky, S. (2015) Small and medium multifamily housing units: Affordability, distribution, and trends.</td>
<td>- Article based on a report by Enterprise Community Partners and Bedrosian Center on Governance at the University of Southern California (USC), focuses on the (2–49 units) Small and Medium Multifamily Housing. (SMMF). The report called for policymakers to support/ preserve existing units by developing financial tools and eliminate barriers to build new ones. The SMMF units accounted for more than 25% of all units in the 70s &amp;80s but since the 90s represent only 15% of new construction. It is less economical for a developer as the work is the same for an SMMF as opposed to a more extensive development with lower profit margin rates. Prices are based on construction and the cost of land. The assumption is the elimination of regulatory barriers could produce lower rents.</td>
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### Table 7. MMH Findings in the Academic Literature and Contribution of this Housing Type to a Community

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- Barriers included: Permitting and Land Use and Zoning restrictions to density, wealthy residents’ opposition to growth /density. Findings relaxation of the zoning regulations and protections for neighborhood character in the development of “Missing Middle” (p. 1). Proponents claim of financing restrictions and developer’s hesitancy to pursue this type of market. Suggests, if the developers can build higher densities on the same single-family site, it becomes more attractive to them to have the goals of the Missing Middle housing type, of affordability, walkability and improved social connections are dependent on siting to take advantage of existing public infrastructure, promote connected streetscapes and provide access to open spaces and the mixed-used amenities. |
Table 8. The Tampa Bay Area: Missing Middle Initiatives

<table>
<thead>
<tr>
<th>Source</th>
<th>Contribution/Findings</th>
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<tbody>
<tr>
<td>Burks, B. (2017) Finding the missing middle – an opportunity to complete the spectrum of housing options in Tampa Bay.</td>
<td>• A Case for the MMH types in Tampa Bay, Pinellas County. A historical view of the development types in the area. Denser communities such as Tampa – Ybor City, in Pinellas County: Dunedin, Gulfport, St Petersburg, Clearwater, and Largo. Three cases: 1) developer specializing in redeveloping historic “casitas” in Ybor City, Developer Michael Minberg; 2) John Bews inspired by Ybor City Hayes Village in Oldsmar (walkable community) and build small cottages, lower costs to build with low maintenance, making it affordable; 3) Glencairn Cottage Court in Dunedin. Built to the need to be part of the community. Developer Carl Krave (Pocket Neighborhood Inc.) common spaces, courtyards, walking distance to downtown Dunedin. Carl Krave built through the 2008 recession, due to demand. The article cited neighborhood resistance and developer financing as barriers to the housing types.</td>
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Discussion

Demand

There is a high demand for MMH types (Myers & Ryu, 2008; Shaver, 2017; Woo, 2016). A new generation of college graduates, young professionals, and skilled workers are seeking the MHH. This generation, the millennials, have overtaken the baby boomers, 75.4 million vs. 74.9 million (Fry, 2018; Fry et al., 2018). However, the baby boomers are retiring, downsizing from their large single-family homes in the suburbs and are also seeking the MMH types (Abrahms, 2016; Myers & Ryu, 2008). In past generations, the succession in the homeownership (step-up ladder) occurred, i.e., when the younger generation who were coupling up or single and sought home ownership would occupy the void created by the baby boomers in the suburbs (Myers & Ryu, 2008). However, this succession was jolted by millennials stage in life delays for marriage and home ownership. This difference was marked mainly by the millennials’ differences in housing preferences. These preferences include housing that is accessible to amenities, has smaller functional spaces, located in walkable areas to suit the lifestyle they desire and free up more time to spend on activities they prefer (Fry, 2018; Fry et al., 2018; Sisson, 2016).
Additionally, their lack of economic mobility, high student loan debts, rising rents, and job insecurity prevents them from home ownership of their choice (McKinney, 2016; Woo, 2016).

**Low Supply in The Housing Market**

MMH land uses were regulated out of the urban core neighborhoods, but remnants of the housing types still exist (Lucy & Phillips, 2006; Parolek, 2015; Vision 2020 Delegates, 2002). As of August 2018, the current month’s supply of inventory nationally, which is an estimate of the number of months it will take to deplete the current inventory based on recent sales, is 4.3 months (NAR, 2018). In the Tampa Bay area, which includes Hillsborough and Pinellas Counties, the inventory is at 3.6 months and 2.6, months, respectively (National Association of Realtors (NAR, 2018). This rate of supply indicates it is a seller’s market or considered “hot,” where inventory cannot keep up with the demand (NAR, 2018).

**Benefits**

The benefits of MMH types are walkability, accessibility to services and amenities such as parks, and cultural activities, which are attractive to a range of age groups but particularly the millennials and baby boomers (Parolek, n.d.). As proposed by Parolek (n.d.), MMH types are characteristic of housing in walkable areas, with small footprints, “perceived” low density (or “gentle density”), well-designed and simple construction. They require less off-street parking due to the walkability in the neighborhood. The compactness of the design, the human scale of the streets and pedestrian activities and amenities such as restaurants, parks, shopping and libraries in the neighborhood convey a sense of community. These benefits are attractive to millennials and baby boomers who are looking for such a lifestyle that also fits their pocketbook (Bach et al., 2007; Leyden, 2003; Parolek, 2015; Shaver, 2017). The compactness in density and design also provide the customer base necessary for public transportation (Cervero, 1996; CNU,
Traditional Neighborhoods, MMH Types

MMH characteristics reflect a mix of land uses, unique designs of the homes, the grid-like pattern of the street layout which encourages walkability, and accessibility to services endemic to traditional neighborhoods (Bach et al., 2007; Bergdoll & Williams, 1990; Greenwald & Boarnet, 2001; Kitamura et al., 1997; Leyden, 2003; Lidwell et al., 2010; Lovejoy et al., 2010; Ware, 2012; Wells & Yang, 2008). However, due to changes in housing preferences in the mid-20th century, these land uses were regulated out of the urban core neighborhoods. Today, remnants of traditional neighborhood housing types still exist and are in high demand (Lucy & Phillips, 2006; Parolek, 2015; Vision 2020 Delegates, 2002).

Overcoming the Challenges

With a lack of supply of MMH types in the urban core, millennials are even looking at the suburbs for MMH types as first-time home buyers. However, no one is building the product they want (Leyden, 2003; Sisson, 2016). The MMH types exist as remnants in the urban core from the early 20th century due to regulation changes to meet the housing preferences in the mid-20th century. Developers are not going into the urban core to build these units and help meet the demand (Burks, 2017; Shaver, 2017). Because the land use and zoning regulations were changed in the mid-late 20th Century to accommodate the suburban-type housing preferences then, efforts to fully bring the MMH types in the urban core would require regulatory changes at the local government level. This requirement is inevitable but it is a time-consuming process (Mich, 2017). In areas of high land and construction costs, few developers are willing to pursue the work due to market forces and regulatory challenges. Shaver (2017) demonstrates a developer’s
willingness to work through the high cost of land and regulatory barriers. The article suggested if local governments double the zoning allowances and reduce parking regulations, developers could reduce the bedroom size, and create common spaces such as patios to make projects more profitable for them and affordable for the residents (Mich, 2017; Shaver, 2017).

**Density: Common Theme of Neighborhood Opposition and Lack of Developer Interest**

According to Koebel et al. (2004) in their report to the National Association of Realtors, there is insufficient land that is zoned dense for affordable housing (MMH types). Common themes appear in the literature include neighborhood opposition, a lack of developer interest in building these units, lack of financing available, and high costs (Burks, 2017; Doherty, 2017; Koebel et al., 2004; Kolson, 2016; McKinney, 2016; Mich, 2017; Shaver, 2017).

The neighborhoods oppose due to fear of declining property values. They associated high-density housing with poverty, tenement housing, and poorly managed properties (Koebel et al., 2004). Mich (2017), suggested developing protection mechanisms and assurances for maintaining the neighborhood character in the development of “Missing Middle Housing.”

**Affordability and Walkability**

Almost 13 years later, affordability and walkability factors continue to emerge in the media, practitioners’ magazines and literature (Burks, 2017; Doherty, 2017; Koebel et al., 2004; Kolson, 2016; McKinney, 2016; Mich, 2017; Shaver, 2017). In Kolson’s (2016) article, Parolek suggested increased density, efficiency in space, shared spaces and adjacency to transit will counter the relative cost of the housing due to the high cost of land and construction. He also asserted walkability and adjacency to transit are significant factors in offsetting the costs of housing (Parolek, 2016).
Residents and employees carry an added cost burden in places like the Tampa Bay area which does not have an efficient regional transit system. In addition to the housing costs, these deficiencies in transit can result in additional cost burdens of $9,000 per year to an employee to pay for and maintain a car with insurance (AAA, 2018; Site Selection Group, 2017; United Way Suncoast, 2017).

Preserving the Existing Small and Medium Multifamily Housing (SMMH)

One study conducted by Enterprise Community Partners in partnership with the Bedrosian Center on Governance at the University of Southern California (USC) (2015) focused on preserving and the allowance of new Small and Medium Multifamily Housing (SMMH) to increase/maintain the supply of these housing types in the urban core. These are buildings that are 2–49 units in size (Mattson-Teig, 2017). In the 70s and 80s these units accounted for more than 25% of all units in the U.S. However, since the 90s, they only represent 15% of new construction because of the low return on investment for developers (Mattson-Teig, 2017). The report called for policymakers to support the creation of financial tools to preserve existing units and eliminate the barriers to produce new ones (Mattson-Teig, 2017). This study may be useful for the older core areas in Tampa Bay to retain and expand this type of development.

Currently, three developers in the Tampa Bay area have used the MMH type housing idea. Michael Mineberg, Sight Real Estate, rehabilitates the historic Ybor “casitas” (Figure 3). These are one room wide, narrow, cigar worker homes that were built in the 19th and 20th century near the cigar factories in historic Ybor City, Tampa (Forward Pinellas, 2017). John Bews, who was inspired by the homes in Ybor City, developed Hayes Park Village, a detached skinny home development in Oldsmar. Carl Krave developed Glencairn Cottage Court a bungalow courtyard and detached, skinny, single family home development in Dunedin, FL (Figure 3).
These three areas demonstrate MMH types in different ways. The Ybor Casita is part of the fabric of a walkable old city that has declined and been under revitalization efforts. Glencairn Cottage Court is a small new development close to downtown Dunedin. It is accessible to restaurants, shopping, and other services. The shared courtyard gardens and other amenities are exclusive to the development. Hayes Park Village of Oldsmar, FL, is a new development in a suburban area. It is accessible to shopping, a school, and a neighborhood park. Both new developments required special support from policymakers with the planning and permitting processes.

**The Type of Housing and Neighborhood Design That Matters**

Decades of research on traditional neighborhoods, suburban neighborhoods, and the effects of urban sprawl have demonstrated the benefits of traditional neighborhoods. That is the benefits of walkability, community, the density for public transit, accessibility to services and amenities as well as the environmental and health benefits derived from walkability, community and less auto dependency in the traditional neighborhoods (Bach et al., 2007; Leyden, 2003). These benefits were gained from the way neighborhoods were designed and built. More specifically, derived from the layout of the streets and the houses as well as their proximity to the workplace and transit (Bach et al., 2007; Leyden, 2003). In spite of these benefits, there are barriers to the housing types in urban core neighborhoods.

**Choices for the Planning Profession**

Though the MMH types existed in older neighborhoods for decades, Parolek’s (n.d.) proposal to reintroduce the MMH types in older walkable neighborhoods to help meet the demand is not readily accepted by the residents. The regulatory barriers to reintroduce the MMH types in the neighborhoods, as well as opposition by the neighborhoods (Shaver, 2017) and a
lack of interest by developers to construct the MMH types in these neighborhoods, are considered the major factors in the limited supply. Though these barriers exist, and there is a demand for the product, planning practitioners may choose not to pursue the MMH types in the urban core. This is due to the perceived low return on investment of their time and resources because of the political fall-out that may occur from the neighborhoods that oppose the MMH types.

However, with increased density, reduced off-street parking requirements, and incentives, projects can be more profitable for developers. But this may not be enough to get the developers to work in those areas. To minimize neighborhood fears of declining property values, poor quality of housing and the negative perceptions of the potential residents, planning practitioners may seek ways to educate residents to overcome the fears and perceptions. They may also continue to work on the regulatory and permitting barriers to facilitate the development. Any or all of these actions will provide incremental increases of the MMH in walkable neighborhoods.

Conclusions

Many factors affect the supply of affordable, low- to mid-rise, housing types in walkable urban areas. The missing middle housing type (MMH) is a possible solution to fit the needs of various demographic and socioeconomic groups, particularly, millennials and baby boomers. Planning practitioners are investigating MMH types as one way to help improve the housing supply in urban core areas (Burks, 2017). Overcoming the challenges of land use and zoning restrictions, neighborhood opposition, lack of developer interest in building these units, lack of financing, limited land available, and construction costs will help increase the supply of MMH types housing. To help counter the high costs of land and construction and improve the supply of MMH types, for-profit developers have suggested some solutions to earn a higher ROI (return on
investment) on the project and make the MMH type affordable to the consumer. These suggestions include: doubling the density allowance of units on the same single-family site in certain areas; making smaller bedrooms and more efficient spaces such as shared patios; and relaxing the off-street parking requirements. The Bedrosian Center suggested supporting the development of financial tools for preserving existing small and medium multifamily housing (SMMH, 2–49 units), and reducing the barriers to produce new ones as another way to boost supply (Mattson-Teig, 2017). Though this research is on increasing the amount of MMH types, accessibility to transit is a major factor in balancing the overall affordability of the MMH (Kolson, 2016). Kitamura et al. (1997) demonstrated that automobile ownership is related to residential density, and residential density is related to public transit. A lack of an efficient public transit system exacerbates the affordability issues where employees must commute distances to work such as in the Tampa Bay, FL area (United Way Suncoast, 2017). In their research to investigate whether new housing supply can increase housing affordability, Anenberg and Kung (2018) demonstrated that rent is more closely related to the amenities in a neighborhood.

Future work with developers, planning practitioners, interests’ groups, lenders, and transportation planners to investigate the feasibility of overcoming the challenges and increasing the supply of MMH in the local area is necessary. Figure 4 below is a graphic representation of the factors that affect the amount of MMH types in Walkable Urban Core Neighborhoods and offer potential solutions to overcome the challenges of low supply of MMH types.
Figure 4. A graphic representation of the factors that affect the supply of MMH types in walkable urban core neighborhoods with potential solutions to overcome the challenges of low supply of MMH types.
CHAPTER TWO:
WHAT FACTORS AFFECT INCREASING THE SUPPLY OF MISSING MIDDLE HOUSING TYPES IN WALKABLE URBAN CORE NEIGHBORHOODS? A QUALITATIVE STUDY

Tagline

This qualitative Grounded Theory study identifies factors and risks that affect the supply of MMH Types and a systematic solutions approach through risk reduction and capital to help meet the demand for the MMH types in urban core neighborhoods.

Keywords

Missing middle housing types (MMH), diverse housing types, traditional neighborhoods, urban core, qualitative data analysis, grounded theory, NVivo, barriers, millennials, baby boomers, risk, risk reduction, capital flow, supply in housing

Executive Summary

There is a need for a variety of low-rise housing types in walkable urban core neighborhoods. These housing types once existed in the urban core but are now missing. Daniel Parolek (CNU, 2018) proposed bringing back the Missing Middle Housing (MMH) types as one way to increase the supply. However, the risks of regulations, neighborhood opposition to increased densities, and apparent under-capitalization due to financing restrictions deter suppliers (developers) from helping to increase the supply. This qualitative study utilizing a grounded
theory approach examines experts and industry leaders in the field supporting the claim that MMH types are “missing.” A risk, risk reduction and capital flow mapping that influence supply emerged at the thematic portion of the research. This research suggests there is a willingness to solve the MMH types issues by mitigating the risks of all three factors of neighborhood opposition to density, lack of developer, and lender interests due to regulation and costs which inhibit supply. Further research is necessary for mitigating the risks and infusing capital with the power brokers, the capital investors, and the suppliers.

**Introduction**

Housing preferences are changing. Consumers are seeking smaller, well-designed units in walkable communities with easy access to shopping, entertainment, and public transportation (Myers & Ryu, 2008; Woo, 2016). This change is counter to the suburban-type dwelling offered by developers for the past decades (Doherty, 2017; Leyden, 2003; Myers & Ryu, 2008). However, there is a lack of supply of the housing types that meet the demand. Efforts to reintroduce MMH in the urban core, where they once existed, have been met with opposition (Shaver, 2017).

The Missing Middle Housing types (MMH) coined by Daniel Parolek in 2010, existed in traditional neighborhoods in the urban core and some rural areas for decades in the early 20th century (Leyden, 2003). They provided low rise, medium dense, affordable housing for diverse socioeconomic groups. Because of the compact design of the buildings, the mixed uses in the neighborhoods, and the grid-like layout of the streets, residents were able to live, work, play and walk in the neighborhoods for commerce and daily activities (Lucy & Phillips, 2006). The compact housing provided the needed density for public transportation (Cervero, 1996; CNU, 2018; Leyden, 2003; Parolek, 2016).
Due to changes in housing preferences for suburban type housing after World War II (WWII), new zoning and land use regulations were instituted to accommodate the suburban type development in the urban core. Consequently, the MMH types were regulated out of the urban core. Today, however, changing preferences and stage of life circumstances for both millennials and baby boomers point to an affinity for the benefits that MMH areas once offered (Myers & Ryu, 2008; Woo, 2016)—among these: walkability, community, shopping, parks, restaurants, amenities and access to public transportation (Lucy & Phillips, 2006).

At present, MMH types are in low supply in the urban core (Shaver, 2017) although remnants still exist in some areas (Lucy & Phillips, 2006; Parolek, 2015; Vision 2020 Delegates, 2002). To address the imbalance between the limited supply and high demand, Parolek provides an array of proposals for bringing back the MMH in walkable neighborhoods to help meet the growing demand of affordable housing (Opticos Design Inc., 2018). Implementing these would require retooling land use and zoning regulations to accommodate the densities and related parking (or lack thereof) for the MMH.

Urban planning practitioners and media assert there are barriers of neighborhood opposition to the higher densities, lack of lender interest for this type of development and, in consequence, lack of developer interest. The quest to meet the demands of this type of housing need is acute, especially in a strong economy and a healthy housing market (Shaver, 2017). The planners and developers may decide not to address the low supply of MMH in urban areas because of the barriers. Instead, they may go to alternate areas where there are fewer obstacles to the MMH types.

The purpose of the research described in this paper was to conduct an in-depth study of the perceived issues, applicability and potential solutions relating to expanding MMH in the
Tampa Bay area. The Tampa/St. Petersburg MSA is a region with an Area Median Income of $53,700 for a single household, $61,350 for a household of two, and $76,700 for a household of four (Florida Housing Finance Corporation, 2018). The housing type addressed is “market rate” or non-subsidized workforce housing.

The paper begins with a brief overview of research findings relating to MMH; a more detailed survey can be found in my previous paper (Ojah Maharaj, 2018b). An overview of the research methodology is then provided, followed by a presentation of the research findings. The findings are then discussed, leading to the introduction of a risk flow, risk reduction, capital flow model intended to help us better understand the forces that lead to the more widespread construction of MMH. Finally, the paper concludes with some concrete suggestions for different stakeholders and potential directions for future research.

**Review of Research**

High economic performing areas attract the best talent which has an impact on the supply of housing (Glaeser & Gyourko, 2018). Geographically landlocked areas such as Pinellas County and parts of Tampa, Florida, impact available land to build and thus affect the supply of housing. This is amplified when the area has other attractors such as weather and amenities (Glaeser & Gyourko, 2018).

Quality of life issues (housing, amenities, schools, healthcare, and others) particularly, the type, cost, and availability of housing, are important factors companies consider when starting or relocating a business to an area. These factors directly impact a company’s ability to attract the best talent (Area Development, 2009). Thus, city and business leaders are seeking ways to improve their housing supply (Area Development, 2009).
The MMH types in urban core areas are suggested as one way to help improve the supply (CNU, 2018). In a prior article, Ojah Maharaj (2018b) presented a systematic review of the forces affecting MMH. In brief, there are many factors that affect the supply of a variety of low to mid-rise, affordable housing in walkable urban areas. Some of the major challenges include land use and zoning restrictions (Koebel et al., 2004; Kolson, 2016), neighborhood opposition (Doherty, 2017; Koebel et al., 2004), lack of developer interest in building these units, lack of financing, limited land available, and high land and construction costs (Burks, 2017; Koebel et al., 2004; Kolson, 2016; Shaver, 2017). Intervention strategies to overcome the barriers include regulatory changes to increase density and provide incentives to developers and home-owners; educating the neighborhoods to allay their fears of increased density, working with developers to address their issues and working with lenders to create financial tools for developers.

Figure 4 in Chapter 1 provides a graphic depiction of the challenges and potential solutions. In interpreting the figure, the key objective should be increasing the supply (DV, dependent variable, Y-axis) of MMH types in urban core neighborhoods. Based on an earlier literature review (Ojah Maharaj, 2018b), the major factors that negatively affect the supply (located under “Challenges” in Figure 4), include affordability, land use, and zoning restrictions, neighborhood opposition, a lack of developer interest in building the units, a lack of lender financing, limited land availability, and high land and construction costs. The literature also proposes potential solutions/interventions (IV, Independent Variable, X-axis) such as (1) land use and zoning regulation changes to increase density, (2) relaxing permitting regulations, (3) building smaller units to compensate for the high cost of land and construction, (4) educating the neighborhoods to reduce opposition to increased density, (5) reducing regulations to interest
developers, (6) providing incentives, and (7) other interventions, such as educating lenders and creating financial tools for developers.

**Methodology**

This research was conducted over nine months. Research subjects were leading practitioners, upper and middle management professionals, developers, and industry leaders in the Tampa Bay, FL area. Data collection was guided by Corbin and Strauss’ grounded theory qualitative methodology (Corbin & Strauss, 2014).

The methodology comprises data collected from interviews, open coding, axial coding, and selective coding (Creswell, 2013). Open coding could consist of a word, line by line or a paragraph; axial coding (a cluster of open codes), memo writing, which is part of the inductive process of theory development (Creswell, 2013). When theoretical saturation is achieved, data collection stops. The process continues with selective coding and theoretical modeling. Unique to Corbin and Strauss’s qualitative study methodology is a constant comparison process (Creswell, 2013). This process requires the researcher to constantly compare the coded item and the category with previously coded items for similarities or differences, this eliminates the need for a hypothesis and avoids biases (Creswell, 2013; LaRossa, 2005) (Appendix A).

Data were derived from interviews with thirty-nine leaders and practitioners (Appendix B). Data collection for this research spanned 3.25 months. Interviews had an average duration of 59 minutes each. Data collection and preparation (coding and memos) took a total of 187 hours, with an average of 4.79 hours per interview. NVivo 12 Plus software was used to prepare the data (code the interviews).
The areas of expertise covered urban planning, historic preservation, transportation planning, permitting and reviews, housing and economic development, development, policy, lending, and sales (Appendix C). The categories of interview subjects were as follows:

- **Practitioners:** Local and County Government Administrators, CEOs, Managers, and Mid-level staff (including two millennials);

- **Policy/Special Interest:** Private and Public Sector Real Estate professionals, Land Use and Zoning Attorneys, Area-wide revitalization/historic preservation leaders, Chamber of Commerce President and Local Government Council Member;

- **Realtors:** Owner/Broker and President of the County Realtors Association, Real Estate Associate;

- **Lenders:** Community, and mid-size bank leaders, and an organization that works with a consortium of banks; and

- **Developers:** Large and small, local and state-wide developer, *architect/design-build*.

The breakdown of interviewees is presented in Figure 5.

![Figure 5. Types of Respondents by Category](image-url)
Findings

During the interview process, nearly all respondents referred to two broad categories: supply problems and supply solutions. Specifically, of 39 individuals interviewed, 37 (95%) identified items relating to supply problems and 38 (97%) to supply solutions. The broad categories and items classified during the interview process, ordered by subcategory, are summarized in Figure 6, with supply problems on the left and supply solutions on the right.

<table>
<thead>
<tr>
<th>Axial Code / Category / Themes</th>
<th>Items</th>
<th>%</th>
<th>Subcategory</th>
<th>Axial Code / Category / Themes</th>
<th>Items</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Problem</td>
<td></td>
<td></td>
<td></td>
<td>Supply Solutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complexity due to factors listed below</td>
<td>11</td>
<td>28%</td>
<td>Overcome Barriers</td>
<td>18</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>High Demand - MMH housing</td>
<td>27</td>
<td>69%</td>
<td>Density</td>
<td>31</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>Desirable Neighborhoods - walkable areas and amenities</td>
<td>35</td>
<td>26%</td>
<td>Go To Major Streets and Corridors &amp; Hard to Develop Areas</td>
<td>15</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>Neighborhood Power &amp; influence with politicians</td>
<td>7</td>
<td>18%</td>
<td>MMH Current Situation Opportunities</td>
<td>13</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>Neighborhood &amp; Save The Burg Opposition</td>
<td>13</td>
<td>33%</td>
<td>Historically-Owner Occupied</td>
<td>16</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>Neighborhood Fear of Change, negative prior experiences with</td>
<td>31</td>
<td>33%</td>
<td>Historically-Owner Occupied</td>
<td>16</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>Feelings, Safety, Stability</td>
<td>14</td>
<td>36%</td>
<td>Developers</td>
<td>20</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>Perceptions</td>
<td>13</td>
<td>33%</td>
<td>Regulations Related &amp; Incentives</td>
<td>12</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>Developer challenges</td>
<td>34</td>
<td>35%</td>
<td>Defray Construction Costs</td>
<td>30</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>MMH - difficult to do.</td>
<td>5</td>
<td>13%</td>
<td>Incentives</td>
<td>7</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Barriers</td>
<td>17</td>
<td>44%</td>
<td>Make City Vacant Land Available</td>
<td>4</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Regulations</td>
<td>14</td>
<td>36%</td>
<td>Strategies</td>
<td>19</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>The process takes too long</td>
<td>4</td>
<td>25%</td>
<td>Steps Taken to Increase Supply</td>
<td>3</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Construction Costs</td>
<td>7</td>
<td>18%</td>
<td>Repurpose and Redevelop - Historic Preservation</td>
<td>7</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Barriers to MMH &amp; Market Forces</td>
<td>15</td>
<td>26%</td>
<td>Efficiency in Permitting and Construction</td>
<td>15</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Lenders</td>
<td>10</td>
<td>26%</td>
<td>Educate the Neighborhoods</td>
<td>14</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>Barriers</td>
<td>20</td>
<td>26%</td>
<td>Educate Developers &amp; Share</td>
<td>17</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>Banks are Risk Averse</td>
<td></td>
<td></td>
<td></td>
<td>Educate Developers &amp; Share</td>
<td>17</td>
<td>43%</td>
</tr>
<tr>
<td>Dodd Frank</td>
<td></td>
<td></td>
<td></td>
<td>Educate Developers &amp; Share</td>
<td>17</td>
<td>43%</td>
</tr>
<tr>
<td>Lenders Not Financing</td>
<td></td>
<td></td>
<td></td>
<td>Educate Developers &amp; Share</td>
<td>17</td>
<td>43%</td>
</tr>
<tr>
<td>Smaller Developers - Financials Not in Order</td>
<td></td>
<td></td>
<td></td>
<td>Educate Developers &amp; Share</td>
<td>17</td>
<td>43%</td>
</tr>
</tbody>
</table>

Figure 6: Supply Problems Supply Solutions, Axial Codes. See Appendix D for codes by Stakeholder

Supply Problems, Supply Solutions

A variety of interrelated topics were identified through axial coding under the heading of “supply problems” and “supply solutions.” The number of responses to for each of these topics is presented in Figures 6 and 7. From these topics, a number of key categories emerged.
Supply problems transportation, land use and transit. The majority of respondents (34, 87%, 65 times mentioned) identified problems in this category. They also recognized these factors were a challenge to solve. Because increased density supports transit, there was a dilemma with respondents as to which should come first. Service needs ridership and frequency. Ridership needs density. However, as described next, there are major issues to resolve with density.

Density. Due to the limit of land availability in the older urban core neighborhoods, increased density appears to be the way to increase the MMH types in these neighborhoods. Density reveals itself as a problem for the neighborhoods in the form of neighborhood opposition due to fear about the safety and stability of the neighborhoods (14, or 36%, 20); and regarding their perceptions of the type of residents associated with poverty and poor construction and design (13, or 33%, 16). The complexity of the supply problem is increased as respondents were cognizant of the power and influence neighborhoods have with the politicians (7, or 18%, 12) in preventing increases in density in desirable neighborhoods. Respondents identified the neighborhoods and a historic preservation group that opposed the potential of increased density (5, or 13%, 6). Developers’ perceptions (5, or 13%, 7), challenges (14, or 36%, 21) and issues also rose to add to the complexity.
Supplement Problems by the Number of Respondents as Extracted from the Interviews

Affordability. Of the 39 individuals interviewed in this research, 37 (or 95%) indicated there is a supply problem with MMH types / affordable housing for the median income household. This was referenced 120 times during the interviews, which makes it very significant.

The problem of affordability was exacerbated by MMH demand outstripping supply. Sixty-nine percent (69%) of the respondents recognized there was a high demand for MMH types, mentioned 33 times during the 27 interviews that recognized this as a problem.

Developer barriers (See Appendix D). Developer’s barriers, challenges, and perceptions were cited as issues to the supply problem of the MMH types (See Appendix D). Barriers were mentioned 54 times during 17 interviews. They included Regulations (14, or 36%, 19). Government regulations such as requirements for off-street parking and variances to the land

Figure 7: Supply Problems by the Number of Respondents as Extracted from the Interviews
use and zoning regulations to build MMH types in the urban core make the process lengthy (6, or 15%, 7).

Although eight developers participated in this research, high-ranking issues such as developer’s challenges (14, or 36%, 21), Barriers (17, or 44%, 54), Barriers to the MMH types, and market forces (10, or 26%, 18) were discussed by more than eight respondents. The cost-effectiveness of building MMH types within the constraints of regulations and neighborhood opposition was of concern to the respondents. Market forces, such as the high cost of land, labor, and construction costs were cited as impediments to the MMH types.

This indicates that respondents outside of the developer’s group were talking about developers and their role in the supply problem and supply solutions for increasing the supply of the MMH types in urban core neighborhoods. This is also an indication of the significant role that developers play or can play in increasing the supply of MMH types. Developers’ challenges (14, or 36%, 21) emphasized neighborhood opposition, regulations, lenders resistance to provide loans and the cost of construction. Their perceptions were that the MMH types are difficult to do (5, or 13%, 7). Challenges include those discussed above as well as the difficulty and costs involved in staging a job in the urban core.

Lender barriers. Although three lenders participated in this research, ten interviews addressed the role of lenders in the supply problem (10, or 26%, 20). The findings indicate that lenders are part of the supply problem (a hindrance) to the supply of the MMH types in the walkable urban core neighborhoods because they are not financing such loans. Dodd-Frank (Wall Street Reform & Consumer Protection Act) was specifically referenced as a problem for lenders and as a possible reason why lenders were not financing the MMH types (3.8% three times).
Supply Solutions (Risk Reduction) (See Appendix D)

Thirty-eight (38) out of 39 respondents talked about supply solutions for the MMH types. This was mentioned 159 times during those interviews. Thirty-four (34) of the respondents (87%) echoed the need to overcome the barriers to increase the supply of MMH types in the urban core neighborhoods. Thus, it was almost an equal amount recognizing that there was a supply problem of the MMH types in urban core neighborhoods and a need to find solutions to increase the supply. Figure 8 presents terms extracted from interviews relating to solutions, showing both the number of respondents and the number of times each term was mentioned.

Figure 8: Supply Solutions, by Number of Respondents, Extracted from the Interviews

In each of the areas where supply problems were mentioned, a variety of potential solutions were also proposed. These are now summarized.

Transportation, land use and transit. As previously noted, transportation, land use, and transit ranked very high, (34, 87%, 65) on the supply problem side. While transportation and transit do not have a direct effect on the supply, it is perceived to be a result of the supply. Fifty
percent (50%) of the respondents discussed density as a need to support transit and transportation; however, respondents were not sure which comes first: the density to support the MMH types and transit/transportation or the transportation to support the MMH types.

Respondents responded to these issues in three ways: (1) go to the major streets and activity centers to provide increased densities, which will support transit and avoid neighborhood opposition; (2) work locally on pedestrian and bike-friendly strategies such as widening sidewalks, narrowing streets, creating bike lanes to provide a sense of security in the streets for walkability and bike-ability; and (3) work on transit-oriented development techniques such as off-street parking requirements, and incentives for developing on the major corridors to encourage development.

**Density.** Density was the leading way suggested to increase supply. Twenty-six (26) of the respondents (67%) talked about increasing density 57 times during the interviews as a solution to increase the MMH types. Although there is opposition to density from the neighborhoods, solutions to increase the MMH types included:

- Educating the neighborhoods through the “appropriate messaging” about the type of density, the benefits, the residents who live in these units, measures taken to mitigate their concerns of compatibility with the neighborhood, and noise and disruption (staging) during construction (6, or 15%, 6) (Interview #36).

- Working with developers to address their concerns of restrictive regulations on Land Use and Zoning, off-street parking requirements, high costs for permitting fees and providing incentives (12, or 31%, 19), such as making vacant city land available to developers to construct MMH types (12, or 31%, 32) (Interviews #4, 5, 7).

- Educating and informing developers (5, or 13%, 8) about incentives and areas that have the Land Use and Zoning in place for “MMH types i.e. MMH types-ready,” and informing developers of the processes in place to address their concerns of lengthy delays for site plan reviews and permitting approvals, i.e., “Time-to-Market” issues/concerns (Interview #6).

- Considering new strategies shared by practitioners / respondents (11, or 28%, 38) such as: updating Land Use / Zoning regulations to accommodate higher densities for MMH types; loosening off-street parking requirements; allowing for accessory units in single-
family neighborhoods; and implementing “Complete Streets” techniques to make the area more pedestrian-bike friendly (Interviews #4, 27).

- Respondents also proposed to repurpose and redevelop multi-unit properties to increase the supply of MMH types (38%, four times) (Interview #33).

- Working with lenders (7, or 18%, 10). Although three lenders participated in this research, a total of seven respondents provided suggestions on working with lenders to increase the supply of MMH types in the urban core, while it appears, lenders stated their constraints and capabilities (Interview #37)

**Affordability.** Affordability ranked the 4th highest (22, 56%, 57), on the supply problem side of this issue. Thirty-three percent (33%) of the respondents recognized there are opportunities in developing the MMH types. This was mentioned 65 times during the 13 interviews. Respondents saw the affordability issue as being intrinsic to the MMH types; “the area is desirable, and people want to be here.”

While respondents continued to employ strategies such as land use and zoning changes incrementally to encourage MMH types, they continued to express concern on affordability due to high land and construction costs, high demand (Market Forces) and described it as a challenge. Respondents suggested increased density, relaxed regulations, design techniques and incentives such as parking fee waivers, and available city land for constructing MMH types as ways of reducing costs.

**Developer barriers.** The cost-effectiveness of building MMH types within the constraints of regulations and neighborhood opposition was of concern to the respondents. Market forces, such as the high cost of land and construction costs were cited as impediments to the MMH types. Respondents viewed this as a challenge. To address the challenge, respondents suggested, permitting incentives such as waiving parking and permitting fee, increasing density, density bonuses, providing vacant city land for development and making the process more efficient (Interviews #1, 11, 15).
**Lender barriers.** Respondents indicated “Banks are risk-averse.” Lenders indicated their goal is “to protect the depositor” (2, or 5%, 4) and Dodd-Frank is not an issue (2.5%, 2). It requires more paperwork and has more oversight on bank practices such as loans. Lenders do not make loans for properties that are four units or less. Developers must convince bankers it’s a good investment (5, or 13%, 15). Historically, such units had a resident manager. Practitioners need to work with lenders and developers to understand and find a way to bridge the gap in lending (9, 24%, 20).

There were three lending respondents in this research. One of the lenders commented, “small developers do not have their finances in order.” This could be an indication there were attempts to finance small developers’ projects, and there may be a remedy for this challenge (Interview #37).

One practitioner respondent expressed the need for “nurturing a group of small local developers” as a solution to increasing the supply of the MMH types in the urban core. As she stated, “They live here, I know them, I hear them, they are passionate about what they do; we work with them, they understand our vision. They know the neighborhoods and provide a great product.” “It is a good way to increase the supply incrementally” (Interview #31).

Another respondent expressed mistrust by the community and the need to look at housing holistically. This respondent repeatedly expressed the concern for the issue to be addressed comprehensively. That is, it must take the economic, social and environmental factors of an area into account. The respondent also expressed the need to work with local developers who understand the community and are here “for the long haul” This statement was made about major commercial projects in partnership with the city and on the supply of the MMH types (Interview #39).
Discussion

As the findings from the interviews became clear, a picture began to emerge that began with a synthesis of the participant types (stakeholders) into four broad classes based upon the broad roles they play in the process. These specific stakeholder roles are as follows:

- City Regulators: formerly Practitioners
- Suppliers: formerly Developers
- Capital Investors: formerly Financiers, lenders
- Power Brokers: formerly Neighborhood and Special Interest Groups

Using these roles, it was possible to present the relationships in the form of a synthesized risk flow, risk reduction, and capital flow model.

Risk, Risk Reduction and Capital

The evaluation of risk or uncertainty starts with evaluating risk and its impact on the success of your goal (Hertz, 1979). The principle of risk is measured by the degree of uncertainty of risks combined (Hertz, 1979). From the purposes of this research, risk is being defined as barriers that decrease the chance of success. The more barriers, the higher risk. Specifically, the barriers to increase supply MMH (neighborhood opposition, regulations, high costs of land, construction and financing, reduced developer and banker interests). The evaluation of capital investment (time, money, assets, resources) starts with the principle that the productivity is measured by the rate of return the stakeholders expect to receive over some future period (Hertz, 1979; Rao, 2013).

Specifically, for this research, capital is defined as the stakeholders’ money. Risk reduction is time, effort resources, and assets they invest to receive the expected capital return on their investment. From the city’s/local government’s perspective, their risk reduction will be
meeting the needs of neighborhoods, developers/builders, bankers, and buyers with the overall goal of increasing the supply of MMH at reduced risk. From the perspective of the neighborhoods, their risk reduction investment of time and effort is to meet the design criteria and compatibility of the neighborhood, address parking and transportation needs, and property values will increase. From the perspective of developer-builder, they will get satisfaction in building quality MMH for their customers, recognition from the city, and bankers, and receive the same amount of return with less risk. From the perspective of the bankers, they will meet the needs of the developer-builder and buyers and get the satisfaction of a successful loan program specifically for MMH, with less risk and same return. The goal of risk mitigating planning is to reduce the uncertainty/risk or barriers involved from the stakeholder’s perspective through lessening or eliminating the barriers with solutions. Reducing the risk/uncertainty or barriers with solutions makes the capital investment more attractive to the stakeholders who will receive the same amount of expected return with less risk.

**Figure 9.** Comparison Grid. Theme: Risk Flow represented by (red), Risk Reduction (black), Capital Flow represented by (black)
Figure 9 was derived from relationships identified from the interviews during the open coding process. Specifically, the supply problems (risks) (Figure 7) and supply solutions (risk reduction, capital) (Figure 6) derived from the interviews and data analysis of thirty-nine respondents in this research. The data transformation moves from Axial Codes to thematic. Upon a comparison of the four grids, as represented in Figure 9, there are bi-directional interactions with the four groups of stakeholders. It reveals the stakeholders’ influence, needs, and risks. Risks are represented by red labels, and capital (money) is represented by black. Risk reduction is representative of services and incentives is represented by black labels. There is a theme of risk, risk reduction, and capital. Risk reduction can be in the form of services/support and capital money. Risks can be in the form of neighborhood opposition, delays in projects. Each quadrant holds a stakeholder and the corresponding risks, risk reduction and or capital.

There is a concentration of risk flow, risk reduction, and capital flow or (lack of) among the power brokers (neighborhood), the Suppliers (developers) and the city regulators, which is impeding the flow of capital from the capital investor (Figure 9). The bi-directional flow of risks, risk reduction, and capital is significant as it indicates the process can be managed depending on the desired outcome. In this case, it is to improve the supply of MM types.

Table 9 summarizes the risk flow, risk reduction and capital flow for the suppliers, the power broker/influencers, the city regulators and the capital investors in the supply of the MMH types from Figure 9.
Table 9. List of Supply Problem and Supply Solutions for each stakeholder category taken from Figures 4 and 5. Risk Flow is assigned by (−), Risk Reduction and Capital Flow is assigned by (+, $)

<table>
<thead>
<tr>
<th>Category</th>
<th>Suppliers</th>
<th>Power Brokers/Influencers</th>
<th>City Regulators</th>
<th>Capital Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Flow</td>
<td>- Land Use and Zoning Restrictions&lt;br&gt; - Long Process&lt;br&gt; - Opposition&lt;br&gt; - No MMH</td>
<td>- Density&lt;br&gt; - Poor Design&lt;br&gt; - Property Devalue&lt;br&gt; - Status Quo&lt;br&gt; - Neighborhood Control&lt;br&gt; - Opposition</td>
<td>- Restriction on density, land use &amp; zoning&lt;br&gt; - Power Brokers Opposition to density</td>
<td>- MMH 4 units or less&lt;br&gt; - Not their market</td>
</tr>
<tr>
<td>Risk Reduction Capital Flow</td>
<td>+Time &amp; Time to Market&lt;br&gt; +No Opposition&lt;br&gt; +Incentives&lt;br&gt; +Easy &amp; Simple&lt;br&gt; +Revise Land Use and Zoning to higher densities</td>
<td>+Assurances&lt;br&gt; +Historic Integrity&lt;br&gt; +Repurpose &amp; Expand Existing</td>
<td>+Incentives&lt;br&gt; Vacant land to Suppliers&lt;br&gt; +Willing to facilitate, retool, Support&lt;br&gt; +Educate Power Brokers&lt;br&gt; +Educate Capital Investors&lt;br&gt; +Gap Financing to Capital Investors&lt;br&gt; • +Remove Impediments to MMH types Densities</td>
<td>$Gap Financing</td>
</tr>
</tbody>
</table>

Key Risk, Risk Reduction and Capital Relationships

Two particularly important relationships were identified in the analysis of the risk, risk reduction, and capital flows:

*Increasing Risk Flow inhibits (attenuates) capital flow and consequently, suppresses the supply of MMH types, “Time and Time to Market.”*

As one city regulator stated during an interview “Time and Time to Market” is very important to the supplier (Interview #6). Thus, any action, policy, or event which hinders, slows the process or delays the product to market is a risk to the Supplier and ultimately to the supply of the MMH types.

The Suppliers see a potential monetary loss (−, risk) due to transactional costs in attempting to build MMH types in urban core neighborhoods. This is due to restrictions in land use and zoning regulations. To build the MMH types, these restrictions will require changes in the regulations that will entail long and inefficient regulatory processes for approvals (−, risk)
(Parolek, 2015 and Interviews #11, 17). These processes provide the opportunity for neighborhood opposition (-, risk). This results in the suppression of the MMH types.

The Power Brokers / Influencers want neighborhood control, maintenance of the status quo, and no disruption of their lives (Interview #14). They fear that increased density and poor design will lower their property values and disrupt the neighborhood (-, risk). Figure 7 indicated this fear is based on perceptions (-, risks) (Interviews #6, 21). Consequently, the power brokers influence the regulators to deny the approval for the MMH types and oppose densities in the neighborhood (risk flow). This results in the suppression of the MMH types.

The city regulators have outdated land use and zoning regulations which restrict MMH types (risk). Attempts to change the regulations for higher densities in the neighborhood would require neighborhood approval (risk). The Power brokers influence the city regulators and oppose approval of increased densities (risk flow). This also results in the suppression of the MMH types.

The Capital Investors do not finance properties that are four units or less (risk) (Interviews #26, 32). They need to see positive cash flow and fully leased property before they will finance it (Capital Flow) (Interview #26, 32). This makes it difficult for the Supplier. Therefore, there are no MMH types.

Risk reduction capital flow encourages the supply of the MMH types, “Time and Time to Market.” Any action, policy, or event which eases or accelerates the process or enhances the rate of the product to market is a (+, $) Capital Flow to the Supplier and ultimately to the supply of the MMH types. Based on the findings in Figure 9, risk reduction (reversal) can encourage the supply of the MMH types. Figure 9 illustrates the risk mitigation/reversal and capital flow/infusion, Table 9. The suppliers want no neighborhood opposition, an easy and simple
permitting process (reduces time and transaction costs. (+, risk reduction low). A land use and regulation code that accommodates higher densities (+, risk reduction, incentives such as reduced permitting fees, loosen off-street parking requirements and making vacant city land available (+, risk reduction, Table 9). Risk reduction and capital flows are needed for an increase the MMH types.

The power brokers want assurances from the regulators to maintain the status quo and the integrity of the neighborhood (+, risk reduction). They want the keep the existing multifamily units in the neighborhood and suggest expanding and repurposing the units (+, Table 9). However, as evidenced in the interviews, they do not have guidelines or suggestions such as samples of architect’s drawings on ways to reconfigure, repurpose and expand the existing multifamily units (- to the supplier).

Risk reduction encourages capital flow. Capital flow is denoted by a $, risk reduction is denoted by a +ve sign (services, policy changes, reduced fees and, incentives).

The city regulators hold the key (risk mitigation) to capital flow for the suppliers, the power brokers and the capital investors (Table 9). Throughout the interviews, the city regulators suggested strategies to help increase the supply of the MMH types and were willing to facilitate, support and retool its’ system (+, risk reduction). As evidenced in the interviews, they are also expected to provide incentives to the Suppliers, educate the Power Brokers, the Capital investors and the suppliers and provide gap financing ($ capital flow) to mitigate the risk for the Capital Investor (Table 9, Figure 9). Table 9 highlights the observation that the city regulators were awarded the task of providing the capital flow for the suppliers, the power brokers/influencers and the capital investors (Figure 9).
Key Results Relating to Supply Problems and Solutions

The research conducted in this study clearly reaffirms that there is a supply problem for the “Missing Middle Housing” (MMH) types in urban core neighborhoods. The demand is high in these neighborhoods because of the walkability, proximity to amenities and services as well as the availability of transit services. Based on the findings in this research, these areas are suitable for everyone (starter families, elderly, singles). However, baby boomers and millennials, both have a particularly high affinity for these neighborhoods. The key findings for each category of supply problems are now summarized.

Transportation. Transit and Density for Transportation

Evidence from the interviews demonstrates respondents recognized the significance of transportation, land use and transit (34, 87%, 65 times), and increased density for transportation (19, 50%, 49 times) for the MMH types. However, Respondents recognized both factors were a challenge to solve. Because, density supports transit, there was a dilemma with respondents as to which should come first. Service needs ridership and frequency. Ridership needs density. However, as indicated in Figure 7, there are major issues with density to resolve. Additionally, funding for transit needs to show the need and ridership. Respondents addressed these issues in three ways: (1) Go to the major streets and activity centers to provide increased densities, which will support transit; and (2) Work locally on pedestrian and bike-friendly strategies such as widening sidewalks, narrowing streets, creating bike lanes to provide a sense of security in the streets for walkability and bike-ability; and (3) Work on transit-oriented development techniques such as off-street parking requirements and incentives for developing on the major corridors to encourage development.
Density

Based on the interviews, density is considered the primary driver in increasing the supply of MMH types in the urban core (Interviews #1, 6, 7, 15). However, as the interviews indicate, it is met with opposition by the residents and regulatory limitations (Parolek, 2015). Although density is met with opposition, the research revealed there was a high motivation by the respondents to overcome neighborhood opposition and influence and regulatory barriers to increase density (Parolek, 2016). According to evidence from the interviews, there is motivation toward getting suppliers interested in these areas and increasing supply (Interviews #2, 3, 6, 7, 36).

Affordability

Affordability was a major concern for the respondents (22, 56%, 57 times). While respondents continued to employ strategies such as land use and zoning changes incrementally to encourage MMH types, they continued to express concern on affordability due to high land and construction costs, high demand (Market Forces) and described it as a challenge (Interviews #1, 23, 24). High demand was a challenge “because people like the area, they want to be here” (Interview #18). Respondents suggested increased density, relaxed regulations, design techniques and incentives such as parking fee waivers, and available city land for constructing MMH types as ways of reducing costs (Parolek, 2015 and Interviews #1, 11).

Risk and Capital

Both developers and lenders perceived significant barriers to MMH (Interviews #1, 11, 26, 32). Specifically, the most widely identified barriers to increase MMH supply were neighborhood opposition, regulations, high costs of land, construction and financing, insufficient developer and banker interest (Parolek, 2015; Shaver, 2017).
Conclusions

There is a high demand for diverse mid-rise housing types in walkable urban core areas (Parolek, 2015). These are areas where there is access to parks, entertainment, shopping, services, and mass transit. It suits the lifestyle of all ages but is particularly appealing to millennials and baby boomers, the two largest demographic groups in the U.S. Supply cannot keep up with the demand. The question of, how can we increase the supply in these areas arose? Preliminary research with practitioners indicated that the MMH types are ideal for urban core neighborhoods because they once existed there (Parolek, 2015). However, it is difficult to reintroduce them to the areas because of barriers.

The research findings suggested that the MMH shortage problem can only be addressed through understanding the flows of risk, risk reduction and capital among four key stakeholder groups: suppliers, power brokers/influencers, city regulators and capital Investors.

Suppliers

The Suppliers can be influenced by risk and capital (positively and negatively). They can be impacted by three influencers, the power brokers, the city regulators, and the capital investors. The power brokers and the city regulators can negatively impact the supplier. This is further exacerbated by the non-involvement of the capital investors. A common theme in the interviews was the City Regulators’ willingness to mitigate/remove their risks, facilitate the process with the Power Brokers and work with the suppliers. However, even with the regulators facilitating the methods, there is still a lack of involvement by the capital Investors, which ultimately negatively impacts the supply of MMH types. There is a need for city regulators and suppliers to “work with the capital Investors.” This research demonstrates Increasing Risk Flow inhibits (attenuates) capital flow and consequently, suppresses the supply of MMH types, “Time and Time to
Market” (Interview #6). It also demonstrates risk reduction encourages capital flow. Risk reduction can be services, policy, time, goodwill in the form of vacant land, reduced fees, incentives, capital is in the form of money and consequently improves the supply of MMH types. Thus, monitoring and managing the process can lead to increased MMH types.

There are suppliers who persevere despite the land use and zoning restrictions and permitting regulations. They are local; they take the time to learn the regulations, understand the buyer, build relationships with the city regulators to provide a good product (Interviews # 9, 12, 15). The suppliers who avoid the neighborhoods think it’s “too difficult to do,” and consequently, do not get involved in the MMH supply. The Suppliers perceive that “the preservationists do not want density.” However, the preservationists, say “repurpose and expand” (Interview #34). They want to retain the existing multifamily units in the neighborhood.

**Power Brokers/Influencers**

Power brokers/influencers consist of both existing neighborhood residents and special interest groups. They are prone to resist MMH for reasons that include concerns about density (and attendant traffic), poor design, negative impact on existing property values, loss of the existing neighborhood status quo, and loss of control of the existing neighborhood (Interviews #1, 2, 3, 11, 14). The interviews suggested, however, that they could be reassured, particularly if MMH plans included ensuring the historic integrity of existing properties (many of which were originally developed as MMH), maintaining the neighborhood character and expanding facilities available to the neighborhood (Interview #33). Some respondents also suggested that the solution might be to move outside of existing neighborhoods, where resident stakeholder resistance would be minimized (Interviews #16, 22, 30).
**City Regulators**

The research finds that regulators are implementing multiple strategies within their realm of control to increase the supply of MMH (Interviews #4, 5, 7, 28, 31). As one regulator indicated “These are fixable” (Interview #7). They are updating/modernizing the land use and zoning regulations within the urban core to accommodate additional accessory units with single-family units in the urban core, reduce impact fees for units that are 750 sq. ft. or less as an incentive for the property owner to invest in an accessory unit and have an income stream at the same time (Interview #5).

The city Regulators have budgeted and are implementing “Complete Streets” strategies retrofitting streets from one-way, high velocities to two-way traffic flow. They are lowering speed limits and expanding sidewalks and other ancillary items to promote safety and making the areas more pedestrian (walkable) and bike-friendly (Interview #5). However, the density increases as cited by the respondents for increasing the MMH supply in the urban core is not occurring at this time. The regulators will not increase the density without the power brokers’ approval. As one respondent stated, “We listen to the neighborhoods, we are a city of neighborhoods” (Interview #21). Instead, the plan is to go out into the neighborhoods to educate and clarify misconceptions regarding fears of property devaluation. The potential residents receive feedback on what they see the vision for their area regarding density; for example, “Positively help the public visualize density” (Interviews #6, 7, 36). The interviews suggested, the need to “work with Suppliers and capital investors to understand their needs” limitations, clarify misconceptions and collaborate to increase the supply of MMH types (Interviews #6, 7, 36).
Capital Investors

City Regulators reported it’s difficult for the supplier to get funding from the capital Investors. However, the capital investors will not lend until the property is leased and shows a positive cash flow. Additionally, units four and under is not their market due to the risk involved. Capital investors expressed an interest if gap financing is provided. One capital investor indicated she was working on a program to help developers with funding (Interview #37).

Directions for Future Research

Because of the complexity of the issues, many areas need further research. Each of the factors that affect the supply of the MMH types needs further research. Evidence provided in this research for the investigation to reduce or mitigate the risk flow and increase capital flow.

Capital investors. Capital Investors suggested gap financing could help mitigate their risk (Interview #26). An investigation on the capital investor’s interests and willingness to be involved in a program to finance suppliers with gap financing is necessary. Opportunities or options for funding sources for the gap financing will be necessary.

Power brokers. Evidence in the interviews suggested educating and informing power brokers to help eliminate negative perceptions of increased density (Interviews #6, 7, 11, 36).

Suppliers/developers. Evidence in the interviews suggested, “Time, and Time to Market” (Interviews #6, 7, 10, 15) were important factors for the suppliers. Thus, factors which minimize the risks to “Time and Time to Market” may attract the supplier. Further investigation of the reduction of Time and Time to Market could be useful in attracting the supplier to help increase the supply of MMH types. Future research may also include theory on the supplier’s role in helping to increase the supply of MMH types. One respondent suggested developing and
cultivating an alliance with the suppliers. Further investigation on developing such an alliance will be useful to the local area.

**Transportation and affordability.** While transportation and transit do not have a direct effect on the supply, it is perceived to be a result of the supply.
CHAPTER THREE:
INCREASING THE MISSING MIDDLE HOUSING TYPES IN TAMPA BAY: A COOPERATIVE RISK REDUCTION, CAPITAL STRATEGY

Tagline

There is a lack of Missing Middle Housing (MMH) types in walkable urban core neighborhoods in Tampa Bay. A cooperative risk reduction, capital strategy is proposed to help increase MMH types.

Keywords

Risk, Capital, Risk Reduction, Novel Idea, Grounded Theory on Missing Middle Housing (MMH) Types, Missing Middle Housing Supply, Housing Supply, Stakeholders, Developers’ Alliance, Cooperative Risk Reduction, Capital Strategy.

Executive Summary

An underlying theme of risk, risk reduction, and capital emerged from qualitative research on the factors that affect the supply of the MMH types in urban core neighborhoods in Tampa Bay, Florida (Ojah Maharaj, 2018a). This theme emerged from interviews conducted with different stakeholders, leaders, and experts related to MMH types in the area. The research uncovered the core and underlying factors that inhibit the capital to solve the MMH types shortage (Ojah Maharaj, 2018a). It also identified factors that help increase the supply of MMH types in urban core neighborhoods (Ojah Maharaj, 2018a). The underlying theme led to the
theory and model based on increasing risk attenuates capital flow and reducing risk encourages capital towards helping increase the supply of MMH types. A new solution-based strategy was developed to overcome barriers/risks to help increase the supply of Missing Middle Housing (MMH) types in urban core neighborhoods in the Tampa Bay area. This strategy would require the support of all the stakeholders—the small developers, practitioners, city officials, neighborhoods, and banks working together to reduce barriers/risk and encourage capital infusion. An initial Cooperative Alliance with all stakeholders to eliminate misconceptions and promote understanding and support for each other is paramount to the success of the proposed solution. The emergent Developers Alliance will help cultivate a cooperative environment working toward the goal of increasing MMH types in urban core neighborhoods in the Tampa Bay area.

Introduction

This cooperative risk reduction strategy in the form of small Developers Alliance with all the stakeholders will help increase the supply of MMH types in the Tampa Bay area. This strategy will take the form of small developers’ alliances within the various municipalities in the area. According to Ojah Maharaj (2018b), small developers play an important role in the supply of missing middle housing types. This proposed alliance will support the qualified small developers interested in building MMH type in the Tampa Bay area. Paramount to this strategy is for local governments to facilitate and work with neighborhoods, lenders, and developers to break down silos, understand each other and develop a vision or goal toward increasing MMH types. This would require new land use and zoning regulations for increased densities, simplified and easy permitting processing and gap financing to banks. This alliance is designed to lower the risks of all the stakeholders and provide the needed support to the small developers. This
means forming a cooperative alliance. The developers’ alliance will foster growth and help the existing and new core of small developers build MMH types in the Tampa Bay area municipalities.

Industry experts in Tampa Bay claim they cannot produce a home at the $180,000 price range due to impact fees, land and construction costs (Taylor Martin, 2018b). The impact fees go toward road improvements, utilities, schools, and other services. In Hillsborough County, the suggestion is to build where there is available land in the semi-rural planned community areas. However, this requires new infrastructure costs and long commutes to work (Taylor Martin, 2018b). The suggestion is that “truly affordable housing is becoming an impossibility in this market” (Taylor Martin, 2018a). In Pinellas County where there is less available land for new construction and many older single-family communities located in urban core areas, the average sales price of a home in September 2018 was $256,000 (Florida Realtors, 2018) and in Hillsborough County, the average sales price was $294,662 (Greater Tampa Realtors, 2018). Thus, homeownership attainment appears to be unreachable for middle-income earners. The trend is for developers to continue to build single-family housing developments outside of the urban core despite the studies that show building in urban core areas saves 38%–50% on the cost of new infrastructure, sewer lines, and other utilities (Smart Growth America, 2013). The Missing Middle Housing (MMH) types comprise of low- to mid-rise, compact development within the urban core. Developing more MMH types within the urban core would be more cost-effective. Additionally, it will help increase the supply of MMH types (CNU, 2015). An alliance for supporting small developers is designed to reduce risks. The solution-based strategy is designed to overcome regulatory barriers, neighborhood opposition, and providing capital to encourage developers to invest in those areas.
Review of Research

The Missing Middle Housing (MMH) types refer to housing that ranges between multistory units and single-family unit layout as seen in many cities. The term “missing middle housing types” was coined by Parolek in 2010 (CNU, 2015) described the housing types that existed in the urban core in the early 20th century (Opticos Design Inc., 2018). They include a variety of compact, low- to mid-rise housing types such as carriage houses, townhouses, bungalows, courtyard apartments, side-by-side stacked duplexes, fourplexes, 5–15/40 plexes, condos, and work/live units. MMH types is a new term for homes that were built in the early 20th century (before WWII) in urban core neighborhoods. As consumers’ housing preferences changed, the land use and zoning regulations altered to accommodate these preferences. These types of homes were no longer being built in the urban core (Lucy & Phillips, 2006; Vision 2020 Delegates, 2002). Parolek, 2010 (CNU, 2015) suggested reintroducing the MMH types as a solution to meet the demand by millennials and baby boomers for affordable, housing in walkable urban neighborhoods. MMH types’ popularity is also driven by the proximity to amenities, restaurants, shopping, entertainment (Burks, 2017; Mich, 2017; Myers & Ryu, 2008; Parolek, n.d.; Sisson, 2016). Efforts to reintroduce the housing types in the urban core met with challenges of uncertainties, neighborhood opposition, delays, regulations, and more (Glaeser & Gyourko, 2018; Hertz, 1979; Ojah Maharaj, 2018a, 2018b).

Factors that affect the supply of the MMH types in the urban core neighborhoods include land use and zoning restrictions, neighborhood opposition, a lack of developer interest in building the units, a lack of financing, limited land availability and high land and construction costs (Ojah Maharaj, 2018a, 2018b). Potential solutions to these factors relate to updating land use and zoning regulations to increase density, relaxation of permitting regulations and providing
incentives to interest the developers and lenders. Other intervention factors to overcome the challenges of low supply of MMH types relate to educating the neighborhoods to reduce opposition, educating the lenders and the creation of financial tools to interest developers (Ojah Maharaj, 2018a). The factors of land use and zoning regulations, neighborhood opposition to increased densities, capital investment, and developer interest appear to be critical to the supply of MMH types (Blumenthal, McGinty, & Pendall, 2016). However, existing regulations and neighborhood opposition appear to be major constraints to increased densities for housing (Gyourko & Molloy, 2015).

**Methodology for Ojah Maharaj (2018a) Research**

Corbin and Strauss’s (2014) grounded theory methodology was used for this theory development and model (Figure 1) to respond to the research question. The theory/model led to the Novel Idea (Figure 2) proposed below, regarding forming a developers’ alliance. The Corbin and Strauss methodology was selected because it is systematic and suited for complex issues such as this research topic (Creswell, 2013). The methodology consists of data gathering (data was gathered through interviews) and open coding (once data is gathered, the data needs to be processed). Open coding could be a word, line by line or a paragraph; axial coding (an aggregation of open coding); memo writing (Memo writing is ongoing and is integral throughout the process and is part of the inductive process of theory development. Once theoretical saturation is reached, data collection stops (Ojah Maharaj, 2018a). The process continued with selective coding and theoretical modeling. An inherent and distinguishing aspect in Corbin and Strauss’s qualitative study methodology is a process referred to as “constant comparison.” In constant comparison, the researcher is constantly comparing the coded item and the category
Data Collection

This research was conducted over nine months. Research subjects were 39 leading practitioners, upper and middle management professionals, developers, and industry leaders from cities of Tampa, St. Petersburg, Clearwater, Dunedin, and Oldsmar and all of Pinellas County in the Tampa Bay, FL area. The areas of expertise covered urban planning, historic preservation, transportation planning, permitting and reviews, housing and economic development, developers, lenders, realtors, including two millennials and interest groups. The experts had an average of 22.6 years of experience each in their field of practice.

Data collection was guided by Corbin and Strauss’s (2014) grounded theory qualitative methodology. Data were derived from semi-structured interviews with the 39 leaders and practitioners and spanned a period of 3.25 months. The 39 interviews were conducted face-to-face and by telephone. They averaged 59 minutes each. Data collection and preparation took a total of 187 hours, with an average of 4.79 hours per interview. NVivo 12 Plus qualitative analysis data software was used to code, manage, and partially analyze the data. The interviews uncovered the reality for the need of MMH types in the local area. These opinions were sought to get a better understanding of the factors that could help improve the supply of the “Missing Middle Housing” types (MMH) in walkable urban core neighborhoods in the Tampa Bay area.

Ojah Maharaj (2018a) Research

In 2018, Ojah Maharaj conducted research on the MMH housing in Tampa Bay involving interviews of key stakeholders (see methodology above) (Ojah Maharaj, 2018a, as stated in Interviews #1-7, 11, 36). The stakeholders were classified as Power Broker/Influencers
(Neighborhood/Special Interest), Capital Investors (Lenders), Suppliers (Developers) and City Regulators (Ojah Maharaj, 2018a). The results are summarized in Appendix E.

The small developers (“suppliers”) can be influenced by risk and capital (positively and negatively) impacting on whether they can increase the supply of MMH types (Ojah Maharaj, 2018a). They can be impacted by three influencers: the city (“regulators”), neighborhoods (“power brokers”), and the lenders (“capital investors”). The city regulators, power brokers and capital investors /lenders can positively or negatively impact the suppliers building MMH types in urban areas depending upon whether they are meeting the needs of all of the stakeholders and providing the necessary support to the developers such as easy permit process, approved design criteria, land, resources, training and providing the necessary financing available for these projects (Ojah Maharaj, 2018a, Figure 10). This is further exacerbated by the non-involvement of the capital investors creating the need for financing available for these projects (Ojah Maharaj, 2018a). A common theme in the interviews was the city regulators’ willingness to mitigate/remove risks by making the necessary regulatory changes and facilitating the process with the power brokers through neighborhood planning processes (Ojah Maharaj, 2018a). However, they would not increase densities for MMH types without the Power Brokers’ approval (Ojah Maharaj, 2018a). The city regulators recognized the role of the Power Brokers in obstructing the increase in the supply of the MMH types and the need to work with and educate the Power Brokers on (Ojah Maharaj, 2018a). Even with the regulators facilitating the processes, there is still a lack of involvement by the capital investors, which ultimately negatively impacts the supply of MMH types (Ojah Maharaj, 2018a, as stated in Interviews #1-7, 11, 36). There is the need for regulators and suppliers to “work with the capital investors” (Ojah Maharaj, 2018a, as stated in Interviews #1-7, 11, 36). The effort provides the opportunity to develop risk
mitigation strategies such as gap financing for the capital investors. It also provides the opportunity to educate the capital investors on other risk mitigation strategies to work with the Powerbrokers to help reduce their risks.

The model and the theory that emerged are based on the flow of risk, risk reduction, and capital. Capital is money. Risk reduction can be services, policy, time, goodwill, incentives in the form of vacant land, reduced fees and consequently improves the supply of MMH types. Risk flow can be any action, policy or regulation which slows the process (Time and Time to Market) (Ojah Maharaj, 2018a). Figure 10 illustrates the flow of risk, risk reduction, and capital between the stakeholders. Capital is denoted by $ sign and the arrows; risk is denoted by the broken lines and negative signs and arrows; risk reduction is denoted by the positive sign. It is important to note that the arrows are bi-directional, indicating risk reversal/mitigation can occur and the problems are solvable (Ojah Maharaj, 2018a).

This research demonstrated that increasing risk inhibits (attenuates) capital and consequently, suppresses the supply of MMH type (Time and Time to Market). It also demonstrated that reducing risk encourages capital. Thus, monitoring and managing the process can lead to increased MMH types (Ojah Maharaj, 2018a). This model demonstrates a macro view of all the stakeholders and the roles they play in the supply of the MMH types. If the model upholds, then, the risk mitigation and capital infusion which occurs with each of the stakeholders would help to increase the supply of MMH types in urban core neighborhoods (Ojah Maharaj, 2018a). However, mitigation and capital infusion would require coordination and cooperation among all stakeholders with the city regulators playing a lead role (Ojah Maharaj, 2018a). The broken lines indicate how the city Regulators, the Power Brokers, and the Capital Investors interact with each other. However, the focus of Figure 10 is the relationship as indicated by the
solid lines between the City Regulators, the Power Brokers and the Capital Investors in the Supply of the MMH types.

As indicated in Ojah Maharaj (2018a), the Suppliers/Developers have a pivotal role in the supply of the MMH types. However, they are affected /interact with the three stakeholders (the city regulators, the Power Brokers, and the Capital Investors) by the positive (risk reduction and capital) and negative (risk) actions of all three stakeholders. The research question is on the Supply of MMH types. The impact on the supply of MMH will also impact the Supplier/Developer. Hence, the placement of MMH Supply in Figure 10 as opposed to the inclusion of the Supplier/Developer stakeholder in Figure 10.

Figure 10 summarizes the relationships of each of the stakeholders. The risk reduction strategy will be policy recommendations/strategies for the respective stakeholders.

**Figure 10:** Risk, risk reduction and Capital Among the Stakeholders in the Supply of the MMH types. Risk attenuates capital. Reducing risk encourages capital.
Strategy for Increasing the MMH Types

Appendix E and Figure 10 depict a macro viewpoint to illustrate the contingent relationships of each stakeholder and the need for each stakeholder to work together. The interviews revealed a variety of misconceptions across stakeholder groups that could potentially interfere with the needed collaboration (Ojah Maharaj, 2018a and Appendix E). Thus, a need for an alliance of all the stakeholders to cooperate to help increase the supply of MMH types was indicated.

- Recommendation: Prior to the launch of the developers’ alliances, preliminary meetings/sessions would need to occur with all the stakeholders to learn about each other and ultimately increase communication and cooperation, and eliminate and misconceptions, to promote and enhance social capital and support.

The small developers’ alliance has been successful in Chattanooga and Memphis, Tennessee, Columbus and Atlanta Georgia, and Tigard, Oregon among other cities in the U.S. (Inc-Dev Alliance, n.d). However, it is new to Hillsborough and Pinellas Counties in Tampa Bay.

The purpose of the alliances would be to reduce risks, encourage support and cultivate the small developers with capital to incrementally increase the supply of the MMH types in the walkable urban core. In the context of this research, risk means any time, policy, action, or behavior that could negatively delay, or impact end the result. Risk reduction is time, incentives, goodwill, policy, action, or behavior that can improve the result; capital is money. The focus of the research question is on the Supply of MMH types. Impact on the supply of MMH will also impact the Supplier/Developer (Figure 10). Therefore, Suppliers is not included in Figure 10. The key concepts within the model are illustrated in Figure 11, for the small developers’ alliances in Tampa Bay.
Applications of the Theory

The findings of the interview research suggested that a cooperative alliance with all the stakeholders working together could help reduce risk and increase capital toward the goal of increasing the supply of MMH types in Tampa Bay area (Ojah Maharaj, 2018a).

The purpose of this alliance would be to reduce the risks of each stakeholder and encourage support and cultivate the small developers with capital. The goal would be for small developers to incrementally increase the quality supply of the MMH types in the walkable urban core (CNU, n.d.; Inc-Dev Alliance, n.d.-a). An alliance of small developers would comprise of local developers. Through past performance, they have already demonstrated their ability to provide a quality product and are passionate about their city and neighborhood. They would be
small, with no more than 25 employees, a number used as the limit because that determines a small business enterprise in local municipalities such as the city of St. Petersburg and the city of Tampa.

**Expected Effect**

The goal is to have a supportive environment to nurture and grow the developers. It is expected that MMH types would be incrementally introduced by the select targeted small developers in walkable urban neighborhoods that have amenities to meet the needs to the buyers (CNU, n.d.; Inc-Dev Alliance, n.d.-a, n.d.-b; Ojah Maharaj, 2018a).

**Changing the status quo.** Due to regulatory barriers, neighborhood opposition to increased density and the inaction of the City Regulators, the Capital Investors, and the Suppliers, there is a low supply of MMH types in the urban core, (Status Quo) (Ojah Maharaj, 2018a). The Power Brokers are opposed to an increased density (Ojah Maharaj, 2018a and Appendix E). Density is required to support the MMH types because of lack of land (Parolek, 2016). The Power Brokers would like to be assured that the perceived risks of increased densities would be addressed (Ojah Maharaj, 2018a and Appendix E). Good design, safety, and likely increased property values would have a positive influence in the neighborhood (Ojah Maharaj, 2018b; Appendix E; Parolek, 2016).

**Willingness to solve the problems.** The stakeholders would get together and have discussions regarding the concerns and needs of each stakeholder and provide ways to support the stakeholders. This dialogue would help develop an action plan to help mitigate the risks of each stakeholder. Consequently, there would be a reduced risk and capital infusion (Ojah Maharaj, 2018a).
The initial needs from the city Regulators, are the Suppliers want incentives such as vacant city land made available to the suppliers; reduced permitting fees; reduced wait times for permitting and other approvals; eliminate or reduce off-street parking requirements for MMH types; and the revision of the land use and zoning requirements for increased densities. The Suppliers want assurances that the neighborhoods agree with the increased densities in their neighborhoods (Ojah Maharaj, 2018a and Appendix F, Figure F1).

The Power Brokers want assurances of adherence to design criteria to ensure compatibility with the neighborhood (Ojah Maharaj, 2018a and Appendix F, Figure F1); they want a good quality product. They want to minimize disruption of the neighborhood ethos and reduction in construction noise and traffic flow disruption during construction (Ojah Maharaj, 2018a and Appendix F, Figure F1, as stated in Interviews #14, 15). The Capital Investors want gap financing so that they can provide financing to the Suppliers. This would help reduce their risks (Ojah Maharaj, 2018a and Appendix F, Figure F1, as stated in Interviews #26, 31). The city Regulators would work with other stakeholders to develop a program which provides gap financing to the Capital Investors. At the same time, the city Regulators would seek assurances from the stakeholders to adhere to the desired agreements/assurances. The initial meetings mentioned above would be before this segment.

Problems Are Solvable

Comments derived from the interviews conducted in the earlier study (Ojah Maharaj, 2018a) provide a basis for optimism that many of the concerns just listed can be addressed. Some examples of actual responses relating to the concerns just mentioned are presented in Appendix F, Figures F1–F4.
The first set of responses, shown in Appendix F, Figure F2, deals with power brokers (regulators, residents) that illustrate a need for communication and collaboration. The next set of responses, in Appendix F, Figure F2, illustrate the perceived needs of developers for collaboration and communications. Lenders and individuals that work with lenders (e.g., developers) comment on their need for mutual collaboration and communication in Appendix F, Figure F3. Developers expressed their desire to build units tailored to meet the need of the community in Appendix F, Figure F4. As previously noted, the demand for MMH in urban areas is already high, suggesting a high motivation to collaborate with other stakeholders in ways that overcome barriers.

The motivated developer. The motivated developer is passionate about the community (Appendix F, Figure F4, as stated in Interview #15). The developer invests time to understand the land use and zoning regulations and understands the city’s vision (as stated in Interviews #11, 15). The developer is willing to develop relationships with the Regulators, the Capital Investor, Power Brokers, and buyers to help increase the supply of MMH. The developer meets the demands of the consumer by providing a quality product (Appendix F, Figure F4, as stated in Interviews #9, 11, 12).

Policy recommendations. The following policy recommendations are based on the empirical findings/qualitative research conducted by Ojah Maharaj (2018a). The recommendation of first, the formation of an alliance of all the stakeholders is based on the empirical findings/qualitative research conducted by Ojah Maharaj (2018a), as well as the researcher’s more than 25 years of practical experience in urban planning and economic development. What makes this novel idea unique is the recommendation to have an alliance of all the stakeholders to work through the issues as identified in Appendix E reach out to the
community as a united front with the city regulators to receive input on the requisite density changes for MMH types and present findings from the alliance. This is imperative to take a comprehensive approach to have sustained and ongoing solutions to increase the supply of MMH types in urban core neighborhoods. It will also provide the framework of lowered risks for the suppliers, the capital investors and the Power Brokers in the development and on-going functioning of the developers’ alliance.

**Implementation**

Implementing the alliance would require addressing several questions. The questions include the following, which are based in Ojah Maharaj (2018a, 2018b) as well as the researcher’s more than 25 years of practical experience in urban planning and economic development in the Tampa Bay area.

**Who would develop and lead the alliance?**

- Recommendation: Initially, the local government will work in partnership with the stakeholders to initiate, develop and see the alliance to a self-sufficient stage. Alliance leadership would need to address a variety of concerns.

**Who would be included in the alliance?**

- Recommendation: The initial meetings would involve all the stakeholders: city regulators; Power Brokers (neighborhood leaders and special interest groups such as Historic Preservation Groups, the Chamber of Commerce), the Suppliers/developers, and the Capital Investors/lenders (based on the researcher’s experience, Ojah Maharaj, 2018a, and as stated in Interview #39).

**Purpose of the Initial Meetings of All the Stakeholders (Appendix F, Figures F1–F4)**

- Provide forums for participants to get to know each other, break down silos and establish a common goal.
- Provide the opportunity for each of the Stakeholder groups to inform, receive input and educate the group on their purpose, goals, and objectives.
- Clarify misconceptions such as the fear of increased density, parking issues, property values safety and demographics of potential residents (Ojah Maharaj, 2018a, 2018b).
• Educate, inform and receive input from the group, on MMH types, current locations of MMH types in the city, land use and zoning regulations, permitting procedures, city incentives, and location of available land for development (Appendix E).

• Also discussed design criteria options of MMH types (CNU, n.d.; Inc-Dev Alliance, n.d.-a, n.d.-b; Ojah Maharaj, 2018a, 2018b).

Once the comfort level of the group has been established, the next step is for the stakeholders to work together in a united front to educate the community and receive further input on the subject matter.

**What Services would it provide?**

• Recommendation: Risk Reduction, Capital flow and Supportive Environment: The Alliance would provide training and a comprehensive approach where all the stakeholders work together to help the select targeted small developers that are part of the Alliance to help overcome the barriers and provide MMH type in preexisting neighborhoods that have the amenities to support denser housing types (CNU, n.d.; Inc-Dev Alliance, n.d.-a, n.d.-b).

**Concerns**

The key to the success of this alliance lies on the willingness of all the stakeholders to participate in the alliance to minimize and mitigate the risks and provide capital to the small developers to increase the supply of MMH types. Unwilling participants would hinder the process.

• Recommendation: Risk Reduction. See who would develop and lead the alliance above.

**Risks & risk reductions.** Risk, City Regulations: Risk is in the form of neighborhood opposition, onerous regulations that require land use and zoning regulation changes to support increased densities for the MMH types and the long permitting process (Ojah Maharaj, 2018a, Appendix E, as stated in Interview #1).

**Risk reductions.** Reducing Risks can be in the form of services from the city regulators. It could be in the form of an agreed-upon plan to increase the density in the neighborhoods. It could be incentives such as permitting, and parking fee reductions.
**Capital.** Capital is in the form of gap financing to reduce the Capital Investors’ risk in financing the MMH types.

**Risk, Power Brokers.** Neighborhood Opposition: It is important to overcome opposition from the Power Brokers to allow increased densities,

- Recommendation, Risk Reduction: Work with the Power Brokers (Neighborhoods) through the Alliance to address concerns and support for increased densities for MMH types
  - Recommendation, Risk Reduction: Upon agreement with the Powerbrokers, amend and Update City Regulations to Accommodate MMH types (Ojah Maharaj, 2018a, Appendix 5).
- Recommendation, Risk Reduction: City Regulators work to streamline processes prevent delays in bringing the product to the market (Ojah Maharaj, 2018a, Time and Time to Market, Appendix 5, and as stated in Interview #6).
- Formalize the Developers Alliance

**Risk, Financing of MMH types:** Capital Investors: It is important to overcome the lack of financing by the Capital Investors to the Suppliers for the MMH types for 4 or fewer units or seek alternate sources for financing for the Suppliers/Developers (Ojah Maharaj, 2018a, as stated in Interview #26).

- Recommendation, Risk Reduction: City Regulators seek gap financing to reduce the risk of the Capital Investors to provide financing to the Suppliers (Appendix E).

  City Regulators seek alternate sources of financing for Suppliers for MMH types.
  - Recommendation, Risk Reduction: City Regulators work with Neighborhood Lending Partners to provide gap financing for Capital Investors and a funding source for Suppliers (Ojah Maharaj, 2018a, and as stated in Interview #37).

**Conclusions**

This research utilized a grounded theory methodology to understand the factors that affect the supply of MMH types in walkable urban core neighborhoods in the Tampa Bay area. A theory of “increasing risk inhibits (attenuates) capital and consequently suppresses the supply of
MMH types. Decreasing risk encourages capital and helps increase the supply of MMH types” emerged from interviews with thirty-nine leaders in the Tampa Bay area. Ultimately, the research led to identifying the need for a small developers’ alliance to work with the Stakeholders, City Regulators, Power Brokers and Capital Investors to grow, support and help increase the supply of MMH types. Finally, the research and the theory lead to the novel idea of which the evidence strongly suggests the need for a small developer’s alliance working with the stakeholders, City Regulators, Capital Investors, and Power Brokers to help increase the supply of MMH types in the urban core neighborhoods in Pinellas and Hillsborough counties of the Tampa Bay area. Future research is necessary for the city Regulators, the Capital Investors and the Power Brokers to get a better understanding to help increase the supply of MMH types in the walkable urban core neighborhoods.

Concurrently, a cursory list of policy recommendations emerged for an alliance of all the stakeholders and the developers’ alliance.

**Who would develop and lead the alliance?**

- Recommendation: Initially, the local government will work in partnership with the stakeholders to develop the alliance. The City Regulator staff to initiate, develop the alliance to a self-sufficient stage. Alliance leadership would need to address a variety of concerns.

**Who would be included in the alliance?**

- Recommendation: The initial meetings would involve all the stakeholders: city regulators; Power Brokers (neighborhood leaders and special interest groups such as Historic Preservation Groups, the Chamber of Commerce), the Suppliers/developers, and the Capital Investors/lenders.

  - The Purpose of the Initial Meetings of All the Stakeholders

    - Provide forums for participants to get to know each other, break down silos and establish a common goal.
- Provide the opportunity for each of the Stakeholder groups to inform, receive input and educate the group on their purpose, goals, and objectives.

- Clarify misconceptions such as the fear of increased density, parking issues, property values safety and demographics of potential residents.

- Educate, inform and receive input from the group, on MMH types, current locations of MMH types in the city, land use and zoning regulations, permitting procedures, city incentives, and location of available land for development.

- Discuss design criteria options of MMH types. Once the comfort level of the group has been established, the next step is for the stakeholders to work together in a united front to educate the community and receive further input on the subject matter.

- Recommendation: Work with the Power Brokers (Neighborhoods) through the Alliance to address concerns and support for increased densities for MMH types.
  
  o Recommendation: Upon agreement with the Powerbroker, amend and Update City Regulations to Accommodate MMH types.

- Recommendation: Formalize the Developers Alliance.

  **What Services Would the Alliance provide?**

- Recommendation: Capital flow and Supportive Environment: The Alliance would provide training and a comprehensive approach where all the stakeholders work together to help the select targeted small developers that are part of the Alliance to help overcome the barriers and provide MMH type in preexisting neighborhoods that have the amenities to support denser housing types.

- Recommendation: City Regulators work to streamline processes prevent delays in bringing the product to the market

- Recommendation: City Regulators seek gap financing to reduce the risk of the Capital Investors to provide financing to the Suppliers
  
  o Recommendation: City regulators work with Neighborhood Lending Partners to provide gap financing for Capital Investors and a funding source for Suppliers

Among other factors, regulations and neighborhood opposition to increased density are among the constraints to housing supply (Blumenthal et al., 2016; Gyourko & Molloy, 2015; Ojah Maharaj, 2018a, 2018b). The research by Ojah Maharaj (2018a) reflected the need to overcome the barriers to increased density for MMH types. Increased density and neighborhood
support are necessary to meet today’s housing preferences (Blumenthal et al., 2016; Parolek, 2016). Policy makers and practitioners continue to seek to understand and develop strategies to accomplish the goal (Blumenthal et al., 2016; Parolek, 2016). As one respondent (Ojah Maharaj, 2018a, Interview #22) stated, “It's not no one's fault; it's just the government's job is to enact policies that their constituents want, and it's just what the constituents want has changed. “People want to move back to cities; they want more mixed-use, they want more density, and they want less parking. And it just takes time.” This reality and the factors that inhibit supply, emphasize the need to address the problem in a supportive and comprehensive manner, with the sustained foundation leading to a developers’ alliance as described above.
REFERENCES


doi:https://doi.org/10.1016/j.landurbplan.2010.04.010


APPENDICES
Appendix A: Data Collection/Gathering, Preparation, and Analysis Process
Appendix B: Interview Questions

The Interview Questions

**Research Question:** How can we improve the supply/provision of a variety of housing types in urban core neighborhoods?

**Introduction:** *The Missing Middle Housing Approach* is a case study of three developments in the Tampa Bay area to inform practitioners in St. Petersburg, FL. The purpose is to gain insights from the practitioner, the industry, and users’ perspectives.

**Respondents/Stakeholders:** Practitioners include professionals in areas of Planning and Housing, Economic Development, County Economic Development, County Planning, Land Use, and Transportation, Chambers of Commerce, as well as City Housing and City Development Administrators, City Council Members, Lenders, Architects, Developers, and Realtors.

**Role of the Researcher:** Investigator/Practitioner

**Interview Format: Total Time Estimated (1hr)**

*Total time allotted below – 53 minutes*

**Opening:** Introduction participant, date, time (1 min)

**Biographic Info, Context, and Organization:** Time: (4 mins)

Date: Name: Organization:

- What’s your current position?
- What’s your key responsibility?
  - How long have you been with your organization?
  - How is your key responsibility related to the housing market?

**Perception of the respondent: Is there a problem and what are the solutions? (10 mins)**

- Describe your knowledge of the middle-income affordable housing (non-subsidized) market for your area?
- Do you believe there is a problem with respect to affordable housing (middle income) availability in your area?
- If this is a problem, in your opinion, is it a demand problem or a supply problem?
- What has led you to your opinion?
- What are some of the solutions to the problem?
- Are you trying to increase the supply of affordable housing currently? If so, Why?
- Describe the strategies you must increase the supply of affordable housing in your area.
- Why do you think these strategies would be effective?
Introduction and insights of the MMH types (Total 38 mins)

The Missing Middle Housing types (a diverse supply of low- to mid-rise, multi-family housing designed to fit with the neighborhood) is a solution proposed by Daniel Parolek, a California architect, in 2010. His aim is to help increase the housing supply in an area, particularly in older neighborhoods. His proposal is based on form/density. That is, well-designed, low-rise dense housing units that fit the characteristics of the neighborhood and bring benefits to an area.

- Are you familiar with the MMH types? (1)
- Describe your understanding of the Missing Middle Housing (MMH) types. (1 min)
- Describe the significance of having a diversity of housing types – low-rise, higher densities that are designed to fit the neighborhoods (MMH) in your area? (1 min)
- Describe the supply of MMH in your area. (1 min)
- Describe the demand for MMH in your area. (1 min)
- Who is attracted to what this housing type offers and why? (2 mins)
- What is your opinion on this concept for your area? (1 min)
- Why? (2 mins)
- What do you consider to be the benefits this concept may bring to your area? (3 mins)
- What do you consider to be the drawbacks of this concept? (1 min)
- Is this concept suited to any area or neighborhood? (1 min)

Why? (1 min)

- What factors affect these housing types in your area? Why? (2 mins)
  - What tools do you need to create the MMH?
- What are the barriers (perceived or real) to this housing type in your area? (9 mins)
- Why are they barriers?
  - How can you overcome the barriers (perceived or real)?
  - Why will overcoming the barriers improve the supply of the MMH in these neighborhoods?
- In your opinion, are these barriers situational, meaning specific to the locality?
  - What is your role in this housing type? (1 min)
- What steps has the industry taken in the past, present or intends to take in the future – to provide diverse housing types in your area, such as the Housing industry? Developers? and Realtors? (3 mins)

Upon speaking with a former housing banking expert on the city’s housing staff, the following questions were adapted for the Capital Investors in the respondents’ pool:

- What options are available for financing new construction, rehabilitation, and purchase of rental and owner-occupied diverse housing types units in walkable urban areas? (These units are defined as the “Missing Middle Housing types” and are located on higher density lots in urban core neighborhoods.)
- Would these properties meet your standard housing lending performance practice?
- Describe the loan types you have for financing non-conforming properties such as smaller projects of one to four (1-4) units and other housing types?
- Are you aware of other local Capital Investors who provide such as service?
- How would a developer finance and manage such a project?
### Appendix C: Log of Data Collection by Category

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<td>2290</td>
<td>227</td>
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<td>59</td>
<td>227</td>
<td>22.58718</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Total Hours</td>
<td>39</td>
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<td></td>
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<td>4.79</td>
</tr>
</tbody>
</table>
Appendix C (Continued)

The data log includes the interviewee by #, category of the interviewee, the date it was conducted, the length of time to conduct the interview, the duration for preparing the data (uploading the data, reviewing the transcription, cleaning the data, coding and memo writing. The mode in which the interview took place (in person or phone). The experience of the interviewee (the number of years in the current position, previous experience in years and the total experience in years).
Appendix D: A Breakdown of Figure 7 by Supply Problems (Risk) and Supply Solutions

(Risk Reduction)

<table>
<thead>
<tr>
<th>Supply Problems</th>
<th>Files N =39</th>
<th>%</th>
<th># of Open Codes</th>
<th>Supply Solutions</th>
<th>Files N= 39</th>
<th>%</th>
<th># of Open Codes</th>
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<tbody>
<tr>
<td>NEIGHBORHOODS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood Power &amp; Influence with politicians</td>
<td>7</td>
<td>18%</td>
<td>12</td>
<td>Overcome Barriers</td>
<td>34</td>
<td>87%</td>
<td>38</td>
</tr>
<tr>
<td>Neighborhood &amp; Save The Burg Opposition</td>
<td>5</td>
<td>13%</td>
<td>5</td>
<td>Increase Density for MMH</td>
<td>26</td>
<td>67%</td>
<td>57</td>
</tr>
<tr>
<td>Neighborhood Fear of Change</td>
<td>13</td>
<td>33%</td>
<td>16</td>
<td>Educate the Neighborhoods</td>
<td>6</td>
<td>15%</td>
<td>6</td>
</tr>
<tr>
<td>Neighborhood Feelings, Safety, Stability</td>
<td>14</td>
<td>36%</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood Perceptions</td>
<td>13</td>
<td>33%</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LENDERS * # of Lenders 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply Problem</td>
<td>10</td>
<td>26%</td>
<td>20</td>
<td>Supply Solutions</td>
<td>7</td>
<td>18%</td>
<td>10</td>
</tr>
<tr>
<td>Barriers</td>
<td>9</td>
<td>23%</td>
<td>14</td>
<td>Dodd Frank Not a Problem</td>
<td>2</td>
<td>5%</td>
<td>2</td>
</tr>
<tr>
<td>Lenders Not Financing</td>
<td>3</td>
<td>8%</td>
<td>3</td>
<td>Employer Assistance</td>
<td>3</td>
<td>8%</td>
<td>5</td>
</tr>
<tr>
<td>Banks are Risk Averse</td>
<td>2</td>
<td>5%</td>
<td>4</td>
<td>Practitioners Need to Work with Lenders &amp; Developers</td>
<td>9</td>
<td>24%</td>
<td>20</td>
</tr>
<tr>
<td>DEVELOPERS, # of Developers 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenges</td>
<td>14</td>
<td>36%</td>
<td>21</td>
<td>Motivated Developers</td>
<td>26</td>
<td>67%</td>
<td>65</td>
</tr>
<tr>
<td>MMH Difficult to do</td>
<td>5</td>
<td>13%</td>
<td>7</td>
<td>Practitioners Need to Work with Developers</td>
<td>12</td>
<td>31%</td>
<td>32</td>
</tr>
<tr>
<td>Regulations – Barriers</td>
<td>17</td>
<td>44%</td>
<td>54</td>
<td>Regulations and Incentives</td>
<td>8</td>
<td>21%</td>
<td>14</td>
</tr>
<tr>
<td>Regulations</td>
<td>14</td>
<td>36%</td>
<td>19</td>
<td>Defray Construction Costs</td>
<td>13</td>
<td>33%</td>
<td>29</td>
</tr>
<tr>
<td>Process is too Long</td>
<td>6</td>
<td>15%</td>
<td>7</td>
<td>Educate the Developers &amp; Share City Information</td>
<td>5</td>
<td>15%</td>
<td>8</td>
</tr>
<tr>
<td>Construction Costs</td>
<td>7</td>
<td>18%</td>
<td>10</td>
<td>Provide Incentives</td>
<td>12</td>
<td>31%</td>
<td>19</td>
</tr>
<tr>
<td>Barriers and Market Forces</td>
<td>10</td>
<td>26%</td>
<td>18</td>
<td>Provide Vacant City Land</td>
<td>4</td>
<td>10%</td>
<td>15</td>
</tr>
<tr>
<td>CITY REGULATORS, PRACTITIONERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complex</td>
<td>11</td>
<td>28%</td>
<td>18</td>
<td>Role of Practitioners in MMH</td>
<td>10</td>
<td>27%</td>
<td>16</td>
</tr>
<tr>
<td>Government</td>
<td>3</td>
<td>8%</td>
<td>21</td>
<td>Overcome Barriers for MMH</td>
<td>34</td>
<td>89%</td>
<td>38</td>
</tr>
<tr>
<td>Challenges</td>
<td>5</td>
<td>13%</td>
<td>5</td>
<td>Strategies for MMH</td>
<td>11</td>
<td>28%</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Use Mobile Home Parks for MMH</td>
<td>4</td>
<td>10%</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>More Single- Family Neighborhoods for MMH</td>
<td>3</td>
<td>8%</td>
<td>8</td>
</tr>
</tbody>
</table>

N= 39, *# of Lenders 3; # of Practitioners 20; # of Developers, 10; (includes realtor/developer) # of Special Interest, 6; (Neighborhood and Community Interest Groups).
## Appendix E: Summary of Role Related Findings from Ojah Maharaj (2018a)

<table>
<thead>
<tr>
<th>Category</th>
<th>Suppliers</th>
<th>Power Brokers/Influencers</th>
<th>City Regulators</th>
<th>Capital Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Problem/Needs Risk</td>
<td>Land Use and Zoning Restrictions;</td>
<td>Want no increased density;</td>
<td>They have outdated and restrictive land use &amp; zoning regulations on density.</td>
<td>They do not finance MMH 4 units or less.</td>
</tr>
<tr>
<td></td>
<td>Long Process to change Land use and zoning, regulations;</td>
<td>Concerned about poor design and quality of the building; property</td>
<td>The Power Brokers oppose density.</td>
<td>MMH types that are less than four units are not their market</td>
</tr>
<tr>
<td></td>
<td>Neighborhood Opposition, thus No MMH</td>
<td>devaluation;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply Solutions</td>
<td>Time &amp; Time to Market is paramount to the Supplier.</td>
<td>The Powerbrokers want assurances of maintaining the integrity,</td>
<td>Provide Incentives and vacant land to the Suppliers. They are willing to</td>
<td>The Capital Investors will participate with gap financing</td>
</tr>
<tr>
<td>Capital</td>
<td>They want no uncertainties, delays or opposition from the Power Broker or</td>
<td>density and historical integrity density of the neighborhood.</td>
<td>facilitate, retool, and support the stakeholders to increase the supply of MMH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regulator. A simple and easy permitting system, update land use and zoning</td>
<td>They promote Repurpose &amp; Expand Existing multifamily units.</td>
<td>types. They will have to educate the Power brokers on the realities of increased</td>
<td></td>
</tr>
<tr>
<td></td>
<td>regulations for increased density. restrictions</td>
<td></td>
<td>densities and design criteria and educate the Suppliers Investors, lenders</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>on available city services, and development opportunities. Facilitate or provide</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>gap financing to Capital Investors, lenders and remove impediments to MMH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>types/densities</td>
<td></td>
</tr>
</tbody>
</table>
Appendix F: Interviewee Quotes Supporting Findings (Ojah Maharaj, 2018a)

The first set of responses, shown in Figure F1, deals with power brokers (city regulators, residents) that illustrate a need for communication and collaboration.

| “More people want to move into the urban core, but we do not have the housing units.” (Interview #23) |
| “We cannot get developers interested in the inner city and urban core” *(Interview #23)* |
| “We are putting together more than 100 inner city lots and will bid it out for developers.” (Interview #23) |
| “We need to talk with the developers.” (Interviews #6, 11, 36) |
| “The developers do not want to go into the area, because of the neighborhood opposition” *(Interview #1)* |
| “We need local developers who care for the community, who we can trust and are here for the long haul.” (Interview #31) |
| “I don't think that it's going to come necessarily from the private side because it's so hard to develop. It is. It takes a lot, and so many things can go wrong. For the most part, they're going to choose a process, choose a path, that is apparent and for them to do, for developers to change a market type, it's going to have to have some measure of success somewhere else that they can bring to and they can see that and understand that.” (Interview #8) |
| “Educate the developers on the incentives and where to develop.” (Interview #17) |
| “Educate the neighborhood on density, the development, and the residents.” (Interviews #7, 11) |

**Figure F1. Selected Responses from City Regulators Evidence of the Need for Communication/Collaboration**

The next set of responses, in Figure F2, illustrates the perceived needs of developers for collaboration and communications.

| “Developer on the need for advocacy, we don't challenge regulations very often until we have to.” (Interview #1) |
| “Municipalities aren't speaking about it;” “Municipalities are not lining up to do it.” (Interview #12) |

**Figure F2. Developers Refer to Their Need for Communication and Collaboration**

Lenders and individuals that work with lenders (e.g., developers) comment on their need for mutual collaboration and communication in Figure F3.
Appendix F (Continued)

“‘You have to understand the lenders, their lending cycles, and shop around’” (Interview #1)

“Overall, they’ve been positive, I mean, we’ve had our challenges sometimes where there’s things that are outside of our control, like a bank is selling ... we’ve had banks selling to another bank and they’re not interested in doing the type of loans they’ve done with us and we still have years of relationships with that bank, so yeah, you have challenges like that.” (Interview #9)

“you know, and I spend a lot of time talking to lenders ... you do have to be aware of what financing is available and what the terms are gonna look like, what is ... what particular banks ... we work mostly with community banks with the size of projects that we do.” (Interview #9)

“So, you just kind of have to know what they're looking for and what their risk tolerance is and kind of how that ... the science behind it. Then you have to create a strategy that's financeable” (Interview #9)

“I am working on a product to help developers” (Interview #37)

<table>
<thead>
<tr>
<th>Figure F3. Why a Developers Alliance? Lender and Borrower Perspectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developers expressed their desire to build units tailored to meet the need of the community in Figure F4. As previously noted, demand for MMH in urban areas is already high, suggesting a high motivation to collaborate with other stakeholders in ways that overcome barriers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I'm a mission-driven developer, so my mission is really targeted to a specific group. (Interview #1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I am here to make money, not as much as others, and I love it” (Interview #9, 12)</td>
</tr>
<tr>
<td>“It is my gift to the street, the neighborhood” (Interview #12)</td>
</tr>
<tr>
<td>“They're not walking into a necessarily commoditized home that really is telling them how to live and it's more they're going into ... walking into a home that inspires the way they want to live.” (Interview #9)</td>
</tr>
<tr>
<td>“Those three-story homes at open houses. “I'd go up to the agent, and I'd say, where's the elevator? They'd look at you like you're crazy. I'd say, what if I wanted to put an elevator in here? Nobody had even thought of that. This was, you remember, I was selling in 2008, 2009. If I didn't have that elevator option, I wouldn't've sold one-third of the homes that I was building, the first six homes. People can age in place” (Interview #15)</td>
</tr>
<tr>
<td>“Yeah, there’s, other people doing it. I think we do it really, really, well. I think in part is because we do it with passion.” (Interview #9)</td>
</tr>
<tr>
<td>“I tell people, I think you ... a lot of people think people are renovating homes, if they're renovating them for sale they're gonna do it nicer than when they renovate it for rent, where really 90% of the homes that we've done we've rented first for several years, and we've sold when the time has been right and it's been the appropriate opportunity, but we renovate our homes really to last for a really long time, and with real quality stuff.” (Interview #9)</td>
</tr>
<tr>
<td>“It's great when I completely renovated one these 1100 sq. ft. homes and the family that grows up there shows me pictures and they're so happy to be able to stay, and I love saying that's always the best tasting scenario for a property, but it's fun when you do.” (Interview #9)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Figure F4. What Motivates Developers</th>
</tr>
</thead>
<tbody>
<tr>
<td>86</td>
</tr>
</tbody>
</table>
Appendix G: Permission Letters for Reprinted Images

From: Barb Orr <barb.orr@opticosdesign.com>
Sent: Wednesday, April 24, 2019 3:50 PM
To: Shrimatee H Ojah-Maharaj <Shrimatee.Ojah-Maharaj@stpete.org>
Cc: omd@usf.edu
Subject: FW: Permission to use MMH Type Images from Opticos Design.com website

Hello Shrimatee & Olivia,

Please note that this email signifies an approval of use, for the images chosen to complete Shrimatee’s dissertation and are approved by Opticos Design, Inc. if you should have any questions or need anything further, please don’t hesitate to contact me.

Best regards,

Barb Orr, Office Manager

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www.opticosdesign.com | www.missingmiddlehousing.com
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