

Report 2: Missing Middle Housing

Attainability + Livability Analysis

City of Sacramento

Missing Middle Housing Study

September 2023



MISSING MIDDLE HOUSING

SACRAMENTO



With consultants:

Cascadia Partners Collaborative Design + Innovation Unseen Heroes Konveio

Prepared For:

City of Sacramento Community Development Department

300 Richards Boulevard, 3rd Floor, Sacramento, CA 95811 916.264.5011

Prepared By:

Opticos Design, Inc.

2100 Milvia Street; Suite 125 Berkeley, California 94704 510.558.6957

With Consultants:

Cascadia Partners

1022 NW Marshall St., Suite 380 Portland, OR 97209 971.808.2366

Collaborative Design + Innovation

www.cdiway.net 503.706.4740

Unseen Heroes

3433 Broadway, Sacramento, CA 95817 916.692.5560

Konveio

www.konveio.io 877.405.9142

What's Inside?

About Missing Middle Housing (MMH)

Sacramento's Housing Needs

Citywide Place-Based Analysis

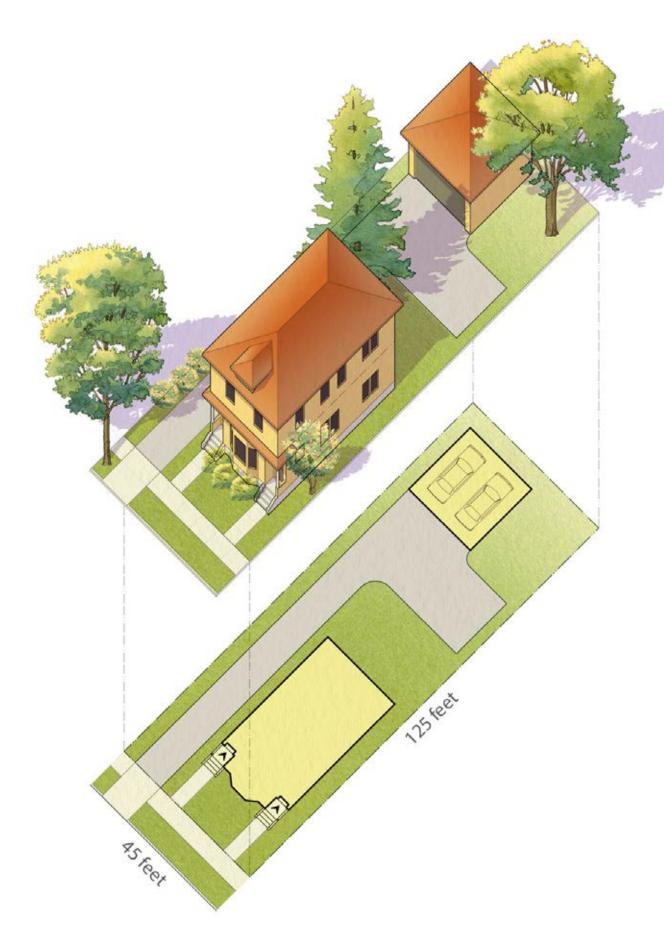
Testing for Feasibility

99

Zoning and Policy Analysis

Appendix

Executive Summary





In this chapter

1.1 What is the Missing Middle Housing Study?	6
1.2 How This Report Informs the MMH Study	8
1.3 How This Report is Organized	10

1.1 What is the Missing Middle Housing Study?

Increasing access to more attainable, lower-cost housing has become a priority for many cities across the US, including Sacramento. This study is part of a broader effort to address this urgent housing problem and explore potential solutions.

The Missing Middle Housing (MMH)* study is an effort to examine how MMH could be implemented in Sacramento through thoughtful development and design regulations. The study's findings will help the city to respond to the growing demand for housing choices, walkable living, and the growing need for attainable housing at all income thresholds.

MMH is not a new concept. These small-scale, multi-family housing types were common in many American towns and cities before the 1940's. Sacramento too has a wide range

of MMH types within its housing stock, including approximately 3,560 duplexes, triplexes and fourplexes, in addition to cottage courts, small courtyard buildings, live-work and many others.

By encouraging MMH citywide, Sacramento can expand housing choice and attainability to meet the current and future needs of its residents.

Key criteria to assess MMH

are attainability, livability, and market feasibility. The success of MMH depends on all three being met.



*Note:

For purposes of brevity, this report uses "MMH" as an abbreviation for Missing Middle Housing.

Q CLOSER LOOK

What Is Missing Middle Housing?

Missing Middle Housing is a range of house-scale building types that contain more than one housing unit, have small building footprints, and are typically no more than two and a half stories in height.

MMH types are "middle" in form and scale between that of small single-family houses and larger apartment buildings, enabling them to blend into existing residential neighborhoods.

With smaller units, MMH can provide housing at price points attainable to many middle-income households.

MMH types have important design characteristics, such as building orientation, small unit sizes, shared open spaces, and active frontages, that differentiate these types from other small multi-family development. For more information, refer to Report 1: Missing Middle Housing Informational Report.

Why is the MMH study being done?

- Plan key strategy. To support the City of Sacramento's efforts to update its General Plan and Climate Action and Adaptation Plan, the City Council approved a set of key strategies in January 2021. The MMH study was initiated to gain a better understanding of the benefits and challenges of allowing a greater array of housing types, conduct technical analysis and in-depth community outreach to craft recommendations for the citywide implementation of MMH.
- Develop Sacramento-specific solutions. The MMH study aims to understand existing conditions and research case studies and best practices to recommend solutions that are Sacramento-specific. The study's focus is on MMH but should be considered as part of a broader community discussion on housing solutions and other housing-focused strategies and planning efforts by the City of Sacramento (City) to deliver more housing choices.
- Provide more local control over outcomes. Recent policy direction and legislation from the state focuses on meeting long-term goals such as increasing housing supply and affordability across jurisdictions. State laws often enable local jurisdictions to respond with local as well as supplementary policies to achieve these housing goals. As long as minimum requirements are met, local regulations help to achieve statewide objectives while still allowing the policies and process to be informed by the local context and community input. Sacramento's MMH strategy is an opportunity for a collaborative process between the City and residents to shape a local MMH option, tailored specifically for Sacramento's existing conditions and context.

Permit a greater array of housing types such as duplexes, triplexes, and fourplexes (also referred to as Missing Middle Housing) in existing single-unit neighborhoods.

Key Strategy, Draft 2040 General Plan Sacramento City Council, January 19, 2021

Study Methodology

The MMH study follows a sequence of analysis steps to provide context-sensitive recommendations for enabling MMH citywide. Analysis findings and recommendations will be shared through four key reports:

- Report 1: Missing Middle Housing Informational Report
- Report 2: Missing Middle Housing Attainability + Livability Analysis (this document)
- Report 3: Displacement Risk Assessment
- Report 4: Missing Middle Housing

 Zoning and Policy Recommendations

Desired Outcomes

The desired outcomes of the MMH study are aligned to meet these City objectives:

- Increase housing supply and choice,
- Provide attainable housing options,
- Allow small-scale, incremental local housing development that can be financed by the average homeowner,
- Provide economic opportunity for passive retirement income,
- Create opportunities to house intergenerational households,
- Reduce racial and socioeconomic disparities reinforced by single-unit zoning, and
- Allow the housing market to respond to the downward trend in average household size.

For more information visit: https://www.cityofsacramento.org/ Community-Development/Planning/ Housing/Missing-Middle-Housing

1.2 How This Report Informs the MMH Study

This report, the second of four reports that are key deliverables of the MMH study, summarizes the citywide place-based analysis conducted for Sacramento. The analysis findings will inform the zoning and policy recommendations in Report Four of the study.

The citywide place-based analysis has several areas of focus:

- Building on Report One (The Missing Middle Housing Informational Report), this report provides in-depth information about MMH, its defining characteristics, types of MMH, typical barriers to developing these types, and important regulatory considerations for implementation.
- It synthesizes the analysis of different components of the existing built environment into "context types" that help to identify areas best suited for different types of MMH.
- It includes comprehensive feasibility analysis through the use of MMH "test fits" to assess physical fit and compatibility, financial viability as well as the attainability of typical MMH types under current regulatory and market conditions.

■ The report also identifies key regulatory and policy barriers constraining MMH in the the R-1, R-1A, R-1B and R-2 zoning districts that are targeted for the MMH study.

By carrying out the analysis described above, Report Two provides the foundation for the next stage of the MMH study, the zoning and policy recommendations to enable MMH. As mentioned, this will be the focus of Report Four.

The palette of MMH types

provide a range of "middle" building types between the scale of a typical detached single-unit house and that of larger residential buildings.



Examples of existing MMH in Sacramento

Photos on this page show examples of MMH that exist in Sacramento today. MMH types being considered for Sacramento as part of this study are from the lower spectrum of the palette of MMH types, and are similar in scale and character to the examples shown here.

These house-scale MMH types, with small building footprints and heights typically not exceeding two and a half stories, can add diversity to Sacramento's housing stock. Allowing these types can help meet current and future housing needs.



Side-by-side duplex



Fourplex



Small multiplex



Courtyard building



Cottage court

1.3 How This Report is Organized

This report summarizes the Missing Middle Housing (MMH) Attainability and Livability Analysis, organized by topic into chapters as shown below. The focus and key findings of each chapter are described in the following pages.

Ch₁

Executive Summary

An overview of the report's organization and key findings from each of the report chapters.

Ch 2

About Missing Middle Housing

Detailed discussion of MMH, including its definition, types and key characteristics.

Ch 3

Sacramento's Housing Needs

A summary of the City's demographic profile, changing housing trends and how MMH can help.

Ch 4

Citywide Place-Based Analysis

Mapping and analysis of the existing built environment to establish context types for MMH.

Ch 5

Testing for Feasibility

Lot analysis, design and feasibility testing using MMH prototypes.

Ch 6

Zoning + Policy Analysis

Identify standards, guidelines and other regulations that may be constraining MMH.

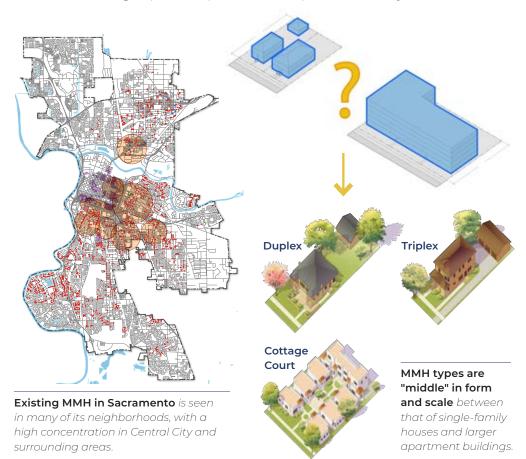
Chapter Two: About Missing Middle Housing

This chapter provides an introduction to MMH and the palette of MMH types. It highlights key characteristics and important form, scale and massing attributes unique to these housing types.

MMH is defined as a range of house-scale, multi-family building types that have small building footprints, and are typically no more than two and a half stories in height. MMH types are an effective way to incrementally introduce more housing while respecting the scale of existing residential neighborhoods, because of their compatibility with single-family houses. MMH can advance housing affordability and housing choice to suit changing demographic needs.

To implement MMH thoughtfully, it will be important to regulate certain design and site planning elements through development standards. Elements to consider are the overall size of buildings, or more specifically the maximum building height, width, and depth, as well as lot size and width, frontage standards, provision of open space on the lot, and parking requirements.

Sacramento has many great examples of MMH, particularly in the city's central core. Along with cottage courts, small courtyard buildings, etc., there are more than 3,560 existing duplexes, triplexes and fourplexes in the city.



- MMH types have small- to mediumsized footprints with building width, depth, and height similar to a single-family home.
- MMH works best in, and helps to support walkable environments where driving for everyday activities is a choice but not a necessity.
- MMH responds to shifting household demographics accommodating a wide range of household types and lifestyle choices.
- MMH increases
 housing choices
 at attainable price
 points for both rental
 and homeownership
 opportunities, and
 this can help address
 housing inequity.
- MMH promotes more active, healthy lifestyles and, with more pedestrians, safer neighborhoods.
- MMH supports
 compact, sustainable
 development which
 can help address
 climate change.

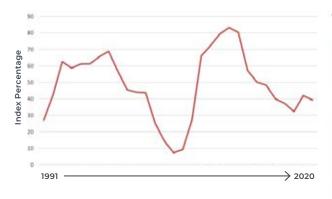
Chapter Three: Sacramento's Housing Needs

This chapter summarizes Sacramento's demographic and housing market conditions that will influence future housing development.

Sacramento's demographics are changing, reflecting national trends. Population data and trends indicate an increase in smaller households, households without children, and an aging population. Along with household configurations, lifestyle choices are evolving as well, with many families looking for alternative housing options to the single-family house. Future housing development will need to accommodate this shift in housing needs and preferences.

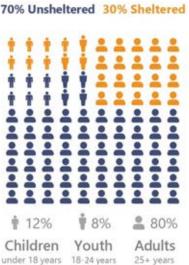
Equally important to address are the issues of housing unaffordability and inequity. Housing is becoming increasingly inaccessible, pricing out long-time residents and adding to a growing houselessness crisis.

Adding MMH options will be crucial in meeting the needs of current and future residents and can play a role in "future-proofing" the housing stock. MMH can help provide more attainable housing, helping to address the growing issue of housing unaffordability and houselessness.



Above: Housing Opportunity Index, 1991-2020 Right: Houselessness has increased by 19% from 2017-2019, 70% of which are unsheltered. Below: Regional Housing Needs Allocation for Sacramento, 2021-2029

Source: www.cityofsacramento.org



- As of 2021, Sacramento had 197,000 housing units. 66% of the existing housing stock is single-family.
- In 2022, the population was 525,000, with 2.63 persons per household. Projections indicate 140,000 new residents by 2040.
- In 2021, the median home sale price was \$385,000 and median gross rent was \$1,435.
 52% of the city's residents are renters.
- To meet stateassigned targets,
 Sacramento needs to produce 45,580 housing units by
 2029, averaging 5,700 units annually. For the past decade, ~2,000 new units have been produced annually.



Chapter Four: Citywide Place-Based Analysis

This chapter describes place-based analysis as a way of identifying areas with the spatial characteristics that are supportive of MMH.

Place-based analysis examines the key physical characteristics of an area that are important to support the development of MMH. These include location and special attributes such as historic districts, proximity to jobs and amenities, built-form and land use patterns, connectivity and access to transit; and lot sizes and block configurations. The analysis considers existing conditions as well as anticipated growth and planned changes, to understand how different parts of the city are likely to evolve.

This place-based approach establishes six context types in Sacramento that reflect existing development patterns and the physical environment, and can inform future decisions on land use and housing. The six context types are: Downtown, Compact and Connected, Transitional, Low-Scale Residential, Corridors and Centers, and Large Infill Sites.

The place-based analysis helps to ensure that recommendations for implementing MMH are intrinsically tied to the underlying context and the anticipated degree of change. Neighborhoods that already have or can support MMH, with walkable environments and good access to transit and amenities, can be priority areas for implementation. Similarly, there are areas that currently fulfill some but not all the conditions to support MMH. Such areas can benefit from targeted improvements to further support MMH.



Downtown Core



Compact + Connected



Corridors + Centers



Transitional

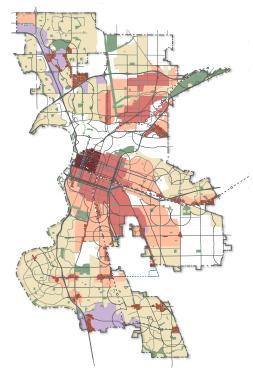


Large Infill Sites



Low-Scale Residential

Context types in Sacramento that reflect existing built form patterns, connectivity, land uses and intensity of development.



- The place-based analysis "layers" a number of factors to define the "DNA" of the city's distinct physical environments.
- Most residential areas are in the R-1, R-1A, and R2 zoning districts. 70% of the residential land is zoned R-1.
- Most of Sacramento has a lower-intensity, mainly single-unit development pattern.
- The citywide analysis establishes six context types.
 Of these, the MMH study will focus on the Compact + Connected, Transitional and Low-Scale Residential context types.
- Recommendations to implement MMH will be calibrated for each context type to respect and augment existing conditions.
- The proposed Draft 2040 General Plan sets Floor Area Ratios (FARs), with a maximum FAR of 1.0 for most residential areas. This is enough to enable typical small and medium MMH types.

Chapter Five: Testing For Feasibility

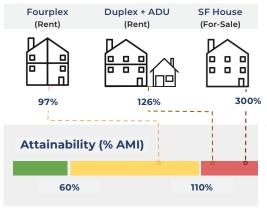
This chapter summarizes the "test fit" analysis carried out to evaluate a range of MMH types for physical and financial feasibility, and to identify existing regulatory barriers that must be addressed to enable MMH.

Building on the place-based analysis described in Chapter Four, existing residential lot sizes were analyzed citywide. Since each MMH type has minimum dimensional requirements, this process helps to determine the range of MMH types that can physically fit within existing lot sizes. While no prevalent lot size exists in Sacramento, many are within the minimum width and depth thresholds required to accommodate small and medium MMH types.

Next, a series of "test fits" utilizing real-world MMH prototypes on typical-sized lots helped to identify potential regulatory barriers, as well as evaluate the MMH prototypes for feasibility. This analysis tests for:

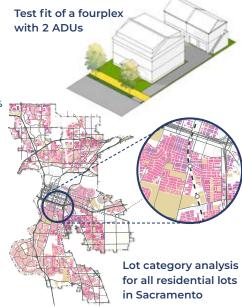
- Livability: physical fit, compatibility with existing context and adjacent uses;
- Feasibility: viability as rental/for-sale under current market conditions; and
- Attainability: potential to deliver housing at price points attainable to middle-income earners. Attainability is defined in this report as a level of affordability.
 Typically, attainable housing means that a middle-income household spends less than 30 percent of total household income on rent or mortgage.

The feasibility analysis evaluated 12 test fits as either rental or for-sale products in "static", "emerging", "transitional" and "strong" real estate markets within Sacramento. Under current conditions, MMH is generally more feasible as a rental product. Single-family house conversions were most feasible; and rental MMH with more units, such as sixplexes and fourplexes are more feasible and attainable to middle-income households.



Above: How MMH promotes attainability.

Within the same building size (0.8 FAR), smaller units in a fourplex are attainable as rentals at 60-110% AMI whereas a single-family home is not, being feasible for-sale only at 300% of AMI.



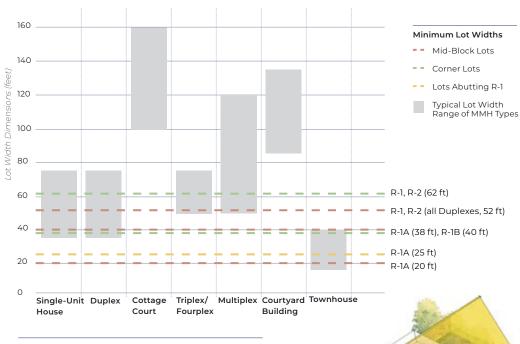
- 51% of existing lots in the R-1, R-1A, R-1B, and R-2 zoning districts are at least 40' wide and 95' deep, a threshold for many small and medium MMH types.
- Feasibility analysis findings indicate MMH is generally more feasible as rental than for-sale products.
- For-sale triplexes, fourplexes and cottage courts were feasible only in "strong" real estate sub-markets; only the fourplex was attainable at 100% AMI.
- Rental MMH types at attainable price points were feasible only in "strong" sub-markets, including a sixplex with 2 ADUs, a fourplex and a single-family house with 2 rental ADUs.
- Best practices to increase feasibility for MMH types are to:
 - allow more units within the same building envelope,
 - remove regulatory barriers, and
 - limit the size of detached singlefamily units.

Chapter Six: Zoning + Policy Analysis

This chapter summarizes the zoning and policy barriers identified for the implementation of MMH citywide, specifically in the R-1, R-1A, R-1B, and R-2 zoning districts (the focus of the MMH study).

Chapter Six examines the limiting factors to MMH identified in the preceding analysis of current regulations and design controls that apply in the R-1, R-1A, R-1B and R-2 zoning districts. It organizes the information by context type to make it easier to assess regulatory constraints in relation to the underlying physical conditions. The three context types considered for the analysis are those that relate to the zoning districts that are the focus of the MMH study: Compact + Connected, Transitional, and Low-Scale Residential.

The chapter discusses typical regulatory barriers in detail, explaining if and how these are constraining MMH in each context type. A summary list of the identified barriers is shown on the right. Relevant policy documents are also analyzed in this chapter, providing a brief overview of each and identifying potential barriers to enable MMH.



Above: Minimum lot widths and MMH

As shown in this graph, minimum lot widths regulated in the R-1, R-1A, R-1B and R-2 zoning districts do not align with dimensions of some MMH types.

Right: Bulk control standards

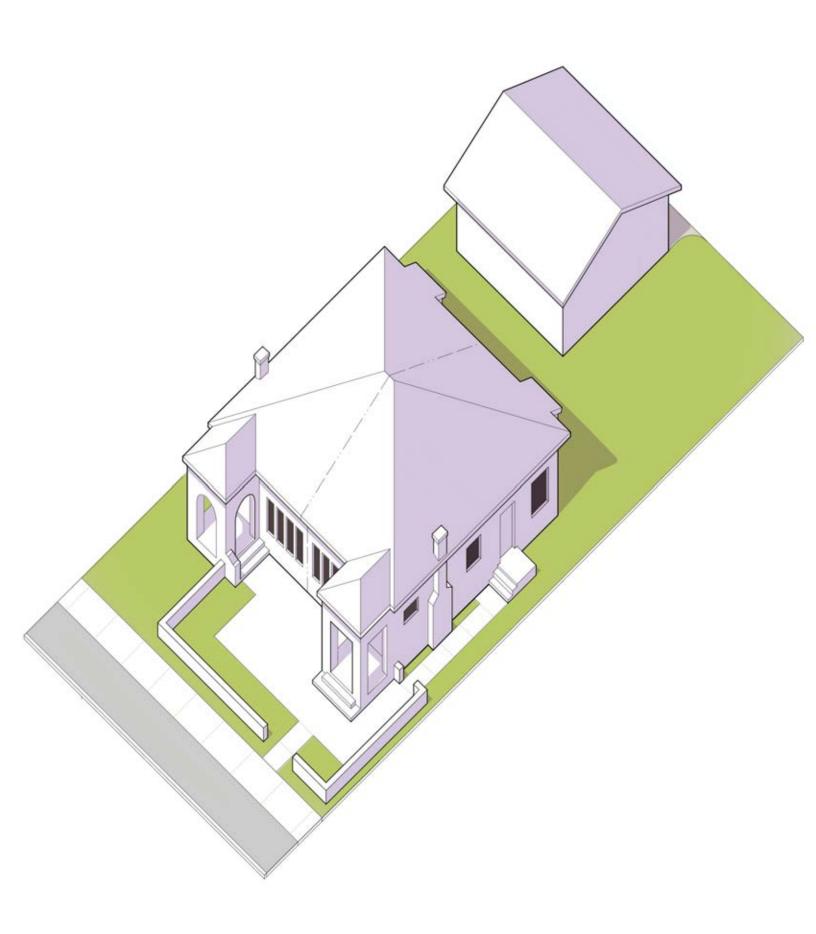
While effective in controlling massing for singlefamily houses, these standards need to be adjusted to allow all typical MMH types.

Q KEY TAKEAWAYS

Summary of regulatory barriers for MMH:

- Maximum units per lot is a major barrier in all three context types.
- Floor Area Ratio (FAR) is not a barrier.
- Minimum lot area is a minor barrier in all three context types.
- Maximum lot coverage is not a barrier in any context type.
- Minimum setbacks
 is a major barrier in
 Transitional, minor
 barrier in other two
 context types.
- Maximum height is not a barrier.
- Bulk control is a major barrier in all three context types.
- Minimum parking is a minor barrier only in Compact + Connected.
- Driveway standards

 a major barrier in all
 three context types.
- Tree shading for parking is a minor barrier in Transitional, Compact + Connected.
- Minimum open space is a major barrier in Compact + Connected, minor barrier in other two context types.



About Missing Middle Housing (MMH)

In this chapter

2.1 Missing Middle Housing: An Overview	18
2.2 Palette of Missing Middle Housing Types	20
2.3 Missing Middle Housing: Important Characteristics	34
2.4 Missing Middle Housing in Sacramento	44
2.5 "Almost Missing Middle Housing"	52

2.1 Missing Middle Housing: An Overview

Note

This report includes illustrations of all MMH types including Upper MMH, for informational and comparison purposes.

At this time, Sacramento is considering only the lower spectrum of MMH types in most areas of the city.

The Palette of Missing Middle Housing (MMH)

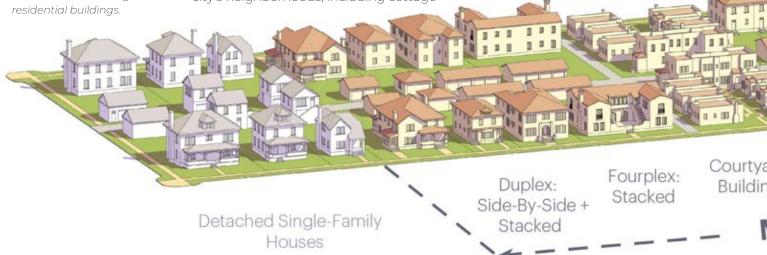
Types provide a range of "middle" building types between the scale of a typical detached single-unit house and that of larger residential buildings.

This section summarizes the typical characteristics of Missing Middle Housing (MMH). For more information about the benefits of MMH, refer to the Missing Middle Housing Informational Report.

Missing Middle Housing (MMH) is defined as a range of house-scale buildings that contain more than one housing unit, such as duplexes, triplexes, fourplexes, and cottage courts, that are similar in scale to a single-family house.

MMH types help meet the growing demand for more housing choices and walkable urban living. MMH also responds to the shifting household demographics nationwide and can meet the need for more housing choices at different price points, enhancing both rental and homeownership opportunities.

MMH is not new to Sacramento. A wide range of MMH types exist in most of the city's neighborhoods, including cottage courts, live-work units, townhouses, courtyard buildings, multiplexes, and over 3,560 duplexes, triplexes and fourplexes. By encouraging MMH citywide, Sacramento can expand housing choice and affordability to meet the current and future needs of its residents. It can help address growing housing inequity in the region, and promote homeownership and build generational wealth. It is also a means to strengthen the local economy as well as respond to climate change by promoting compact, infill development to help reduce dependence on the car.



Typical Characteristics of MMH

■ Small-footprint buildings

MMH types typically have small- to medium-sized footprints, with a body width, depth, and height no larger than a single-unit home. This size compatibility makes them a good tool for neighborhood infill.

■ Marketable to many

MMH types look and feel like a house, not a large building, with features such as entrances off a street and not an apartment hallway. They provide a good fit for many that are looking for this "middle" scale of home.

■ Smaller, well-designed units

These multi-family housing types typically have smaller-sized units that can help keep development costs down. Well-designed smaller units can attract a different market of buyers and renters whose needs are currently not being met.

■ Promote walkability

MMH types work best in and support walkable environments where driving is a choice but not a necessity. They promote more active, healthy lifestyles and, with more pedestrians, safer neighborhoods.

■ Create community

MMH types integrate private open spaces, or shared ones as in a cottage court, which promotes a sense of community. These types also fit a variety of lifestyles, such as multi-generational, co-living, etc.

■ Provide local benefits

These housing types gently and incrementally introduce more housing without drastic changes to the neighborhood scale. MMH can be a way to empower local residents and builders to invest in their communities and gain equity.



2.2 Palette of Missing Middle Housing Types

The palette of MMH types shown below identifies the ideal lot characteristics for each MMH type. Detailed versions of these types are shown on the following pages.

The minimum dimensions shown are what each type needs to provide a high-quality living environment for residents, and the maximum is the size beyond which the lots become too large to deliver the type of compact development that supports walkable

environments. The minimum sizes are also influenced by parking access, whether from an alley or the front of the lot. For implementing MMH, the most critical metric to consider is lot width and the resulting building width, as these have a greater impact on the

MMH Palette





Duplex Side-by-Side 2 units



Duplex Stacked 2 units



Triplex 3 units



Fourplex 4 units

Ideal Characteristics of MMH Types

Vehicular Access	Front	Rear	Front	Rear	Front	Rear	Front	Rear
Max. Height (Stories)	2	5	2	.5	2	.5	2	.5
Lot Width (ft.)	55' - 75'	40' - 70'	45' - 75'	35' - 70'	45' - 75'	45' - 65'	50' - 75'	50' - 65'
Lot Depth (ft.)	100' - 150'	100' - 150'	100' - 150'	100' - 150'	100' - 150'	100' - 150'	100' - 150'	100' - 150'
Area of Lot (sf)	5,500 -	4,400 -	4,500 -	3,500 -	6,000 -	5,000 -	6,000 -	5,000 -
	11,250	10,500	11,250	10,500	11,250	9,750	11,250	9,750

¹Variation: A larger version of this type is known as the "pocket neighborhood". The lot for this variation is the size of most of a block, and the shared court is much larger, or consists of two or more shared courts. The individual cottages are expanded to include a mix of duplex, triplex and fourplex buildings.

quality of the public realm and help to deliver a more predictable building form. Lot area can also be used for regulating MMH, but should not be the primary factor.

The dimensions shown in the palette below and on the subsequent pages are the result of years of on-the-ground research and design work for private and public sector clients by Opticos Design. These dimensions are meant to be employed as a starting point and should be calibrated for each community's existing conditions, lot patterns, and desired built form.

Note

This report includes illustrations of all MMH types including Upper MMH, for informational and comparison purposes.

At this time, Sacramento is considering only the lower spectrum of MMH types in most areas of the city.



Cottage Court¹ 5-10 units



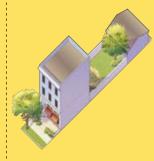
Multiplex 6-18 units



Courtyard Building 6-20 units



Townhouse1 unit



Live-Work

Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear
1	1.5	2.5	(3²)	2.5	(3²)	2.5	5 (3²)	2.5	5 (3²)
100' - 160'	100' - 150'	60' - 120'	50' - 100'	100' - 135'	85' - 125'	n/a	18' - 25'	n/a	18' - 25'
150'	150'	100' - 150'	100' - 150'	110' - 150'	110' - 150'	n/a	85' - 120'	n/a	85' - 120'
15,000 -	15,000 -	6,000 -	5,000 -	11,000 -	9,350 -	n/a	1,530 -	n/a	1,530 -
24 000	22 500	18 000	15 000	20 250	18 750	i	3 000	i	3 000

²In more intense neighborhoods, this type can be designed to have a third story, or a portion of a third story, depending on the intended physical elements of the neighborhood.

Upper Missing Middle Housing Types

Note

This report includes illustrations of all MMH types including Upper MMH, for informational and comparison purposes.

At this time, Sacramento is considering only the lower spectrum of MMH types in most areas of the city. Upper MMH, if considered, will have focused application only in certain areas such as the Central City.

Upper MMH is the category of multi-unit buildings taller and deeper than typical MMH, that still fit on the sizes of lots found in a typical single-family neighborhood.

Upper MMH can be used strategically in areas adjacent to existing or planned centers and transit hubs, and in higherintensity residential and mixed-use neighborhoods.

While these types are larger than typical MMH types, and taller at three to four stories in height, they can be designed to be compatible with singlefamily buildings. Upper MMH types are helpful to consider especially in areas with higher land costs since these types are likely to be more financially feasible, and can be a way to provide more attainable units.

The following are best practices to consider when using Upper MMH:

- most effective where a greater degree of change is happening or is desired;
- use in transition areas of a neighborhood to connect to more intense nodes, mixed-use centers and/or transit centers;
- allow more lot coverage and/or deeper building footprints than for typical MMH; and
- require rear setbacks based on prevalent rear setbacks in the neighborhood (up to a maximum of 20 feet).

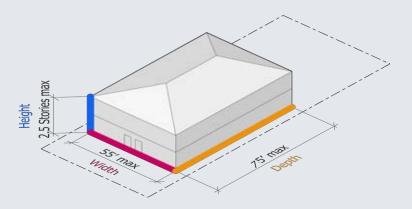
22

Comparing MMH + Upper MMH

Upper MMH types have slightly larger footprints and additional height as compared to typical MMH.

ММН

Located within and along edges of low-to-moderate intensity, "house-scale" residential neighborhoods.

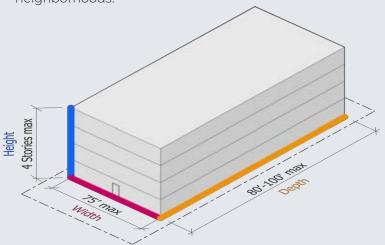




MMH; Duplex Side-by-Side (2 units), Iowa City, IA

Upper MMH

Located along corridors and edges of neighborhoods where larger buildings are appropriate; or as effective transitions from higher-intensity built environments to lower-intensity neighborhoods.





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

Duplex Side-by-Side

Description

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

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



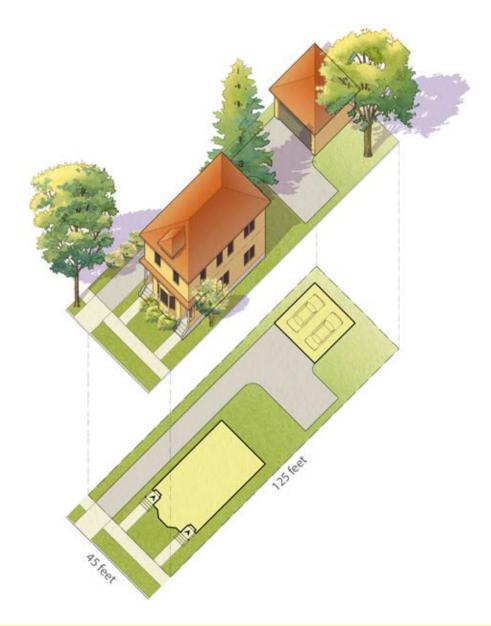
Accessory Dwelling Unit (ADU)

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



Duplex Side-by-Side						
Number of	Vehicular		ılar Access			
Primary Units		Front	Rear			
	Lot Width (ft.)	50' - 75'	40' - 70'			
2	Lot Depth (ft.)	100' - 150'	100' - 150'			

Duplex Stacked



Description

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



Duplex Stacked			
Number of		Vehicu	ılar Access
Primary Units		Front	Rear
	Lot Width (ft.)	45' - 75	35' - 70'
2	Lot Depth (ft.)	100' - 150'	100' - 150'

Accessory Dwelling Unit (ADU)

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

Triplex

Description

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



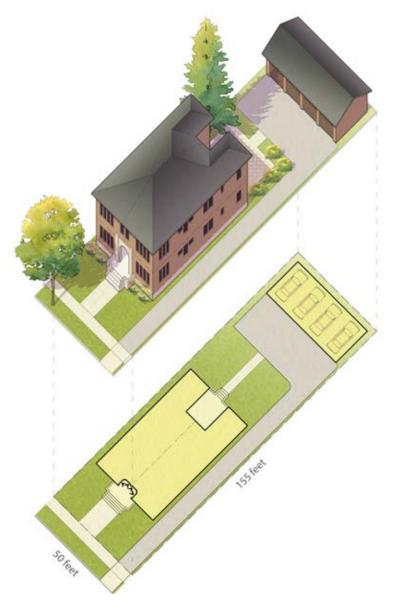
Accessory Dwelling Unit (ADU)

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



Triplex				
Number of		Vehicular Access		
Primary Units		Front	Rear	
	Lot Width (ft.)	45' - 75'	45' - 65'	
5	Lot Depth (ft.)	115' - 150'	100' - 150'	

Fourplex



Description

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



Accessory Dwelling Unit (ADU)

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

Fourplex			
Number of		Vehicu	lar Access
Primary Units		Front	Rear
,	Lot Width (ft.)	50' - 75'	50' - 65'
4	Lot Depth (ft.)	100' - 150'	100' - 150'

Cottage Court

Description

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

A larger version of this type is known as the

"pocket neighborhood".

This type differs from the cottage court primarily by site size. Typically, the pocket neighborhood is on a site at least twice as large as the cottage court, has larger dwellings and a variety of housing types (single-unit house, duplex, etc.).



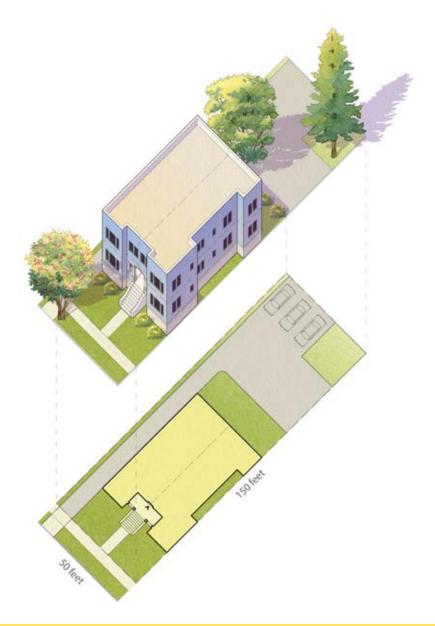
Accessory Dwelling Unit (ADU)

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



Cottage Court				
Number of		Vehicular Access		
Primary Units		Front	Rear	
	Lot Width (ft.)	100 ' - 160'	100' - 150'	
5-10	Lot Depth (ft.)	150'	150'	

Multiplex



Note

This report includes illustrations of all MMH types including Upper MMH, for informational and comparison purposes.

At this time, Sacramento is only contemplating the lower spectrum of MMH types in most areas of the city.

Description

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

This type contains two sub-categories: "multiplex small" (six to 10 units) and "multiplex large" (seven to 18 units). The large multiplex has focused application In more intense environments, and can have a third story.



Accessory Dwelling Unit (ADU)

An ADU (or multiple ADUs) can be provided as allowed by the city's zoning code to provide additional housing.

Multiplex			
Number of		Vehicu	lar Access
Primary Units		Front	Rear
	Lot Width (ft.)	60' - 75' (or 120')*	50' - 65' (or 100')*
6-18	Lot Depth (ft.)	100' - 150'	100' - 150'

This report includes illustrations of all MMH types including Upper MMH, for informational and comparison purposes.

At this time, Sacramento is only contemplating the lower spectrum of MMH types in most areas of the city.

Description

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

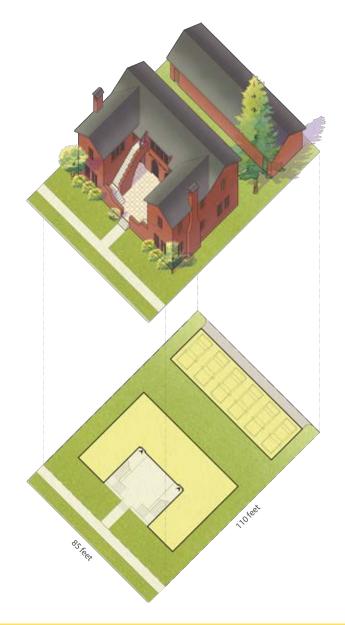


Accessory Dwelling Unit (ADU)

An ADU (or multiple ADUs) can be provided as allowed by the city's zoning code, and can be located above the garage to provide additional housing.

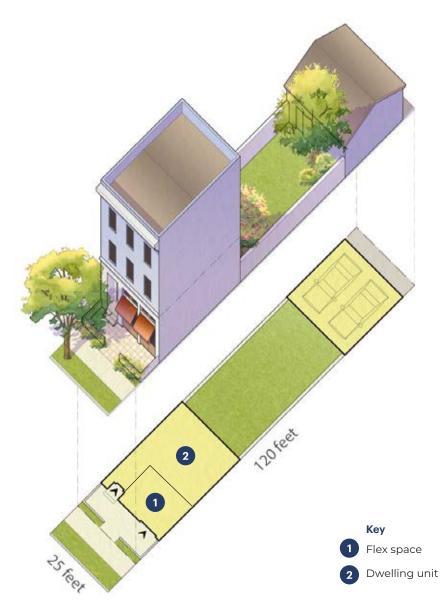
Typical MMH Types

Courtyard Building



Courtyard Building						
Number of		Vehic	ular Access			
Primary Units		Front	Rear			
	Lot Width (ft.)	100' - 135'	85' - 125'			
6-20	Lot Depth (ft.)	110' - 150'	110' - 150'			

Live-Work



Description

A small- to medium-sized attached or detached building consisting of one dwelling unit above or behind a flexible ground floor space for residential, service, or retail uses. Both the primary ground-floor flex space and the second unit are owned by one entity.

These types can function in a variety of built environments. They fit well into residential neighborhoods, and several of these can be arranged as an attached group to resemble a neighborhoodscale main street building.



Accessory Dwelling Unit (ADU)

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

Live-Work			
Number of Primary Units		Vehicular Access	
		Front	Rear
7	Lot Width (ft.)	n/a	18' - 25'
	Lot Depth (ft.)	n/a	85' - 120'

Townhouse

Description

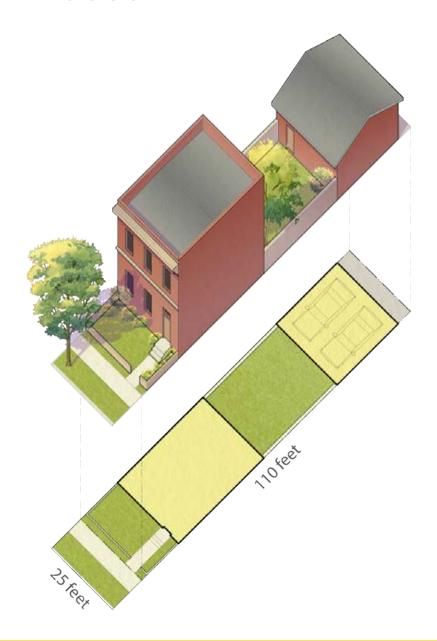
A small- to medium-sized building with one dwelling that is attached to other townhouses in an array. Depending on the context, townhouses can be designed as house-form (two to four attached twostory units) or block-form (four to six attached units, up to three stories tall) depending on its location in a lower-intensity (house-form) or a higher-intensity (block-form) environment.

A more intense version of this type is the "townhouse flat" that divides the building vertically into two to three flats.



Accessory Dwelling Unit (ADU)

An ADU can be located above the garage shown in the main graphic to provide an additional unit separate from the main building.



Townhouse			
Number of Primary Units		Vehicular Access	
		Front	Rear
7	Lot Width (ft.)	n/a	18' - 25'
	Lot Depth (ft.)	n/a	85' - 120'

Other Housing Types

Innovation + Future-Proofing the Housing Stock

Apart from the types discussed in this section, there are also a variety of innovative multi-family housing configurations that MMH can support and augment.

These types, such as co-housing, co-living, etc. can support a wider range of household types and lifestyle choices. They can provide an inherent flexibility to how buildings can adapt and evolve over time, and in effect "future-proof" the city's housing stock.

A housing option to consider in order to meet changing demographics and housing needs is the **multi-generational house**, in which two or three families could be accommodated within one overall building footprint.



Several attached housing units on a single lot that allow multiple generations to have both separate and shared living space.



Co-housing

One-to-two story residential buildings with common spaces designed for communal use.



Co-living

Three-to-four story buildings with units that share a kitchen and other communal living spaces.



Micro-units

Very small studio units (under 400 sf) in an apartment configuration.

2.3 Missing Middle Housing: Important Characteristics

MMH is not a new building concept. It is a range of house-scale building types that exist in cities and towns across the country'. These types were a fundamental part of pre-1940s neighborhoods, and many examples exist in Sacramento today.

¹Source: "Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis", by Dan Parolek, Island Press

MMH types have several important physical characteristics, that include:

- **Height.** Typically two to two and a half stories, with the half story indicating a finished attic. A third story can be allowed, typically for Upper MMH types, with careful consideration of form and scale impacts on the surrounding built environment.
- Multiple units per building. Typically two to six units, with a maximum of 12 units per building. Upper MMH have a maximum of 19 units per building. At this time, Sacramento is only contemplating the lower spectrum of MMH types in most areas of the city.
- Footprint. Typical main body width of 50 to 60 feet along the street and up to 80 feet overall when secondary "wings" are included.
- Off-street parking. Recommended no more than one off-street parking space per unit. Detached parking structures can help to maintain a house-scale form for the primary building in neighborhoods that have houses with narrower widths.
- On-site open space. Private open space is not needed and should not be required. Instead, a shared open space could be provided in the form of a rear yard, a wide side

- yard, or a courtyard. While the shared open space may be smaller than on a typical single-family lot, careful attention to design can create an attractive, well-functioning shared amenity. Open space on a lot is also important for achieving the city's urban tree canopy goals by providing space for planting new trees and preserving existing ones.
- **Driveways.** Driveway design for MMH types should match the neighborhood context on a per-lot basis. Often, zoning codes do not differentiate between small-scale and larger multi-family types and require wide driveways for all multifamily, similar in size to commercial driveways. This often makes MMH infeasible on infill lots. If no alley is present, single-aisle driveways (similar in width to driveways for single-family houses) are recommended to make these types more feasible, and to avoid building frontages dominated by parking.

34

Important Elements to Regulate through Zoning

For the successful application of MMH types, zoning and/or other applicable standards need to calibrate the following characteristics that relate to the scale and form of the building, its placement on the lot, and the relationship between the building and the adjacent public realm design. These are listed below and discussed in more detail in the following pages.

■ Building Form and Scale

Overall building size, including maximum height, width, and depth.

■ Frontages

The relationship between the building's primary facade and the adjacent street or public space (public realm).

■ Lot Width

A regulating tool to prevent out-of-scale buildings by coordinating the building type with existing lot widths.

Parking

Best practices on parking location and minimum requirements to encourage a pedestrian-focused environment and promote active transportation.

■ Open Space

Shared open space on a lot with minimum design criteria defined for it to be a functional space, providing greenery and trees where feasible.



Building Form + Scale

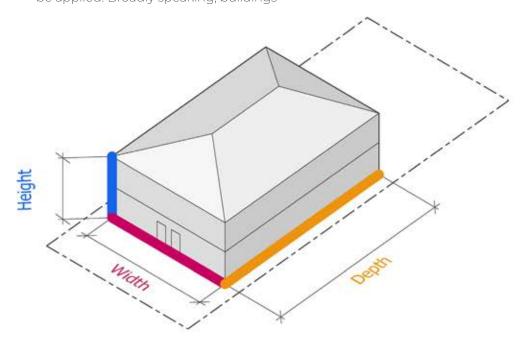
Elements of Building Form

The physical form of a building - its shape and size and its placement on a lot - is an important consideration when adding multi-family housing within existing residential neighborhoods. This is important to ensure that the new building types expand housing choices while also maintaining compatibility with the surrounding neighborhood.

Building types are the basic increment of design and development. When planning for additional housing, it is important to consider the scale and form of the built outcome and how it would complement what is existing in that area.

MMH includes a range of building types varying in scale and intensity to match the context in which they may be applied. Broadly speaking, buildings can be categorized into **house-scale and block-scale buildings**. The facing page provides a summary description of these types. MMH types have unique physical characteristics that make them typically house-scaled. MMH types such as townhouses and live-work can function well in both house-scale and block-scale environments, depending on how these types are arranged.

To envision more predictable outcomes and provide implementation that is coordinated with existing conditions, the Missing Middle Housing study relies on real-world "test fits" of different housing types on typical-sized lots so that the results are based on actual site conditions in Sacramento and thus offer a more accurate representation. Refer to Chapter Five of this report for more information.



Building Form

Each MMH type has building dimensions that are specific to it, and based on accurate internal layouts. This allows these housing types to yield more predictable outcomes.

"House-Scale" + "Block-Scale" Explained

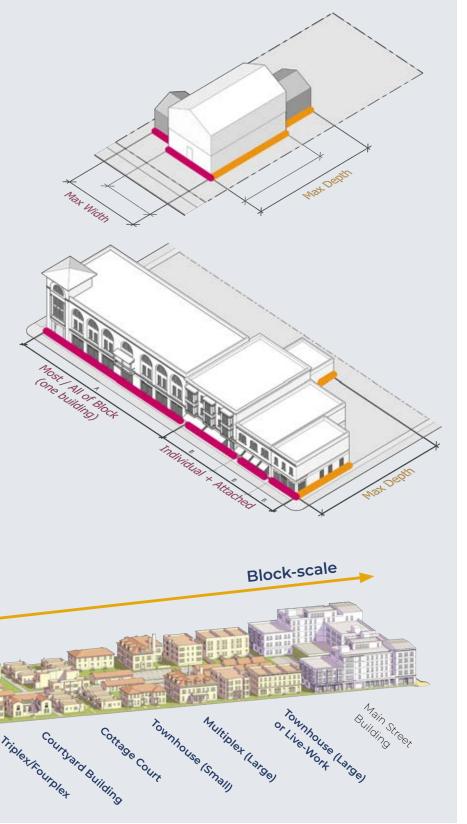
Buildings can be broadly categorized into two groups: house-scale and block-scale.

House-scale buildings are those that match the size and scale of a typical house in terms of building footprint, form, height and architectural details. This category includes single-family houses as well as most MMH types such as duplexes, triplexes, fourplexes, cottage courts, small multiplexes and courtyard buildings. Heights are typically two to three stories, and building widths range from 25 feet to a maximum of 75 feet.

Block-scale buildings are those that are individually as large as a block or most of a block; or, when arranged together along a street, appear as long as most or all of a block. MMH examples include larger multiplexes, townhouses, live-work, etc.

As the diagrams on this page show, house-scale buildings are typically associated with lower-intensity, more residential environments and block-scale buildings typically occur in higher-intensity, mixed-use environments.

Single family



House-scale

Frontages

What is a "Frontage"?

A frontage is the component of a building that provides an important transition and interface between the public realm (street and sidewalk) and the private realm (building facade).

The intent of regulating frontages is to ensure that, after a building is located on its lot, its interface with the public realm and the transition between the two is designed to be pedestrianscaled and to encourage walkability.

The names of the frontage types depicted below indicate their particular configuration or function and are based on examples found in cities across the country. Some frontage types may be more common than others in Sacramento, and the most representative types can be identified by an on-the-ground survey.

Why are Frontages Important for MMH?

MMH types are house-scale and generally look like they could be a large single-family house. Frontage types used for single-family houses, such as porches and stoops, help MMH types contribute to the residential look and feel of the neighborhood.

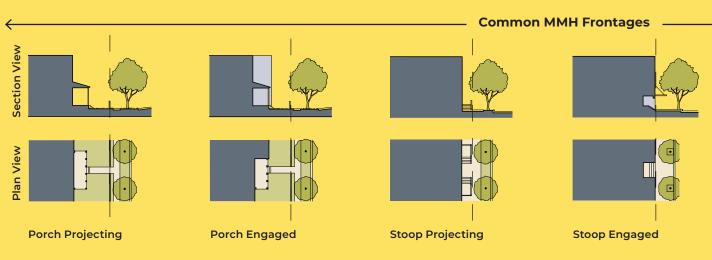
A strong sense of community is an important benefit that MMH provides to a neighborhood, and frontage types play a key role in this by reinforcing pedestrian-oriented streetscapes and walkability.

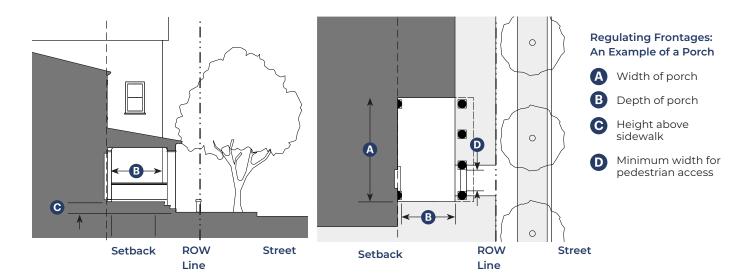
Buildings with blank facades or entries that are not visible from the street can appear impersonal. Creating clear, distinct entryways with room for socializing reinforces the neighborhood scale of MMH types and provides for a more convivial and welcoming streetscape.

Q closer look

Spectrum of Frontage Types

Source: Form Based Codes: A Guide for Planners, Urban Designers, Municipalities, and Builders by Daniel Parolek AIA, Karen Parolek, Paul C. Crawford FAICP, Island Press

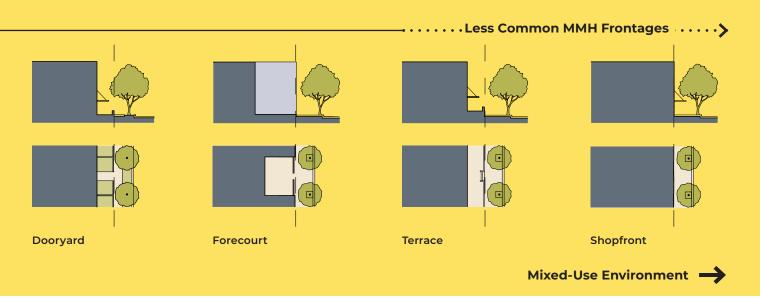




Important Features to Regulate

The detailed regulations for frontage types should be based on measurements from good local precedents to ensure they are appropriate. For instance, setting the correct minimum depth for stoops and porches is extremely important

to ensure that they are actually usable, look like they are from the area, and that they improve the public/private interface by providing residents with a place to sit outside where they can also greet their neighbors.



Lot Width

Importance of Lot Width

Often, development standards regulate using lot area as a way to reinforce maximum allowed density in residential neighborhoods. This approach prevents some housing choices from being built that may be physically compatible with single-family houses.

Lot width can be a more effective regulation than lot area. This is primarily because while a project can comply with the minimum lot area it can still result in a building that is too large for its context. This can happen even with lower-intensity housing types such as a duplex that is allowed to fill up the building envelope and create a building that is within the density limits, but is larger than the houses around it.

In contrast, regulating by lot width allows for MMH types while providing standards for maximum building footprint that are coordinated with existing lot widths.

Typical Lot Widths for MMH

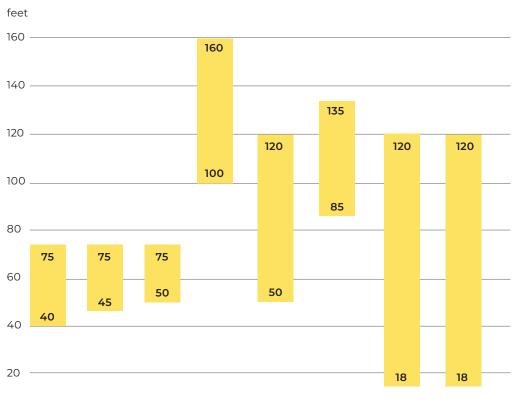
The chart on the facing page shows the ideal lot width ranges for each MMH type based on the building footprint of the specific MMH type, and whether vehicular access is from an alley or from the front of the lot.

The Palette of MMH Types with Typical Lot Widths

The palette shows ideal lot width ranges for each MMH type. These can be calibrated based on existing lot conditions.



Lot Width Ranges for Typical MMH Types



Duplex Triplex Fourplex Cottage Multiplex Courtyard Townhouse Live/ Court Building Work

Note

Width ranges of up to 120' for townhouses and livework are assuming multiple attached housing units. Best practices limit these to a set or "run" of four to six attached units before a massing break is required.

Illustrations of Upper MMH in this report are for informational and comparison purposes. At this time, Sacramento is only contemplating the lower spectrum of MMH types in most areas of the city.



0

Parking Requirements



The Cost of Parking (2020 figures)

Surface Parking \$1,500 to \$5,000

Surface Parking with Roof \$5,000 to \$10,000

Garage Parking \$25,000 to \$50,000

Costs are per parking space and inclusive of land costs. The costs shown here are US national averages.

Source: RS Means, www. rsmeans.com

Parking Design + Location

Parking requirements (the number of required off-street parking spaces) can greatly impact the feasibility of MMH, and is one of the most common barriers to enabling MMH. These building types rely on the efficient use of available space on a lot for housing. For this reason, parking requirements can quickly become a barrier, with parking spaces taking up space on a lot that could be used for housing or shared open space and trees.

The example below shows how parking requirements can be a barrier to allowing MMH on typical lots. In this example, no parking requirements would enable a fourplex on even a small, 50-foot wide lot but when the requirement is of two parking spaces per housing unit, most smaller lots would not be able to accommodate the fourplex because of the required parking spaces and access driveways.

Apart from requiring space, parking also is a barrier because of the cost of providing parking, particularly if it is an enclosed space. The cost of providing parking can be as much as \$50,000

per space, which can quickly impact the feasibility of many MMH and other housing projects.

Parking requirements should be coordinated to existing conditions, such as available street parking, proximity to transit and alternate transportation modes. Best practices advocate for removing parking minimums, and even setting parking maximums, particularly in areas where alternate mobility options are available.

Parking Considerations for MMH

- Require only the optimal amount of off-street parking, not exceeding one space per housing unit.
- Regulate parking location and design on the lot to create a pedestrian-friendly street and building frontage. Parking should be at the rear of the lot, and the front facade of buildings should feature entrances and windows rather than garage doors.
- Provide guidance on materials to prevent and mitigate issues such as untreated stormwater runoff and the urban heat island effect.

Parking Requirements + Feasibility



Open Space

Benefits of Open Space

Open space is essential to encourage active and healthy lifestyles, allow people to connect with nature, increase tree canopy in communities, and help mitigate the effects of climate change.

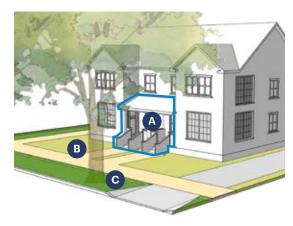
Open space is an important attribute of MMH types, and is provided as both shared and/or private open space on the lot. Well-designed open spaces can create an inviting place for residents to relax and interact, allow for community gathering, provide greenery and trees; and in addition also help to activate the adjacent street and public realm.

Open Space Design Considerations for MMH

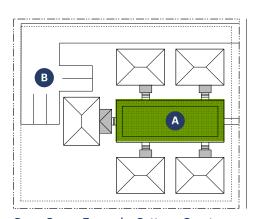
- Design open spaces to function as semi-private/private/shared spaces depending on the MMH type.
- Protect existing trees on the lot to the extent feasible, and provide space for new trees.

- For narrower front or side setbacks, consider uses such as native gardens, swales for stormwater treatment, etc.
- Utilize lighter-colored and permeable materials for hardscaped areas.
- Use landscaping to define building entrances and access.
- In MMH types with more units, such as a cottage court or courtyard building, the open space serves as the main gathering place. It is important to design the space to be usable (and ideally multi-functional), place it in a central location, and orient surrounding building facades and entrances to frame it. Frontages such as dooryards, stoops and porches can be used to make the open space inviting and encourage interaction.
- In the case of larger sites, the design of open spaces should consider existing mature trees and natural features such as creeks, and integrate them into the site layout.

Open Space Best Practices for MMH



- Building frontage and entrance face street
- B Front setback landscaped, pathways reinforce pedestrian entrances
- C Shade trees and green infrastructure



Open Space Example: Cottage Court

- A Recommended minimum 20' width for shared open space, building entrances from open space
- B Open space oriented to street, parking at the rear of the lot

2.4 Missing Middle Housing in Sacramento

Like most cities built before the 1940's, Sacramento includes many examples of MMH types, found primarily in the city's historic core (Central City) and adjacent neighborhoods.

In many American cities, including Sacramento, MMH was traditionally built near downtowns and job centers to provide affordable housing options for workers. The map on the facing page shows the general location of MMH types across Sacramento neighborhoods, including the locations of **3,560 duplexes, triplexes, and fourplexes*** across the city's neighborhoods. As the map shows, many MMH types are located within the city's historic districts. New MMH

proposed in these areas will need to fully comply with the city's Historic District Plan that include standards, guidelines and criteria consistent with the U.S. Secretary of the Interior Standards for the Treatment of Historic Properties. MMH involving a landmark parcel will also need to comply with the U.S. Secretary of the Interior Standards for the Treatment of Historic Properties as interpreted by city historic preservation staff or potentially the Preservation Commission.

* Note: This number does not include the other types of MMH such as cottage courts, live-work, courtyard building, and small multiplexes that can be found in many parts of the city.



Duplex Land Park



Courtyard Building Central City



TriplexFruitridge Broadway (Oak Park)



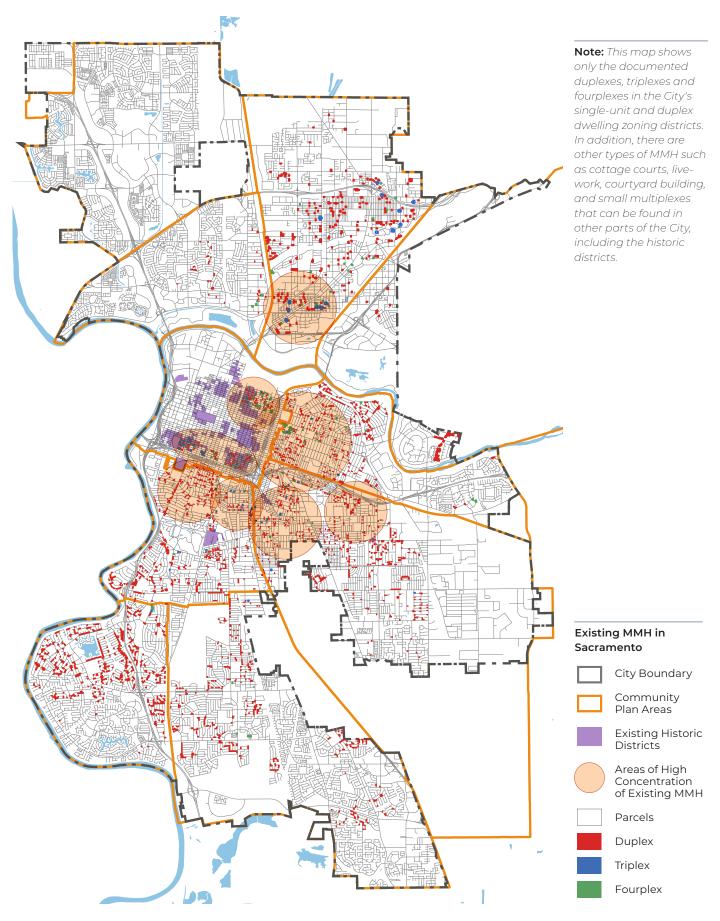
DuplexEast Sacramento (Elmhurst)



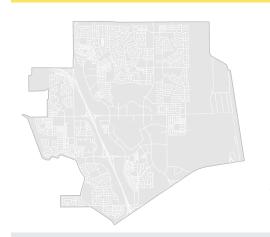
Cottage Court Land Park

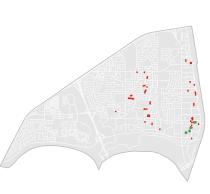


Multiplex (Small)
East Sacramento



Existing Duplexes, Triplexes + Fourplexes in Sacramento's Residential Neighborhoods by Community Plan Area





Note: This map only shows MMH examples in the single-unit and duplex dwelling zones. Many more MMH types exist in the Central City's multi-unit dwelling zones and historic districts.



North Natomas

Duplex O parcels

Triplex O parcels

Fourplex O parcels

Duplex Triplex Fourplex

South Natomas

Duplex 50 parcels

Triplex 0 parcels

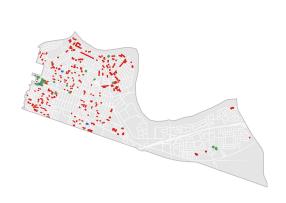
Fourplex 6 parcels

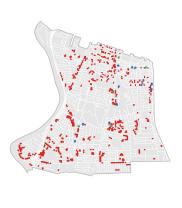
Central City

Duplex 168 parcels

Triplex 27 parcels

Fourplex 90 parcels







East Sacramento

Duplex 445 parcels

Triplex 3 parcels

Fourplex 32 parcels

Duplex Triplex Fourplex

Land Park

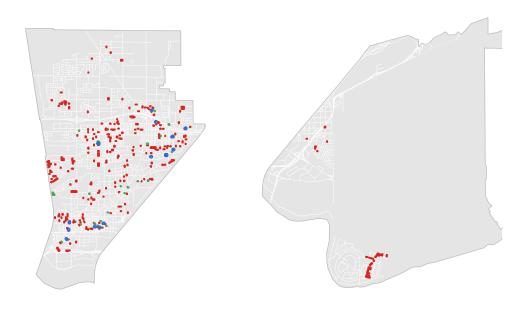
Duplex 583 parcels

Triplex 12 parcels

Fourplex 7 parcels

Pocket

Duplex 623 parcels
Triplex 1 parcels
Fourplex 7 parcels



Note: These maps show only the documented duplexes, triplexes and fourplexes in the City's single-unit and duplex dwelling zoning districts. In addition, there are other types of MMH such as cottage courts, livework, courtyard building, and small multiplexes that can be found in other parts of the City, including the historic districts.

North Sacramento

Duplex 337 parcels

Triplex 15 parcels

Fourplex 32 parcels

Duplex

Triplex

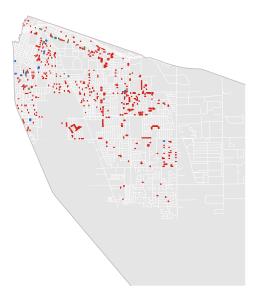
Fourplex

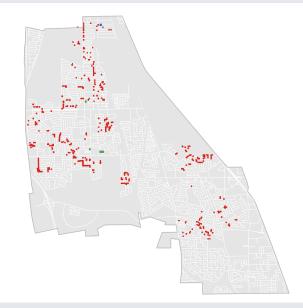
Arden Arcade

Duplex 52 parcels

Triplex 0 parcels

Fourplex 0 parcels





Fruitridge

Duplex 624 parcels

Triplex 12 parcels

Fourplex 10 parcels

Duplex Triplex Fourplex

South Area

Duplex 414 parcels

Triplex 1 parcels

Fourplex 9 parcels

MMH Examples from Sacramento



Duplex Side-by-Side 2 units







Duplex Stacked 2 units







Triplex 3 units













Note: Sacramento's historic districts have many MMH exemplars, and can accommodate new MMH types in compliance with historic preservation requirements and design review.









Multiplex 6-18 units







Courtyard Building 6-20 units







Live-Work 1 unit









Above: Walking Tours are an effective way of understanding existing MMH within a neighborhood or area

Below: Documentation of MMH types *by studying building heights and footprint size.*

Neighborhood Context

Several neighborhoods in Sacramento offer examples of MMH intermixed with single-family houses. One such block from the Curtis Park neighborhood, as shown on the facing page, provides an example of a range of housing types on the same block, and demonstrates how a walkable context with access to amenities can allow MMH to be successful.

The block includes single-family houses, a cottage court, several duplexes, a few ADUs, and a live-work building which is currently under construction at the end of the block near other commercial uses. This block is a great example of how MMH blends into existing house-scale neighborhoods.

Q

HOW TO IDENTIFY BUILDING TYPES IN SACRAMENTO

Taking an inventory of existing MMH types is the first step in creating building type standards. Many MMH types may be non-conforming with existing zoning, or may have been converted into other uses such as offices, or a duplex converted into a large single-family home. A walking tour or other on-the-ground research can help identify such examples.

The number of mailboxes, electrical and gas meters, as well as window type/composition on the facade can indicate a MMH type.

guidance for calibrating developments standards. Measuring lot dimensions, building footprints, frontage details, parking configurations, building height, location of units within the buildings, and location of building and/or unit entrances can help to define the unique characteristics of MMH types in Sacramento.

Photo documentation can also help to inform standards, as well as providing examples of intended building form and scale that can inform infill and new development.

Example of a MMH Neighborhood: Curtis Park



Cottage Court



Duplex



Live-Work





MMH in Curtis Park, Sacramento

Cottage Court

Duplex

Other Multi-family (non-MMH)

ADU

Live-Work (under construction)



2.5 "Almost Missing Middle Housing"



Refer to Section 2.3 of this chapter for an explanation of the physical characteristics of MMH types.

Where MMH is located and how it is oriented to public streets and spaces is critical for creating and supporting walkable neighborhoods with a mix of incomes and housing choices.

Getting it Right

MMH is more than just a number of units fitted into a house-scale building form. Getting public realm design details right is critical for making neighborhoods walkable and for encouraging community support for new housing.

It is important that MMH types demonstrate good design so that they can be perceived as benefitting the architectural quality of a neighborhood. MMH buildings with high-quality frontages and house-scale building form and architectural details contribute positively to a neighborhood's public realm, and complement high-quality, pedestrian-oriented street and sidewalk design.

Not Quite Right

The examples on the facing page provide much-needed housing and at first glance may seem to fit some criteria for MMH, but while these buildings are generally house-scaled, or close to house-scale, they lack other qualities of MMH that are very important to create and support walkable environments. These are examples of design features to avoid when designing MMH:

- Location of parking at the front of the lot and building frontages that are not pedestrian-friendly;
- Lack of easily identifiable entrances, street-facing windows, and/ or frontages such as porches or stoops mean that they may not be contextually appropriate in Sacramento neighborhoods where those types of building details constitute an important element of the physical form; and
- Lack of diversity of building types on a block creates monotonous environments. MMH works most effectively when a variety of housing types are mixed along a block.

These are NOT MMH

Example 1

- 3 stories, lot coverage more than 50 percent
- No articulation of ground floor frontage
- Street frontage dominated by parking
- No shared usable open space



Criteria of MMH	
In a walkable context	✓
Multiple units	✓
House-scale building	×
Pedestrian-oriented frontage	×
Parking in rear of lot	×
Usable open space	×

Example 2

- 2 stories, approximately 50 percent lot coverage
- Ground floor with no street-facing windows
- Frontage dominated by parking, driveway
- Some shared open space at rear but no trees (paved)



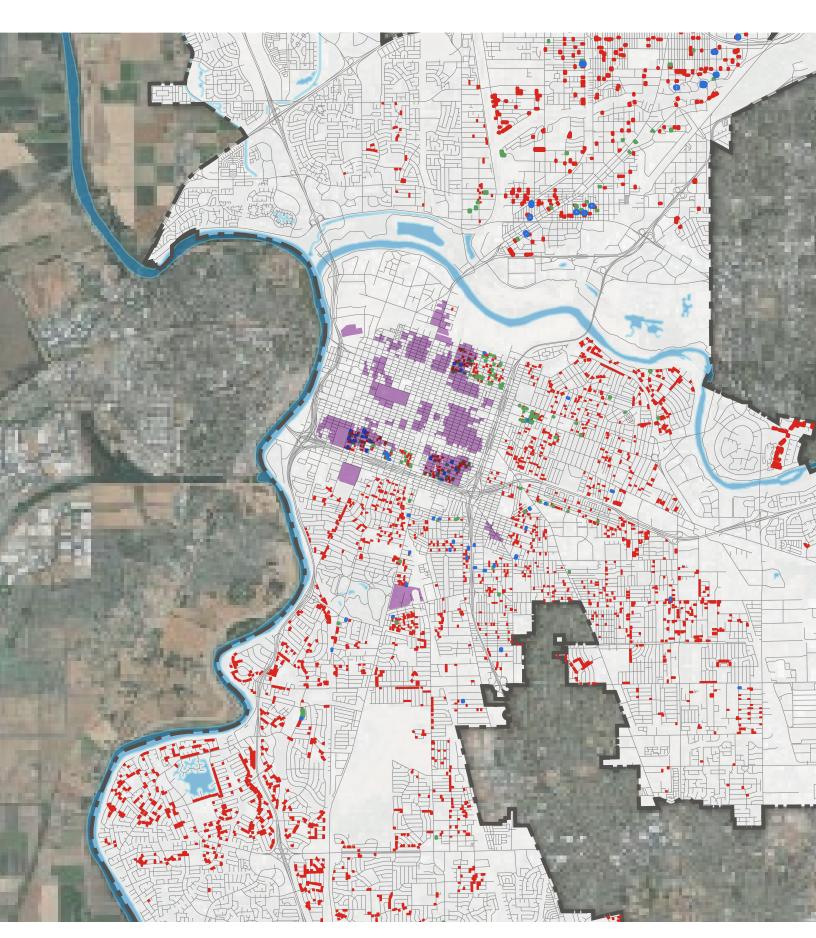
Criteria of MMH	
In a walkable context	×
Multiple units	✓
House-scale building	✓
Pedestrian-oriented frontage	×
Parking in rear of lot	×
Usable open space	X

Example 3

- Limited pedestrian access
- Driveway location does not create pedestrian-friendly public realm
- Frontage dominated by parking, driveway
- Rear shared open space



Criteria of MMH	
In a walkable context	×
Multiple units	✓
House-scale building	✓
Pedestrian-oriented frontage	×
Parking in rear of lot	×
Usable open space	~





Sacramento's Housing Needs

In this chapter

3.1 National Demographic + Housing Trends	56
3.2 Housing in Sacramento Today	58
3.3 The Need + Desire for More Housing Choices	64

3.1 National Demographic + Housing Trends

Key national trends point to MMH as an essential strategy for communities to spur reinvestment and housing production.

A Changing Population

National demographic trends indicate changing housing preferences and needs.

- According to the U.S. Census Bureau, in 2022, 30 percent of all households were single-person households¹. This trend is anticipated to increase as household sizes are changing. By 2030, 75 percent of U.S. households are anticipated not to have children.
- Americans are also aging. The ratio of the senior population has been increasing steadily, and by 2050 one in every five U.S. households will be over 65 years of age.
- Another key trend is that of ethnicity. By 2050, 29 percent of the population will be Latino.

These key demographic shifts signal a pressing need to create more diverse housing types to fit our changing lifestyles and housing needs better.

Recent surveys reveal that a significant percentage of the population prefers alternate housing types to single-family houses. Millennials, baby boomers, and single-person households are growing segments of the population and prefer a small house with a small yard that is easy to maintain. The two fastest-growing demographic groups - millennials and baby boomers - want to live in more walkable neighborhoods and seek alternate housing options².

Seniors and retirees are another growing segment of the population.

Nearly 10,000 baby boomers retire every day³. Half of them have no retirement savings and are dependent on their social security payments for their expenses. With the average social service monthly payment being only about \$1,340, the need for smaller, more affordable, and attainable housing choices is increasing.

Sources:

- ¹ U.S. Census Bureau
- ² American Planning Association
- ³ www.home.one
- ⁴ NAIOP Commercial Real Estate Development Association

"Triple-bottom-line" benefits of walkable environments:

- 1. Improved physical health and mental well-being of residents;
- 2. Environmental stewardship; and
- 3. Economic benefits.

Housing Needs Are Changing Nationwide

Demand for Walkable Living

In addition to changing demographics, there is a growing change in housing preferences. There is a **20 to 35 percent gap between the demand and supply of walkable urban living choices** created by the limited variety of housing products being delivered in the housing market.

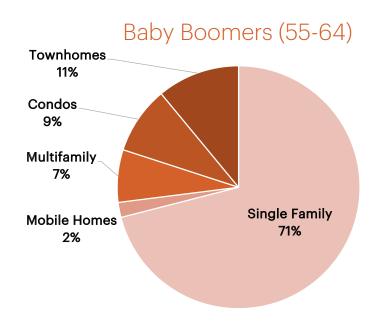
According to recent surveys by the National Association of Realtors (NAR), **60 percent of the population favors living in neighborhoods with a walkable mix of houses and stores** rather than neighborhoods that require driving between home, work, and play. Office tenants, too, prefer locations in walkable environments over typical suburban office parks by a ratio of 4:14.

Inadequate Housing Choices

For the past 75 years, the U.S. has primarily been building detached single-family houses and mid-rise or high-rise apartments without addressing the market needs between these two ends of the housing spectrum. With an **estimated shortage of 3 million units in the U.S.**, the demand for small-lot and attached housing units still needs to be met.

Meeting this demand and addressing our changing housing preferences will require a concerted effort by jurisdictions, financing institutions, and the development community. MMH can be a key strategy to address the current housing market imbalance and further housing attainability nationwide.

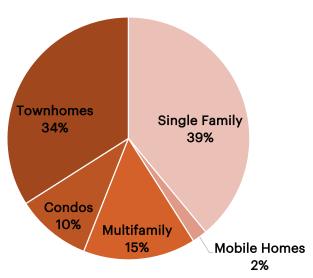
Growing Demand for Walkability + Housing Choices



27 percent of baby boomers and 59 percent of millennials are seeking new housing options such as MMH types.

Source: www.realtor.com

Millennials (25-34)



3.2 Housing in Sacramento Today

Existing Housing Types

Sacramento has nearly 200,000 housing units. While larger residential and mixed-use buildings are seen in Central City and adjacent areas,

66 percent of the housing stock is in single-family houses, the most prevalent housing type seen across the city's residential neighborhoods.

Missing Middle Housing (MMH) is found in most of the city's Community Plan Areas, and the highest concentration can be seen in neighborhoods in and adjacent to the central core. The range of MMH types found in Sacramento includes cottage courts, townhouses, live-work, small courtyard buildings, multiplexes, and over 3,560 duplexes, triplexes, and fourplexes*, as discussed in Chapter Two of this report.

Housing Conditions

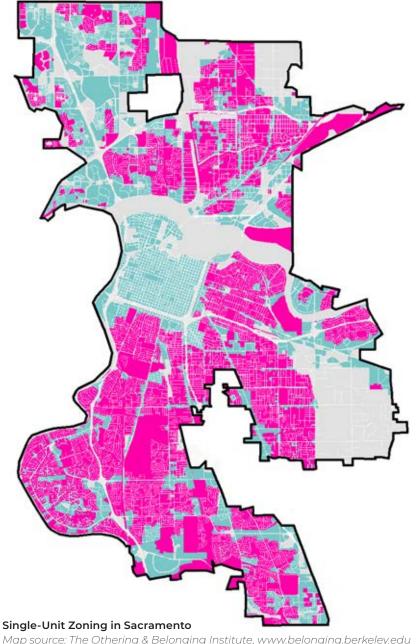
The tables on the facing page show a snapshot of existing housing in Sacramento. As mentioned earlier, most of the housing stock is singlefamily houses, which is the most expensive housing type to rent or purchase. Historically, home sale prices and rents in Sacramento have been more affordable than in other places in the region, but this is changing. Housing affordability has become a major issue for most residents, and like many cities in the region, Sacramento is also facing a growing crisis of houselessness (also called homelessness).

MMH can be one of the solutions to consider for providing greater housing access at all rental and forsale housing prices.

Development Patterns

Sacramento's development patterns today are predominantly in the form of low-rise single-family neighborhoods. Source: Google Earth





197,000

total number of housing units in Sacramento (2021).

66%

of existing (2021) housing stock is single-unit.

Sources: U.S. Department of Housing and Urban Development (HUD), City of Sacramento Housing Element 2021-2029

Map source: The Othering & Belonging Institute, www.belonging.berkeley.edu

Single-Unit Residential

Other Residential

Non-Residential/Other Use

Sacramento's Changing Population

Local Demographics + Housing Market Trends

Sacramento has a population of 525,000, according to the U.S. Census (2021). According to the Sacramento Area Council of Governments (SACOG), the City of Sacramento is projected to continue adding new residents at about 1.1 percent per year. If this rate is realized, the City will add about **140,000 new residents by 2040.**

Sacramento's population is currently more diverse than the county or region, and this trend will continue. In 2018, nearly 68 percent of the population included persons of color (compared to 55 percent for the county). In the future, these population trends will continue, and the fastest-growing segment of the population is expected to be persons of age 65 to 74. In contrast, the population of age 24 and under will reduce.

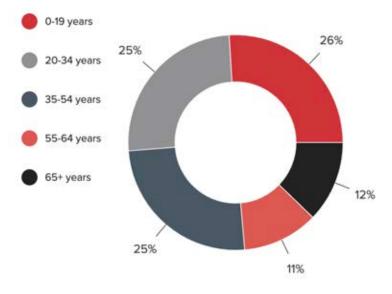
The "health" of a housing market is often indicated by vacancy rates, with a balanced housing market having vacancy rates of 2 to 3 percent for owner-occupied and 6 to 7 percent for rental units. According to the Sacramento Housing Element of 2021-2029, Sacramento had a **low overall vacancy rate of 6.5 percent** in 2018 (4.2 percent for rental and 1.2 percent for ownership units). This suggests that Sacramento has a tight housing market with limited owner-occupied and rental housing availability.

Overall, housing development in the coming decades will need to respond to these changing demographics and related housing needs.

525,000 Sacramento's population (2022). 2.63 persons per household.

740,000 new Sacramento residents anticipated by 2040.

Sacramento's Population by Age Group



Sacramento's Current + Future Housing Needs

Housing Market Conditions (2021)

\$385,000 median home sale price in Sacramento (U.S. Census, 2021).

\$1,435 median gross monthly rent (U.S. Census, 2021).

Very low

homeowner vacancy rate of 1.2 percent and rental vacancy rate of 4.4 percent.

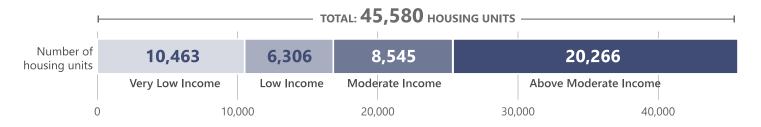
Homeownership Rates (2021)

52% are renters.

48% homeowners.

Source: U.S. Census Bureau, U.S. Department of Housing and Urban Development (HUD)

Housing Needed in Sacramento (Regional Housing Needs Allocation, 2021-2029)



2,000 average annual new housing units over past decade.

5,700 new housing units needed annually to meet RHNA targets.

45,580 new housing units needed by 2029 (RHNA Cycle 6).

Source: U.S. Census Bureau, U.S. Department of Housing and Urban Development (HUD)

Housing Affordability in Sacramento

Housing Attainability

A key measure in housing attainability is the Housing Opportunity Index, which assesses the affordability of ownership housing and reflects the percentage of homes that households earning the area median income can afford. In Sacramento, this has decreased from 83 percent in 2011 to 39 percent in 2020 — a reduction of 44 percent.

Renters are typically impacted more than homeowners by volatility in the housing market, seen in rapid increases in rents or sale prices. With 52 percent of its residents as renters, Sacramento is potentially vulnerable to displacement and gentrification brought about by rising housing costs. Rising housing costs also impact the rate at which much-needed subsidized housing can be built.

Also, the Sacramento region, like many other parts of the state, is experiencing a houselessness crisis (also called homelessness). From 2017 to 2019, Sacramento saw a 19 percent increase in people experiencing houselessness, with an estimated 10,000 to 11,000 residents being houselessness in 2019. Of these people, nearly 70 percent were unsheltered, and 12 percent were children under 18.

By all metrics, housing is becoming less attainable in Sacramento. MMH can help bridge the affordability gap by adding more attainable housing choices to the market without a subsidy.

Sacramento's Housing Opportunity Index

39% of households spend > 30% of their income on

housing.

52% of residents are renters. Rents increased by 19% from 2021-22.

50% of households are at low, very low, or extremely low income levels.

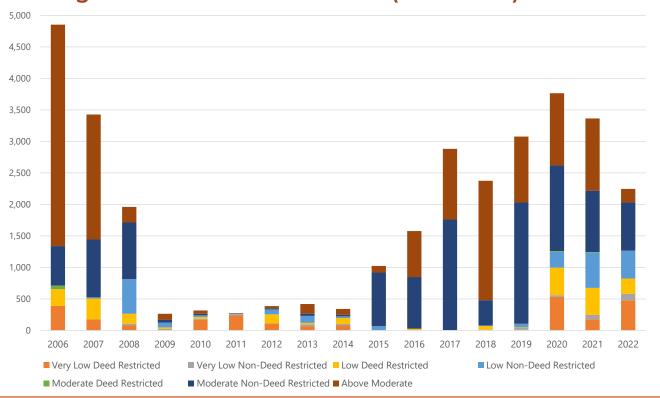


44% decrease in housing affordability, 2011 to 2020.

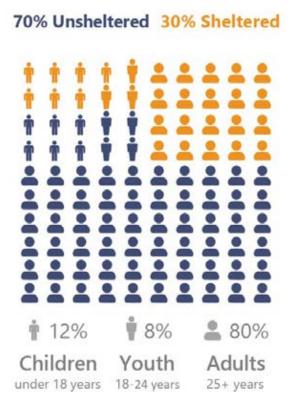
Housing Opportunity Index City of Sacramento, 1991-2020

Source: Sacramento Housing Element 2021-2029, www.cityofsacramento.org

Housing Production in Sacramento (2006-2022)



Houselessness in Sacramento



\$450,000

cost on average to build a regulated affordable housing unit.

16,769

lower-income units needed by 2029 (RHNA Cycle 6).

3.3 The Need + Desire for More Housing Choices

Different households have different housing needs.

While no two households are alike, considering the unique needs of Sacramentans from all walks of life will help us **plan housing for everyone.**

I'm a single person.

I'm just starting my career and can't afford high rent. I need a small studio that's bikeable to downtown where I work.

We are roommates.

We're looking for a threebedroom unit with space to host. We're not into yard work and do not need a backyard.

We are retirees.

We need a smaller home that is easier to maintain. We prefer to avoid driving and be close to stores and parks.

We are a couple.

We're looking to rent a small home where we can get to know our neighbors. We want to be able to walk to shops and restaurants. A shared garden will be lovely!



Housing needs vary not just by household size and composition but also among the same household over time. The snapshots below illustrate the unique housing needs of different household types in Sacramento based on their varied lifestyles and housing preferences.

We are a multi-generational family.

We need room for three generations to live together. Grandma and grandpa need their own space to retreat, such as an ADU, but still want to be steps away from their kids and grandkids and be present in the family's daily life.

We are a small family.

We don't need a large house but would love a small backyard for our kids and dog. It would be great to walk or bike our kids to school!



Which Household Types Can MMH Benefit?



Baby Boomers

As baby boomers get older, downsizing to MMH takes away the burden of caring for a large yard, allows living with less driving, and opens up the potential for supplementary income.



Millennials + Gen Z

The younger generations frequently look for transit-rich, walkable housing options to avoid the burden of car ownership and to have good access to amenities.



Small Families

Single-person households and small families can benefit from smaller housing options, particularly ownership models, to build equity. These types are often missing in most housing markets.



Entry-Level Buyers

MMH offers smaller, more affordable units and, thus, more attainable paths to homeownership for entry-level buyers.



Working Middle Class

For the working middle class, the price of rent is often a large burden. MMH can help provide more attainable housing options for a variety of household types and sizes.

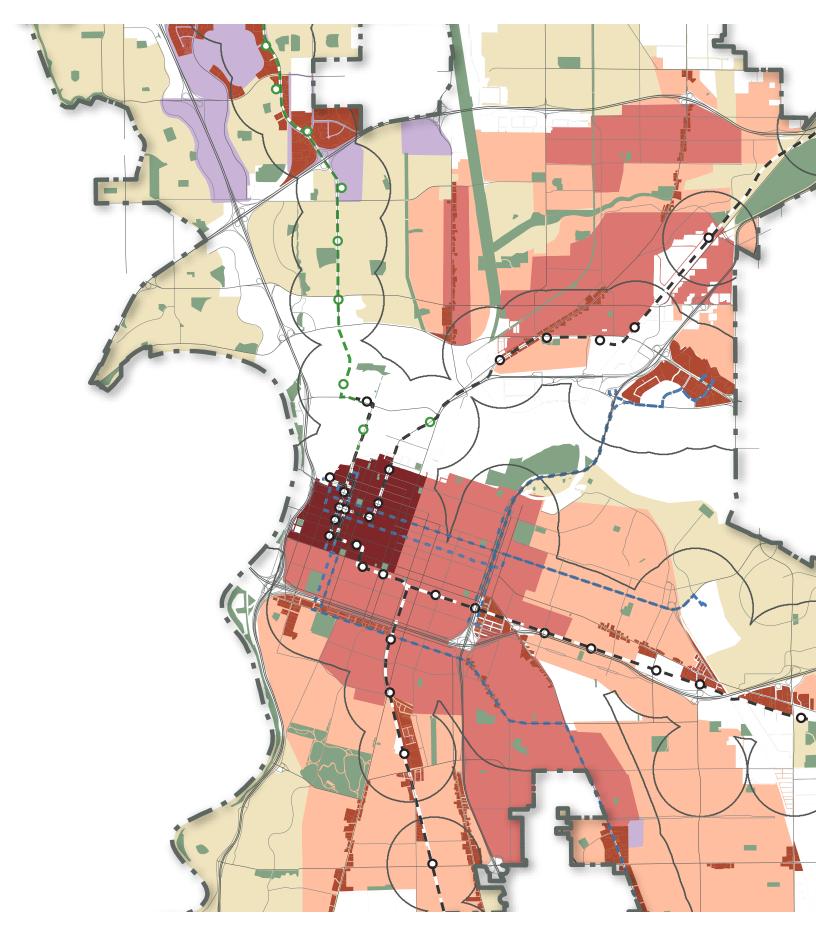


Small-Scale Builders

MMH projects are smaller in scale and do not need specialized construction, which lowers overall development costs. With favorable financing, MMH can provide development opportunities for small-scale and local builders, also boosting the local economy.

 ${\it Chapter\,3-Sacramento's\,Housing\,Needs}$

This page intentionally left blank

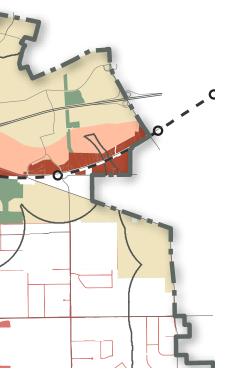




CHAPTER

In this chapter

4.1 Methodology of Place-Based Analysis	70
4.2 Land Use + Zoning	72
4.3 Connectivity + Amenities	74
4.4 Built Form	76
4.5 Context Types in Sacramento	80
4.6 Applying Missing Middle Housing to Sacramento	94



4.1 Methodology of Place-Based Analysis

Why a Place-Based Approach?

A "place-based approach" is informed by the characteristics that make a "place" unique — a location distinct from the surrounding areas. Although many factors may influence an area's unique sense of place, the place-based approach focuses primarily on the physical characteristics such as street patterns, built form, and intensity of development. This analysis is a careful balance of quantitative and qualitative analysis, which is essential in defining the unique characteristics of a place.

Key physical characteristics combine to form distinct development patterns across the city and region.

These "ingredients" help define the "DNA" of a place and are studied as part of the place-based analysis. These include:

- location and relation to other areas, special attributes such as historic districts;
- existing urban form, building scales, and building height;
- existing and future land uses, including anticipated growth;
- · existing connectivity and transit;
- · building size, scale, and form; and
- lot size and configuration.

Distinct patterns of physical form can be observed across the residential parts of Sacramento. The street network can range from a well-connected regular grid to winding cul-de-sacs. Houses can be located closer together or spaced farther apart. Front yards can be large, small, or non-existent. Analyzing these characteristics at different places across Sacramento helps to establish various "degrees of change"; ways to incrementally add suitable housing typologies within neighborhoods to add housing diversity.

The place-based analysis provides an understanding of the potential capacity to add more housing while enhancing the existing built environment. It, in turn, helps to make development standards and regulations more effective since they can be tailored to existing residential patterns. The place-based analysis yields built outcomes that are more predictable and in harmony with the existing built characteristics of a place.

Methodology

The place-based analysis provides context-sensitive strategies for enabling Missing Middle Housing (MMH) citywide. The analysis follows five key steps summarized in the flowchart to the right.

The process assesses land use, development patterns, access to amenities, and levels of connectivity to arrive at context types that are a composite of the existing physical environment and can inform future land use and housing patterns. The entire city of Sacramento is examined to identify existing context types.

With the context types, a critical step in the analysis is evaluating the pattern of existing lot widths and depths. This step helps establish the range of MMH types accommodated in each lot category. This lot category analysis is described in Chapter Five: Testing for Feasibility.

Based on the identified context types and findings from the lot categories analysis, specific MMH types are analyzed for physical fit and financial feasibility through proforma analysis on selected lots across the city. The feasibility assessment is targeted with housing attainability in mind to ensure that the housing enabled is not just feasible to build, but also attainable for Sacramento residents.



Zoning + Land Use

Zoning and allowed land uses under the Draft 2040 General Plan are analyzed as a first step to understand existing conditions, the location and intensity of various uses, and anticipated areas of intensification and growth.

Connectivity + Amenities

Walkable access to amenities and resources is an important criteria for MMH. The next step in the analysis examines street and block sizes, levels of connectivity, and access to transit, amenities, and services.

Built Form + Existing MMH

The next step in understanding the existing physical character is to look at prevalent built form patterns, the intensity of development, types of buildings, and mix of uses.

Context Types

Layering the information from the above steps helps to establish context types citywide. Context types synthesize existing physical conditions, applicable regulations, and degree of walkability. This step helps define the MMH types suitable for each context type.

Lot Categories Analysis

In the final step, all residential parcels are categorized based on lot width and depth to identify which MMH types would fit on each lot. This is determined by considering factors such as typical building dimensions, access, and off-street parking.

4.2 Land Use + Zoning

Zoning + Allowed Land Uses in Draft 2040 General Plan

The intensity and pattern of future development is set by the City's General Plan and regulated through zoning. MMH is one of the City's key strategies to implement the Draft 2040 General Plan vision of promoting housing access and affordability and in meeting its regional housing targets set by the state. The Draft 2040 General Plan is proposing floor area ratio (FAR) thresholds to regulate development intensity. If adopted, the Planning and Development Code will be updated to be aligned with the new land use regulatory framework. For the MMH study, understanding the characteristics of existing residential areas is a starting point for the analysis.

45k homes needed by 2029 to meet RHNA target

7k

approximate number of residential parcels

70% of total residential land is zoned R1

Source: City of Sacramento Housing Element 2021-2029.

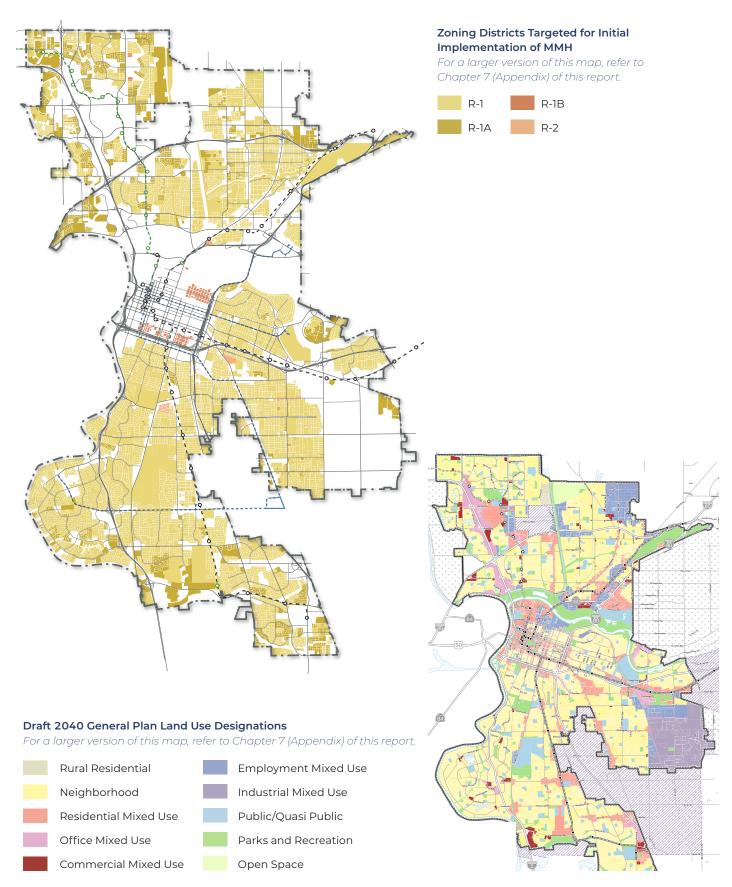
Key Findings

- Zoning. Most residential areas fall under the R-1 and R2 zoning categories. The target zoning districts for the MMH study are R-1, R-1A, R-1B and R-2. These are typically lower-intensity residential neighborhoods where MMH types can be added to promote housing choice without drastically altering the built scale of the neighborhood. R-1 is the most prevalent zone, covering nearly 70 percent of Sacramento's residential-zoned land.
- Land uses. Allowed land uses in the target R-1, R-1A, R-1B and R-2 zoning districts include the proposed

- "Neighborhood" and "Residential Mixed Use" land use designations, which are compatible with typical MMH types.
- Regional Housing Needs Allocation (RHNA). Sacramento needs to add 45,580 new housing units by 2029 to meet its share of the state-mandated Regional Housing Needs Allocation.
- Housing market conditions. The housing market is competitive, indicated by rising home sale prices and monthly rents, and lower vacancy rates than surrounding areas.

Permit a greater array of housing types such as duplexes, triplexes, and fourplexes (also referred to as Missing Middle Housing) in existing single-family neighborhoods.

Key Strategy, Draft 2040 General Plan Sacramento City Council, January 19, 2021



4.3 Connectivity + Amenities

Connectivity Patterns + Access to Resources

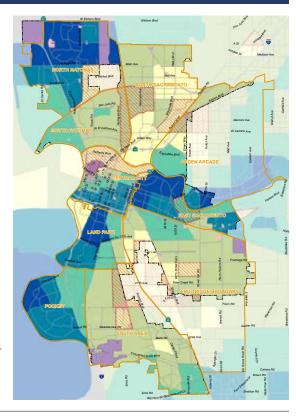
MMH often relies on lower parking ratios to optimize available space on a lot for housing units and shared open space, rather than on excessive parking. Thus, there is a direct relationship between how walkable a place is (whether a car is essential for most day-to-day trips) and the palette of MMH types that can work there. Walkability was analyzed through studying street connectivity, block size, and access to transit and amenities. Existing "high-resource" and "low-resource" areas also provide guidance for future MMH strategies.

365'
is the average
length of a city
block in historic
central grid

of residentialzoned land within walking distance of transit

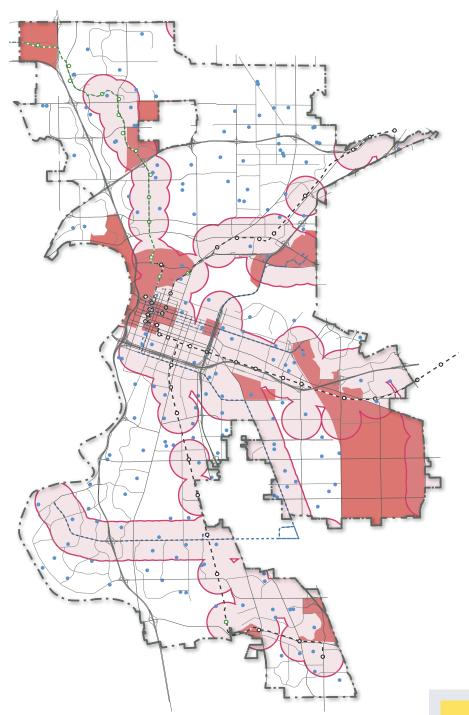
Key Findings

- Compact, walkable and wellconnected development patterns exist in Central City and adjacent areas, with more regular street and block grids. Block sizes and orientation vary widely across most other neighborhoods.
- Existing transit, particularly the light rail network and its planned extension, can be leveraged to allow more housing including MMH with less (or no) parking.
- Distribution of employment and amenities such as schools, retail and services plays a key role in supporting walkable environments where MMH can work best.



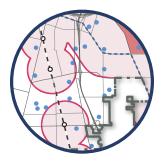
Source: City of Sacramento Housing Element 2021-2029. Higher resource areas offer better chances at economic advancement, educational attainment, and good physical and mental health.







Central City has good transit access and high connectivity with frequent intersections and small blocks.



Many residential neighborhoods benefit from access to light rail.



Low-intensity residential neighborhoods with a variety of block sizes, served by a highfrequency bus route.

Street Connectivity + Access to Transit and Amenities

For a larger version of this map, refer to Chapter 7 (Appendix) of this report.

O Lie

Light Rail Station

Light Rail (Existing)

Light Rail (Planned)

 Proposed 2040 Bus Rapid Transit (BRT)



1/2 mile Distance from Light Rail Stations and High-Frequency Transit



Schools



Major Employment Nodes

AB 2097 prohibits a public agency from requiring any minimum parking within a 1/2 mile of transit.

AB 2097, adopted on Aug 29, 2022

4.4 Built Form

Built Form Patterns + Intensity of Development

The existing patterns of built form in Sacramento can be understood by studying patterns of building footprints (detached or "house-scale" and attached or "block-scale"), the existing number of units per lot (single-family or multi-family environments) and building heights. MMH works best in walkable, mixed-use environments but many low-rise, less intense environments can also be adapted to support MMH types. In this regard, looking at future growth projections as set by the Sacramento Draft 2040 General Plan also provides guidance on which parts of the city should be the focus of initial MMH implementation.

1-2
stories typical of most residential buildings

of residential lots

are zoned for only

single-family

Key Findings

- A higher occurrence of block-scale (attached) buildings and mixed-use is seen in Central City and adjacent areas. This area also has the city's tallest structures.
- Transition areas around the central core of the city, along transportation corridors, and around employment nodes follow a similar development pattern, though at lower intensity.
- The majority of Sacramento has a low-intensity, mainly single-use development pattern, with limited

- housing variety within the single-family residential neighborhoods.
- Existing MMH types exist across most neighborhoods, with a high concentration in and around the city's central core, and in historic districts such as Alkali Flat, Old/New Washington School.
- The Draft 2040 General Plan sets Floor Area Ratios (FARs) and minimum residential densities for different areas within Sacramento, that will determine future built form.

3,560
existing duplexes,
triplexes and
fourplexes

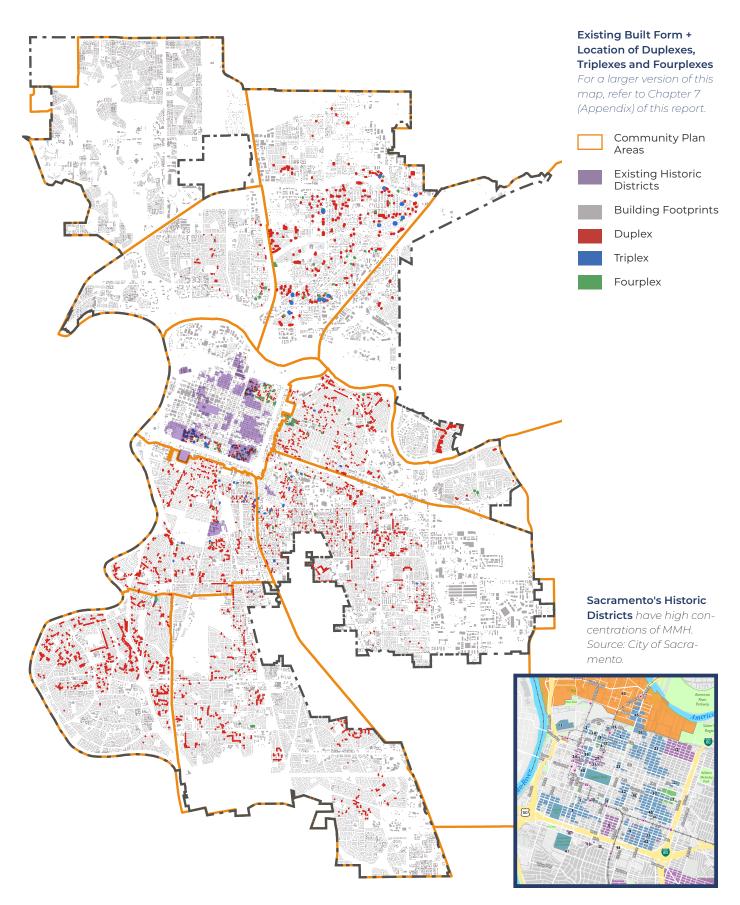
Examples of Existing Patterns of Built Form



Many residential neighborhoods have a pattern of detached, housescale, small and medium-footprint buildings in long blocks, with some curvilinear streets.



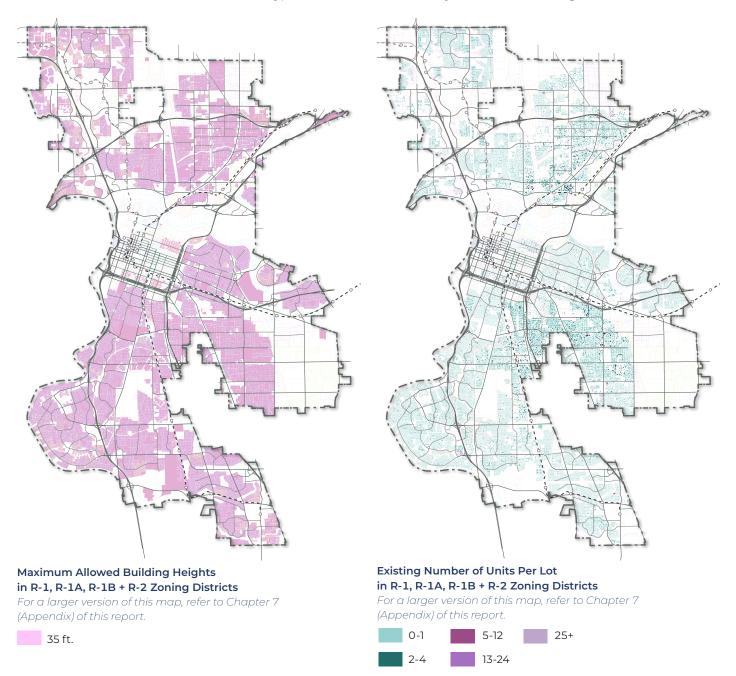
The Central City, in contrast, has a pattern of short blocks with higher connectivity; and building footprints that range from medium to large, and a mix of house and block-scale.



Existing Built Form

The maps below show some key aspects of built form that are relevant to MMH. R-1, R-1A, R1B and R-2 zoning districts, the initial focus areas for MMH implementation, allow 35 feet as the maximum allowed building height, which is enough to accommodate small and medium MMH types.

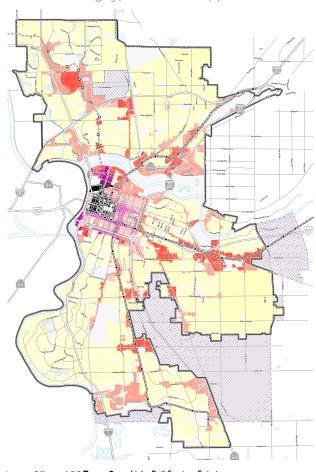
Analyzing the existing number of housing units per lot helps provide an understanding of single-family and multi-family environments. While the R-1, R-1A, R-1B and R-2 zoning districts typically have one to two units on each lot, there are small clusters of higher-intensity multi-family within these zoning districts as well.

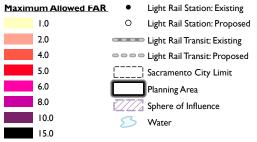


Draft 2040 General Plan + Future Built Form

The proposed Draft 2040 General Plan aims to regulate residential development intensity using

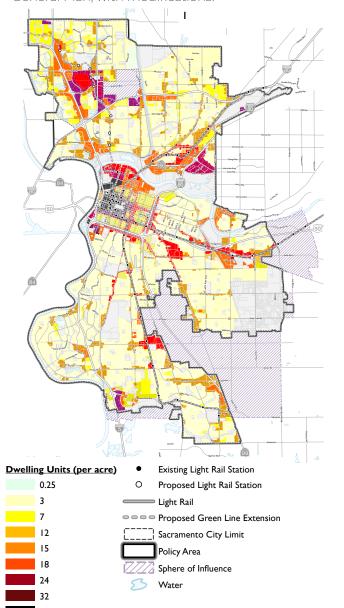
Floor Area Ratio (FAR) as a standard instead of density (housing units per acre) as a means to stimulate housing production and promote a variety of different housing types. The FAR approach will





Proposed Draft 2040 General Plan Maximum FARs

Map Source: City of Sacramento, Draft 2040 General Plan For a larger version, refer to Chapter 7 (Appendix) focus on controlling the size of buildings instead of the number of housing units within them. Maximum FAR standards will apply citywide, and TOD areas will also have minimum FAR standards. Minimum density standards will also apply, carried over from the 2035 General Plan, with modifications.



Proposed Draft 2040 General Plan Minimum Residential Density

Map Source: City of Sacramento, Draft 2040 General Plan For a larger version, refer to Chapter 7 (Appendix)

4.5 Context Types in Sacramento

Context types

Context types are a way to map existing built environments considering street and block patterns, lot configurations, connectivity and transit access, mix of uses, built form and development intensity, as well as unique conditions such as historic districts. Context types thus help to clarify the variety of physical environments existing in Sacramento, and provide a framework for the development approach for applying MMH citywide. In Sacramento, based on the analysis summarized in the preceding pages, six context types were established that can guide the range and intensity of MMH types to be enabled.

Analysis Methodology

The context types analysis for Sacramento considered the following:

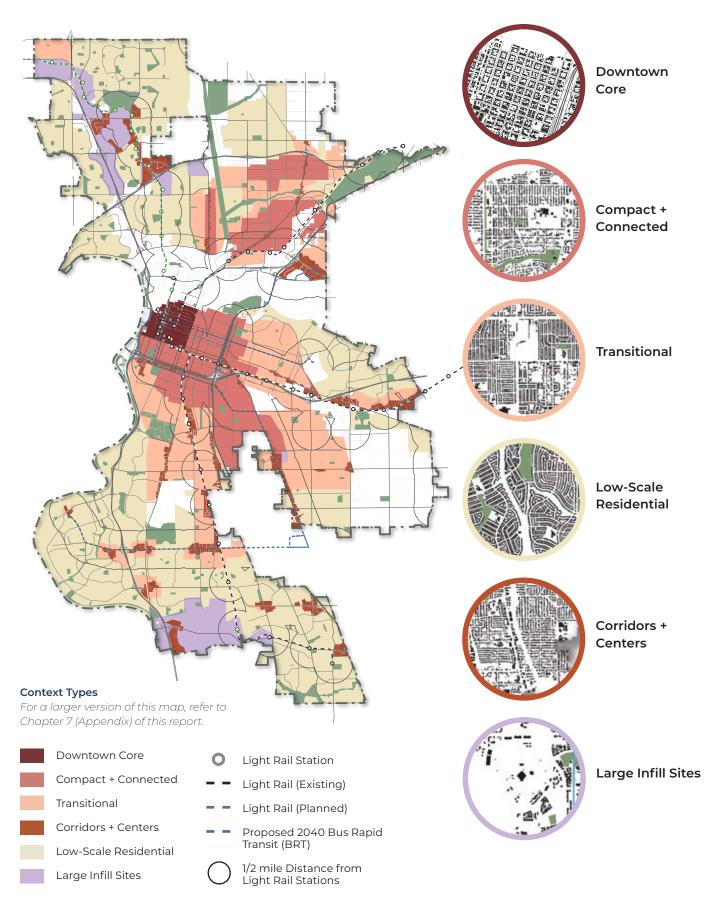
- · Location and surrounding context;
- · Lot size and configuration;
- Street and block patterns;
- Multi-modal connectivity and access to transit;
- Mix of uses and access to everyday amenities such as schools, jobs, retail and services; and
- Built form and intensity of development.

Key Findings

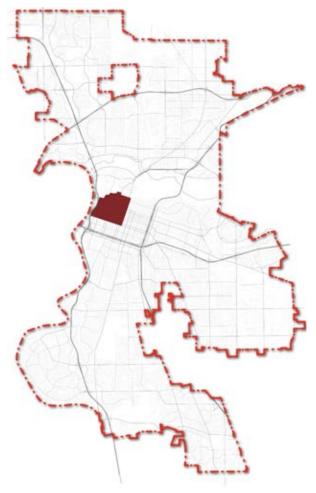
- Based on the analysis, Sacramento's built environment was categorized into **six context types**, shown on the map on the facing page and discussed in the following pages.
- Strategies for implementing MMH should be calibrated for each context type to augment existing

development patterns and be a "good fit" to prevalent conditions.

- The context type mapping also helps to determine areas that are "MMH-ready" or already containing MMH or supportive of it, as well as "potential MMH" areas that are currently less supportive of MMH but where focused improvements in connectivity and land use infrastructure can make them MMH neighborhoods in the future.
- Other city and state policies and initiatives that relate to housing, parking and transportation will also play a key role in determining future MMH implementation.
- To determine priority areas for MMH, the analysis needs to consider future planned transit, potential displacement as well as the City's inventory of vacant and underutilized sites.



Downtown Core Context Type



Description

The Downtown Core context type includes the core of the Central City Community Plan Area. This context type has many offices and businesses, and is walkable, bikeable and well-supported by public transit. This area has many of the city's historic districts such as Alkali Flat, Washington School, Cathedral Square, etc. and examples of MMH can be found here, typically medium-intensity, block-scale in character. The high-intensity form and mix of uses make this context type distinct from other neighborhoods in Sacramento.

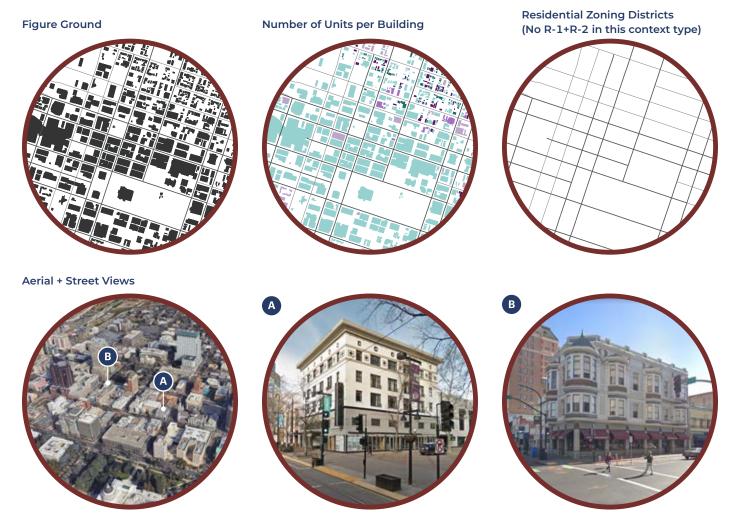
Typical Characteristics

- Connectivity. The Downtown Core context type is very walkable with good access to jobs, institutions, civic centers, schools, open spaces and other amenities.
- **Development pattern.** Streets are organized in a regular connected grid, creating blocks typically 375 to 400 feet in depth with alleys. Buildings are located close to the edge of the sidewalk, and are oriented to the street.
- **Built form.** Buildings are primarily block-scale with some house-scale structures one to two stories tall in the northern edge of the context type.
- **Zoning and uses.** C-2, R-3A, R-4A, C-3, R-5 (multi-unit, commercial).

Summary Characteristics				
Connectivity + Walk	ability	Built Form + Lot Cha	aracteristics	
Intersection Density	very high	Lot Width medium-to-large		
Pedestrian/ Bicycle	high	Lot Depth	varies	
Vehicular	moderate	Parking Access	mainly alley	
Transit Access	high	Building Footprint	large	
Block Length	short	Building Form	mainly block-form	
Transportation Option	ons Supported			
Walking	highly supported			
Biking	highly supported			
Automobile	supported			
Transit	highly supported			

Example of the Downtown Core Context Type: Central City

Note that this context type includes a portion but not all of the Central City Community Plan Area



Which MMH Types Work Best in this Context Type?

Given the higher-intensity nature of this context type, and since it does not contain any of the residential zoning districts being considered for the MMH Analysis, the **Downtown Core context type is not being considered for MMH types as part of the MMH Analysis**. However, existing MMH types do exist in this context type and contribute to the architectural history of this area. While MMH types would physically fit on existing lots, existing regulations and market conditions would likely support larger, more intense residential and mixed-use building typologies.

Which Household Types Would Typically Choose this Context Type?



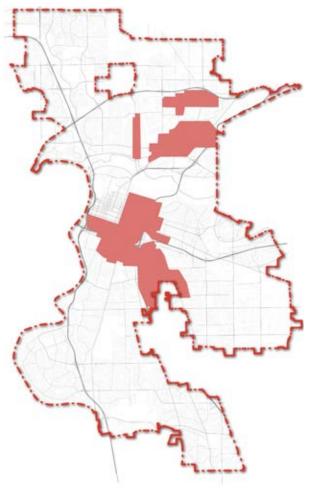






Retirees + Empty-Nesters

Compact + Connected Context Type



Description

The Compact + Connected context type includes places where a person can (easily) walk or bike to home, work, and to fulfill most daily needs, including shopping and recreation. The compact form and mix of uses found in such places readily support public transit, thereby affording flexibility and multi-modal access. These environments allow for the use of automobiles but do not require a car to carry out most daily activities.

Typical Characteristics

- Connectivity. Areas in this context type are walkable and are well-connected to neighborhood retail, schools, jobs, services and open space.
- **Development pattern.** Streets are organized in a regular grid, creating blocks typically 230 to 375 feet in depth with alleys. Buildings face the street with small setbacks.
- Built form. Buildings range from house-scale structures one to two stories in height to block-scale, taller structures in blocks closer to the central core of the city.
- **Zoning and uses.** R-1B, R-1, C-2, R-3A (single-unit, multi-unit, commercial).

Summary Characteristics				
Connectivity + Walkability		Built Form + Lot Cha	racteristics	
Intersection Density	high	Lot Width	small	
Pedestrian/ Bicycle	high	Lot Depth	small-to-medium	
Vehicular	moderate	Parking Access	mainly alley, some front-loaded	
Transit Access	high	Building Footprint	small-to-medium	
Block Length	mostly short	Building Form	mainly house-form, some block-form	
Transportation Option	ons Supported			
Walking	highly supported			
Biking	highly supported			
Automobile	supported			
Transit	highly supported			

Example of the Compact + Connected Context Type: Fruitridge

Figure Ground



Number of Units per Building



Residential Zoning Districts (R-1+R-2)



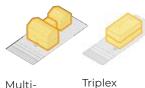
Aerial + Street Views







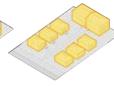
Which MMH Types Work Best in this Context Type?



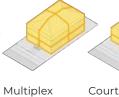




Fourplex



Cottage Court



Courtyard Building



Townhouse



Live-Work

Which Household Types Would Typically Choose this Context Type?



Singles





Families with

Young Children

Larger + Multi-Generational Families

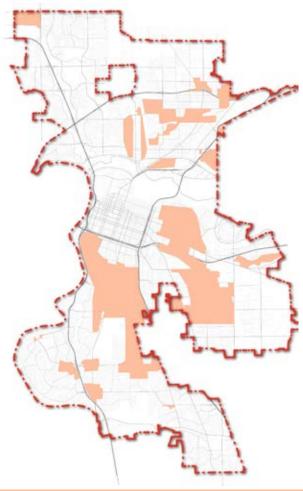


Empty-Nesters



Seniors

Transitional Context Type



Description

The Transitional context type includes those places where a person can walk or bike and a car is needed for some but not all daily trips. While the street network has great potential for promoting pedestrian and bike connectivity, these areas are still somewhat car-reliant. These areas have great potential to transform into walkable neighborhoods with focused connectivity and built form improvements to enable higher access to nearby amenities.

Typical Characteristics

- Connectivity. Areas in this context type have moderate levels of connectivity, with some access to transit and/or bike routes.
- **Development pattern.** Transitional context type areas often have a street grid that supports walkability, but the block lengths in these areas are frequently too long, ranging from 680 to 860 feet, that make these areas less walkable than others.
- **Built form.** Most structures are house-scale and a maximum of two to three stories in height.
- Zoning and uses. Most parcels in these areas are residentially zoned (R-1), with some neighborhood amenity uses, such as corner stores or schools at block corners.

- 1		COTTICTS.				
Summary Characteris	Summary Characteristics					
Connectivity + Walkability		Built Form + Lot Characteristics				
Intersection Density	moderate	Lot Width	small			
Pedestrian/ Bicycle	moderate-to-high	Lot Depth	small-to-medium			
Vehicular	moderate	Parking Access	front-loaded, some alley			
Transit Access	moderate priority	Building Footprint	small-to-medium			
Block Length	long	Building Form	house-form, some block-form			
Transportation Options Supported						
Walking	somewhat supported	_				

supported

somewhat supported

somewhat supported

Biking

Transit

Automobile

Example of the Transitional Context Type: Land Park

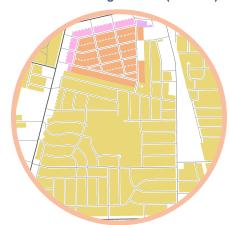
Figure Ground



Number of Units per Building

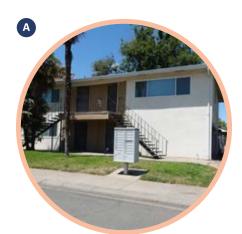


Residential Zoning Districts (R-1+R-2)



Aerial + Street Views







Which MMH Types Work Best in this Context Type?

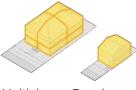














Multi-

Generational House

Duplex

Triplex

Fourplex

Cottage Court

Multiplex

Townhouse

Live-Work

Which Household Types Would Typically Choose this Context Type?















Singles

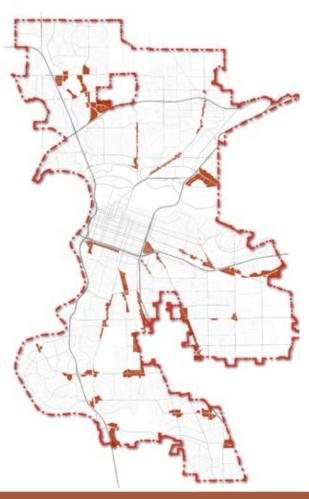
Families with Young Children

Larger + Multi-Generational Families

Empty-Nesters

Seniors

Corridors + Centers Context Type



Description

The Corridors + Centers context type includes areas along the city's major commercial corridors. These areas often have good access to transit and are well connected to a variety of amenities, including retail and recreation. While there are some bicycle routes, these environments are not very pedestrian-friendly and are mostly accessed by car.

Typical Characteristics

- Connectivity. Corridors are characterized by a main arterial with good multimodal access, usually with large commercial uses on either side.
- **Development pattern.** Development is typically characterized by commercial buildings and parking lots. In many parts of the city, these parking lots take up the majority of the frontage of the parcels along the corridor, making them less walkable and pedestrian-friendly.
- **Built form.** Typically, this context type has single-storied commercial buildings with large parking lots in-between.
- Zoning and uses. Corridors are largely zoned for commercial uses with small pockets of residential.

1			
Summary Characteri	stics		
Connectivity + Walkability		Built Form + Lot Cha	racteristics
Intersection Density	high along arterials	Lot Width	small to extra-large (varies)
Pedestrian/ Bicycle	low	Lot Depth	small to extra-large (varies)
Vehicular	high	Parking Access	front-loaded
Transit Access	medium to high	Building Footprint	small-to-large (varies)
Block Length	varies	Building Form	house-form, some block-form
Transportation Option	ns Supported		
Walking	somewhat supported		
Biking	somewhat supported		
Automobile	supported		

supported along most corridors

Transit

Example of the Corridors + Centers Context Type: Folsom Blvd. Corridor, East Sacramento

Figure Ground Number of Units per Building Residential Zoning Districts (R-1+R-2) Aerial + Street Views

Which MMH Types Work Best in this Context Type?

This context type can support MMH of various types, including more intense Upper MMH and mixed-use types such as live-work units. However, given that the residential zoning districts being studied for the MMH Analysis rarely occur in this context type, the Corridors + Centers context type is not being considered for MMH types as part of the MMH Analysis.

Which Household Types Would Typically Choose this Context Type?



Singles

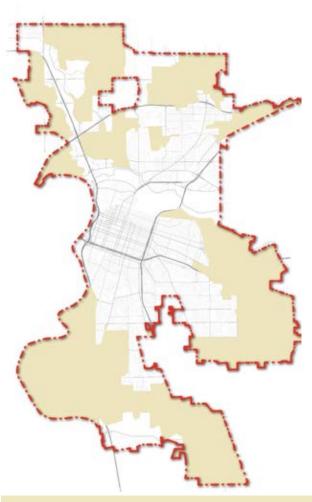






Seniors

Low-Scale Residential Context Type



Description

The Low-Scale Residential context type includes places in which access to work, recreation, retail, and other uses typically requires a car. These areas are not very supportive of walkability at present, and consist of quieter residential neighborhoods with primarily single-family houses.

Typical Characteristics

- Connectivity. Access to amenities and daily needs typically requires a car. Access to transit is not frequent.
- **Development Pattern.** Streets follow a pattern of a major arterial or connector street with local streets branching off to neighborhoods. The street layout features winding roads and cul-de-sacs, and there is no regular grid. Alleys are rarely seen in this context type.
- Built Form. The built form typically consists of one to two-story single-family houses usually with garages in the front, accessed from the street.
- Zoning and Uses. Low-Scale Residential areas are almost exclusively zoned for single-unit housing, with small amounts of multi-unit housing and some commercial uses on major arterials adjacent to neighborhoods.

- 1						
Summary Characteris	Summary Characteristics					
Connectivity + Walka	bility	Built Form + Lot Characteristics				
Intersection Density	low (loops, cul-de-sacs)	Lot Width	medium-to-large			
Pedestrian/ Bicycle	low	Lot Depth	small-to-medium			
Vehicular	high	Parking Access	front-loaded			
Transit Access	low	Building Footprint	small-to-medium			
Block Length	irregular block patterns	Building Form	house-form			
Transportation Options Supported						

Walking	less supported
Biking	somewhat supported
Automobile	supported
Transit	less supported

Example of the Low-Scale Residential Context Type: College Glen

Figure Ground



Number of Units per Building

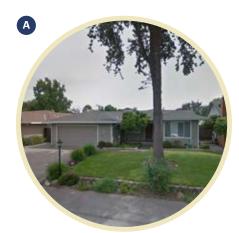


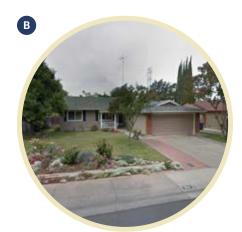
Residential Zoning Districts (R-1+R-2)



Aerial + Street Views







Which MMH Types Work Best in this Context Type?



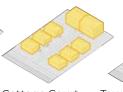
Multi-Generational House



Duplex

Triplex

Fourplex



Cottage Court

Townhouse

Which Household Types Would Typically Choose this Context Type?



Couples



Families with Young Children

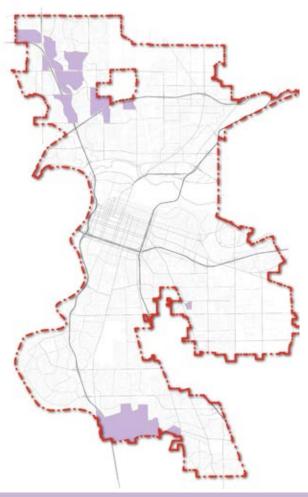


Larger + Multi-Generational Families



Empty-Nesters

Large Infill Sites Context Type



Description

Large Infill Sites include parcels that are large enough to be redeveloped as entire walkable neighborhoods. Examples of these sites are large vacant parcels, or areas undergoing transformation from one use to another, or areas with very large and underutilized parking lots. These sites pose a great opportunity for development, especially when these sites are near transit or other amenities. These infill sites can be transformed into attractive mixed-use neighborhoods with a variety of MMH types.

Typical Characteristics

- Connectivity. Parcels in the Large Infill Sites context type typically do not have much internal connectivity, given their nature and former monofunctional use patterns.
- **Development pattern.** These sites typically feature a few buildings surrounded by large parking lots.
- Built form. Buildings are typically one to two stories tall.
- Zoning and Uses. Uses are typically commercial with a common pattern of strip malls with large parking lots.

1					
Summary Characteri	Summary Characteristics				
Connectivity + Walkability		Built Form + Lot Characteristics			
Intersection Density	very low	Lot Width	extra large		
Pedestrian/ Bicycle	low	Lot Depth	extra large		
Vehicular	moderate	Parking Access	front-loaded		
Transit Access	low	Building Footprint	large		
Block Length	extra long	Building Form	vacant, some block-form		
Transportation Optio	ns Supported				
Walking	less supported	_			
Biking	less supported	_			

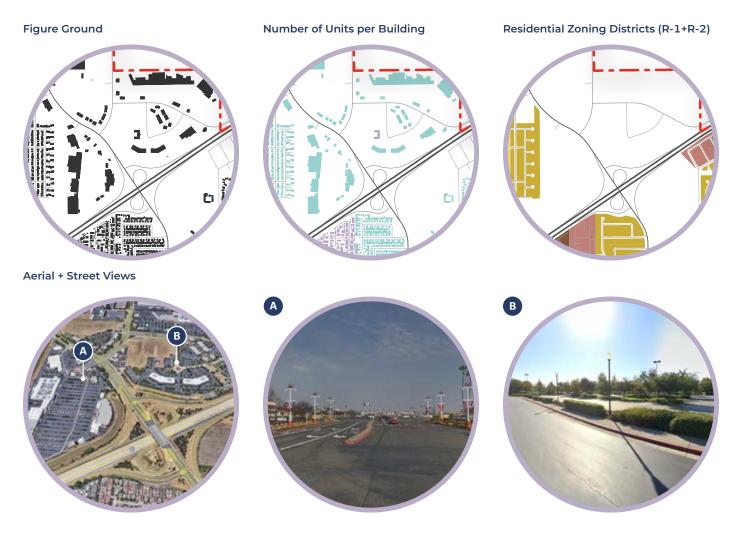
Transit

Automobile

supported

less supported

Example of the Large Infill Sites Context Type: North Natomas



Which MMH Types Work Best in this Context Type?

Because these parcels are large enough to have multiple context types within them, there aren't specific MMH types that can be identified at this time for these areas. Since the Large Infill Sites context type do not contain the residential zoning districts being considered for the MMH Analysis, this context type is not being considered for MMH types at this time. However, such infill sites have tremendous potential to be transformed into vibrant communities in the future with amenities and a mix of housing types including MMH.

Which Household Types Would Typically Choose this Context Type?

The household types would vary depending on the nature of the transformation or future use.

Q CLOSER LOOK

What Does MMH-Ready Mean?

Sacramento's centra core and traditional neighborhoods are very walkable and qualify as MMH neighborhoods.

Some of the newer neighborhoods are characterized by a development pattern that is less pedestrianoriented and assumes automobile use for

In many instances, these neighborhoods share similar physical characteristics as the MMH neighborhoods. With improvements to enable walkability, these areas can readily support MMH types. For this reason, such neighborhoods are described as

Examples of MMH-Ready Neighborhoods

- East Sacramento
- Land Park
- North Sacramento
- Central City

4.6 Applying Missing Middle Housing to Sacramento

Walkability + Types of MMH Neighborhoods

MMH types are most successful when located in a walkable context. While MMH types can be built in an auto-oriented context, it is generally more difficult to attract the same kind of buyers or renters, and it may not deliver the most compact, sustainable patterns of development. It will thus not achieve the desired benefits for residents or builders

Walkability is important because MMH types rely on making the most efficient use of the available space on a lot. By providing fewer off-street parking spaces, more space is available to build additional housing units as well as provide functional open space. Buyers and renters of MMH types are willing

to accept smaller units and smaller or shared backyards for walkable living with easy access to amenities.

Similar to most cities, Sacramento's walkable neighborhoods are those located near its historic core. These areas, along with its other historic districts already support many MMH types. In addition, there are areas that don't fulfill all the criteria for walkability at present but are "compact + connected" or "transitional" in character, with the potential to become more walkable with some focused improvements. These "MMH-ready" neighborhoods can be priority areas for implementing and enabling MMH.

Range of Environments Based on Walkability



Walkable areas (already support MMH)

- Small block lengths
- Well-connected street network with frequent intersections
- Access to transit and amenities.
- Tree-lined sidewalks



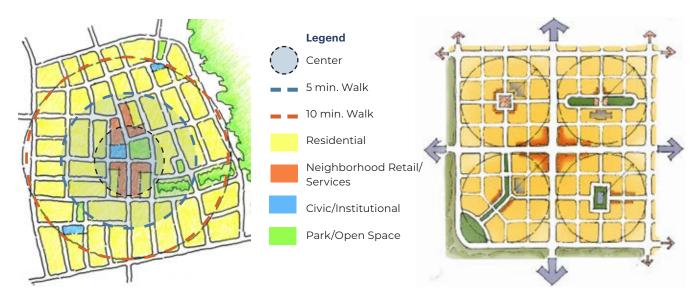
MMH-ready areas (potential to support MMH)

- Mix of block lengths, some larger blocks
- Well-connected street network
- Some access to transit and amenities, potential for improving walkability



Automobile-oriented areas (not ideal for MMH)

- Typically larger blocks
- · Minimally-connected
- Frequent cul-de-sacs
- Single-use areas
- Heavily car-reliant for everyday trips



Proximity to existing or future neighborhood retail, open space, and civic buildings helps to support walkable, MMH-Ready Neighborhoods.

How multiple walkable neighborhoods form a walkable environment around the intersection of two major streets.

Important Characteristics for "MMH-Ready" Neighborhoods

- Smaller block sizes that allow for better multimodal connectivity and encourage walkability by providing more route choices and reducing the walking distance to get between destinations. In general, dead-end streets, cul-de-sacs, and looping streets diminish an area's walkability, while an interconnected grid with through-streets tend to increase walkability.
- Access to bicycle routes provide an alternative to driving for everyday destinations too far to walk to. Safe, convenient, and well-connected bicycle facilities greatly improve walkability and support for MMH.
- Access to amenities and/or mixeduse areas that make it possible to satisfy most daily needs living, working, playing, shopping, dining, worshiping, and socializing without needing to leave the neighborhood. While commuting for work, school, and special trips may still require transit or a car, most daily needs

- should be accessible within a tenminute walk (half a mile).
- Appropriate zoning that allows for a variety of housing types and encourages compact development to support walkability.
- Small to medium lot sizes that promote house-scale development and disincentivize large tracts of identical housing types. Excessive repetition of building forms leads to a monotonoous environment not conducive to walkability..

Neighborhood-Scale Walkable Centers

Smaller walkable centers can go a long way in supporting neighborhood-scale MMH, particularly in MMH-ready neighborhoods. These small mixed-use areas can be easily embedded into or adjacent to residential neighborhoods and provide convenient services for nearby residents. The proximity

to amenities means that multiple daily needs can be met in a single trip made by foot, bike, or car. These neighborhood-scale walkable centers can serve as nodes of local activity that help to enliven a neighborhood and build strong communities.



Incremental Change

Small, incremental changes can be just as important in the long run as big, transformative change. As land use patterns change, opportunities for mixed-use environments arise. For instance, in Sacramento, as in most cities, there are commercial areas, particularly along major transportation corridors, with good access to transit and amenities. Many of these have

under-performing commercial uses, underutilized parking spaces, or both. Such areas are prime sites for transformation over time to mixed-use nodes. Depending on the context, these can support a range of MMH types, including Upper MMH (larger and taller than typical MMH types) as well as larger buildings.

Example of a transformation of an underutilized commercial site to a walkable mixed-use node.



Existing Conditions

Underutilized commercial uses with large parking lot



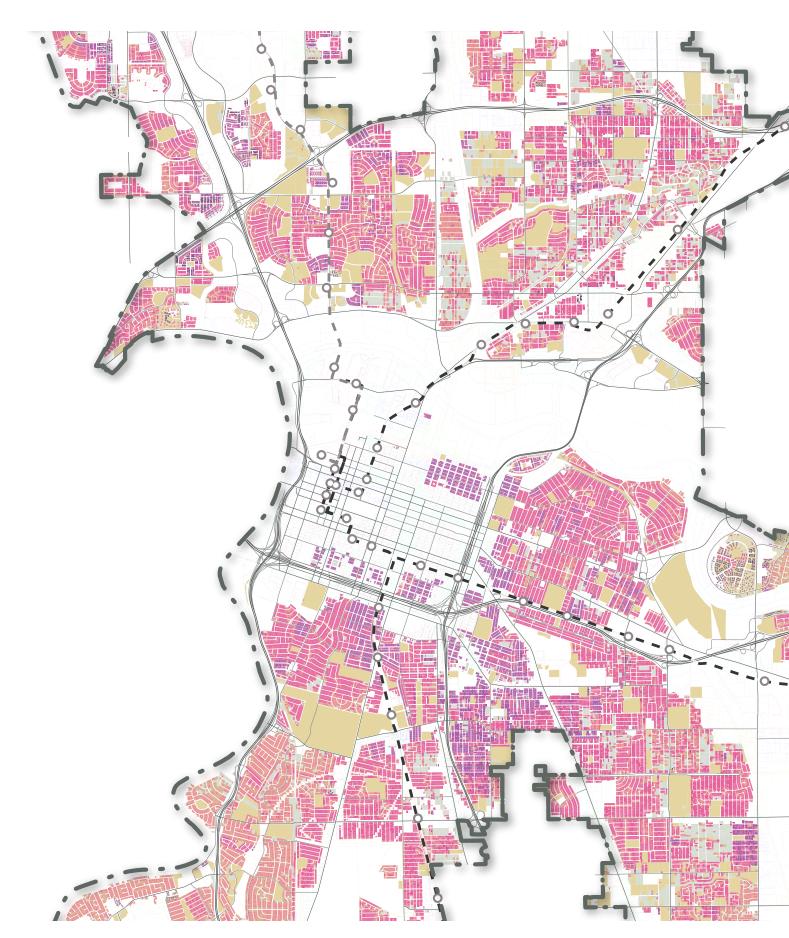
Near-Term Transformation

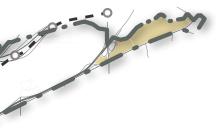
- A Existing buildings
- B Townhouses up to three stories in height
- **C** Four story multiplex on the corner
- Parking is located behind the buildings and accessed from the alley



Long-Term Transformation

- Additional half block develops with taller multiplexes on corners, fourplexes and townhouses
- ADUs or maker spaces could provide affordable work space and activate the alley.

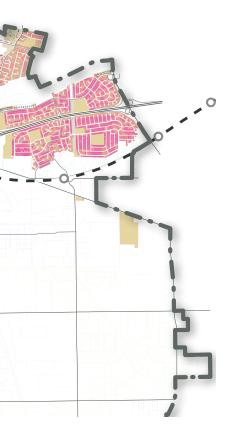




Testing for Feasibility 5

In this chapter

5.1 Lot Category Analysis	100
5.2 Feasibility + Attainability for Missing Middle Housing	104
5.3 Best Practices for Making MMH Feasible	108
5.4 Test Fits Analysis for Livability, Feasibility + Attainability	112



5.1 Lot Category Analysis

By selecting typical lot sizes for test fits specific to each context type, the results generated will be representative of a repeatable condition.

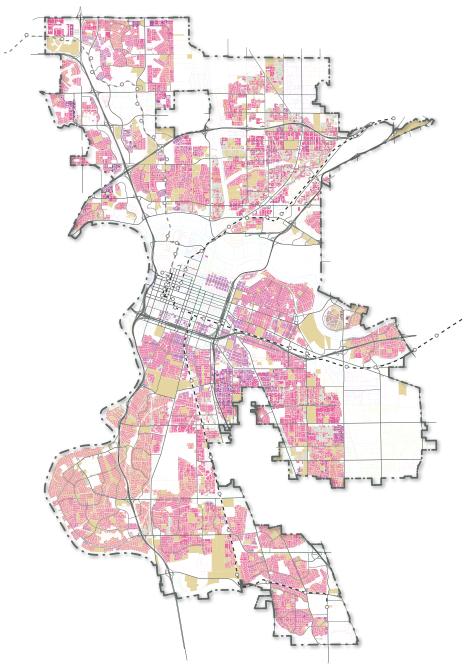
Lot Category Analysis

All existing lots in the city allowing residential uses were analyzed and categorized on the basis of lot widths and depths. This exercise is important because different Missing Middle Housing (MMH) types have distinct dimensions that need minimum lot widths and depths to work effectively, as discussed in Chapter Two of this report. The analysis results were then sorted to identify the most prevalent sizes in each context type. This informed the selection of typical lot sizes for further analysis in the form of test fits, discussed in Section 5.2 of this chapter.

For example, the analysis showed that while there is no single prevalent lot size in Sacramento, **most residential** parcels range from 50 to 60 feet wide by 100 to 105 feet deep, with 19,095 lots zoned R-1, R-1A, R-1B, or R-2 having dimensions within this range. Further analysis revealed that the Compact and Connected context type has smaller

parcels, with widths ranging from 40 to 50 feet; the Transitional context type has medium parcels with typical widths ranging from 50 to 55 feet, and the Low-Scale Residential context type has larger parcels ranging from 55 to 60 feet in width.

The map on the facing page shows the range of lot widths and depths across Sacramento, and the corresponding MMH types that fit in these categories in the legend below. For most building types including MMH, lot width is typically a more critical factor than lot depth. Note that while smaller MMH types such as duplexes can be built on larger lots, builders and property owners may choose to build a MMH type that matches the development potential of the lot.



51%
of parcels in the R-1, R-1A, R-1B, and R-2 zones are
40'-65'
wide and
95'-140'
deep

Lot Categories in Sacramento + MMH Types That Can Fit

For a larger version of this map, refer to Chapter 7 (Appendix) of this report.

Lot Categories	MMH Types	Lot Categories	MMH Types		
15'-29' W <150' D	Townhouse	65'-99' W 90'-175' D	Duplex, Triplex, Fourplex, Multiplex Small, Multiplex		Uncategorized Parcel
	Dunlay Tayrahayaa	30 173 B	Large, Courtyard Bldg		Existing Light Rail
30'-44' W 70'-175' D	Duplex, Townhouse	100'-135' W	Multiplex Large,		Proposed Green Line
45'-64' W 70'-175' D	Duplex, Triplex, Fourplex, Multiplex	100'-250' D	Courtyard Bldg, Cottage Court	0	Light Rail Station + ½ Mile Radius
	Small, Townhouse	135'-200' W >200' D	Cottage Court		W=wide, D=deep

Common Lot Conditions

Lot Size Selection for Test Fits

Based on existing patterns of lot conditions in the city, seven different lot sizes were selected for the test fits, based on several key criteria for MMH.

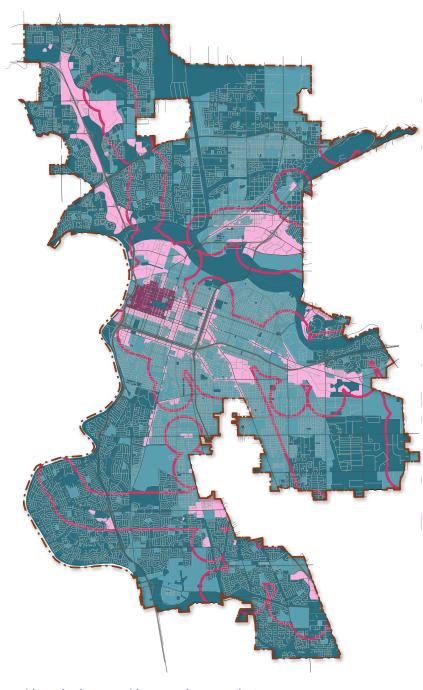
Lot size and parking access. The selected lots included a mix of those with alley access for parking. as well as those with "front-loaded" driveways. This was based on location as well as the prevalent pattern for parking access. In areas which are more walkable, with a gridded block structure and smaller lots, alley access is more common. In more auto-centric areas, with winding roads and cul-desacs, front driveway access is more common. Compared to alley-accessed lots, a lot will need to be wider for the same building type if front-loaded, to accommodate a driveway. For example, the 40x160 lot size with alley access is a common condition in residential parcels within Midtown. 50x100 is a

common condition seen throughout the city, with both alleys and front driveway access. The 60x105 lot size, with front driveway access, is common in residential areas further from the city's central core, which lack transit options and are more auto-reliant.

Parking ratios modeled. Each test fit models parking as well as buildings on a lot and compares the parking provided to existing standards. Since there are several parking districts and overlays which affect required off-street parking, most models show as many parking spaces as can feasibly fit on the lot with that MMH type.

Zoning districts compared. For most test fits, the R-I development standards are used for comparison, since this is the most prevalent zoning district. Other test fits compare to other zoning districts based on where most lots of that size are located in the city.

Lot Conditions Tested		
	Alley Access	Driveway Front-Access
40x160	~	
45x120	✓	
50x100	✓	✓
100x100	✓	~
60x105		~
45x105		~
80x100		~



Parking Districts + Parking Requirements in Sacramento

 $\textbf{Note} : these \ requirements \ apply \ to \ multi-family \ dwellings \ of \ 3 \ or \ more \ units$



No Minimum Parking Required as per AB 2097





CBAE (Central Business and Arts & Entertainment Parking District) (0 sp/du for multi-family)



Suburban Parking District (1.5 sp/du for multi-family)

Urban Parking District (0.5 sp/du for multi-family)

AB 2097 prohibits a public agency from requiring any minimum parking within a 1/2 mile of transit.

AB 2097, adopted on Aug 29, 2022

Q CLOSER LOOK

How is Parking Regulated in Sacramento?

In Sacramento, specific parking districts have been established to ensure that the amount of parking required is aligned with the designated land uses, access to alternate modes of transportation, and the needs of the surrounding community. For instance, areas with a high concentration of commercial centers, offices, and active uses do not have parking requirements (Central Business and Arts & Entertainment parking district), whereas residential areas generally require at least one parking space per unit (Traditional parking district, which sits between these two zones, has parking minimums ranging from 0 to 2 depending on the land use. Comparatively, the Suburban parking district, which consists primarily of single-family neighborhoods, mandates 1 to 2 spaces for most land uses.

The map to the left illustrates the parking minimums for multi-family development across all the parking districts. Additionally, it outlines the areas where AB2097 applies. Under this statute, no parking is required for most development projects situated within a half-mile walking distance of a major transit stop.

5.2 Feasibility + Attainability for Missing Middle Housing

MMH represents not just the "middle" building scale and form, but also relates to its "middle" level of affordability. Historically, MMH was designed to be an attainable choice for middle-income families, made possible by smaller unit sizes, efficient use of land, and cost-saving design features.

In today's housing market, builders and public agencies are able to provide housing for society's wealthiest and, with public subsidy, its lowest-income earners. What is missing is naturally-occurring attainable options for moderate-income households, and low-income households that fall above the income threshold for subsidized housing. This is largely the result of housing policy and land use regulations that make it difficult to build small, attainable, medium-density

housing such as MMH types. The result is that those in the middle of the income spectrum are forced to overpay for housing, or to compete with lower-income households for scarce affordable housing units.

How attainable is MMH in today's housing market? This section explores what is possible given today's land use regulations to discover whether MMH is truly attainable for the middle-income spectrum.

Q CLOSER LOOK

What is Attainable Housing?

When we say housing is "attainable" for a certain income group, we mean that households within that group could afford to own or rent it without spending more than 30 percent of their income on rent or a mortgage payment. When we say MMH is attainable to middle-income households, it refers to those earning between 60 percent and 110 percent of the area median income (AMI), adjusted for family size. In Sacramento, this means the following:

	Are	ea Median Income (AMI), 2022	→ 110%
4-person household	\$61,320	\$102,200	\$112,420
3-person household	\$55,200	\$92,000	\$101,200
2-person household	\$49,050	\$81,750	\$89,925
1-person household	\$42,930	\$71,550	\$78,705

What is Possible Today: A New Single-Family House + ADU



For new construction of a single-family home with an ADU based on current construction costs

What is the Status Quo?

Today, single-family houses are the dominant housing type being built in Sacramento's R-1 and R-2 zones. As the example above shows, a large single-family house is out of the financial reach of most middle-income households. With a sales price of \$1.5 million, it requires an annual income of over \$375,000 or 340 percent of Sacramento's AMI for a family of four.

The example above also includes an ADU, which could be rented for \$1,920 per month to a single-person household earning \$75,000 or 107 percent of Sacramento's AMI. These are based on observed 2022 real estate trends.

While ADUs are allowed, they still make up a relatively small but growing proportion of total housing units produced. For example: 351 were permitted between 2017 and 2021 compared to over 7,078 single-family houses permitted over the same period.

At \$1.5 million, a newly constructed single-family house with an ADU is attainable only to households earning 340% of the area median income.

3,000 sf

Primary unit size

800 sf

ADU size

\$1.5 million

Sale price

For new construction of a single-unit house with an ADU

0.8

Floor area ratio

Data from HCD Annual Housing Element Dashboard.

Attainability assumptions:

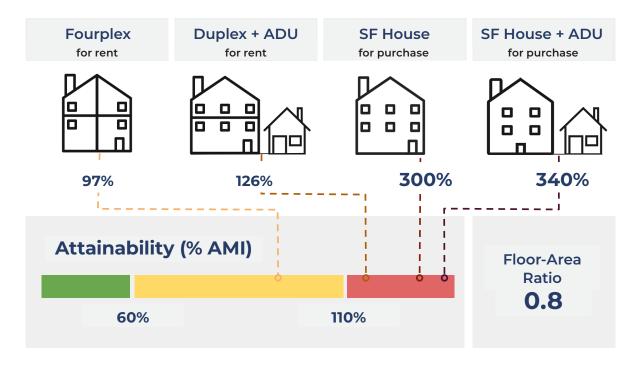
SF Home: 4-person AMI

ADU: 1-person AMI.

Cost to build ADU (\$320,000) factored into purchase price.

Mortgage calculation assumes a 30-year fixed-rate mortgage at 6 percent interest with a 10 percent down payment.

MMH Attainability: Comparing a SF House with a Fourplex and a Duplex + ADU



MMH Attainability	Fourplex	Duplex + ADU	SF House	SF House + ADU
Lot Size (square feet)	4,725	4,725	4,725	4,725
Unit Size (number of primary units)	950 sf (4 units)	1,300 sf (2 units)	3,000 sf (1 unit)	3,000 sf (1 unit)
ADU Size	n/a	1,200 sf	n/a	800 sf
FAR	0.8	0.8	8.0	0.8
Monthly Rent / Mortgage	\$2,195 rent	\$2,898 rent	\$7,554 mortgage	\$9,472 mortgage
ADU Monthly Rent	n/a	\$2,675	n/a	\$1,919
Percent AMI Needed to Afford	97%	126%	300%	340%

Attainability assumptions:

Land costs of \$165,375 with new construction

2022 California HCD AMI \$81,750 for 2-person household (fourplex), \$92,000 for 3-person household (duplex), \$102,200 for 4-person household (SF house), 30-year fixed mortgage of 6% interest and 10% downpayment (for-sale SF house)

How Attainable is MMH?

	Teacher	Police Officer	Doctor
			SYN
Annual Income	\$74,200	\$99,600	\$282,300
SF House Mortgage Burden	153%	114%	40%
Duplex Rent Burden	45%	34%	12%
Fourplex Rent Burden	36%	26%	9%
ADU Rent Burden	31%	23%	8%

Mortgage/rent burden is the percentage of income required to pay the mortgage or rent, in this case the amount needed to make a project feasible.

More Attainability Within the Same Envelope

Large single-family houses are out of reach for most middle-income households (please refer to pg. 106 for middle-income thresholds based on household size). As the chart above shows, it would require more than a doctor's salary to afford this housing type.

As we add more units within the same overall building envelope and lot size, housing can start to become more attainable to middle-income earners like police officers and teachers.

The same efficiencies that made MMH popular and attainable for middle-income earners in the early 20th century still hold true today. By reducing unit size and increasing the number of units within the same building envelope, MMH is more attainable by design.

Assumptions:

Unit sizes:

- ADU = 800 square feet
- Fourplex = 950 square feet (for each unit)
- Duplex = 1,500 square feet (for each unit)
- Single-family house = 3,000 square feet.

Mortgage burden based on a 30-year loan at 6% interest and 10% downpayment.

Monthly mortgage/rent for feasibility:

- ADU: \$1,920
- Fourplex unit: \$2,195
- Duplex unit: \$2,900
- Single-family house + ADU: \$9,475

Wage data source:

BLS, mean wage by 6-digit NAICS code, Sacramento-Roseville-Arden-Arcade, CA (May 2021)

5.3 Best Practices for Making MMH Feasible

This section describes some key strategies that can help promote the feasibility of MMH types.

Since MMH is More Attainable for Middle-Income Households, How Do We Make it More Feasible to Build?

MMH could become an important source of market-rate housing for a range of middle-income households in Sacramento. In order to fulfill that potential, zoning regulations must first be adjusted to allow MMH to be built in a cost-effective manner. These adjustments could include:

- Allowing more units. Allowing builders to build more units within the same building envelope means they can increase the revenue a property can generate, improving project feasibility.
- Reducing required parking. Parking can be costly to build and takes up valuable space that could be used for leasable space. This is especially important for higher-intensity forms of MMH such as fourplexes and sixplexes.
- Limiting the size of detached single-family. MMH will have to compete with other forms of housing for scarce land. Limiting the overall size of a single-family home can help to level the playing field in favor of multi-family residential development.

What is Financial Feasibility? Developing housing involves a range of costs. Builders must pay for land, materials and labor (hard costs), taxes and fees (soft costs) and still be able to justify their investment with a reasonable rate of return (profit). When the expected revenue (rent or sales price) from a project can cover all of its costs and generate an acceptable rate of return (generally ranging from 10-12%), it is considered financially feasible.

Allow More Units

Making MMH feasible starts with allowing more housing units to be built within the same structure. One of the hallmarks of MMH is that it provides more housing but within a similar house-scale form. It does this by including smaller, more efficiently-designed units.

This is important for two reasons. First, smaller units are generally less expensive to rent or own, creating a more affordable housing product than a large single-family home. Second, as units get smaller, the rent or sales price that can be charged per square foot generally increases. However, due to the smaller sizes of these units, the total cost per unit is still lower than that of a large single-family dwelling.

Being able to build multiple units within the same building envelope

can provide a financial incentive, as illustrated in the chart below. In all four examples, the building envelope is the same at 3,800 square feet. As additional units are added from left to right, the individual unit size gets smaller to fit within the same building envelope.

Because the rents generated per square foot increase as the units get smaller, there is an increase in gross revenue as more units are added. So in terms of total rental revenue, the fourplex is more financially viable for an investor than a single-family house of the same size. At the same time, the fourplex provides units at a more attainable price point for a middle-income renter than the single-family house.

Gross Rental Revenue, 45' x 105' Lot, 0.8 FAR



Smaller units generate higher revenues per square feet.

Assumptions:

All housing types are assumed to occur on same sized lot (4,725 square feet), with same overall building area (3,800 square feet).

Two off-street parking spaces assumed per project.

Reduce Parking Requirements

Off-street parking requirements for residential development, sometimes called parking ratios, define how many spaces must be provided for each unit built. When these requirements are set too high, they can significantly impact a project's financial feasibility or worsemake it impossible to build.

As more units are added to a site, more parking spaces are required. Excessive parking takes away space on the lot that could be used to provide trees and open space for the residents. The way parking is accommodated, whether through surface parking, a garage, or underground, also has an impact on the overall project cost.

This issue becomes particularly important on very small lots, or for MMH types with four or more units. As the chart below shows, parking can be the difference between a fourplex that is financially feasible, and one that requires substantial subsidy to be feasible.

In the leftmost example, a fourplex is required to provide two parking spaces per unit. Due to space constraints, parking must be accommodated through internal garages adding cost to the project and reducing leasable area. As a result, this project would be infeasible, or require over \$200,000 in subsidies.

High parking requirements of two spaces per unit make a fourplex infeasible, requiring a large subsidy. Reduced parking makes it feasible without subsidy.

Assumptions:

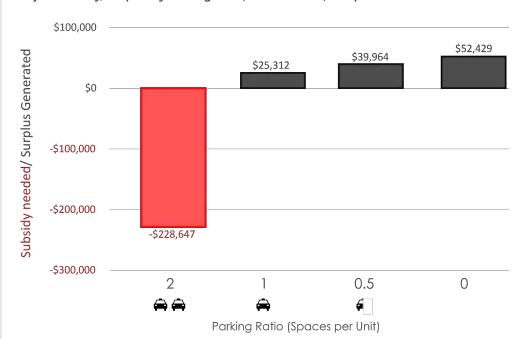
4,725 square feet lot size @\$30/square foot land cost for all housing types

Construction costs: \$215 per square foot. Construction costs per parking space: Surface: \$5,000 Tuck-under: \$25,000

Rent per square foot is assumed constant.

Subsidy/surplus estimated assuming target internal rate of return (IRR) of 12 percent

Project Subsidy/ Surplus by Parking Ratio, 45' x 105' Lot, Fourplex



Limit the Size of Single-Unit Buildings

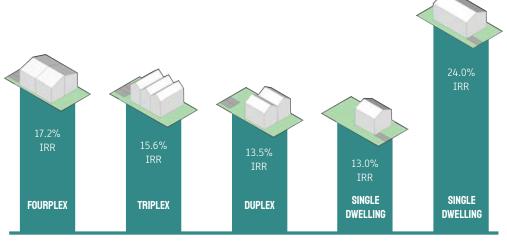
Today, limits on single-family house sizes are set by Sacramento's Planning and Development Code and General Plan. In most of the City's one and two-family zoned neighborhoods, this means, upon adoption of the updated General Plan, a single-family home will be allowed to have a floor-to-area ratio (FAR) of 1.0. For example: on a standard 45' x 105' lot, large (and unattainable) houses could continue to be built - a 4,725 square-foot house will be allowed.

Large homes are not attainable for most Sacramento households, but they are financially feasible and very profitable for builders. Limiting the ability to build these homes could prevent the construction of Sacramento's least attainable housing type and shift the market's focus

toward building smaller structures with more units.

In the chart shown below, the net returns (sales price minus cost) of three housing types are compared: a very large single-family house, a smaller single-family house, and a fourplex. While all three housing types are feasible, this example shows that a large home will likely out-compete a fourplex due to a higher rate of return for the builder. However, when the maximum size of a single-unit house is reduced from 1.0 FAR to 0.5 FAR, the fourplex becomes the most attractive housing type to construct, from a builder's perspective. By eliminating the ability for builders to build very large singleunit homes, it is possible to level the playing field for MMH.

Internal Rate of Return by Building Type + FAR



1 FAR 1,300 Sqft/unit \$450,000/unit 118% MFI .8 FAR 1,387 Sqft/unit \$475,000/unit 125% MFI .6 FAR 1,560 Sqft/unit \$525,000/unit 138% MFI

.4 FAR 2,080 sqft/unit \$650,000/unit 171% MFI .7 FAR 3,500 Sqft/unit \$1,200,000/unit 316% MFI Limiting the size of singleunit houses cuts out the least attainable segment of the housing market and shifts the market toward MMH.

Assumptions:

5,200 square feet lot size @\$30/square foot land costs for all housing types

Construction costs per parking space: Surface: \$5,000 Tuck-under: \$25,000

Construction costs per square foot: Single-unit: \$170 Duplex: \$200 Triplex: \$210 Fourplex: \$215

5.4 Test Fits Analysis for Livability, Feasibility + Attainability

This section illustrates the process of testing various MMH prototypes on typical lot sizes for compatible physical form, financial feasibility and attainability.

Step 1: Test Fit Potential Build-Outs

Context-Specific Design Testing on Typical Lot Sizes

The first step in the test fit process involves the design testing of typical MMH building prototypes on selected lot configurations. This is a critical step in evaluating the following aspects of a viable housing project:

- Compatible physical form with the existing context and desired neighborhood scale.
- Regulatory barriers that may need to be addressed to enable desired MMH types depending on the zoning and other regulations that apply in each context type.

The test fits were performed for a selection of MMH types on typical lot sizes seen in each context type. MMH types were selected from a range of appropriate types identified for each

context type, as discussed in Section 4.5 of Chapter Four of this report. Since specific MMH types have inherent minimum dimensions, the test fits reveal the **impacts and limitations** of lot width and lot depth toward building size and off-street parking.

The test fit process seeks to **optimize** the unit count, off-street parking count and usable open space for a given lot size and the desired building scale and form.

Since this process involves actual building types and site and parking layouts, the results are more precise than numeric calculations based only on density or floor area ratio (FAR) calculations.

Step 2: Test Financial Feasibility

Iterative Process for Feasibility + Attainability

The second step in the test fit process involves evaluating the financial performance of the development program achieved in each test fit for both rental and for-sale market conditions. Feasibility is assessed on the basis of the following metrics:

- Financial feasibility of the selected MMH types within each context type,
- **Attainability** of the feasible types for middle-income earners in Sacramento.

This step includes determining housing "sub-markets" or tiers for both rental and for-sale products, as well as pro-forma

analysis to assess if the project can provide a positive return on a typical builder's investment.

An iterative process was followed for the test fits, using two rounds of design and feasibility analysis. For each round, the development program achieved from the test was analyzed for financial feasibility by the economist team, following the steps outlined below.

Step 1: Prototype Benchmarking

1A: Estimate market value of land

1B: Gather market data for achievable residential rental and sales prices by housing sub-market

1C: Calibrate sale and rental building prototype pro-formas

1D: Calculate minimum feasible rental rate and sales price for each prototype on each of the selected lots

1E: Map the ratio of maximum achievable price to minimum feasible price on each parcel



Step 2: Sensitivity Testing

2A: Chart residual land value (RLV) for benchmark prototype

2B: Chart RLV for additional prototypes

2C: Judge feasibility of additional prototypes relative to the benchmark

2D: Adjust prototypes till desired feasibility is achieved

Test Fits

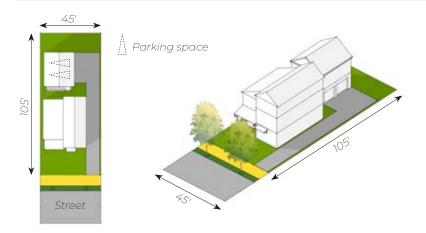
01. Side-by-Side Duplex + ADU

Lot size: 45'x105' (4,725 sq ft lot area) Parking access: Front driveway

Units shown: 2 primary units + 1 ADU (3 total)

Parking shown: 2 spaces

Compared to R-1 development standards



This test fit uses a 45 feet by 105 feet lot with front parking access, a common condition in the Transitional and Low-Scale Residential contexts. The form and scale achieved in this test fit make this MMH type appropriate for the city's lower-intensity residential neighborhoods.

The test fit's build-out is compared to R-1 development standards, since that is the most prevalent zoning district. The Suburban Parking District, Traditional Parking District and AB 2097 parking requirements are considered because this lot

size occurs in parts of the city where these apply.

The test fit as shown would

require a few modifications

to existing R-1 standards. The primary barrier preventing this type from being built as shown are the City's **bulk control standards**. The **driveway setback** required by § 17.508.040.J is also a barrier. For parcels within the R-1A, R-1B, and R-2 zones, this test fit complies with the **number of units allowed**; in R-1, a duplex on a non-corner lot is allowed only under SB 9.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	2 Primary + 1 ADU ¹	1 Primary + 2 ADUs
Height	28 ft	35 ft
Lot Coverage	1,020 sf (22%)	40% or 2,500 sf
Avg Unit Size²	1,148 sf	Not regulated
FAR	0.66	1.O³
Parking	2 sp	0/2 sp min. 4
Front setback	20 ft	20 ft min. ⁵
Side setback	3 ft	3 ft min.
Rear setback	15 ft	15 ft min.
Driveway width	10 ft	10 ft min.
Driveway setback	1 ft	5 ft min.
Lot width	45 ft	52 ft min.
Lot depth	105 ft	100 ft min.
Lot area	4,725 sf	5,200 sf min.
Open Space	100 sf/du	Not required
Bulk control	Not met	Required
Tree shading for parking spaces	None	Not required

Bold text indicates test fit standards that deviate from current standards.

¹Duplexes allowed in the R-1 zone under SB 9.

² Average unit size calculated excluding 528 sf ADU.

³ As proposed in the 2040 General Plan.

⁴Suburban parking district requires 1 sp/du, Traditional parking district requires 1 sp/du, and AB 2097 prohibits parking minimums in many areas. No parking required for ADUs.

⁵ Must match closest existing building(s) on the block; 20' min. if none exist.

02. Single-Unit House + Two ADUs

Lot size: 45'x120' (5,400 sq ft lot area)

Parking access: Alley

Units shown: 1 primary unit + 2 ADUs (3 total)

Parking shown: 2 spaces

Compared to R-1 development standards



This test fit uses a 45 feet by 120 feet lot with alley access, a common condition seen in the Compact + Connected context. This test fit demonstrates how a homeowner could add two ADUs to an existing single-family house.

The test fit's build-out is compared to R-1 development standards, since that is the most prevalent zoning district. The Traditional Parking District and the AB 2097 parking requirements are considered because this lot size occurs in several areas of the city where these apply.

This test fit mostly complies with current regulations, assuming the two-story house at the front of the lot is pre-existing. As with many two-story residential buildings in Sacramento's historic neighborhoods, the City's **bulk control standards** would prevent such a house from being built on this lot today, and the **minimum lot width** required would prevent such a lot from being newly subdivided.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	1 Primary + 2 ADUs	1 Primary + 2 ADUs
Height	23 ft	35 ft
Lot Coverage	1,538 sf (28%)	40% or 2,500 sf
Unit Sizes	2,000 sf. ADUs = 748 sf, 590 sf	Not regulated
FAR	0.62	1.0¹
Parking	2 sp	0/1 sp min.²
Front setback	20 ft	20 ft min. ³
Side setback	3 ft	3 ft min.
Rear setback	5 ft	5 ft min.
Lot width	45 ft	52 ft min.
Lot depth	120 ft	100 ft min.
Lot area	5,400 sf	5,200 sf min.
Open Space	100 sf/du	Not required
Bulk control	Not met ⁴	Required
Tree shading for parking spaces	None	Not Required

 $\mbox{\bf Bold text}$ indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

²Traditional parking district requires 1 sp/du, and AB 2097 prohibits parking minimums in many areas. No parking required for ADUs.

- ³ Must match closest existing building(s) on the block; 20' min. if none exist.
- 4 Existing house does not comply with contemporary bulk control standards; added units do not violate bulk control.

Test Fits

03. Triplex

Lot size: 45'x120' (5,400 sq ft lot area)

Parking access: Alley

Units shown: 3 primary units, no ADU (3 total)

Parking shown: 3 spaces

Compared to R-1 development standards



This test fit uses a 45 feet by 120 feet lot with alley access, a common condition in the Compact + Connected context. This test fit demonstrates how additional units can be provided within a built form compatible with single-family houses. This MMH type is appropriate for walkable, transit-connected, amenity-rich areas.

The test fit's build-out is compared to R-1 development standards, since that is the most prevalent zoning district. The Traditional Parking District and the AB 2097 parking

requirements are considered because this lot size occurs in several parts of the city where these districts apply.

The primary barrier preventing this type from being built is the

number of units permitted, bulk control standards, and the minimum lot width

required. Note that the city allows new construction on a legally-established lot that does not meet current minimum dimensions, as long as the remaining zoning standards are followed.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	3 Primary	1 Primary + 2 ADUs
Height	28 ft	35 ft
Lot Coverage	1,140 sf (21%)	40% or 2,500 sf
Avg Unit Size	1,003 sf	Not regulated
FAR	0.63	1.0¹
Parking	3 sp	0/3 sp min.²
Front setback	20 ft	20 ft min. ³
Side setback	5 ft	3 ft min.4
Rear setback	5 ft	5 ft min.
Lot width	45 ft	52 ft min.
Lot depth	120 ft	100 ft min.
Lot area	5,400 sf	5,200 sf min.
Open Space	100 sf/du	100 sf/du
Bulk control	Not met	Required
Tree shading for parking spaces	Provided	Required

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

² Traditional parking district requires 1 sp/du, and AB 2097 prohibits parking minimums in many areas.

³ Must match closest existing building(s) on the block; 20' min. if none exist.

⁴ Because the lot is below the zone's minimum lot width, minimum side setback is reduced from 5' to 3'.

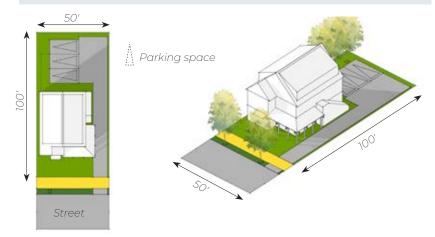
04. Triplex

Lot size: 50'x100' (5,000 sq ft lot area)
Parking access: Front driveway

Units shown: 3 primary units, no ADU (3 total)

Parking shown: 3 spaces

Compared to R-1 development standards



This test fit uses a 50 feet by 100 feet lot with front parking access, a common condition in the Transitional and Low-Scale Residential contexts. This test fit demonstrates house-scale infill with MMH in typical residential neighborhoods.

The test fit's build-out is compared to R-I development standards, since that is the most prevalent zoning district. The Suburban Parking District, Traditional Parking District and the AB 2097 parking requirements are considered because this lot size occurs in several parts of the city where these apply.

Several of the existing R-1 standards are not met by this test fit. It exceeds the permitted **number of units** and does not meet bulk control standards, minimum lot size requirements, the minimum required front setback, buffer between building and parking area to the rear, and the driveway width and setback required by § 17.508. A site of this size cannot accommodate a 24 foot wide "commercial driveway," as required for more than two units.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	3 Primary	1 Primary + 2 ADUs
Height	28 ft	35 ft
Lot Coverage	1,140 sf (21%)	40% or 2,500 sf
Avg Unit Size	1,003 sf	Not regulated
FAR	0.68	1.01
Parking	3 sp + 2 sp on-street	0/3/5sp min.²
Front setback	15 ft	20 ft min. ³
Side setback	3 ft	3 ft min.4
Rear setback	15 ft	15 ft min.
Driveway width	10 ft	24 ft min.
Driveway setback	1 ft	5 ft min.
Lot width	50 ft	52 ft min.
Lot depth	100 ft	100 ft min.
Lot area	5,000 sf	5,200 sf min.
Open Space	100 sf/du	100 sf/du
Bulk control	Not met	Required
Tree shading for parking spaces	Provided	Required

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

- ² Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.
- ³ Must match closest existing building(s) on the block; 20' min. if none exist.
- ⁴ Because the lot is below the zone's minimum lot width, minimum side setback is reduced from 5' to 3'.

Test Fits

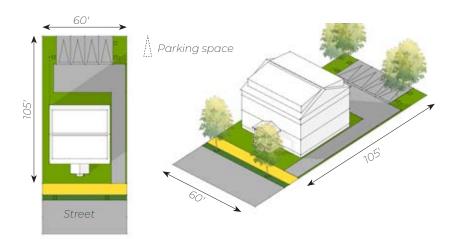
05. Fourplex

Lot size: 60'x105' (6,300 sq ft lot area)

Parking access: Front driveway

Units shown: 4 primary units, no ADU (4 total)

Parking shown: 4 spaces + 2 on-street Compared to R-1 development standards



This test fit uses a 60 feet by 105 feet lot with front parking access, a common condition in the Transitional and Low-Scale Residential contexts. This test fit demonstrates how house-scale MMH can blend in with existing single-unit houses by modifying a few standards in the R-1 zoning district.

The test fit's build-out is compared to R-1 development standards, since that is the most prevalent zoning district. The Suburban Parking District, Traditional Parking District and the AB 2097 parking requirements are considered because this lot occurs in

several parts of the city where these apply.

The primary barriers preventing this type from being built are the number of units permitted, bulk control standards, the minimum front setback, and the driveway width and setback required by § 17.508. A site of this size cannot accommodate a 24 foot wide "commercial driveway," as required for more than two units.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	4 primary	1 Primary + 2 ADUs
Height	32 ft	35 ft
Lot Coverage	1,720 sf (27%)	40% or 2,500 sf
Avg Unit Size	1,097 sf	Not regulated
FAR	0.82	1.01
Parking	4 sp + 2 on-street	0/4/6 sp min.²
Front setback	15 ft	20 ft min. ³
Side setback	5 ft	5 ft min.
Rear setback	15 ft	15 ft min.
Driveway width	10 ft	24 ft min.
Driveway setback	1 ft	5 ft min.
Lot width	60 ft	52 ft min.
Lot depth	105 ft	100 ft min.
Lot area	6,300 sf	5,200 sf min.
Open Space	100 sf/du	100 sf/du
Bulk control	Not met	Required
Tree shading for parking spaces	Provided	Required

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

² Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

³ Must match closest existing building(s) on the block; 20' min. if none exist.

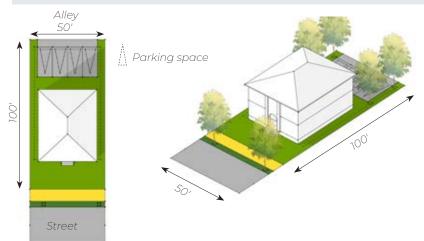
06. Fourplex

Lot size: 50'x100' (5,000 sq ft lot area)

Parking access: Alley

Units shown: 4 primary units, no ADU (4 total)

Parking shown: 4 spaces + 2 on-street Compared to R-1 development standards



This test fit uses a 50 feet by 100 feet lot with alley access, a common condition in the Compact + Connected and Transitional contexts. This test fit demonstrates how house-scale MMH can blend in with existing single-unit houses by modifying a few standards in the R-1 zoning district.

The test fit's build-out is compared to R-I development standards, since that is the most prevalent zoning district. The Suburban Parking District, Traditional Parking District and the AB 2097 parking requirements are considered because this lot occurs in

several parts of the city where these districts apply.

The primary barriers preventing this type from being built are the number of units permitted, lot width and area and bulk control standards.

Because the lot is narrower than the minimum width required by the zone, existing regulations allow the side setback to be reduced from five feet to three feet; this enables older, narrower lots to accommodate housing types that would otherwise be unbuildable.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	4 Primary	1 Primary + 2 ADUs
Height	22.5 ft	35 ft
Lot Coverage	1,624 sf (32%)	40% or 2,500 sf
Avg Unit Size	690 sf	Not regulated
FAR	0.65	1.01
Parking	4 sp + 2 on-street	0/4/6 sp min.²
Front setback	20 ft	20 ft min. ³
Side setback	5 ft	3 ft min.⁴
Rear setback	5 ft	5 ft min.
Lot width	50 ft	52 ft min.
Lot depth	100 ft	100 ft min.
Lot area	5,000 sf	5,200 sf min.
Open Space	100 sf/du	100 sf/du
Bulk control	Not met	Required
Tree shading for parking spaces	Provided	Required

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

² Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

³ Must match closest existing building(s) on the block; 20' min. if none exist.

⁴Because the lot is below the zone's minimum lot width, minimum side setback is reduced from 5' to 3'.

Test Fits

07. Cottage Court

Lot size: 2x50'x100' (2x5,000 sq ft lot area)

Parking access: Alley

Units shown: 3 primary units per lot, no ADU (6 total) Parking shown: 3 spaces per lot (6 total) + 4 on-street

Compared to R-1 development standards



This test fit assumes that two 50-feet wide lots adjacent to each other can be acquired by a builder. The two parcels are modeled and tested as individual lots, rather than one combined lot. This lot size, with an alley condition, is common in the Compact + Connected and Transitional contexts.

This model demonstrates how smaller, detached units can be clustered around a shared green space to provide additional housing choices...

The test fit's build-out is compared to R-1 development standards, since that is the most prevalent zoning district.

The Suburban Parking District, Traditional Parking District and the AB 2097 parking requirements are considered because this lot occurs in several parts of the city where these districts apply.

The primary barriers preventing this type from being built are the number of units permitted, the minimum required buffer between building and parking, minimum front setback, lot width and minimum lot area.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	3¹ Primary	1 Primary + 2 ADUs
Height	19 ft	35 ft
Lot Coverage	1,584 sf (16%)	40% or 2,500 sf ¹
Avg Unit Size	528 sf	Not regulated
FAR	0.32	1.0 ²
Parking	3 sp + 2 on-street¹	0/3/3 sp min. ^{1,3}
Front setback	9 ft	20 ft min. 4
Side setback	3 ft	3 ft min.5
Rear setback	5 ft	5 ft min.
Lot width	50 ft ¹	52 ft min.
Lot depth	100 ft	100 ft min.
Lot area	5,000 sf ¹	5,200 sf min.
Open Space	100 sf/du	100 sf/du
Bulk control	Met	Required
Tree shading for parking spaces	Provided	Required

Bold text indicates test fit standards that deviate from current standards.

¹Per 50x100 parcel.

²As proposed in the 2040 General Plan.

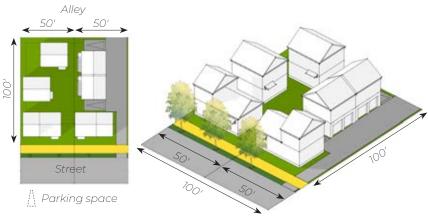
³Traditional and Suburban parking districts require 1 sp/du, but AB 2097 prohibits parking minimums in many areas.

4Must match closest existing building(s) on the block; 20' min. if none exist.

⁵ Because each lot is below the zone's minimum lot width, minimum side setback is reduced from 5' to 3'.

08. Cottage Court

Lot size: 100'x100' (10,000 sq ft lot area) Parking access: Front driveway Units shown: 6 primary units, no ADU Parking shown: 6 spaces + 3 on-street Compared to R-1 development standards



This test fit assumes that two 50-feet wide lots adjacent to each other can be acquired by a builder and developed as one project. This model demonstrates how smaller, detached units can be clustered around a shared green space to provide additional housing choices...

This test fit assumes a front driveway for access, a condition common in the Transitional and Low-Scale Residential contexts.

R-1 development standards are considered, along with the Suburban Parking District, Traditional Parking District and the AB 2097 parking

requirements because this lot size occurs in several parts of the city where these apply.

The primary barriers preventing this type from being built are the number of units permitted, bulk control standards, minimum front setback, parking lot tree shading requirements, and minimum required **buffer** between building and parking. The driveway width and setback required by § 17.508 are also barriers; a site of this size cannot accommodate a 24 foot wide "commercial driveway," as required for more than two units.

Shown in Test Fit	Existing R-1 Standards
6 Primary	1 Primary + 2 ADUs
19 ft	35 ft
3,476 sf (35%)	40% or 2,500 sf
1,056 sf + 484 sf	Not regulated
0.52	1.01
6 sp + 3 on-street	0/6/6 sp min.²
9 ft	20 ft min. ³
5 ft	5 ft min.
5 ft	15 ft min.
10 ft	24 ft min.
1 ft	5 ft min.
100 ft	52 ft min.
100 ft	100 ft min.
10,000 sf	5,200 sf min.
100 sf/du	100 sf/du
Not met	Required
Not met	Required
	Test Fit 6 Primary 19 ft 3,476 sf (35%) 1,056 sf + 484 sf 0.52 6 sp + 3 on-street 9 ft 5 ft 10 ft 1 ft 100 ft 10,000 sf 100 sf/du Not met

current standards.

¹As proposed in the 2040 General Plan.

² Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

³ Must match closest existing building(s) on the block; 20' min. if none exist.

Test Fits

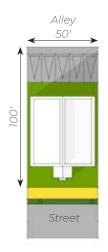
09. Sixplex

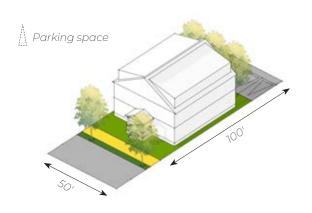
Lot size: 50'x100' (5,000 sq ft lot area)

Parking access: Alley

Units shown: 6 primary units, no ADU (6 total)

Parking shown: 5 spaces + 2 on-street Compared to R-1 development standards





This test fit uses a 50 feet by 100 feet lot with alley access, a common condition in the Compact + Connected and Transitional contexts. The test fit demonstrates house-scale infill appropriate for many residential neighborhoods, particularly in areas with good access to transit and amenities.

The test fit's build-out is compared to R-1 development standards, since that is the most prevalent zoning district. The Suburban Parking District, Traditional Parking District and the AB 2097 parking requirements are considered

because this lot size occurs in several parts of the city where these apply.

The primary barriers preventing this type from being built are the number of units permitted, bulk control standards, the maximum FAR proposed in the 2040 General Plan, the Suburban district parking requirements, the minimum front setback and minimum open space requirements.

Test Fit Build-Out	t	
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	6 Primary	1 Primary + 2 ADUs
Height	30 ft	35 ft
Lot Coverage	2,200 sf (44%)	40% or 2,500 sf
Avg Unit Size	935 sf	Not regulated
FAR	1.32	1.01
Parking	5 sp + 2 on-street	0/6/9 sp min.²
Front setback	15 ft	20 ft min. ³
Side setback	3 ft	3 ft min.
Rear setback	5 ft	5 ft min.
Lot width	50 ft	52 ft min.
Lot depth	100 ft	100 ft min.
Lot area	5,000 sf	5,200 sf min.
Open Space	50 sf/du	100 sf/du
Bulk control	Not met	Required
Tree shading for parking spaces	Provided	Required

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

² Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

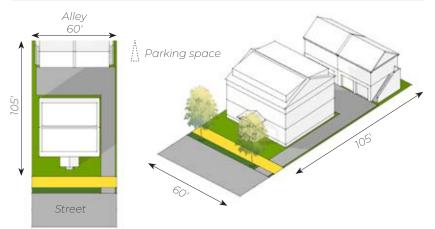
³ Must match closest existing building(s) on the block; 20' min. if none exist.

10. Fourplex + Two ADUs

Lot size: 60'x105' (6,300 sq ft lot area) Parking access: Front driveway

Units shown: 4 primary units + 2 ADUs (6 total)

Parking shown: 4 spaces + 2 on-street Compared to R-2 development standards



This test fit uses a 60 feet by 105 feet lot with front parking access, a common condition in the Transitional and Low-Scale Residential contexts. The test fit demonstrates house-scale infill appropriate for many residential neighborhoods, particularly in areas with access to amenities.

The test fit's build-out is compared to R-I development standards, since that is the most prevalent zoning district. The Suburban Parking District, Traditional Parking District and the AB 2097 parking requirements are considered because this lot size occurs in

several parts of the city where these apply.

The primary barriers preventing this type from being built are the number of units permitted, bulk control standards, the minimum front setback, and the minimum open space. The driveway width and setback required by § 17.508 are also barriers; a site of this size cannot accommodate a 24 foot wide "commercial driveway," as required for more than two units.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-2 Standards
# of Units (du)	4 Primary + 2 ADUs	2 Primary + 2 ADUs
Height	32 ft	35 ft
Lot Coverage	1,976 sf (31%)	40% or 2,500 sf
Avg Unit Size¹	1,097 sf	Not regulated
FAR	0.99	1.0 ²
Parking	4 sp + 2 on-street	0/4/6 sp min. *
Front setback	15 ft	20 ft min.
Side setback⁵	5 ft	5 ft min.
Rear setback ⁵	15 ft	15 ft min.
Driveway width	10 ft	24 ft min.
Driveway setback	1 ft	5 ft min.
Lot width	60 ft	52 ft min.
Lot depth	105 ft	100 ft min.
Lot area	6,300 sf	5,200 sf min.
Open Space	0 sf/du	100 sf/du
Bulk control	Not met	Required
Tree shading for parking spaces	None	Not Required

Bold text indicates test fit standards that deviate from current standards.

¹Average unit size calculated without ADUs

² As proposed in the 2040 General Plan.

³ Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

⁴ Must match closest existing building(s) on the block; 20' min. if none exist.

⁵ Setback requirements are reduced for ADUs.

Test Fits

11. Eightplex

Lot size: 40'x160' (6,400 sq ft lot area)

Parking access: Alley

Units shown: 8 primary units, no ADU (8 total)

Parking shown: 4 spaces + 2 on-street Compared to R-1B development standards



This test fit uses a 40 feet by 160 feet lot with alley access, a common condition in Midtown, and in the Compact + Connected context. The test fit demonstrates a more intense MMH type, with a scale and form appropriate for this context, that can increase housing choice in walkable, transit-connected, and amenity-rich areas of the city.

The test fit's build-out is compared to R-1B development

standards prevalent in the central core. AB 2097 applies in this area, with no minimum parking required.

The primary barriers to building this type are the number of units permitted, bulk control standards, the minimum front setback, parking lot shading requirements, the minimum required buffer between building and parking, and the minimum open space.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1B Standards
# of Units (du)	8 Primary	2 Primary + 2 ADUs
Height	32 ft	35 ft
Lot Coverage	3,335 sf (52%)	60%
Avg Unit Size	1,063 sf	Not regulated
FAR	1.56	2.01
Parking	4 sp	0 sp min.²
Front setback	10 ft	20 ft min. ³
Side setback	5 ft	3 ft min.
Rear setback	5 ft	5 ft min.
Lot width	40 ft	40 ft min.
Lot depth	160 ft	80 ft min.
Lot area	6,400 sf	3,200 sf min.
Open Space	90 sf/du	100 sf/du
Bulk control	Not met	Required
Tree shading for parking spaces	Not met	Required

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

²Urban parking district requires .5 sp/du, but AB 2097 prohibits parking minimums in this area

³ Must match closest existing building(s) on the block; 20' min. if none exist.

Note:

Historical preservation standards and considerations will need to be complied with and all projects affecting historic districts will be required to undergo a historic preservation design review process.

12. Sixplex + Two ADUs

Lot size: 50'x100' (5,000 sq ft lot area)

Parking access: Alley

Units shown: 6 primary units + 2 ADUs (8 total)

Parking shown: 4 spaces + 2 on-street Compared to R-1 development standards



This test fit uses a 50 feet by 100 feet lot with alley access, a common condition in the Compact + Connected and Transitional contexts. This model demonstrates how greater intensity, where appropriate, can be accomplished by modifying a few standards in the R-1 zone.

The test fit's build-out is compared to R-1 develoment standards, since that is the most prevalent zoning district. Suburban Parking District, Traditional Parking District and the AB 2097 parking requirements are considered

because this lot size occurs in several parts of the city where these apply.

The primary barriers preventing this type from being built are the number of units permitted, bulk control standards, the Suburban district parking requirements, the maximum FAR, and the minimum front setback.

Test Fit Build-Out		
	Shown in Test Fit	Existing R-1 Standards
# of Units (du)	6 Primary + 2 ADUs	1 Primary + 2 ADUs
Height	30 ft	35 ft
Lot Coverage	1,736 sf (35%)	40% or 2,500 sf
Avg Unit Size¹	666 sf	Not regulated
FAR	1.13	1.02
Parking	4 sp + 2 on-street	0/6/9 sp min. ³
Front setback	10 ft	20 ft min. 4
Side setback⁵	5 ft	3 ft min.
Rear setback ⁵	5 ft	5 ft min.
Lot width	50 ft	52 ft min.
Lot depth	100 ft	100 ft min.
Lot area	5,000 sf	5,200 sf min.
Open Space	0 sf/du	100 sf/du
Bulk control	Not met	Required
Tree shading for parking spaces	None	Not Required

Bold text indicates test fit standards that deviate from current standards.

¹Average unit size calculated without ADUs

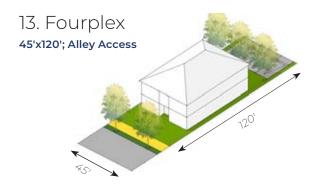
²As proposed in the 2040 General Plan.

³ Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

⁴ Must match closest existing building(s) on the block; 20' min. if none exist.

⁵ Setback requirements are reduced for ADUs.

Other Test Fits





Test Fit Build-Out			
	Test Fit	R-1 Stds.	
# of Units (du)	4 Primary	1 Primary + 2 ADUs	
Height	20 ft	35 ft	
Lot Coverage	2,160 sf (40%)	40% or 2,500 sf	
Avg. Unit Size	918 sf	Not regulated	
FAR	0.8	1.01	
Parking	4 sp	0/4sp min.²	
Front setback	20 ft	20 ft min.	
Side setback	3.5 ft	3 ft min.	
Rear setback	5 ft	5 ft min.	
Open Space	100 sf/du	100 sf/du	
Bulk control	Not met	Required	
Shaded parking	Provided	Required	
Bold text indicates test fit standards that deviate from current standards.			

current standards.

¹As proposed in the 2040 General Plan.

²Traditional parking district requires 1 sp/du, and AB 2097 prohibits parking minimums in many areas.

This test fit meets all standards except **number of** units per lot and bulk control standards.

Test Fit Build-Out			
	Test Fit	R-1 Stds.	
# of Units (du)	4 Primary	1 Primary + 2 ADUs	
Height	22 ft	35 ft	
Lot Coverage	2,150 sf (34%)	40% or 2,500 sf	
Avg.Unit Size	914 sf	Not regulated	
FAR	0.68	1.01	
Parking	4 sp + 2 on- street	0/4/6 sp min.²	
Front setback	10 ft	20 ft min.	
Side setback	5 ft	5 ft min.	
Rear setback	15 ft	15 ft min.	
Driveway width	10 ft	24 ft min.	
Driveway setback	1 ft	5 ft min.	
Open Space	100 sf/du	100 sf/du	
Bulk control	Not met	Required	
Shaded parking	Provided	Required	

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

²Suburban and Traditional parking districts require 1.5 sp/ du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

This test fit does not meet the permitted **number** of units per lot, bulk control standards, front setback, driveway width and setback per § 17.508, or Suburban District parking requirements.

15. Fourplex



Test Fit Build-Out		
	Test Fit	R-1 Stds.
# of Units (du)	4 Primary	1 Primary + 2 ADUs
Height	22.5 ft	35 ft
Lot Coverage	1,600 sf (25%)	40% or 2,500 sf
Avg.Unit Size	680 sf	Not regulated
FAR	0.51	1.01
Parking	6 sp + 1 on- street	0/4/6 sp min.²
Front setback	20 ft	20 ft min.
Side setback	5 ft	5 ft min.
Rear setback	15 ft	15 ft min.
Driveway width	10 ft	24 ft min.
Driveway setback	5 ft	5 ft min.
Open Space	50 sf/du	100 sf/du
Bulk control	Not met	Required
Shaded parking	Not met	Required

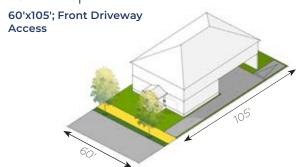
Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

²Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

This test fit does not meet the permitted **number** of units per lot, bulk control standards, minimum driveway width, parking lot shading requirements, or minimum open space requirements.

16. Fourplex



Test Fit Build-Out		
	Test Fit	R-1 Stds.
# of Units (du)	4 Primary	1 Primary + 2 ADUs
Height	22 ft	35 ft
Lot Coverage	2,170 sf (34%)	40% or 2,500 sf
Avg.Unit Size	914 sf	Not regulated
FAR	0.82	1.01
Parking	4 sp + 2 on- street	0/4/6 sp min.²
Front setback	20 ft	20 ft min.
Side setback	5 ft	5 ft min.
Rear setback	15 ft	15 ft min.
Driveway width	10 ft	24 ft min.
Driveway setback	1 ft	5 ft min.
Open Space	0 sf/du	100 sf/du
Bulk control	Not met	Required
Shaded parking	Not met	Required

Bold text indicates test fit standards that deviate from current standards.

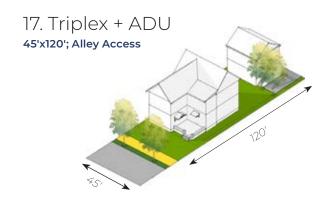
¹As proposed in the 2040 General Plan.

²Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

This test fit does not meet the permitted **number** of units per lot, bulk control standards, minimum driveway width and setback per § 17.508, parking lot shading or minimum open space requirements.

Other Test Fits

Note: these test fits were part of the physical compatibility and regulatory analysis, but not evaluated for financial feasibility. These are being included nere to provide additional information.



Test Fit Build-Out			
	Test Fit	R-1 Stds.	
# of Units (du)	3 Primary + 1 ADU	1 Primary + 2 ADUs	
Height	23 ft	35 ft	
Lot Coverage	1,327 sf (25%)	40% or 2,500 sf	
Avg. Unit Size	752 sf ¹	Not regulated	
FAR	0.59	1.0²	
Parking	3 sp	0/3 sp min.³	
Front setback	20 ft	20 ft min.	
Side setback	3 ft	3 ft min.	
Rear setback	5 ft	5 ft min.	
Open Space	100 sf/du	100 sf/du	
Bulk control	Not met	Required	
Shaded parking	Provided	Required	
Bold text indicates te	est fit standards t	nat deviate from	

Bold text indicates test fit standards that deviate from current standards.

¹Average unit size calculated without considering ADUs.

 $^{\mathbf{2}}\text{As}$ proposed in the 2040 General Plan.

³Traditional parking district requires 1 sp/du, and AB 2097 prohibits parking minimums in many areas.

This test fit meets all standards except **number of units per lot** and **bulk control standards**.





Test Fit Build-Out		
	Test Fit	R-1A Stds.
# of Units (du)	2 Primary + 2 ADUs	2 Primary + 2 ADUs
Height	28 ft	35 ft
Lot Coverage	1,276 sf (16%)	50%
Avg.Unit Size	1,148 sf + 528 sf	Not regulated
FAR	0.42	1.0 ¹
Parking	4 sp	0/2/3 sp min.²
Front setback	12 ft	20 ft min.
Side setback	5 ft	0 ft min.
Rear setback	5 ft	15 ft min.
Driveway width	10 ft	10 ft min.
Driveway setback	3.5 ft	5 ft min.
Open Space	100 sf/du	100 sf/du
Bulk control	Not met	Required
Shaded parking	Not met	Required

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

²Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

This test fit meets R-1A standards except minimum front and rear setbacks, bulk control standards, buffer between building and parking, parking lot shading and driveway setback per § 17.508.040.J.



Test Fit Build-Out		
	Test Fit	R-1 Stds.
# of Units (du)	2 Primary ¹	1 Primary + 2 ADUs
Height	28 ft	35 ft
Lot Coverage	1,020 sf (22%)	40% or 2,500 sf
Avg.Unit Size	1,148 sf	Not regulated
FAR	0.55	1.0 ²
Parking	2 sp	0/2/2 sp min. ³
Front setback	20 ft	20 ft min.
Side setback	3 ft	3 ft min.
Rear setback	15 ft	15 ft min.
Driveway width	10 ft	10 ft min.
Driveway setback	1 ft	5 ft min.
Open Space	100 sf/du	100 sf/du
Bulk control	Not met	Required
Shaded parking	Provided	Required

Bold text indicates test fit standards that deviate from current standards.

¹Duplexes are allowed in the R-1 zone under SB 9 provisions.

²As proposed in the 2040 General Plan.

³Suburban and Traditional parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

This test fit does not meet the permitted **number of units per lot**, **bulk control standards**, or minimum **driveway setback** per § 17.508.040.J.





Test Fit Build-Out			
	Test Fit	R-1 Stds.	
# of Units (du)	1 Primary + 2 ADUs	1 Primary + 2 ADUs	
Height	30 ft	35 ft	
Lot Coverage	2,335 sf (37%)	40% or 2,500 sf	
Avg.Unit Size ¹	2,230 sf	Not regulated	
FAR	0.77	1.0²	
Parking	1sp	1 sp min. ³	
Front setback	20 ft	20 ft min.	
Side setback	5 ft	5 ft min.	
Rear setback	15 ft	15 ft min.	
Driveway width	10 ft	10 ft min.	
Driveway setback	5 ft	5 ft min.	
Open Space	100 sf/du	100 sf/du	
Bulk control	Met	Required	
Shaded parking	None	Required	

Bold text indicates test fit standards that deviate from current standards.

¹Average unit size calculated without considering ADUs.

²As proposed in the 2040 General Plan

³Suburban parking districts require 1.5 sp/du and 1 sp/du, respectively, and AB 2097 prohibits parking minimums in many areas.

⁴Setback requirements are reduced for ADUs

This test fit meets all R-1 standards.

Other Test Fits

Note: these test fits were part of the physical compatibility and regulatory analysis, but not evaluated for financial feasibility. These are being included nere to provide additional information.



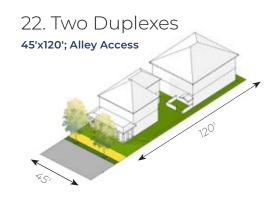
Test Fit Build-Out			
	Test Fit	R-1B Stds.	
# of Units (du)	6 Primary	2 Primary + 2 ADUs	
Height	22 ft	35 ft	
Lot Coverage	2,685 sf (42%)	60%	
Avg. Unit Size	652 sf + 1,304 sf	Not regulated	
FAR	0.84	2.0 1	
Parking	3 sp + 1 on- street	0/6 sp min.²	
Front setback	20 ft	20 ft min.	
Side setback	5 ft	3 ft min.	
Rear setback	5 ft	5 ft min.	
Open Space	100 sf/du	100 sf/du	
Bulk control	Not met	Required	
Shaded parking	Provided	Required	

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

²Traditional parking district requires 1 sp/du, and AB 2097 prohibits parking minimums in many areas.

This test fit meets all standards except the **number of units per lot**, **bulk control standards**, and the Traditional District **parking requirement**.



Test Fit Build-Out		
	Test Fit	R-1 Stds.
# of Units (du)	4 Primary	1 Primary + 2 ADUs
Height	20 ft	35 ft
Lot Coverage	2,570 sf (48%)	40% or 2500 sf
Avg.Unit Size	899 sf + 1,362 sf	Not regulated
FAR	0.95	1.01
Parking	1 sp on- street	0/4 sp min.²
Front setback	20 ft	20 ft min.
Side setback	5 ft	3 ft min.
Rear setback	5 ft	5 ft min.
Open Space	100 sf/du	100 sf/du
Bulk control	Not met	Required
Shaded parking	None	Not Required

Bold text indicates test fit standards that deviate from current standards.

¹As proposed in the 2040 General Plan.

²Traditional parking district requires 1 sp/du, and AB 2097 prohibits parking minimums in many areas.

This test fit does not meet the permitted **number** of units per lot, max lot coverage, bulk control standards, or the Traditional District parking requirement.

This page left blank intentionally.

Test Fits Summary: Context Types

This table summarizes the appropriateness of each test fit for each context type. This determination of "appropriateness" is done on the basis of the level of connectivity and walkability, the lot size used for the test fits, and parking access (the presence or lack of an alley).

Key	
×	Test fit is not
	appropriate for context
/	Test fit is appropriate for context

Test Fits: Compatibility by Context Type				
	Compact + Connected	Transitional	Low-Scale Residential	
01 Side-by-Side Duplex + ADU with Front Driveway Access	×	~	~	
02 Single-Unit House + Two ADUs with Alley Access	✓	~	~	
03 Triplex with Alley Access	✓	✓	×	
04 Triplex with Front Driveway Access	×	~	✓	
05 Fourplex with Front Driveway Access	×	~	~	
06 Fourplex with Alley Access	✓	✓	×	
07 Cottage Court with Alley Access	✓	×	×	
08 Cottage Court with Front Driveway Access	×	~	~	
09 Sixplex with Alley Access	✓	✓	×	
10 Fourplex + Two ADUs with Front Driveway Access	✓	~	×	
Il Eightplex with Alley Access	✓	×	×	
12 Sixplex + Two ADUs with Alley Access	~	×	×	

Additional test fits were carried out to further test the findings from the initial round of 12 test fits. The appropriateness of these test fits are summarized below.

Additional Test Fits: Compatibility by Context Type				
	Compact + Connected	Transitional	Low-Scale Residential	
13 Fourplex with Alley Access	✓	×	×	
14 Fourplex with Front Driveway Access	×	~	~	
15 Fourplex with Front Driveway Access	×	~	~	
16 Fourplex with Front Driveway Access	×	~	~	
17 Triplex + ADU with Alley Access	✓	×	×	
18 Cottage Court + Duplex with Front Driveway Access	×	~	~	
19 Duplex with Front Driveway Access	×	~	~	
20 Single-unit House + Two ADUs with Front Driveway Access	×	×	~	
21 Sixplex with Alley Access	~	×	×	
22 Two Duplexes with Alley Access	✓	×	×	

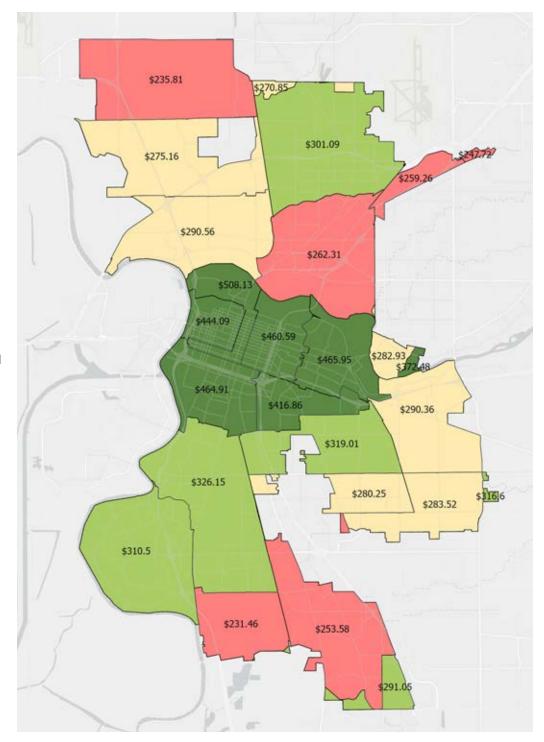
Key	
×	Test fit is not
	appropriate for context
/	Test fit is appropriate for context

Financial Feasibility Testing for Test Fits

Sub-Markets Identified in Sacramento by Zip Code: For-Sale

Rental and For-Sale Sub-Markets

Analyzing data from Costar and real estate sites such as Redfin, the team economist identified sub-markets for both rental and for-sale housing in Sacramento, grouped by zip code as shown in the maps on these pages. Four sub-markets were identified for each category, ranging from static to strong. Note that the market strengths for rental and for-sale do not always overlap by zip code - for example, some areas that are "static" rental markets are "transitional" or "emerging" markets for home sales.



Sales Score (Sales price per square foot) Source: Redfin, Costar





Emerging

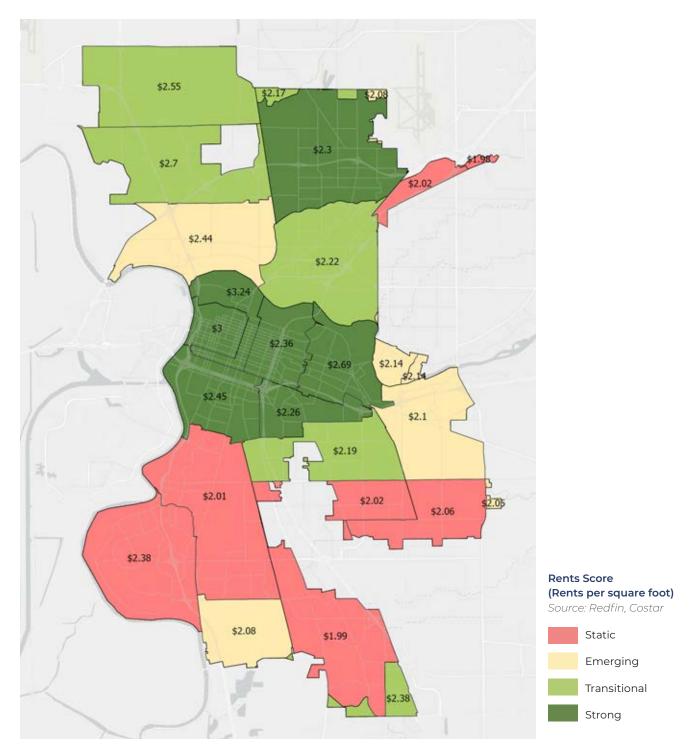


Transitional



Strong

Sub-Markets Identified in Sacramento by Zip Code: Rental



Test Fits Feasibility: For-Sale

Feasibility Testing Summary

12 test fits were analyzed for financial feasibility as either rental or for-sale products, depending on the product type and context where that type is likely to occur. Some MMH types were tested as both rental and for-sale products. Note that real estate markets are constantly evolving and products currently not feasible may become feasible in the near term. The charts also include Area Median Income (AMI) information based on the MMH type and size (number of bedrooms, etc) that affect how attainable the type may be. Note that an MMH type may be attainable in AMI terms based on size and type, but may not be feasible under current market conditions because of factors such as construction costs.

Feasibility of MMH: For-Sale

The chart to the right highlights the viability of the selected test fits as for-sale products:

- Test Fit 04. Triplex [3 total units]
 50'x100' lot | 3 pkg. spaces | 0.68 FAR
 1,003 sf avg. unit size | 3-person household
 Feasible in strong but not feasible in static,
 emerging and transitional sub-markets.
- Test Fit 05. Fourplex [4 total units]
 60'x105' lot | 4 pkg. spaces | 0.82 FAR
 1,097 sf avg. unit size | 4-person household
 Feasible in strong but not feasible in static,
 emerging and transitional sub-markets.
- Test Fit 06. Fourplex [4 total units]
 50'x100' lot | 4 pkg. spaces | 0.65 FAR
 690 sf avg. unit size | 3-person household
 Feasible in strong but not feasible in static,
 emerging and transitional sub-markets.
- Test Fit 08. Cottage Court [6 total units] 100'x100' lot | 6 pkg. spaces | 0.52 FAR 1,056, 484 sf avg. unit sizes | 3-person household

Feasible in strong but not feasible in static, emerging and transitional sub-markets.

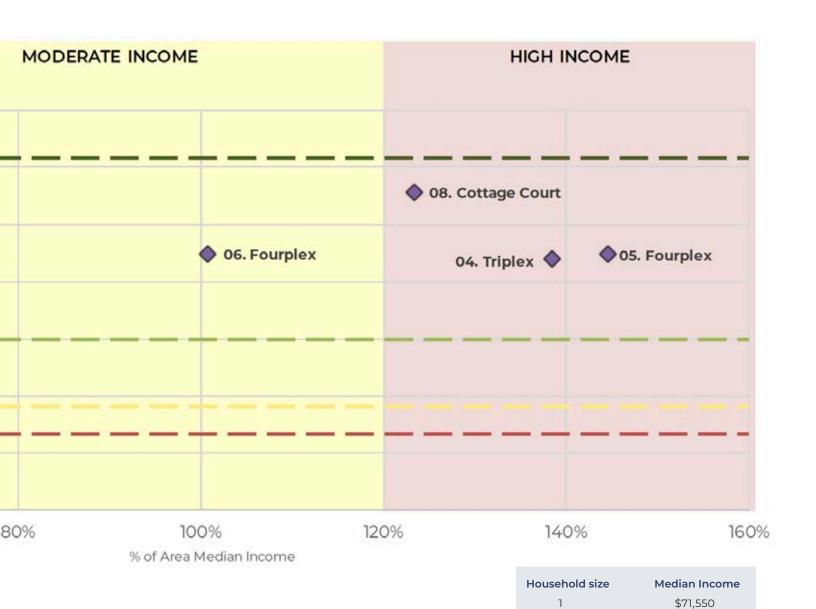
Feasibility of Selected Test Fits as For-Sale Products



Sales Price by Sub-Market

Source: Redfin, Costar

- Minimum Feasible Sales Price/ Sq Ft
- -- Static Market Sales Price
- -- Emerging Malket Sales Price
- Transitional Market Sales Price
- -- Strong Market Sales Price



2

3

\$81,750

\$92,000 \$102,200

Household size determined by unit size,

@ 400 square feet per person Source: 2022 HUD Income Limits

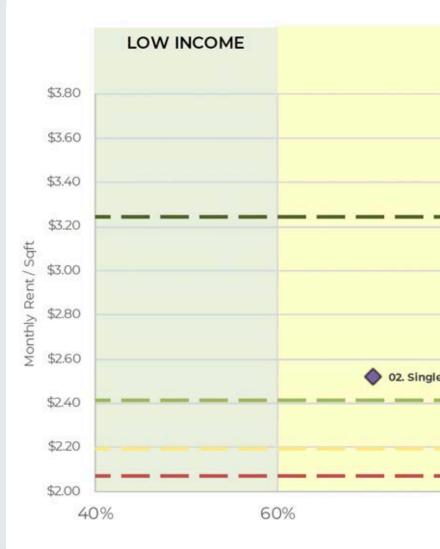
Test Fits Feasibility: Rental

Feasibility of MMH: Rental

The chart to the right highlights the viability of the selected test fits as rental products. The minimum feasible rent is compared to existing rent thresholds in strong, static, emerging and transitional sub-markets.

- Test Fit 01. Side-by-Side Duplex + 1 ADU
 [3 total units]
 45'x105' lot | 2 pkg. spaces | 0.66 FAR
 1,148 sf avg. unit size | 3-person household
 Feasible in strong but not feasible in static,
 emerging and transitional sub-markets.
- Test Fit 02. Single-Unit House + 2 ADUs
 [3 total units]
 45'x120' lot | 2 pkg. spaces | 0.62 FAR | 2,000,
 748, 590 sf unit sizes | 2-person household
 Feasible in strong markets but not in static
 and emerging markets; nearly feasible in
 transitional markets.
- Test Fit 03. Triplex [3 total units]
 45'x120' lot | 3 pkg. spaces | 0.63 FAR
 1,003 sf avg. unit size | 3-person household
 Feasible in strong but not feasible in static,
 emerging, and transitional sub-markets.
- Test Fit 05. Fourplex [4 total units]
 60'x105' lot | 4 pkg. spaces | 0.82 FAR
 1,097 sf avg. unit size | 4-person household
 Feasible in strong but not feasible in static,
 emerging and transitional sub-markets.
- Test Fit 06. Fourplex [4 total units]
 50'x100' lot | 4 pkg. spaces | 0.65 FAR
 690 sf avg. unit size | 3-person household
 Feasible in strong but not feasible in static,
 emerging and transitional sub-markets.
- Test Fit 07. Cottage Court [6 total units]
 2 of 50'x100' lots | 6 pkg. spaces | 0.32 FAR |
 528 sf avg. unit size | 2-person household
 Minimum feasible rent is above all market rates;
 not currently feasible.

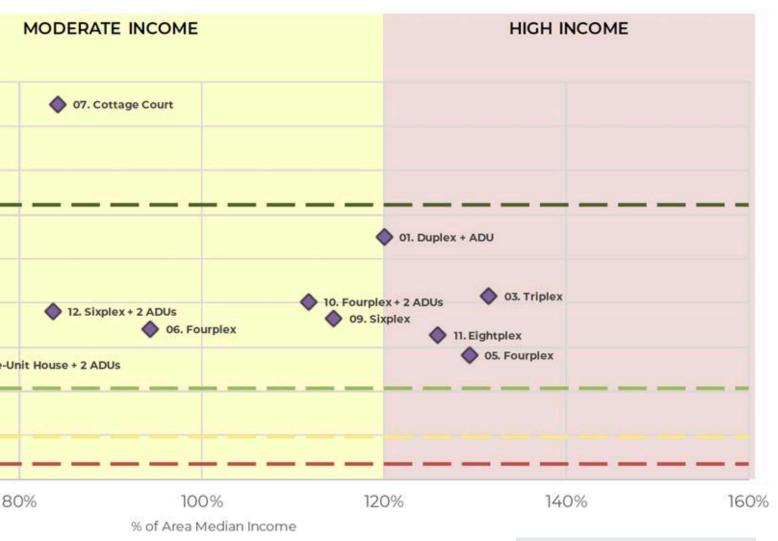
Feasibility of Selected Test Fits as Rental Products



Rents by Sub-Market

Source: Redfin, Costar

- Minimum Feasible Rent/ Sq Ft
- --- Static Market Rent
- --- Emerging Malket Rent
- --- Transitional Market Rent
- **- -** Strong Market Rent



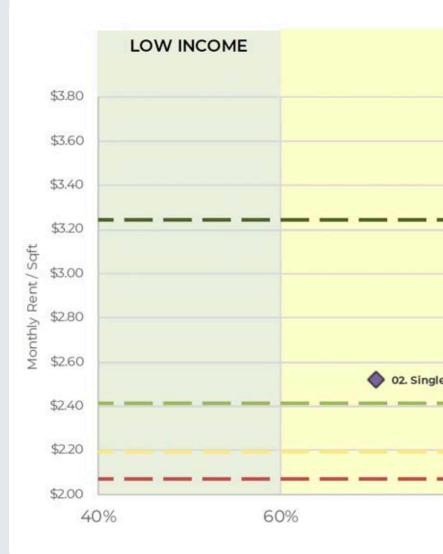
Household size	Median Income
1	\$71,550
2	\$81,750
3	\$92,000
4	\$102,200

Household size determined by unit size, @ 400 square feet per person Source: 2022 HUD Income Limits

Test Fits Feasibility: Rental (contd.)

- Test Fit 09. Sixplex [6 total units]
 50'x100' lot | 5 pkg. spaces | 1.32 FAR
 935 sf avg. unit size | 3-person household
 Feasible in strong but not feasible in static, emerging and transitional sub-markets.
- Test Fit 10. Fourplex + 2 ADUs [6 total units]
 60'x105' lot | 4 pkg. spaces | 0.99 FAR
 1,097 sf avg. unit size | 3-person household
 Feasible in strong but not feasible in static,
 emerging and transitional sub-markets.
- Test Fit 11. Eightplex [8 total units]
 40'x160' lot | 4 pkg. spaces | 1.56 FAR
 1,063 sf avg. unit size | 3-person household
 Feasible in strong but not feasible in static,
 emerging and transitional sub-markets.
- ■Test Fit 12. Sixplex + 2 ADUs [8 total units] 50'x100' lot | 4 pkg. spaces | 1.13 FAR 666 sf avg. unit size | 3-person household Feasible in strong but not feasible in static, emerging and transitional sub-markets.

Feasibility of Selected Test Fits as Rental Products



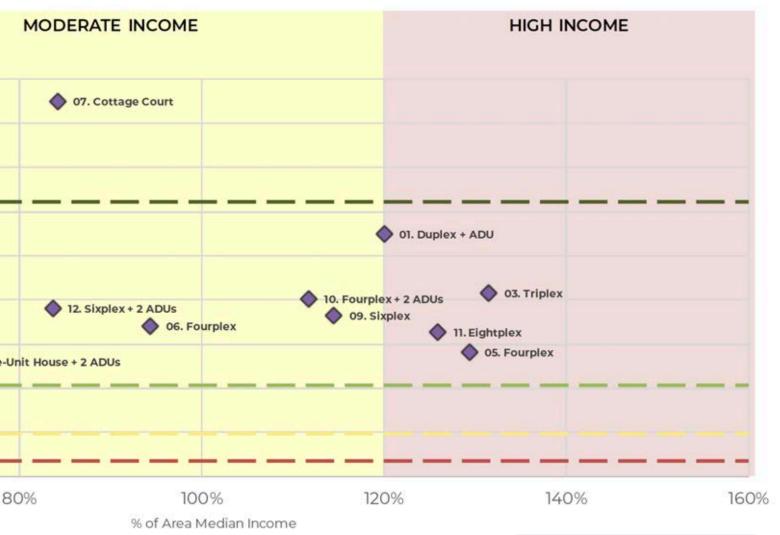
Rents by Sub-Market

Source: Redfin, Costar

- Minimum Feasible Rent/ Sq Ft
- **---** Static Market Rent
- --- Emerging Malket Rent
- --- Transitional Market Rent
- **---** Strong Market Rent

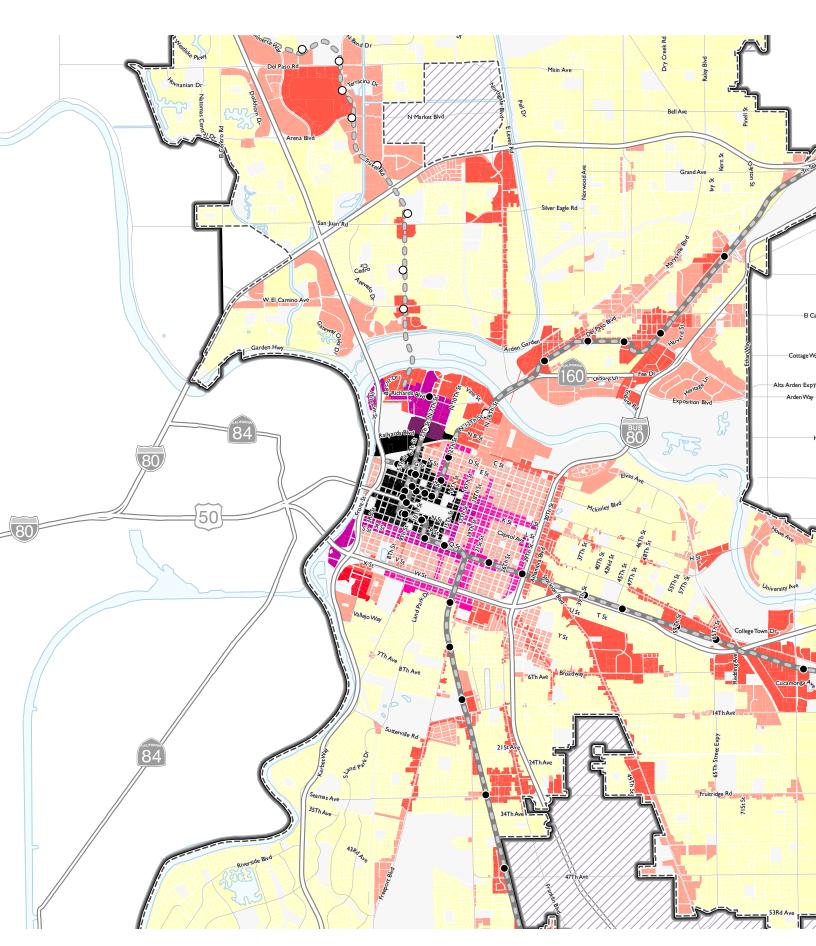
Note:

The chart below is the same as on the previous page, it is repeated here for clarity



Household size	Median Income
1	\$71,550
2	\$81,750
3	\$92,000
4	\$102,200

Household size determined by unit size, @ 400 square feet per person Source: 2022 HUD Income Limits





Zoning and Policy Analysis

CHAPTER 6

In this chapter

6.1 Zonling Barriers to Housing Diversity	144
6.2 Limiting Factors to Missing Middle Housing, Explained	152
6.3 Policy Analysis for Missing Middle Housing	164

6.1 Zoning Barriers to Housing Diversity

To achieve the desired MMH types identified for each context type in Sacramento, applicable zoning standards and other regulations must be studied to identify barriers.

How do Sacramento's Context Types Influence Regulatory Analysis?

As previously discussed in Chapter Four, each of the six context types identified in Sacramento has distinct physical characteristics, and the Missing Middle Housing (MMH) types proposed should complement the existing form, scale and character of the built environment.

The Compact + Connected,
Transitional, and Low-Scale
Residential contexts are the focus
areas for different MMH types since
these three contexts have the zoning
districts this study focuses on (namely
R-1, R-1A, R-1B, and R-2) and have
consistent patterns of lot sizes which
can be tested for repeatable scenarios.

Since the goal of the MMH Study is to enable MMH in the R-1, R-1A, R-1B and R-2 zoning districts, the current zoning regulations must be first examined to understand how to enable the desired housing types. Each MMH type has a range of lot sizes, building heights, setbacks and parking conditions in which they can fit. Through comparing the typical requirements of these MMH types to what is allowed by current regulations, the barriers to

current regulations, the barriers to providing more of these housing options can become evident. This in turn, will inform recommendations as part of this study.

Context Types identified in Sacramento. For more information, refer to Chapter Four of this report.



Downtown Core



Compact + Connected



Transitional



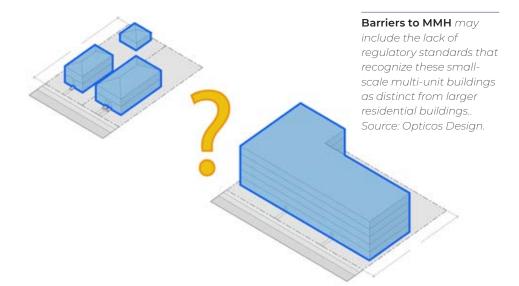
Low-Scale Residential



Corridors + Centers



Large Infill Sites



Critical Regulations to Potentially Limit MMH Types

Although Sacramento's R-1, R-1A, R-1B and R-2 zoning districts regulate many aspects of development, there are certain standards that are more critical than others in enabling MMH types. The following standards were analyzed to evaluate if they could support the envisioned MMH for each context type:

- Maximum units per lot. The total number of units (including primary and ADU units) permitted on a lot.
- Maximum floor area ratio (FAR)*.
 The maximum floor area that can be built on a lot, expressed as a ratio of built-up floor area to lot area.
- Minimum lot size. The minimum area (in square feet) and lot width (in feet) required to develop new housing on a lot. To a lesser degree, lot depth can be limiting as well.
- Maximum lot coverage. The percentage of a lot's area that may be occupied by the building footprint.
- Minimum setbacks. The minimum distance a building, parking and driveway must be set back from the front, side or rear property lot lines.
- Maximum height. The maximum allowed vertical dimension for a building, in feet or number of stories.

- Bulk control standards. In the R-1, R-1A, R-1B, and R-2 zoning districts, Sacramento places limitations on where the building's volume may be placed to minimize its visual impact.
- Minimum open space. The minimum amount (in square feet) of open space required per unit.
- Minimum off-street parking. The minimum number of parking spaces required on a lot, per dwelling unit.
- **Driveway standards.** Required driveway width and placement.
- Tree shading requirement. Tree shading is required in Sacramento for unenclosed parking.
- Housing types. Types of residential and/or mixed-use buildings allowed and their regulations.

The tables on the following pages summarize the analysis for these regulatory barriers by context type, and the subsequent pages provide further explanation.

* Note:

The maximum FAR values used in this report are based on the new land use intensity standards proposed in the Draft 2040 General Plan.

Matrix of Analysis: Compact + Connected



This table reviews the residential zoning regulations that apply within the Compact + Connected context type and identifies those that are limiting the desired range of MMH types from being built. Considering how amenity-rich, transit-connected, and walkable this context is, a maximum of eight units on a lot (including primary units and ADUs) is considered as the upper limit for MMH types. Based on the test fits in Chapter Five that tested the desired range of MMH types on commonly occurring lot sizes within this context type, the regulations that limited the MMH test fits from being built have been summarized by zoning district below.

Key

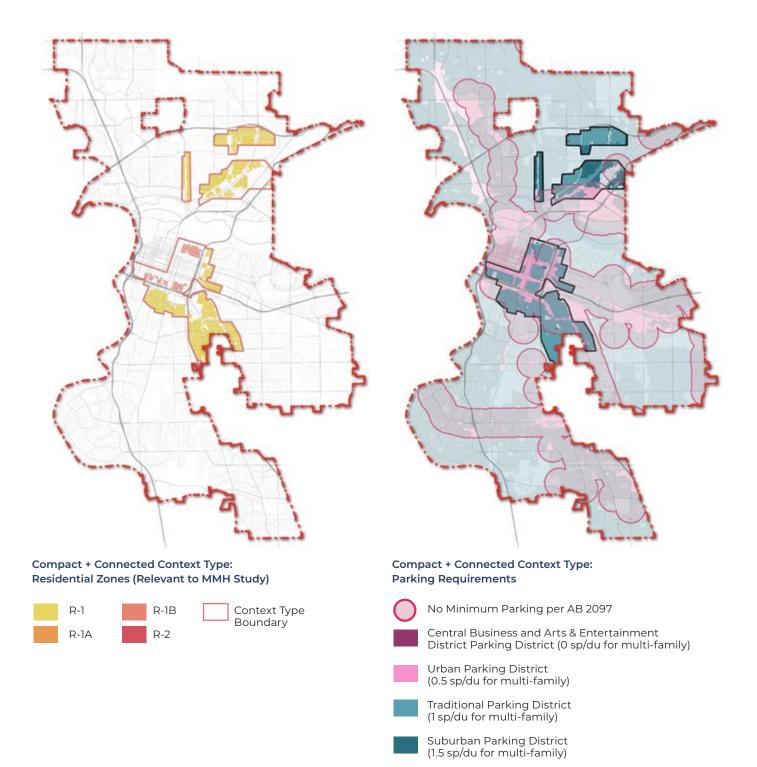
- Standard is a significant limiting factor to MMH
- Standard is a minor limiting factor to MMH
- Standard enables
 MMH and is not a limiting factor

Note:

Parking is frequently a major barrier to MMH. In Sacramento, since there are several parking districts with different parking requirements, the impacts on MMH vary. While the test fits include parking, it would not be a requirement in areas where AB 2097 applies, as shown in the map on the facing page.

*As proposed by the Draft 2040 General Plan.

Summary of Regulatory Analysis for MMH: Compact + Connected Context Type					
	R-1	R-1A	R-1B	R-2	
Max Number of Units (du/lot)					
Max. FAR*	✓	~	~	~	
Min. Lot Size	✓		~	~	
Max. Lot Coverage	✓	~	~	~	
Min. Front Setback	•	•	•	•	
Min. Side Setback	~	~	~	~	
Min. Rear Setback	~	~	~	~	
Max. Height	~	~	~	~	
Bulk Control Standards					
Min. Open Space	•	•		•	
Parking: Urban Parking District	~	-	~	-	
Parking: Traditional Parking District	~	~	~	~	
Parking: Suburban Parking District			-		
Driveway Standards					



Matrix of Analysis: Transitional



This table reviews the residential zoning regulations that apply within the Transitional context type and identifies those that are limiting the desired range of MMH types from being built. Considering that this context type is amenity-rich and has some access to transit, a maximum of six units on a lot (including primary units and ADUs) is considered as the upper limit for MMH types. Based on the test fits in Chapter Five that tested the desired range of MMH types on commonly occurring lot sizes within this context type, the regulations that limited the MMH test fits from being built have been summarized by zoning district below.

Key

- Standard is a significant limiting factor to MMH
- Standard is a minor limiting factor to MMH
- Standard enables MMH and is not a limiting factor

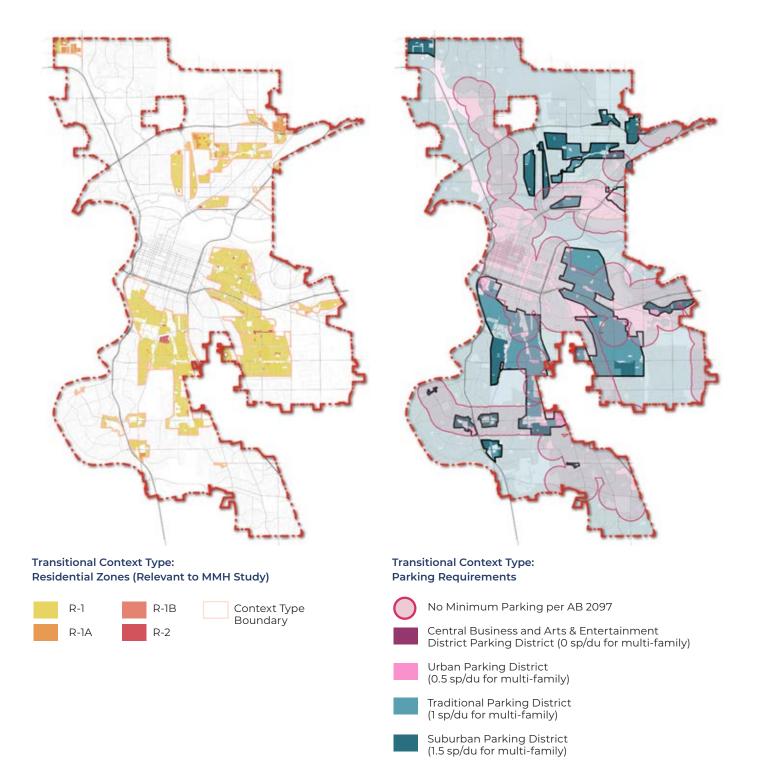
Note:

Parking is frequently a major barrier to MMH. In Sacramento, since there are several parking districts with different parking requirements, the impacts on MMH vary. While the test fits include parking, it would not be a requirement in areas where AB 2097 applies, as shown in the map on the facing page.

*As proposed by the Draft 2040 General Plan.

** R-1B is not mapped within the Transitional context type.

Summary of Regulatory Analysis for MMH: Transitional Context Type						
	R-1	R-1A	R-1B**	R-2		
Max Number of Units (du/lot)			-			
Max. FAR*	~	~	-	~		
Min. Lot Size	✓		-	~		
Max. Lot Coverage	✓	~	-	~		
Min. Front Setback			-			
Min. Side Setback	~	~	-	~		
Min. Rear Setback	~	~	-	~		
Max. Height	~	~	-	~		
Bulk Control Standards			-			
Min. Open Space	•	•	-	•		
Parking: Urban Parking District	-	-	-	-		
Parking: Traditional Parking District	~	~	-	~		
Parking: Suburban Parking District	~	~	-	~		
Driveway Standards			-			



Matrix of Analysis: Low-Scale Residential



This table reviews the residential zoning regulations that apply within the Low-Scale Residential context type and identifies those that are limiting the desired range of MMH types from being built. Considering the existing auto-reliant single-family neighborhoods in this context type, a maximum of four units on a lot (including both primary units and ADUs) is considered as the upper limit for MMH types. Based on the test fits in Chapter Five that tested the desired range of MMH types on commonly occurring lot sizes within this context type, the regulations that limited the MMH test fits from being built have been summarized by zoning district below.

Key

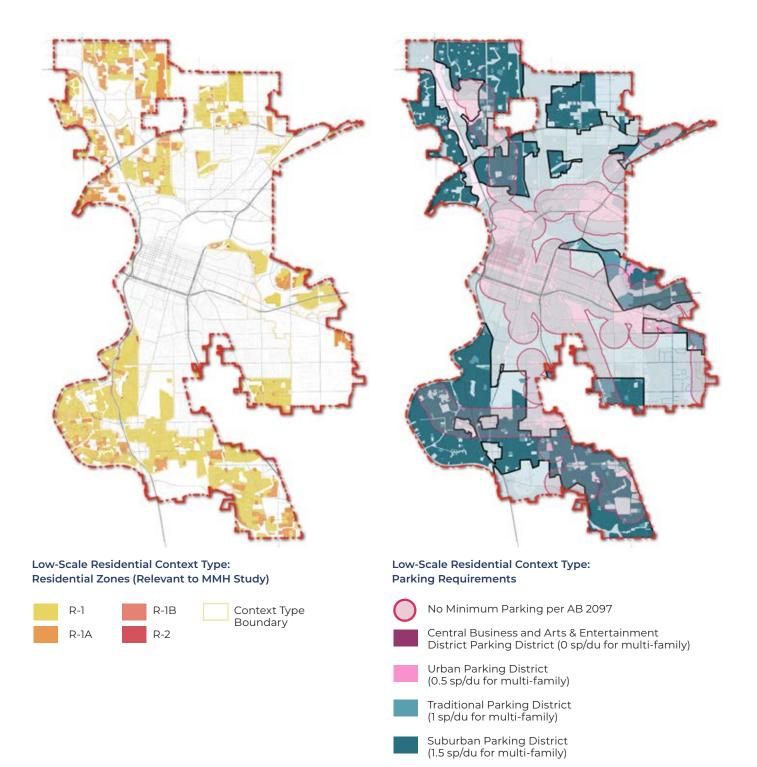
- Standard is a significant limiting factor to MMH
- Standard is a minor limiting factor to MMH
- Standard enables MMH (not a limiting factor)

Note:

Parking is frequently a major barrier to MMH. In Sacramento, since there are several parking districts with different parking requirements, the impacts on MMH vary. While the test fits include parking, it would not be a requirement in areas where AB 2097 applies, as shown in the map on the facing page.

- *As proposed by the Draft 2040 General Plan.
- ** R-1B is not mapped within the Low-Scale Residential context type.

Summary of Regulator				
	R-1	R-1A	R-1B**	R-2
Max. Number of Units (du/lot)			-	
Max. FAR*	✓	~	-	✓
Min. Lot Size	•		-	•
Max. Lot Coverage	✓	~	-	~
Min. Front Setback	•	•	-	•
Min. Side Setback	•	~	-	~
Min. Rear Setback	~	~	-	~
Max. Height	~	~	-	~
Bulk Control Standards			-	
Min. Open Space	•	•	-	•
Parking: Urban Parking District	-	-	-	-
Parking: Traditional Parking District	~	~	-	~
Parking: Suburban Parking District	~	~	-	~
Driveway Standards			-	



6.2 Limiting Factors to Missing Middle Housing, Explained

This section describes the key regulatory factors that can limit MMH in Sacramento. These barriers will be addressed in the MMH recommendations for the study.

Single-Unit (or Single-Family) + Duplex Zoning Districts

In January of 2021, as a part of the 2040 General Plan update, the Sacramento City Council approved ten "key strategies", several of which aim to boost housing production. The first key strategy is to permit a greater array of housing types, specifically looking at MMH. This study focuses on enabling MMH in single-unit residential areas which account for about 70 percent of the city's residential land.

The following zoning districts are being considered for the initial implementation of MMH:

- R-1
- R-1A
- R-1B
- R-2

These low-intensity residential zones currently allow single-unit houses and duplexes. R-1A, R-1B and R-2 permit duplexes on all lots and R-1, which formerly only permitted duplexes on

corner lots and deep through-lots, now also permits duplexes on all lots following the passage of SB 9. Under SB 9, while all R-1 lots can have up to two units, the City is currently not allowing additional ADUs if a property owner has already utilized SB9. However, this may change in the near future.

Although permitting additional MMH types will be the first step to enabling more housing choices in Sacramento, existing development standards and other regulations may be limiting the development of MMH, and would need to be analyzed and changes recommended as part of the Missing Middle Housing study.

In Section 6.1, existing regulations of these four zoning districts were analyzed according to the proposed MMH types for each context type, and summarized. This section includes a discussion on how these regulations can limit MMH from being built.

Units per Lot

Units per Lot

The current standards in R-1 permit a maximum of a single-unit house with two accessory dwelling units (ADUs) on a typical lot. R-1 also currently allows duplex dwellings on corner lots or on through-lots 125 feet or more in depth. R-1A, R-1B and R-2 permit a maximum of a duplex with two ADUs.

Although regulating by building type, rather than density, is a good strategy to permit more predictable built results, the number of units currently permitted per lot is limiting for MMH.

Compact + Connected

In this context type, the current number of units permitted per lot is too low in each of the zoning districts. Given the proximity to amenities and transit, as well as the walkable and connected block structure of this context type, allowing up to eight units on a lot is appropriate for the existing scale and form of the built environment. By limiting the number of units per lot to three or four, the existing zoning is posing a significant barrier to MMH, and to greater housing choice and attainability.

Transitional

In this context, the current number of units permitted per lot is too low in each zoning district. While this context type is less walkable than the Compact + Connected, it does have proximity to amenities and transit, and has the potential for transformation into a more walkable context. Allowing up to six units on a lot is appropriate, considering the scale and form of existing buildings.

The current limitation of three or four units on a lot prevents this context from achieving its full potential.

Low-Scale Residential

In this context type, the current number of units permitted per lot is very low in each zoning district. Even though this context type is less walkable and more car-reliant, it will be beneficial to increase housing choice by allowing up to four units on a lot. Although current standards allow up to four units in three of the zones, the R-1 zone does not currently allow up to four units on a lot. The majority of corner lots and deep through-lots do allow duplex dwellings and two ADUs.

Note that when referring to units on a lot, the number is intended as the total number of units, inclusive of both primary and accessory dwelling units. For example, a recommended total of four units on a lot could be met with one fourplex, or a duplex and two ADUs.

Key

- Standard is a significant limiting factor to MMH
- Standard is a minor limiting factor to MMH
- ✓ Standard enables MMH and is not a limiting factor

Floor Area Ratio (FAR)

Key

- Standard is a significant limiting factor to MMH
- Standard is a minor limiting factor to MMH
- Standard enables MMH and is not a limiting factor

Floor Area Ratio (FAR)

The Draft 2040 General Plan recommends an FAR limit of 1.0 or most lots within the four zoning districts. However, some areas, including those in Midtown and along major corridors are anticipated to have maximum FARs of 2.0 and 4.0. These limits may be exceeded by state density bonus projects that include affordable units.

✓ Compact + Connected

In this context type, most of the R-1B zoned lots are anticipated to have a maximum FAR of 2.0 while a maximum FAR of 1.0 is recommended for most other lots in this context type.

The proposed FAR for the R-1B zoned lots, located primarily in Midtown, generally exceeds what is needed to provide eight units per lot. It is worth noting that if the limit on units per lot is not increased, especially in an area with a maximum FAR of 2.0, the result may be very large units offered at a premium in order to achieve financial feasibility, given the higher land costs

in this part of the city. In the rest of this context type, the proposed maximum FAR of 1.0 enables all but a few of the more intense test fits—but even these would be possible in select locations within the context type.

✓ Transitional

In this context type, most of the lots are anticipated to have a maximum FAR of 1.0, with a few areas adjacent to corridors having a maximum FAR of 2.0.

Of the test fits with six units or less, only one exceeded an FAR of 1.0, meaning that FAR is generally not a significant barrier to MMH in this context. More intense projects, with FARs exceeding 1.0, will be enabled near corridors.

✓ Low-Scale Residential

FAR will not pose a barrier to the lowerintensity MMH types appropriate for this context.

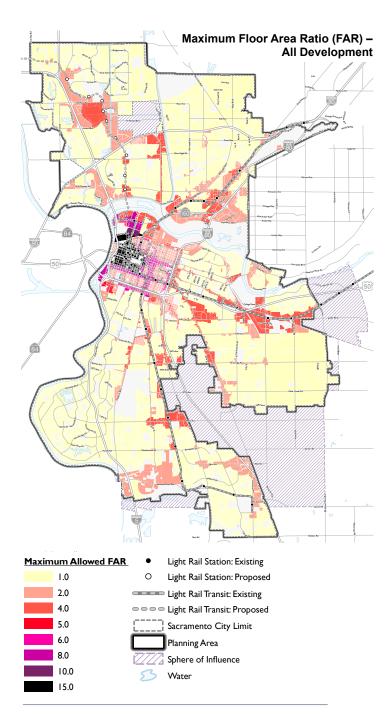
Q CLOSER LOOK

Why can units per lot conflict with FAR?

By using FAR as a regulation, a zoning district can better contro the massing of a building to fit ir with the existing context.

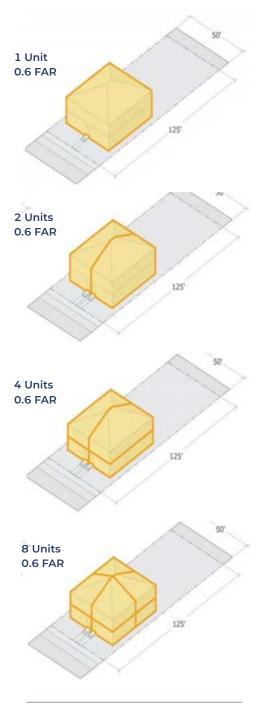
If units per lot and density were not being used to regulate, and FAR was the only regulation, this could allow smaller, attainable

units to be built within the allowed massing instead of fewer, larger, more expensive units. Permitting a moderate to large FAR but limiting the number of units per lot could could result in larger, and less attainable, units.



Proposed Draft 2040 General Plan Maximum FARs

Map Source: City of Sacramento, Draft 2040 General Plan For a larger version of this map, refer to Chapter 7 (Appendix) of this report.



FAR and Unit Size

As shown by the diagrams above, the same FAR can result in fewer larger units or more smaller units, if restrictions on number of units is removed.

Lot Size Standards

Key

- Standard is a significant limiting factor to MMH
- Standard is a minor limiting factor to MMH
- ✓ Standard enables MMH and is not a limiting factor

Lot Size

Although lot size standards typically apply when new lots are created rather than to existing lots, these standards are still important to understand and how they may influence the development of MMH. Sacramento does not require older, legally-platted lots to conform to current minimum lot widths, which facilitates infill development. On the other hand, these minimums are a barrier to subdividing properties for fee-simple townhouses, even in a zone like R-1A that is otherwise set up to enable townhouse development.

In general, lot width is a more effective regulation than lot area, primarily because a project can comply with the minimum lot area while still resulting in a building that is too large for its context or might not physically fit on the lot. In contrast, regulating by lot width enables building types to be better coordinated with the underlying context and fit in better with adjacent structures.

Existing lot area requirements for R-1 and R-2 are minimums of 5,200 square feet for mid-block lots and 6,200 square feet for corner lots. R-1A requires a minimum lot area of 2,900 square feet per dwelling unit and R-1B requires a minimum of 3,200 square feet.

In the R-1 and R-2 zones current minimum lot widths range from 52 feet to 62 feet. The minimum lot widths in R-1A range from 20 to 38 feet and the minimum lot width in R-1B is 40 feet.

Compact + Connected

In this context, the minimum lot areas and lot widths in R-1 and R-2 are slightly high considering that some types, such as a duplex, can be built on smaller lots—but since minimum dimensions are waived for existing lots, MMH infill is enabled. In the R-1A zone, the per-unit minimum lot area is very limiting for this context. The minimum lot width for the R-1A and the minimum lot width and lot area for R-1B allow the desired MMH types in this context.

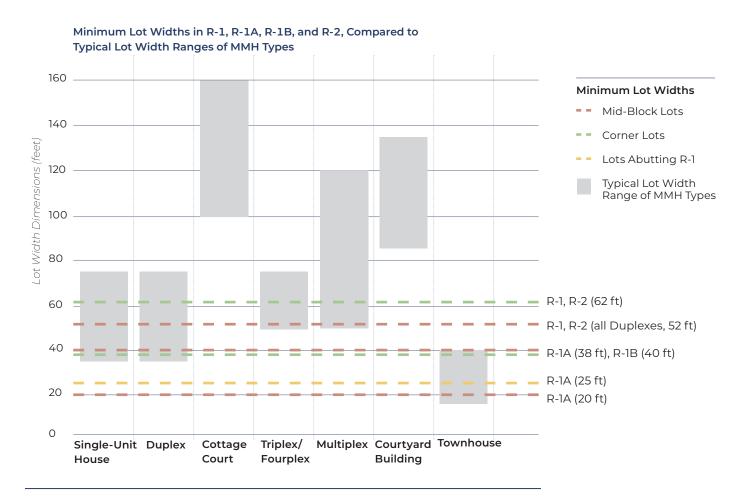
Transitional

Similar to the Compact + Connected context, in the Transitional context, the minimum lot areas and lot widths in R-1 and R-2 are slightly high but since minimum dimensions are waived for existing lots, MMH infill is enabled. In the R-1A zone, the per-unit minimum lot area is very limiting for this context. The minimum lot width for the R-1A and the minimum lot width and area for R-1B allow the desired MMH types in this context.

Low-Scale Residential

The minimum lot areas and lot widths in the R-1, R-1B, and R-2 zones allow the desired MMH types in this context. Although the minimum lot widths in R-1A are conducive to MMH, the per-unit minimum lot area in R-1A is a barrier to MMH in this context.

Overall, this standard is a limiting factor to MMH in some cases, but is not extremely limiting.



Maximum Lot Coverage

R-1 and R-2 limit maximum lot coverage to 40 percent of the lot or 2,500 square feet, whichever is greater, provided that lot coverage does not exceed 50 percent. The maximum lot coverage is 50 percent in R-1A and 60 percent in R-1B. ADUs only count towards lot coverage beyond the first 800 square feet.

✓ Compact + Connected

Lot coverage was not a barrier in the test fits and does not impede MMH.

✓ Transitional

Lot coverage was not a barrier in the test fits and does not impede MMH.

✓ Low-Scale Residential

Lot coverage was not a barrier in the test fits and does not impede MMH.

Building Envelope Standards

Key

- Standard is a significant limiting factor to MMH
- Standard is a minor limiting factor to MMH
- Standard enables MMH and is not a limiting factor

Minimum Setbacks

For infill projects in the R-1, R-1A, R-1B, and R-2 zones, front setbacks must match the setbacks of neighboring buildings. In the absence of existing neighboring buildings to which the setback can be matched, the front setback defaults to 20 feet minimum. For R-1 and R-1B, the minimum side setback is five feet (or three feet if the lot is less than the minimum lot width). For R-1A and R-2, there is no minimum side setback unless the lot abuts an R-1 or R-1B zone or a lot containing a detached, single-unit dwelling, in which case the minimum setback is five feet. This allows for attached and semidetached homes in R-1A and R-2.

Compact + Connected

A 20-foot front setback would be unnecessarily large for this context and would prevent several of the test fits from providing sufficient shared open space in the rear of the lot. However, in many cases the shallower setbacks of neighboring buildings in this context enable a more reasonable front setback of 10 to 15 feet.

Transitional

The front setbacks in this context are typically large enough (at 20 feet or more) to pose an obstacle to MMH development. Several test fits could not meet the front setback requirement while also providing some amount of shared open space in the rear of the lot. The front setback limits the space available in the rear for increased parking and open space needs. Side setbacks were not a barrier for any of the test fits.

Low-Scale Residential

The front setbacks in this context are slightly large. Some test fits had to provide less than the required front setback to accommodate needed parking in the rear. Side setbacks were not a barrier for any of the test fits, although attached, fee-simple townhouse units would need an exception to side setbacks, as provided in R-1A and R-2, in order to be built by-right in the R-1 zone.

Maximum Height

All four zones in this category have maximum height limits of 35 feet.

✓ Compact + Connected

The maximum height was not a barrier for any of the test fits and does not pose a barrier to MMH.

✓ Transitional

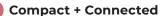
The maximum height was not a barrier for any of the test fits and does not pose a barrier to MMH.

√ Low-Scale Residential

The maximum height was not a barrier for any of the test fits and does not pose a barrier to MMH.

Bulk Control Standards

Sacramento has adopted bulk control standards to reduce the visual impact of infill construction in lower-intensity neighborhoods. Effectively, any building height above the first story requires side setbacks equivalent to the additional height, as well as a commensurate increase to the front setback. This results in a tapered building envelope that allows more height toward the center of the lot and less toward the edges.



Accommodating up to eight units on a typical Sacramento lot requires a building of at least two stories, with a footprint between 30 and 50 feet wide. The narrow lots in this context, however, make it practically impossible to fit such a building within the bulk control envelope, meaning that the bulk control standards are a significant barrier to MMH.

Transitional

Accommodating up to six units on a typical Sacramento lot requires a building of at least two stories, with a footprint between 30 and 40 feet wide. This is difficult to achieve within the bulk control envelope in this context, especially when a driveway must be included, meaning that the bulk control standards are a significant barrier to MMH.

Low-Scale Residential

Even four units on a typical Sacramento lot require a building of at least two stories, with a footprint over 30 feet wide. This is difficult to achieve within the bulk control envelope on typical lots in this context, especially when a driveway must be included. This means that the bulk control standards are a significant barrier to MMH.

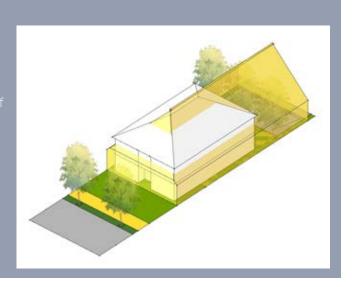
Key

- Standard is
 a significant
 limiting factor to
 MMH
- Standard is a minor limiting factor to MMH
- ✓ Standard enables MMH and is not a limiting factor

Q CLOSER LOOK

What is a Building Envelope?

A building envelope is the outermost defined limits of where a building can fit on a lot. Minimum setbacks, height limits, and bulk control standards create limits on where a building can be located and how it can be shaped.



Parking Standards

Key

- Standard is a significant limiting factor to ММН
- Standard is a minor limiting factor to MMH
- ✓ Standard enables MMH and is not a limiting factor

Parking Spaces Required

Parking requirements in Sacramento depend on the type of residential use and the parking district in which a lot is located. The Central Business and Arts & Entertainment, Urban, Traditional, and Suburban districts require parking ratios of 0 spaces, 0.5 spaces, 1 space, and 1.5 spaces per dwelling unit for multi-unit residential units and 0 spaces, 1 space, 1 space, and 1 space per dwelling unit for single-unit houses and duplexes, respectively. On-street parking may count toward these totals (with an administrative parking permit), and ADUs do not have any minimum parking requirements. The recent state law, AB 2097, also removes minimum parking requirements for areas within half a mile of a major transit stop.

Compact + Connected

Although the Urban and Traditional parking districts and lots without a parking minimum according to AB 2097 enable MMH types across most of this area, the Suburban parking district limits the intensity of MMH that can be built in areas with small lots located further from the central core and from transit.

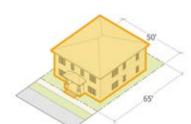
✓ Transitional

Lots without a parking minimum according to AB 2097 enable the desired MMH types in this context. The Traditional parking district can enable up to six units, although this may require taking advantage of on-street parking to supplement the limited number of spaces that can fit on the lot. The Suburban parking district's required ratio makes six units on a lot achievable if two are ADUs (and thus exempt from parking requirements). Lots which do not have an alley will be more limiting for MMH because of the added space needed for the driveway and backup space.

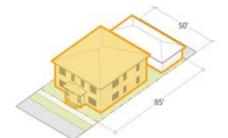
✓ Low-Scale Residential

The Traditional parking district and lots without a parking minimum according to AB 2097 enable the desired MMH types in this context. Although the Suburban parking district—which covers most of this context—requires six spaces for four units, in most cases this can be achieved by including on-street parking or by substituting ADUs for primary units.

(Below) How Parking Count and Access Impact Housing Source: Opticos Design



No parking required Fourplex can fit on a small lot Density achieved: 54 du/ac



1 parking sp/unit (alley access) Fourplex needs a deeper lot Density achieved: 41 du/ac



1 parking sp/unit (front driveway access) Fourplex needs a deeper, wider lot Density achieved: 25 du/ac

Driveway Standards

Driveway Dimensions + Placement

In Sacramento, multi-unit dwellings (three units or more) must be served by a commercial driveway at least 24 feet wide (for two-way traffic). For residential driveways (serving two units or fewer), the minimum driveway width is 10 feet. The flared driveway entry must be at least five feet from the property line of an abutting residential property. The parking area must be a minimum of 20 feet from the right-of-way line. Parking areas cannot encroach into front or street side setbacks, but can encroach into side and rear setbacks.

Compact + Connected

The commercial driveway requirement for three to eight units is unachievable on typical lots in this context, especially in combination with the side setback for driveway entries, particularly on narrower lots. This is a significant barrier to MMH on sites without alleys.

Transitional

The commercial driveway requirement for three to six units is unachievable on typical lots in this context, especially in combination with the side setback for driveway entries, particularly on narrower lots. This is a significant barrier to MMH on sites without alleys.

Low-Scale Residential

The commercial driveway requirement for three to four units is unachievable on typical lots in this context, especially in combination with the side setback for driveway entries. Driveways are generally required in this context type, since alleys are rare.



Parking Requirements

No Minimum Parking per AB 2097

Central Business and Arts & Entertainment District Parking District (0 sp/du for multi-family)

Urban Parking District (0.5 sp/du for multi-family)

Traditional Parking District (1 sp/du for multi-family)

Suburban Parking District (1.5 sp/du for multi-family)

Tree Shading Standards for Parking

Key

- Standard is a significant limiting factor to MMH
- Standard is a minor limiting factor to MMH
- Standard enables MMH and is not a limiting factor

Tree Shading Requirement

In Sacramento, at least 50% of uncovered parking areas must be shaded by trees. The assumed amount of shading provided depends on tree species and placement.

Tree Shading for Parking Lots

Sacramento requires that uncovered parking areas be at least 50 percent shaded by trees 15 years after the development is completed. The specifications for how this is calculated can be found in the City's Parking Lot Tree Shading Design and Maintenance Guidelines.

Compact + Connected

Due to the narrow lot dimensions in this context, at least one test fit was unable to provide the required tree shading for surface parking, meaning this standard is a potential barrier to MMH.

Transitional

Lots without alleys must provide surface parking spaces, drive aisles to serve them, and trees to shade both elements of the parking lot—in addition to the required open space. A few test fits were unable to meet all of these requirements on the site.

✓ Low-Scale Residential

The issues here are similar to those in the Transitional context. In most cases, however, on-street parking can enable lots to supply the required spaces, meaning that the requirement to shade off-street spaces is not a barrier.

Open Space Standards

Open Space

In Sacramento, development involving three units or more requires 100 square feet of open space per dwelling unit beyond the minimum required front-yard, side-yard, and rear-yard setbacks. ADUs do not require additional open space. MMH types prioritize shared open spaces, and existing regulations will need to be adapted to accommodate additional housing while also providing usable open space.

Compact + Connected

The minimum open space requirement is a barrier to some of the MMH types in this context. Given the smaller lot sizes in this area, some of the test fits were unable to provide the required amount of open space.

Transitional

Because this context type has small lots without alleys but requires more space for parking and driveways, several test fits could not provide sufficient open space. The combination of open space minimums with rear parking areas accessed from the front is a barrier to MMH in this context.

Low-Scale Residential

As in the Transitional context, requirements for driveways and parking prevented several test fits from providing sufficient open space—illustrating the tradeoff between the two features.

Key

- Standard is a significant limiting factor to MMH
 - Standard is a minor limiting factor to MMH
- ✓ Standard enables MMH and is not a limiting factor

6.3 Policy Analysis for Missing Middle Housing

Understanding the existing policy and design guidelines is key to assessing the viability of MMH in each of the context types that are the focus of this study.

The following documents were analyzed for potential barriers to the implementation of MMH in Sacramento:

- Citywide Multi-Unit Dwelling, Single-Unit Dwelling and Duplex Dwelling Design Guidelines.
- Residential Condominium Conversion and New Construction Program
- CEQA exemption for buildings with up to 6 units
- City of Sacramento's Title 17 Division
 VI Architectural Design and Site
 Development Standards
- Infill Housing Design Standards
- State Senate Bill 9
- ■The City's ADU Ordinance

A brief overview of each policy document is provided in the following pages, and potential barriers to MMH are noted. Overall, a point to be noted is that design guidelines are inherently advisory in nature and do not have the legal authority of a design standard. This in itself limits their applicability and relevance for the built outcomes.

Recommendations for updating these policies and guidelines will form part of the MMH zoning and policy recommendations.

■ Single-Unit/Duplex/Multi-Unit Dwelling Design Guidelines

The Citywide Single-Unit and Duplex Residential Design Guidelines and the Multi-Unit Dwelling Design Guidelines give guidance for residential structures with the aim to create livable and inviting environments.

Each document works as a toolkit of design principles for site design, scale and massing controls, number of stories, garages and parking, architectural elements, relationship to surroundings, landscaping/lighting/fencing, accessory structures as well as architectural character and detailing.

Potential Barriers for MMH:

- The Citywide Single-Unit and Duplex Residential Design Guidelines include "bulk control" recommendations which advise that upper stories of buildings be stepped back from the ground floor by a 45 degree angle. This can be effective in regulating massing for single-story structures, but can curtail buildable area for MMH and would need to be adjusted to allow all MMH types.
- These Design Guidelines recommend that new construction maintain the prevailing front and side yard setbacks in the area. In many cases, this can decrease the available area on the lot for MMH, affecting feasibility. This guideline would need to be adjusted to enable MMH on many smaller lots.

■ Infill Housing Design Standards

The Citywide Infill Housing Design Standards articulate design principles and objective design review standards for housing development projects with two or more dwelling units, including a single-unit dwelling with an attached accessory dwelling unit. These projects can be either residential-only projects or part of a mixed-use development in which the residential use constitutes at least two-thirds of the total gross building square footage.

The document works as a toolkit of design principles and design standards for site planning, building orientation, setbacks, parking and circulation, garages, pedestrian circulation, landscaping/lighting, accessory structures and architectural elements.

Potential Barriers for MMH:

 This is not likely a barrier for MMH infill development, but additional guidance could be provided as part of the MMH recommendations.

■ Architectural Design and Site Development Standards

The Architectural Design and Site Development Standards (Title 17, Division VI) guide the architectural design of single-unit houses, duplexes in R-1 and R-1B zoning districts, corner lots with single-unit houses and duplexes, through-lots and potential projections into required setback areas, as well as open space requirements for multi-unit dwellings.

Potential Barriers for MMH:

These standards include a recommendation about the combination of private and common open space to be provided for new multi-unit dwellings at a ratio of 100 square feet of open space per dwelling unit beyond the minimum required front-yard, side-yard, and rear-yard setbacks. This could be a barrier for the larger MMH types and make them infeasible.

■ City's Local ADU Ordinance

The City of Sacramento allows a total of two ADUs on a single lot that can be attached or detached. The maximum size of a detached ADU is 1,200 square feet, and the total square footage of two detached ADUs on the lot shall not exceed 1,200 square feet. The State's ADU Standards allow up to one attached or converted ADU, one detached ADU, and one junior ADU. Property owners can either select the City's Local ADU Ordinance or the State's ADU Standards.

Potential Barriers for MMH:

 This is not likely to be a barrier for MMH.

■ Residential Condominium Conversion and New Construction Program

In Section 17.716.010 of Title 17, condominiums and condominium conversions are regulated in terms of control and approval, inhabitant ownership, rental protection, and physical standards. Section 17.716.050, "Condominium Conversions" describes the process of obtaining a conditional use permit allowing existing structures that have been previously occupied and constructed as rental units to be sold as condominium units.

Potential Barriers for MMH:

- If a building owner of an MMH wishes to sell a unit to a third party, the transfer of ownership may be prohibited.
- Condominium defect liability clauses, which hold a builder accountable for construction defects for a period of ten years, is often a barrier for MMH. The builder needs to purchase additional insurance to cover this requirement, which can affect project viability.

■ State Senate Bill 9 and Ministerial Approval of Two Dwelling Units on a Lot and Urban Lot Splits.

State Senate Bill 9 (SB9) allows for housing developments of two dwelling units in single-family residential zoning districts. The Ministerial Approval of Two Dwelling Units on a Lot and Urban Lot Splits guides the outcomes allowed under SB9 in terms of height, density, lot coverage, bulk control, accessory dwelling units, and other design standards.

Potential Barriers for MMH:

• SB9 applies to Sacramento's R-1, the default "single-unit" zone, but it allows duplexes on corner lots and on through-lots 125 feet or more in depth. A recent study by the Terner Center for Housing Innovation at the University of California, Berkeley, estimated that out of 116,000 SB9-eligible lots, only 6,700 lots may yield market-feasible units, resulting in a likely increase of only 9,600 units.

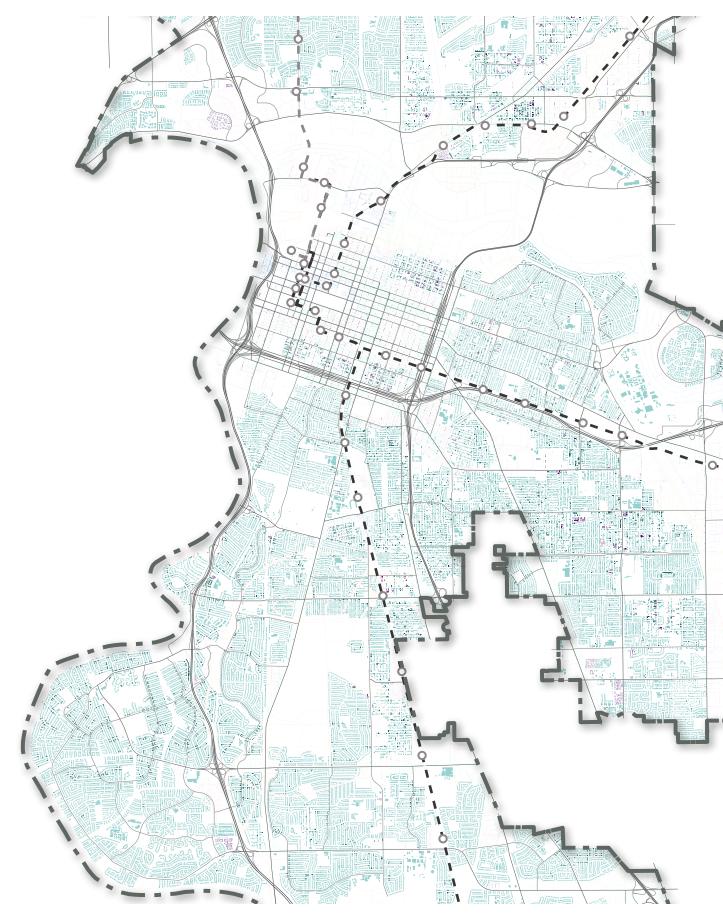
■ CEQA Exemption

The CEQA Class 32 "Infill" Categorical Exemptions (CEQA Guideline Sections 15303 and 15332) exempt infill development on sites less than five acres. located within urbanized areas, from CEQA, provided certain criteria are met and the project will not result in any significant traffic, noise, air quality, or water quality impacts. This exemption may apply to to "new construction or conversion of small structures" for a single-unit house in a residential zone or up to three in an urban area. For multi-family, this exemption covers up to four units for residential and six units or less. for residential and urban areas. This exemption can provide opportunities for small-scale builders and homeowners.

Potential Barriers for MMH:

- The CEQA exemption is likely to exempt most MMH projects unless the project is in a historic district or has similar designation, is in an environmentally sensitive area, or does not meet any of the other prescribed exemption criteria. Thus it will not be a barrier for MMH.
- If a ministerial review process is adopted for approving MMH in Sacramento, it will exempt such projects from CEQA requirements as per CEQA Guidelines Section 15268.

Sources: www.califaep.org www. californialanddevelopment. com



Appendix CHAPTER



In this chapter

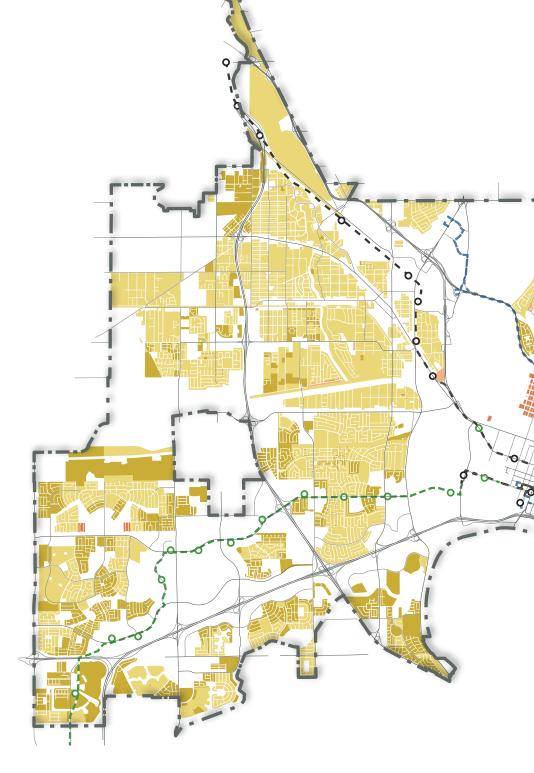
Zoning Districts Targeted for Initial Implementation of MMH	170	
Draft 2040 General Plan Land Use Designations		
Tax Credit Allocation Committee (TCAC) Opportunity Areas	174	
Street Connectivity + Access to Transit and Amenities	176	
Draft 2040 General Plan Proposed Maximum Allowed FAR	178	
Draft 2040 General Plan Proposed Minimum Residential Densities	180	
Existing Built Form + Location of Duplexes, Triplexes, Fourplexes	182	
Allowed Maximum Building Heights	184	
Existing Number of Units Per Lot	186	
Context Types in Sacramento	188	
Lot Categories in Sacramento	190	

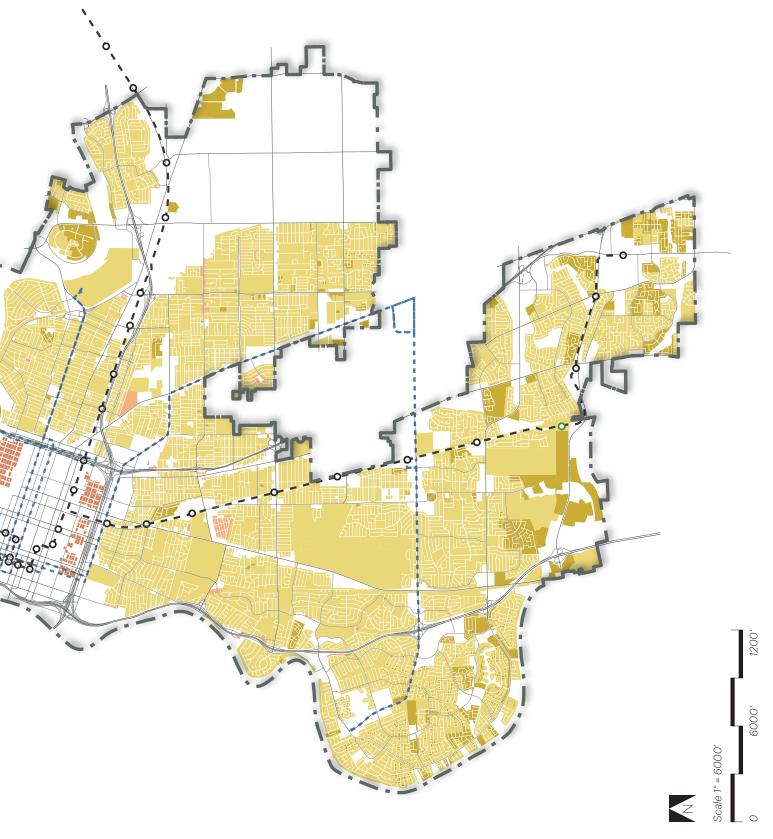
Zoning Districts Targeted for Initial Implementation

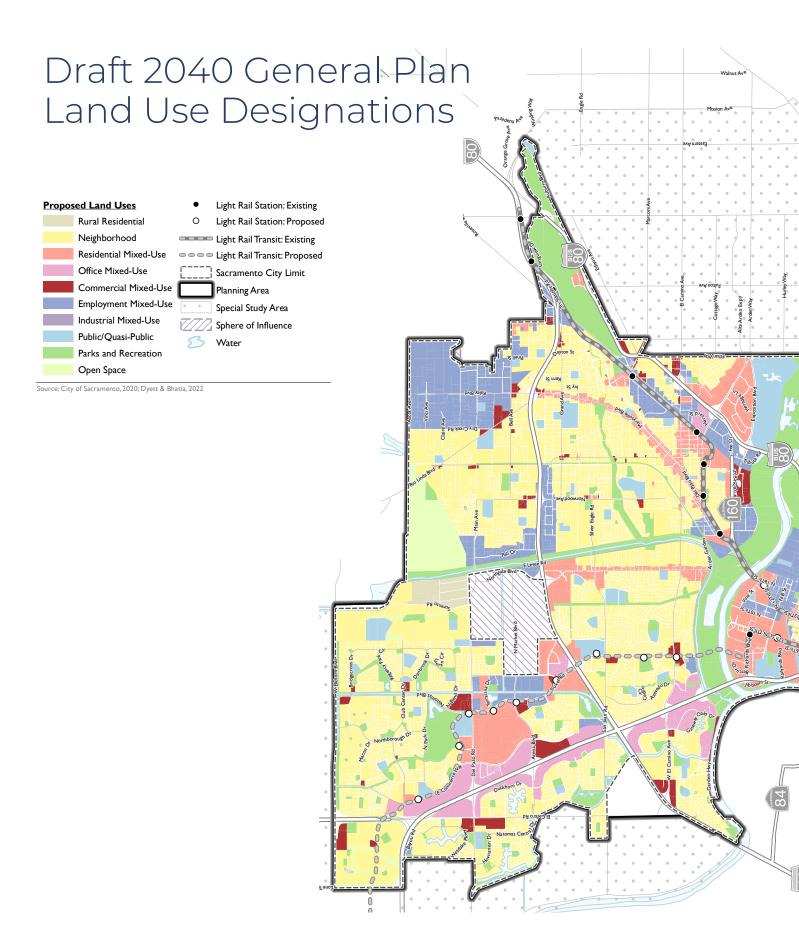
of MMH

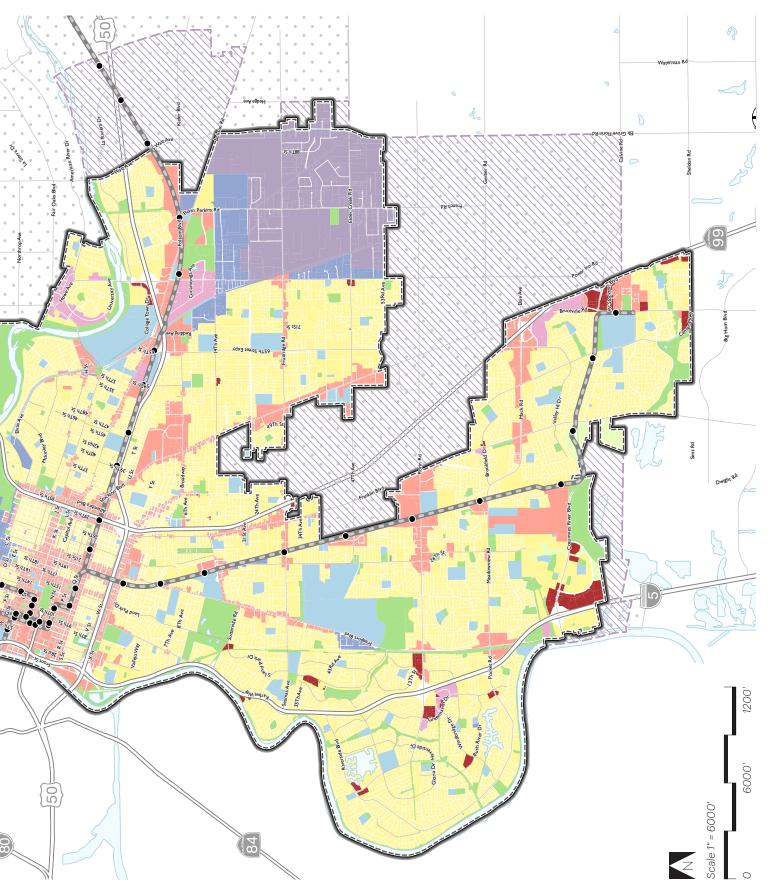












Walnut Ave

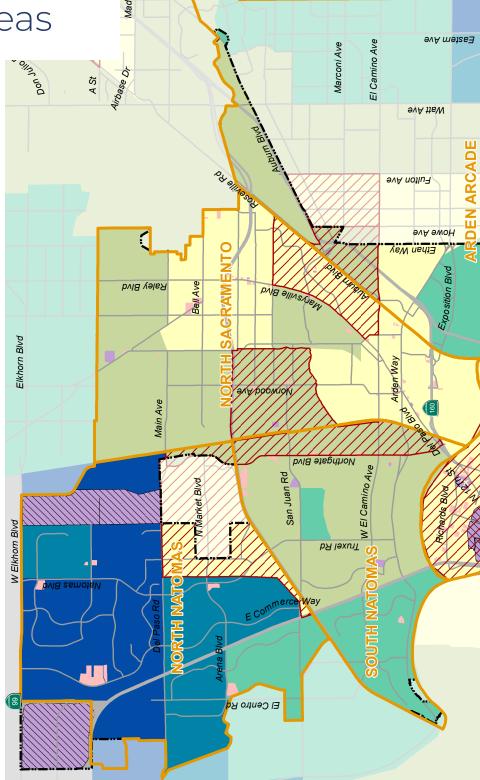


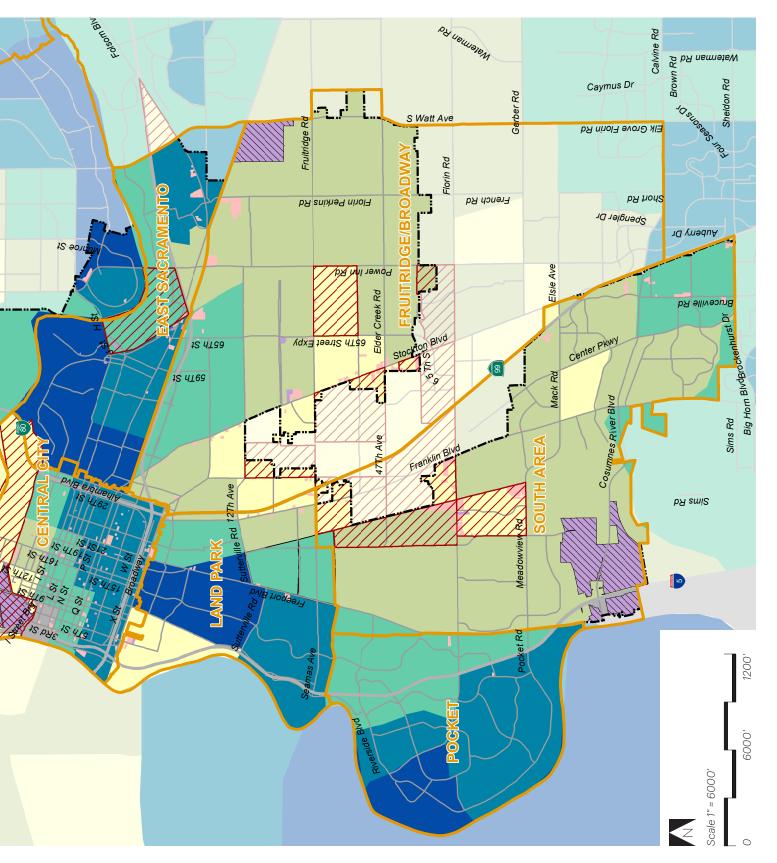
Racially or Ethnically
Concentrated Areas
of Poverty

Planned Lowerincome Units

Lower-income Units

Source: City of Sacramento

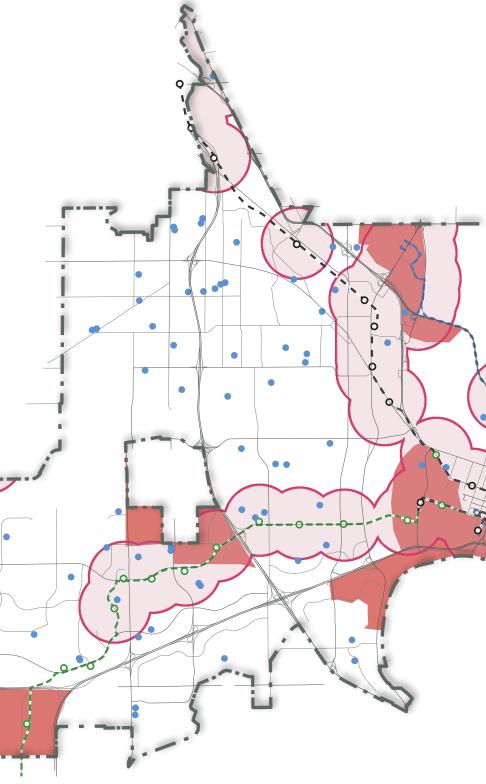


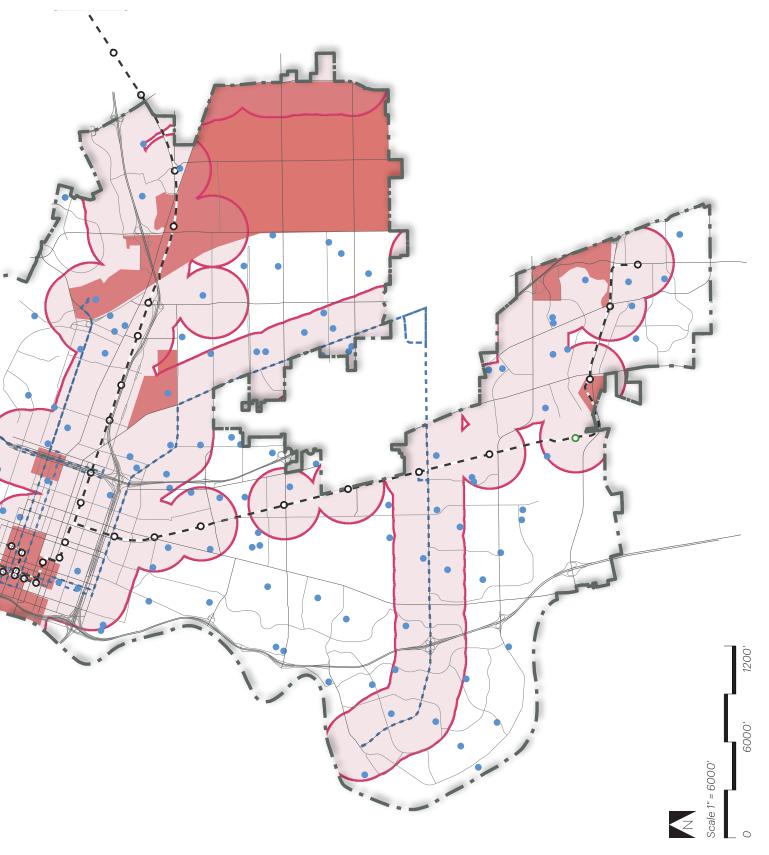


Street Connectivity ± Access to Transit and Amenities

Legend

- Light Rail Station
- Light Rail (Existing)
- Light Rail (Planned)
- Proposed 2040 Bus Rapid Transit (BRT)
- Community Plan Areas
- 1/2 mi. Distance from Light Rail Stations
- Schools
 - Major Employment Nodes

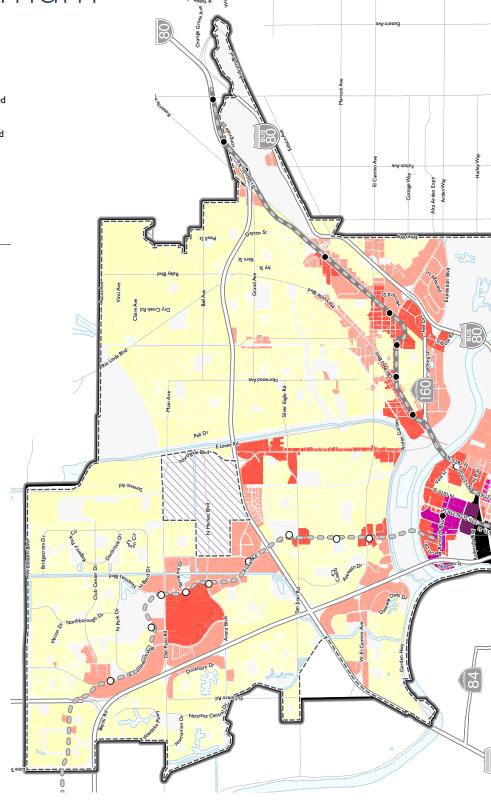


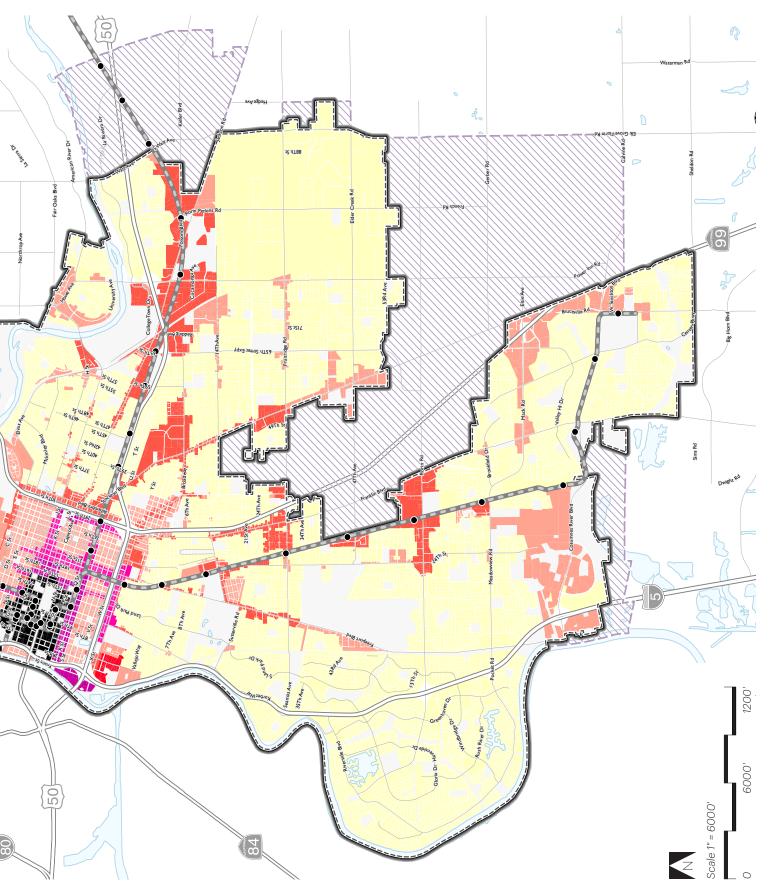


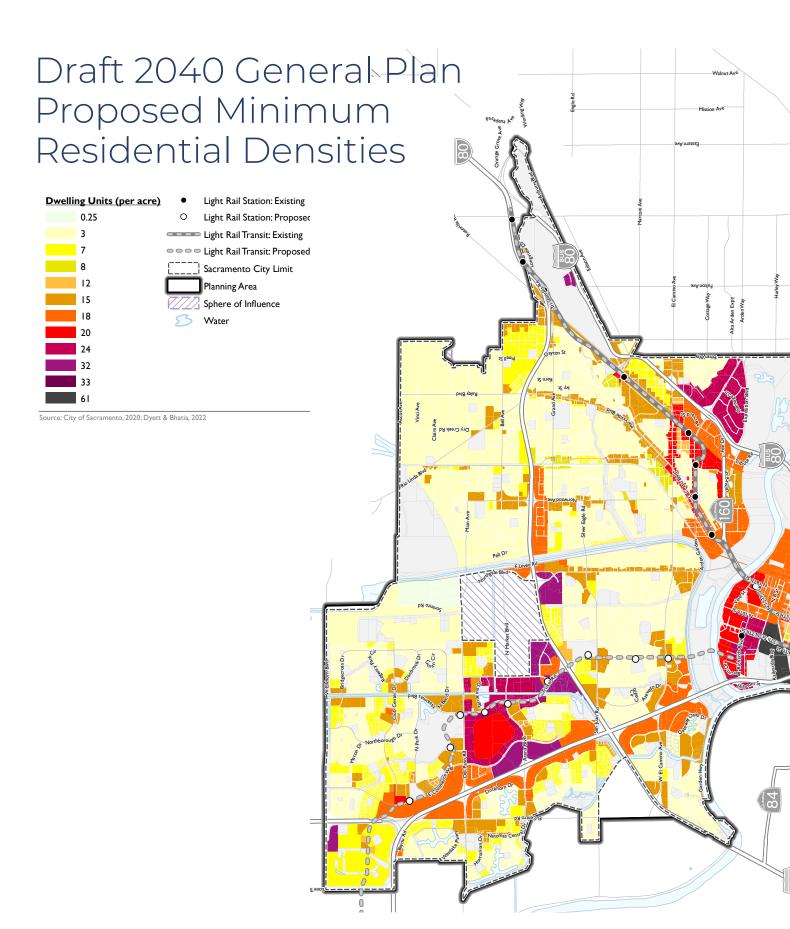
Draft 2040 General Plan Proposed Maximum Allowed FAR

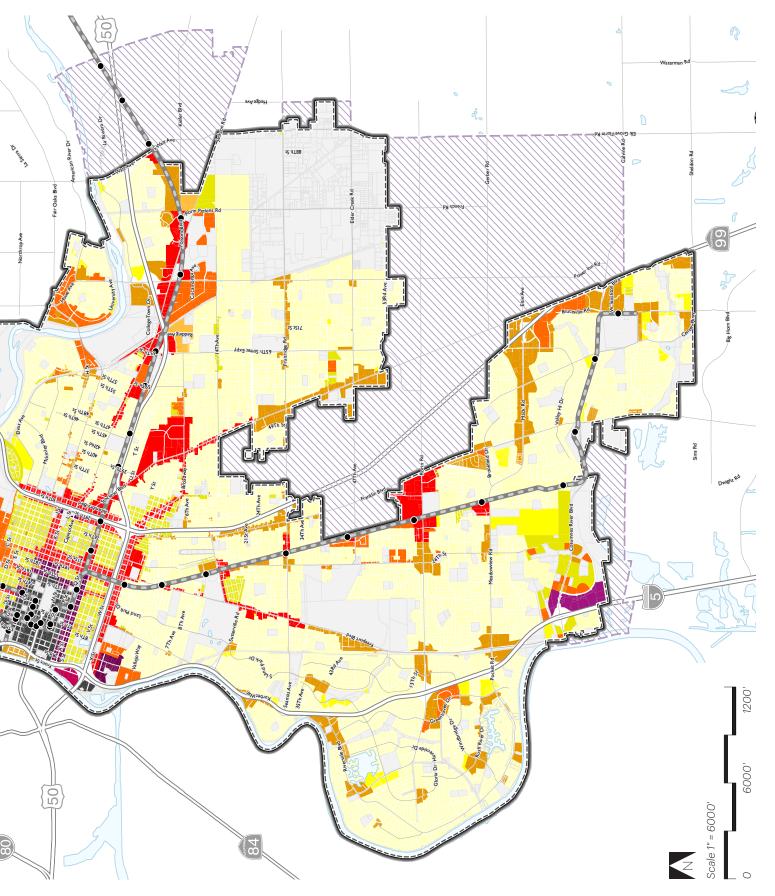


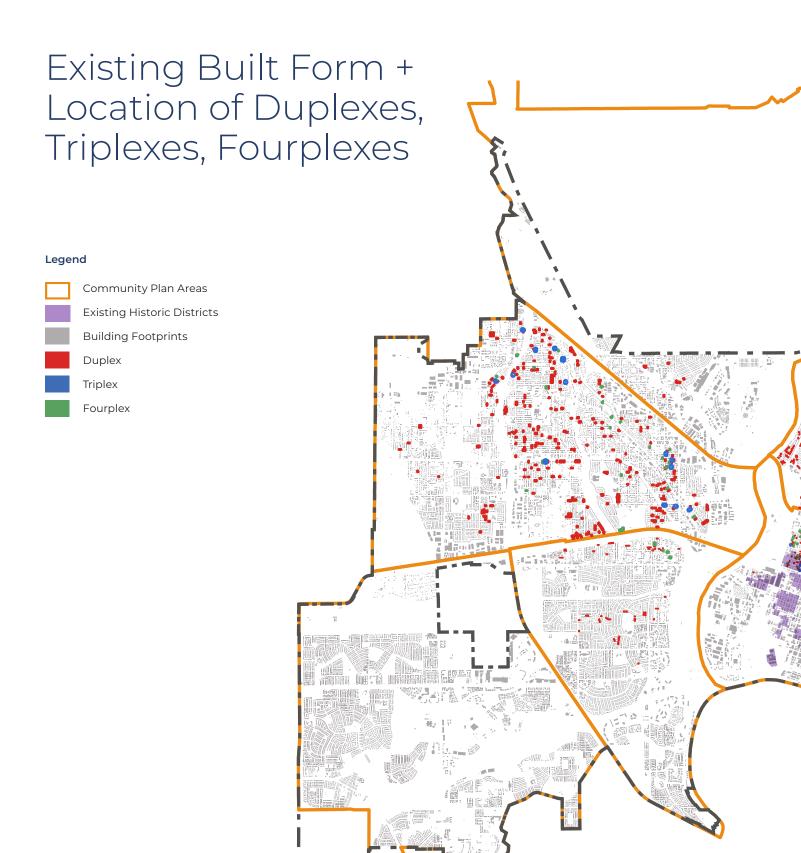
Source: City of Sacramento, 2020; Dyett & Bhatia, 2022

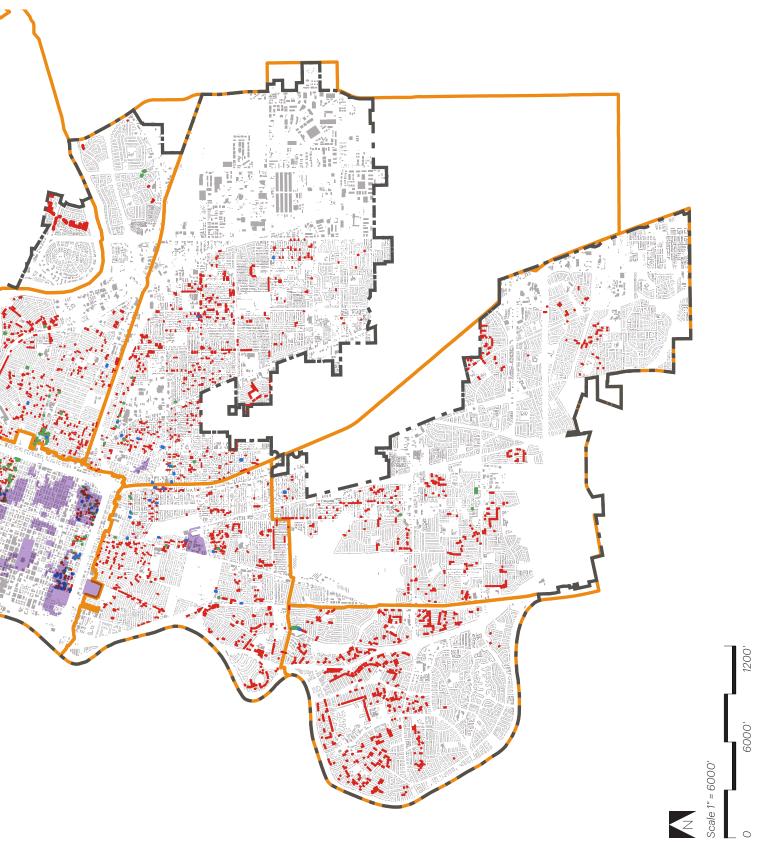










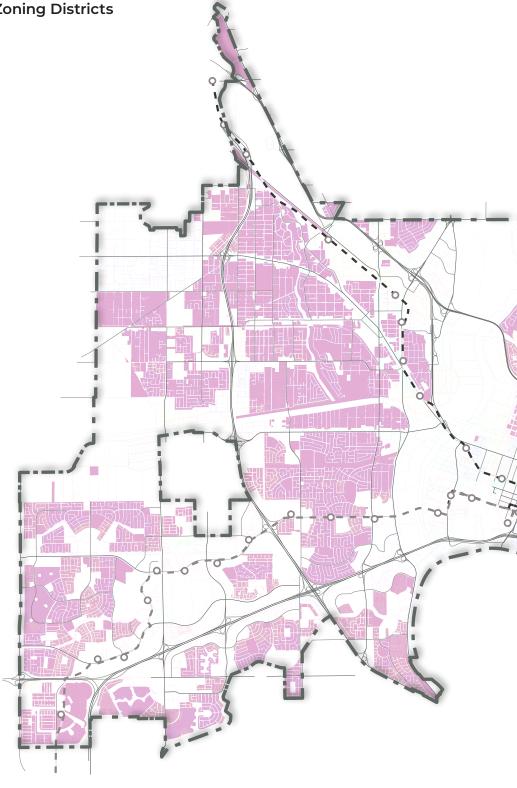


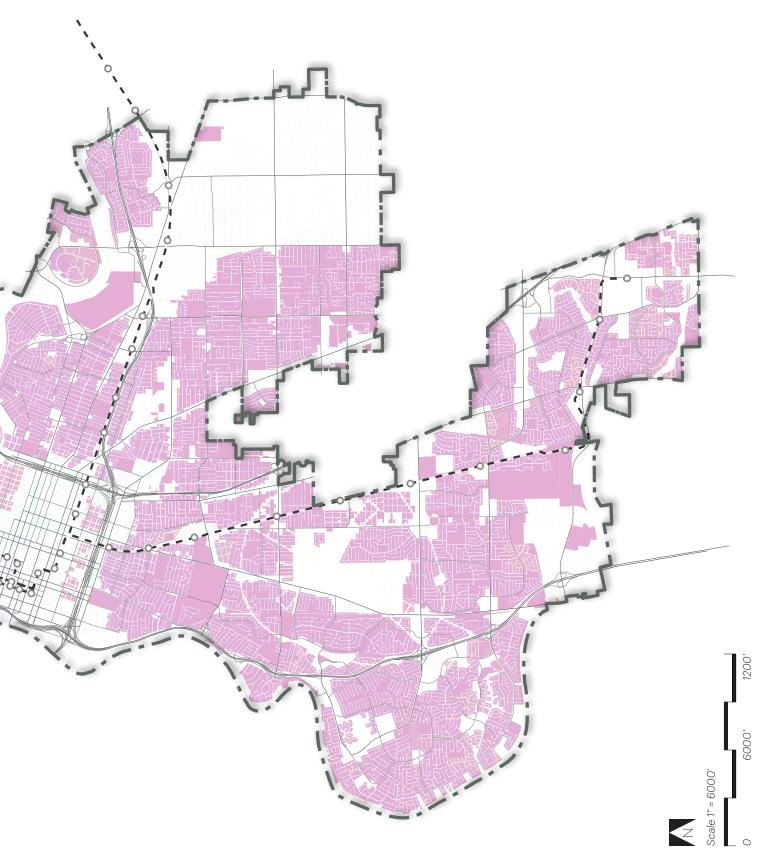
Allowed Maximum Building Heights

R-1, R-1A, R-1B, R-2 Residential Zoning Districts

Legend

35 ft.





Existing Number of Units Per Lot





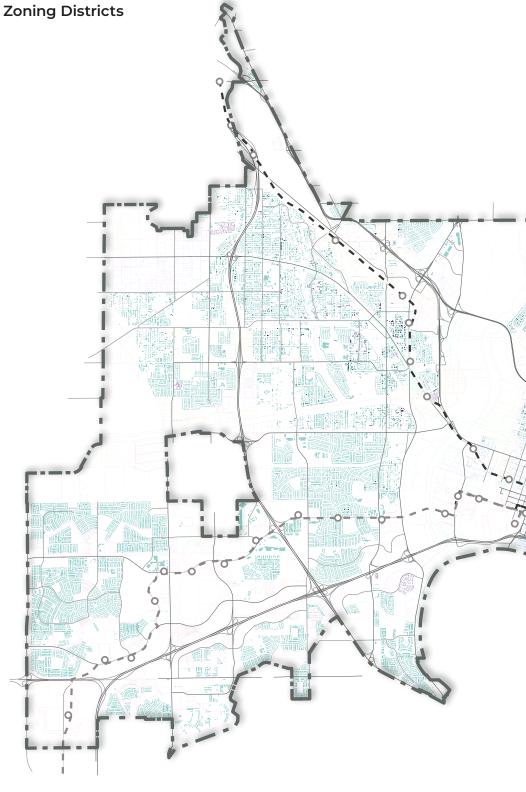


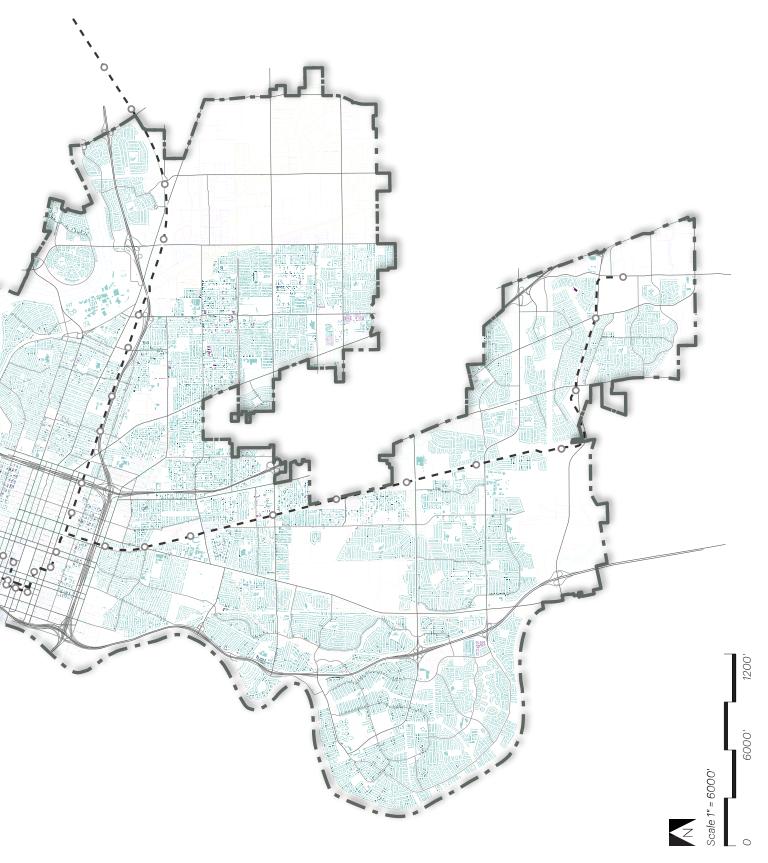










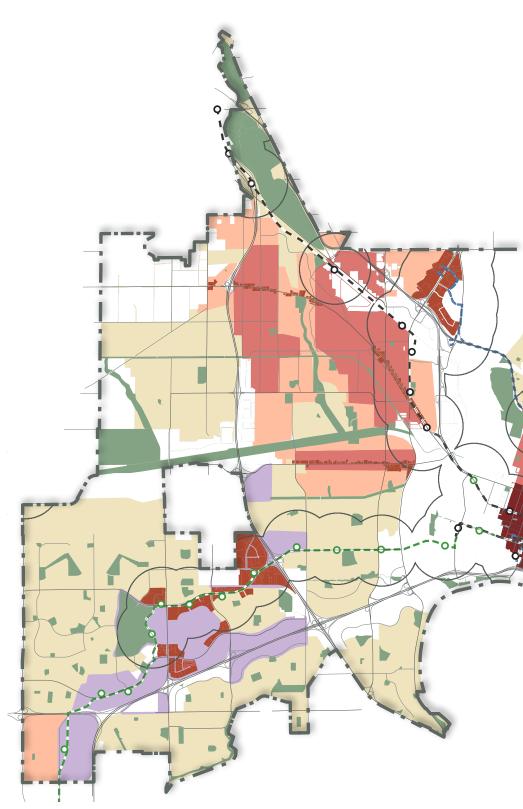


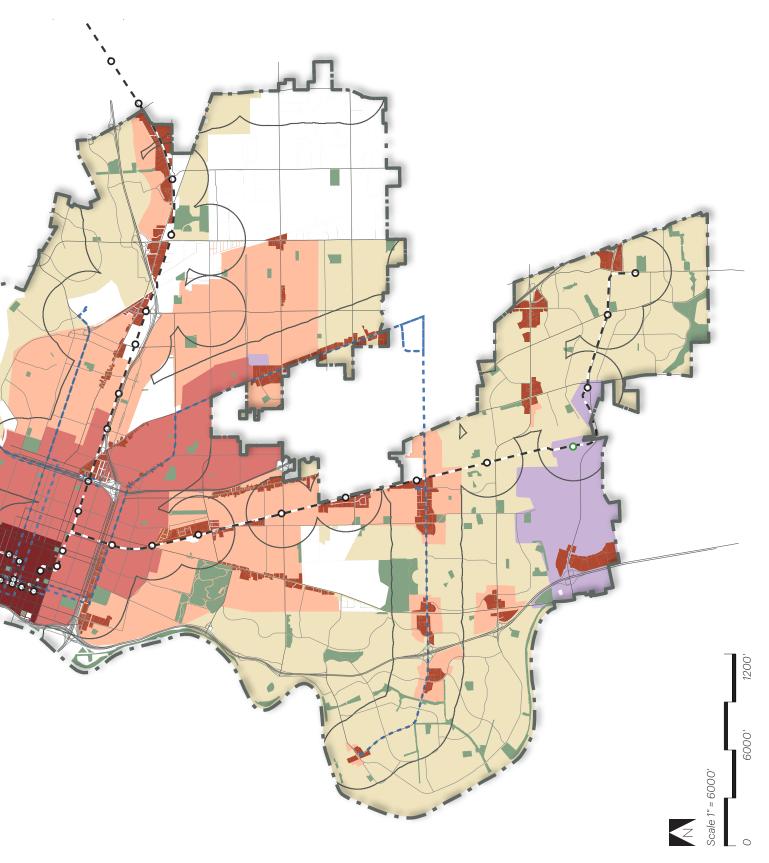
Context Types in Sacramento

Based on Citywide Analysis

Legend

- Downtown Core
- Compact + Connected
- Transitional
- Corridors + Centers
- Low-Scale Residential
- Large Infill Sites
- O Light Rail Station
- Light Rail (Existing)
- Light Rail (Planned)
- Rapid Bus
- () 1/2 mile Distance from Light Rail Stations



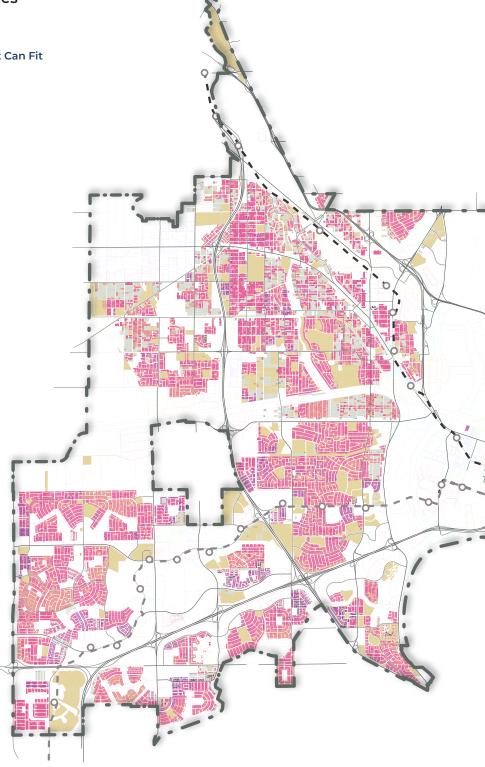


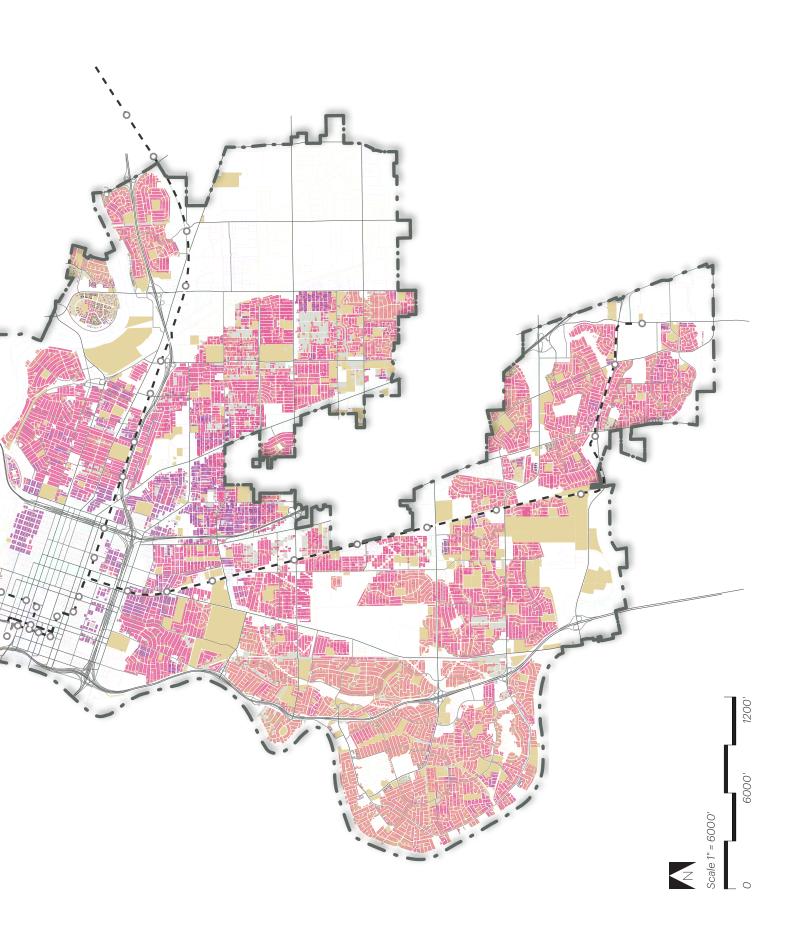
Lot Categories in Sacramento

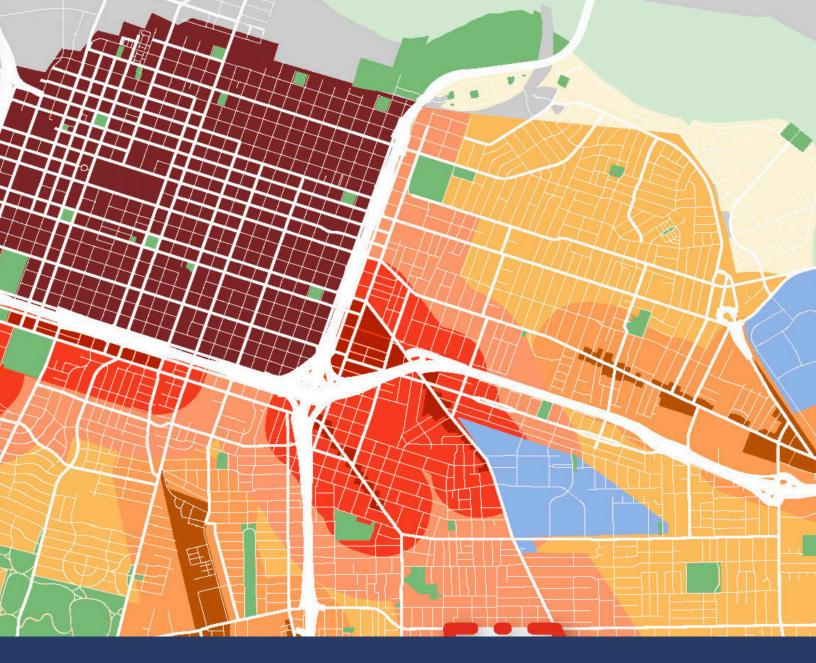
R-1, R-1A, R-1B + R-2 Residential Zones

Lot Categories in Sacramento + MMH Types That Can Fit

Lot Categories MMH Types 15'-29' W Townhouse <150' D 30'-44' W Duplex, Townhouse 70'-175' D 45'-64' W Duplex, Triplex, Fourplex, 70'-175' D Multiplex Small, Townhouse 65'-99' W Duplex, Triplex, Fourplex, 90'-175' D Multiplex Small, Multiplex Large, Courtyard Bldg 100'-135' W Multiplex Large, Courtyard Bldg, Cottage Court 100'-250' D 135'-200' W Cottage Court >200' W=wide, D=deep **Uncategorized Parcel** Existing Light Rail Proposed Green Line Light Rail Station + 1/2 Mile Radius









With consultants:

Cascadia Partners Collaborative Design + Innovation Unseen Heroes Konveio

