

DRAFT



Handbook





Planning and Development Department

99 W. 10th Avenue

Eugene, Oregon 97401

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Acknowledgements

Photos by David VanLandingham; Cover, pages 11, 17, 22, 23, 26, 29, 31, 33, 35

Cover: Small apartment building with separate entries to each dwelling. Next door (at left) is a single-family dwelling converted to offices; W 10th and Lawrence Street; Jefferson Westside

Neighborhood

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Introduction

This guide is intended as a resource for community members—builders, designers, and neighbors – involved in conversations about the shape and form of Eugene's neighborhoods. The focus is on familiarizing the community with missing middle housing types and inspiring residents to consider where these options fit within our neighborhoods.

The components of this guide serve as tools for area planning projects, neighborhood meetings, and design discussions. The guide includes design principles and strategies for using smaller dwelling types for achieving context-sensitive design, prototypes of each option, and resources for further research. Although the 'Missing Middle' concept has come into the national spotlight recently, the examples included here are derived from past projects stretching back several years. These include the Single Family Options zone, Opportunity Siting, Infill Compatibility Standards, the R-1 Flag Lot Implementation Team, and R-2 Medium Density case studies conducted as part of Envision Eugene.

What is the Missing Middle?

In 2010, architect Daniel Parolek coined the term to define the smaller, multi-family or clustered housing types that have been missing from most city's neighborhood patterns for the last seventy years as development focused on single family housing and larger multifamily types. Missing Middle types were common within most single family neighborhoods in the pre-war era. The dwelling types include duplex, triplex, cottage, courtyard, rowhouse, and other smaller multi-unit attached and detached housing.

Post-war prosperity led to a building boom that ushered in an age of auto-dependent suburban development with single-family homes on large lots. Considered less desirable at the time, Missing Middle housing types were prohibited or significantly limited in single family neighborhoods through zoning codes that categorized them as multifamily. While in multifamily areas, developers generally chose to build larger and denser housing such as apartment complexes.

Today, cultural and demographic changes have created interest in using Missing Middle housing to:

- Respond to the demand for walkable urban living
- Create more options for smaller dwellings
- Increase ownership options
- Respond to shifting demographics

Nationally and locally the population is getting older, households are smaller, and family types are more diverse than in previous decades. Housing is also becoming less affordable to people of middle income. Thus, the existing single-family housing stock should evolve to meet the changing needs.

Eugene's Missing Middle

With much of Eugene's housing stock developed between the 1950s and 1980s many neighborhoods lack options. Residents must choose between single family homes or apartments. With the community's population growing and aging, Missing Middle infill in walkable areas and near

key transit corridors fulfills many goals articulated through Envision Eugene:

- Provide housing affordable to all income levels
- Plan for climate change and energy resiliency
- Promote compact urban development and efficient transportation options
- Protect, repair, and enhance neighborhood livability
- Protect, restore, and enhance natural resources

The current single family zone*(R-1) does not allow most Missing Middle types as an outright use. All of the types are allowed in multi-family zones (with the exception of Secondary Dwelling Units) if meeting minimum density standards.

With a goal in Eugene of creating more 20-minute neighborhoods, where residents can find most daily needs within a 20-minute walk from home, fitting these housing types back into the neighborhood mix makes sense. Where are Missing Middle types currently located in our neighborhoods? Where should they be incorporated in the

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^{*} Secondary Dwelling Units (SDUs) are allowed on lots that meet the standards for development and duplexes are allowed on corner lots.

Why is the Missing Middle important for our community and others?

Eugene is growing. We are expected to grow by 40,000 residents by 2035. One of the pillars of Envision Eugene is to provide housing affordable to all income levels. With wages lower than state and national averages - housing costs have significantly outpaced income growth. 50% of Eugene households are cost burdened. In other words, spend more than 30% of household income on housing costs.

New housing on average is more expensive than older housing stock however providing an available inventory as the population grows is essential to keeping overall costs down. Missing Middle types have the potential to supply diverse housing options as both rental and owner occupied dwellings along a spectrum of affordability in areas with high walkability.



MissingMiddleHousing.com is powered by Opticos Design Illustration © 2015 Opticos Design, Inc.



Goals for Enabling Missing Middle Housing

- Encourage a variety of housing types and sizes that
 offer options at multiple price points and contribute
 positively to the character of the neighborhood and
 walkable streetscape.
- Provide housing type options that transition between mixed-use and multi-family zones and single-family zones.
- Provide housing alternatives for community members that are older, younger, single-parent households and anyone that would prefer a smaller dwelling.
- Provide housing type options that increase density while maintaining consistency of building scale and character with existing single family dwellings.
- Provide attractive and highly functional open spaces that benefit residents and enhance the walking experience within the neighborhood.

- Promote cohesive architecture that is visually appealing, context sensitive and uses high-quality building materials.
- Minimize the impact of vehicular uses on the pedestrian environment and adjacent properties.

unit housing at a human scale that harmonizes with

more diverse population.

existing neighborhood pattern and scale. Types maintain

compatibility while increasing housing options for an ever

• Promote massing, scale and architectural features of new dwellings that contribute to the envisioned neighborhood pattern and address compatibility and transitions between developments.

Characteristics of Missing Middle Types*

- Within an existing or newly developed walkable context of housing, amenities, and transit.
- Marketability is dependent on a walkable context and single family characteristics.
- Create community through shared spaces.
- An emphasis on form rather than density.
- Density at the higher end of low density zones and the low end of medium density zones. A minimum of sixteen dwelling units per acre is usually where supportive transit, retail and other amenities become viable.
- Off-street parking does not drive the site plan. In order to create the best site plans and functional green space parking needs to be reduced to a minimum; that is, one space per unit at most.

- Smaller, well-designed units and sites with comfortable and usable spaces. Missing Middle types are not large suburban houses scaled down.
- Simple residential construction makes the building easier to build and moves the design out of the more intensive methods of commercial and multifamily construction.

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Missing Miiddle Handbook

^{*} Adapted from missingmiddlehousing.com

Missing Middle Housing Types

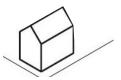


Friar Tuck - Little John Lane & Robin Hood Ave. ,Eugene

Small Lot Detached Houses

Type:

Homes on individual lots that are smaller than average; Narrow House



Where:

Neighborhoods; Infill lots; 20-min. Neighborhoods; Subdivisions

Density:

Example: Friar Tuck; Net Density 10

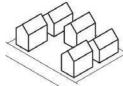




Cottage Clusters

Type:

Small dwellings clustered around shared open space



Where:

Neighborhoods; Infill lots; 20-min. Neighborhoods; Subdivisions

Density:

Example: Greenwood Avenue Cottages; Approx. 12 DU/ac



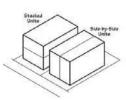


Walnut Park - Keller Street, Eugene

Plexes

Type:

Duplex; Triplex



Where:

Neighborhoods; Infill lots; 20-min. Neighborhoods; Subdivisions

Density:

Example: Walnut Park; Approx. 16 DU/ac



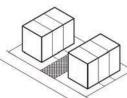


Lucia - Friendly Street & W 27th Avenue, Eugene

Courtyard

Types:

Attached dwellings facing a shared open space



Where:

Neighborhood Main Streets & Centers; Infill lots; 20-min. Neighborhoods

Density:

Example: Lucia; Approx. 28 DU/ac



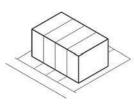


Turtle Creek - Hatton Avenue, Eugene

Rowhouses

Type:

Rowhouse; Townhouse



Where:

Infill, Neighborhood Main Streets & Centers, Buffer Zones; Subdivisions

Density:

Example: Turtle Creek; Approx. 13 DU/ac



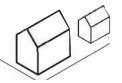


Krause Cottage - Eugene

Secondary Dwelling Units

Types:

A smaller dwelling associated with a primary residence



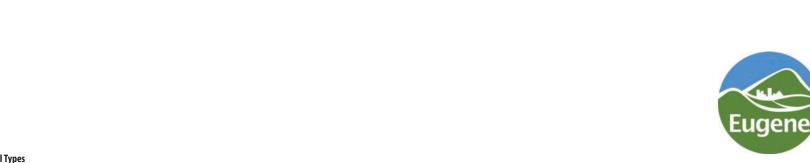
Where:

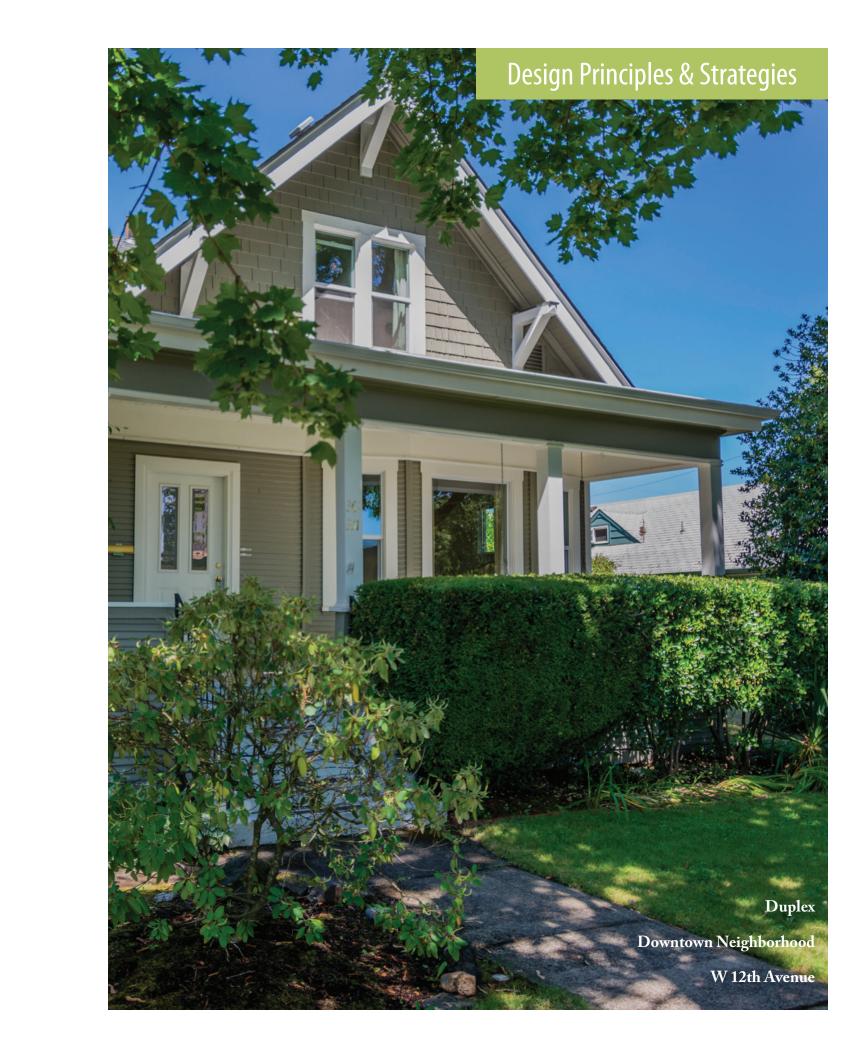
Neighborhoods; Infill lots; 20-min. Neighborhoods









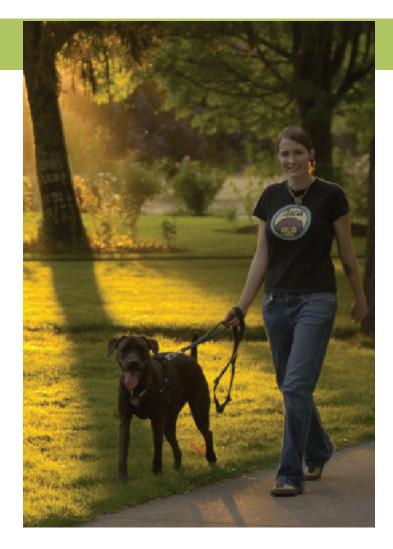


Design Principles & Strategies

Contribute to the pedestrian environment

A goal of Envision Eugene is for 90% of our neighborhoods to function as 20-minute neighborhoods by 2032. A friendly, inviting and comfortable pedestrian environment is essential for a walkable neighborhood. There are some important elements to keep in mind when designing a walkable streetscape:

- Provide continuous, accessible sidewalks.
- Maximize visual interest and human-scale details in buildings and landscaping.
- Orient entries to face and directly connected to the sidewalk.
- Minimize large areas of blank wall or garage doors facing the street.
- Utilize architectural features such as façade articulation, porches, and quality building materials.
- Allow for opportunities for residents to personalize their dwellings and private outdoor space.
- Use trees and vegetation along residential streets.

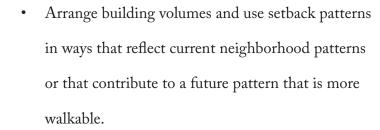


- Utilize pedestrian scale lighting and accent lighting for accessibility and safety for residents and passers-by.
- Provide convenient pedestrian access to destinations and transit with strong connections between entrances and sidewalks.
- Provide comfortable places along pedestrian circulation for residents to sit, rest, and interact with other residents and neighbors.

Respect the context, character and pattern of the neighborhood

The continuation of existing community character and pattern should be carefully considered in walkable neighborhoods; look to established patterns such as street-oriented buildings, fine-grain "rhythms" of development, and green street edges.

In less walkable areas with more disjointed, autooriented patterns it is important to consider a future that is pedestrian-friendly in areas where change is expected and desired, such as on and near corridors and mixed-use centers.



- Contribute to the neighborhood's long-term vision and potential.
- Minimize contrasts in scale where appropriate.
- Consider utilizing architectural features such as window patterns, entry treatments, roof forms, building details, and landscaping, etc. that



Eugene Neighborhood

acknowledge the surrounding context and neighborhood character.

Use site design that responds to natural features of the site and its surroundings.

Design Principles & Strategies

"Eyes on the Street" and Privacy Considerations

- Orient windows, entries, balconies and porches to the public realm to provide "eyes on the street" and opportunities for social interaction.
- Provide abundant windows and inviting entrance details.
- Consider neighboring patterns of height and outdoor spaces to minimize units overlooking neighboring outdoor space.
- Limit impacts on privacy for neighboring properties by minimizing windows and balconies close to interior setbacks.



Courtyard Apartments, Portland, Oregon

Scale & Siting of Open Space and the Green Edge

- Maximize the amenity value of unbuilt areas by providing usable and highly functional shared and private open space.
- Maximize usable open space by limiting surface parking.
- On sites with limited options for open space
 emphasize the streetscape with enhanced
 landscaping and lusher plantings in planter strips
 and tree wells.

Parking and Vehicle Access

- Limit off-street parking, utilize shared parking areas and locate parking towards the rear of sites or off alleys.
- Locate buildings and their entrances close to sidewalks and avoid situations in which pedestrians must cross parking lots to reach entries from public and shared walkways.
- Minimize disruptions to sidewalks. The safety of sidewalks is diminished when there are frequent interruptions for driveways and parking areas abutting the sidewalk.
- Screen services such as trash and recycling containers, utility equipment, and garage doors from the public realm with landscaping, low walls, etc.



Krause Cottage, Secondary Dwelling Unit, Eugene

Sustainability

- Use durable building materials.
- Use energy-efficient building design and technologies.
- Minimize stormwater runoff.
- Maximize solar access and orientation on the property and minimize impacts to neighboring properties.

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Small & Narrow Lot Detached







Friar Tuck, Cal Young Neighborhood, Eugene

Small & Narrow Lot Detached Houses are a detached one-family dwelling on lots smaller than an average single-family lot or smaller than minimums typically required by code. Narrow houses reference older platting patterns that often featured lots of 25 feet along the street frontage. Small lot sizes vary and, in Eugene, are usually the result of cluster subdivisons or planned unit developments. Lots created through a clustered subdivision can be as small as the dwelling's footprint but must meet other standards for shared open space.

Design Considerations:

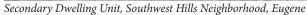
- Limit the dwelling's square footage by creating a well-designed, small-unit to respond to a smaller than average lot. This is not an opportunity to use a large suburban housing type.
- Maximize usable outdoor space through thoughtful site planning.
- Consider the height patterns of the neighborhood.
 A small footprint should not be compensated with excess height unless compatible with the context.
- Use imaginative site designs and alley access when possible to minimize street facing garage entries and parking pads.

Where:

- Narrow houses work well in the same areas
 as rowhouses but where there may not be the
 multiple adjoined lots necessary for a rowhouse
 development.
- Small lots work well in new development, where shared open space can be carefully considered in the overall site design, or in neighborhoods that already have a small or varied lot pattern.

Secondary Dwelling Units







Secondary Dwelling Unit, Whiteaker Neighborhood, Eugene

Secondary Dwellings are separate dwellings that are on the same lot as a primary dwelling. They can take the form of a backyard cottage or an attached apartment, sometimes referred to as a "granny flat." This dwelling type is limited in size and scale to maintain its secondary character to the main house. Secondary dwellings are generally not considered a Missing Middle type but must be included in any discussion of neighborhood housing mix.

Design Considerations:

- Secondary Dwelling Units are restricted in size and massing by the land use code.
- When designing a detached unit consider the architectural style of the primary dwelling and design with the intent to harmonize the two structures.
- Use durable, high-quality materials that produce a pleasing visual combination between the two buildings.

Where:

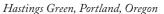
 Because of their small size and relationship to a primary structure they are a low impact way of integrating smaller housing types in walkable neighborhoods.

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Missing Middle Handbook

Cottage Clusters







Greenwood Avenue Cottages, Shoreline, Washington

Cottage Cluster Houses are a form of detached, one-family dwelling clustered around a common open space where most dwellings face the common open space. One or more dwellings may be on separate lots, or all of the dwellings may be on a single lot. Off-street parking, when provide, is often shared.

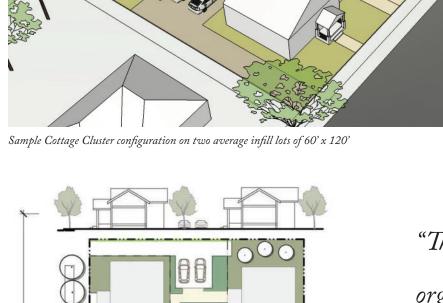
Design Considerations:

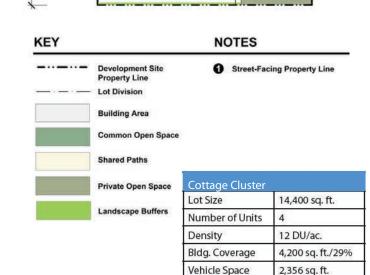
- Cottages work well in groupings up to about twelve surrounding abundant shared open space.
 Depending on the site, additional groupings can be nestled around additional open spaces.
- To be true to type, cottage housing should be limited in size, mass, and height (smaller than a single family house). For example, 800 1,000 square feet and 1-1.5* stories are typical.
- Provide for a balance of common and private open space to encourage landscape diversity and to foster a sense of ownership.
- Maintain a single family character along the public

- street consider providing street facing entries for cottages with street frontage.
- Cottages are a particularly social arrangement and foster connections.

Where:

 Cottage clusters usually need more than one typical infill size lot to fulfill the objectives of the type. Areas with larger than average lots sizes or where two or more lots can be assembled work best.





Open Space

7,844 sq. ft./54%

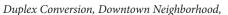
"The fundamental unit of organization within the neighborhood is the cluster of a dozen houses."

- Christopher Alexander

^{*} Half stories consist of habitable living space all or partially within the roof structure with sloping walls and often dormer windows.

Duplex







Cottage-Style Duplex, Eugene

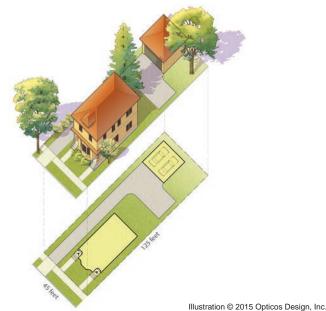
Duplex Houses usually take the form of a single family house in scale and character but contain two units. Some duplex are designed as such with separate entries for each unit while others are the result of interior conversions in older housing stock.

Design Considerations:

- **Du**plexes are one of the most compatible infill types due to their single family character.
- To integrate seamlessly into a neighborhood use the same form and massing as adjacent dwellings where appropriate.
- Maintain a single-family pattern by using shared open space, driveway and parking area.

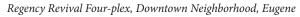
Where:

- Duplexes are appropriate on corner lots on neighborhood streets.
- Duplexes should be considered in most walkable neighborhood "mixes" to provide more opportunities for people to live near amenities.



Plexes







Four-plex, Downtown Neighborhood, Eugene

Triplex and Multiplex Houses often take the form of a single family house in scale and character but contain multiple units. Larger plexes are usually designed with a single entry and central hall configuration while others are the result of interior conversions in older housing stock.

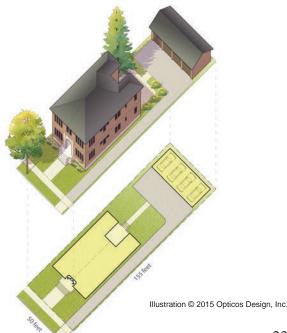
Design Considerations:

- Plexes are diverse and range in size and number of units.
- Plexes are one of the most compatible infill types due to their single family character.
- To integrate seamlessly into a neighborhood use the same form and massing as adjacent dwellings where appropriate.
- Maintain a single-family pattern by using shared open space, driveway and parking area. When applied, this often translates into a rear yard free of building.

Where:

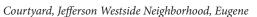
Plexes are one of the most compatible infill types
 due to their single family character; they work well

- in most neighborhoods when the character and patterns of adjacent properties is respected.
- Plexes should be considered in most walkable neighborhood "mixes" to provide more opportunities for people to live near amenities.



Courtyard







Landscaped Courtyard, Portland, Oregon

Courtyard Houses are attached dwellings that open onto a shared courtyard that directly connects to the public sidewalk. When designing this type, the street facing "end" unit deserves additional attention to detail. For walkability and compatibility this end should feature architectural elements such as windows, articulation, or a wrap-around porch.

Design Considerations:

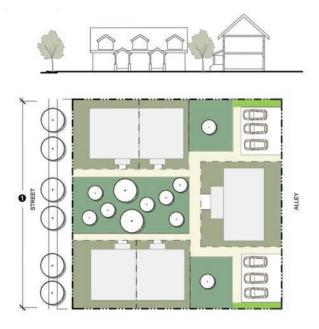
- As the central feature, the courtyard should aim to provide an attractive garden space to enhance livability for residents and add interest to the street character.
- Design the open space as a welcoming semi-public entryway.
- Provide pleasant views and natural light for residents from the shared space.
- Maintain the massing of the single-family pattern where the end-unit or building meets the street.

Where:

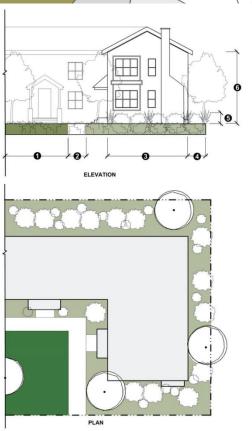
Similar to cottage clusters, courtyards usually
need more than one typical infill size lot to fulfill
the objectives of the type. Areas with larger than
average lots sizes or where two or more lots can be
assembled work best.

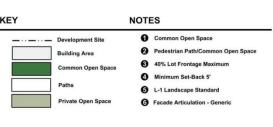


Sample Courtyard configuration on two average infill lots of 60'x 120'









Rowhouses







Rowhouses, Jefferson Westside neighborhood, Eugene

Rowhouses are a form of attached single-family dwelling where three or more units share common walls. Each unit features an individual street-facing entry.

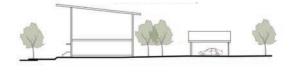
Design Considerations:

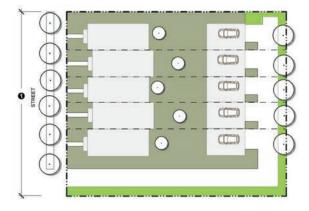
- Rowhouses are one of the most common Missing
 Middle types in many cities but fairly rare in
 Eugene.
- Rowhoses have a unique ability to create design continuity along streets.
- Rowhouses are a slightly higher density than other
 Missing Middle types discussed in this handbook.
- Parking should be shared and behind the buildings to ensure that garage doors and garage entries do not predominate the frontage, interrupt sidewalks, and consume green space.

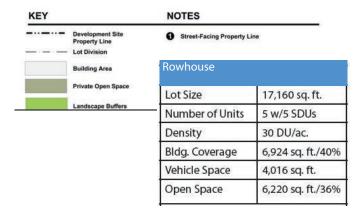
Where:

- Encourage rowhouse projects that provide a walkable, urban fabric and street edge near corridors, neighborhood centers and parks.
- Rowhouses have the potential to provide a transitional building type between mixed-use or multifamily zones and single-family areas.







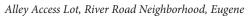


"For much of human history, walking distance defined the scale of community"

- Ross Chapin

Alley Access & Site Specific Types







Cluster Subdivision, Cal Young Neighborhood, Eugene

Alley Access, Flag Lots, and Cluster Subdivisions are site configurations that lend themselves to some of the smaller Missing Middle housing types presented in this handbook. Alley access lots and flag lots generally occur as infill sites in neighborhoods with larger lots and maintained alleys. A cluster subdivision is new development with small individual lots and more abundant shared open space.

Design Considerations for Alley Access & Flag Lots:

- Limit the dwelling's square footage by creating a well-designed, small-unit to respond to a smaller than average lot.
- Consider the height patterns of the neighborhood. A small footprint should not be compensated with excess height unless compatible with the context.
- Design welcoming entries that respond to the site's unique conditions. For example, by facing and directly connecting to the alley as if it were a street. Where:

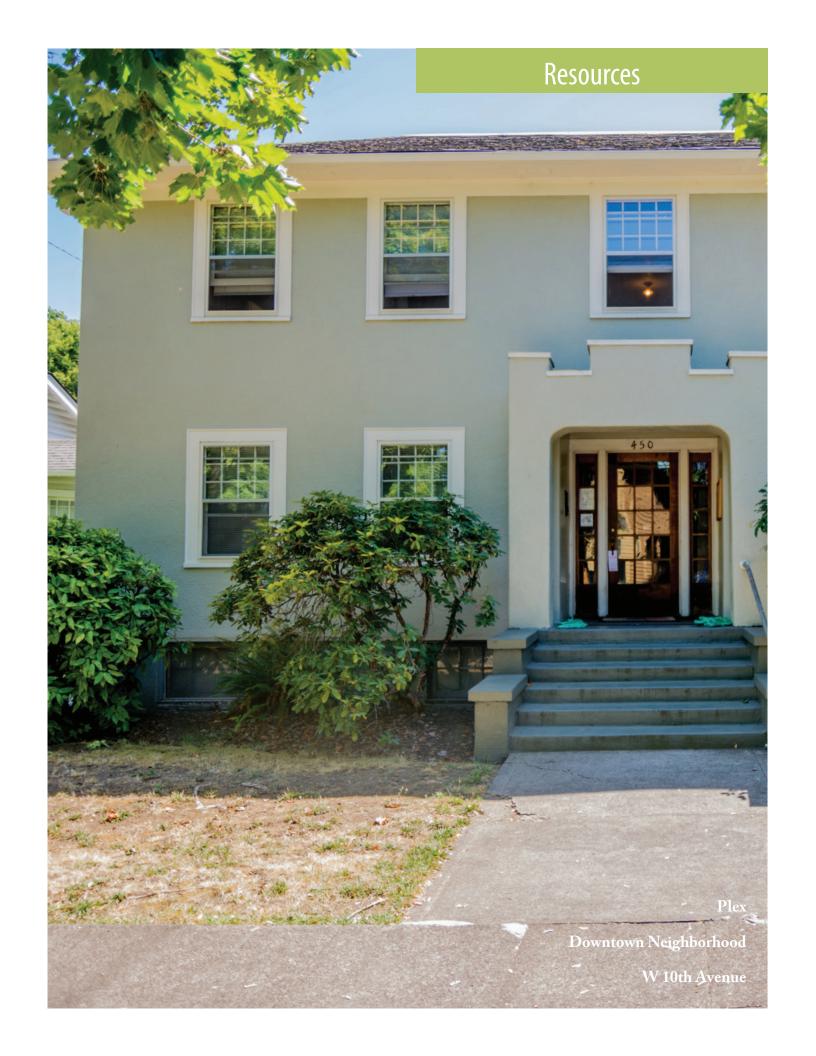
Where:

• On infill sites in neighborhoods with larger lots and maintained alleys.

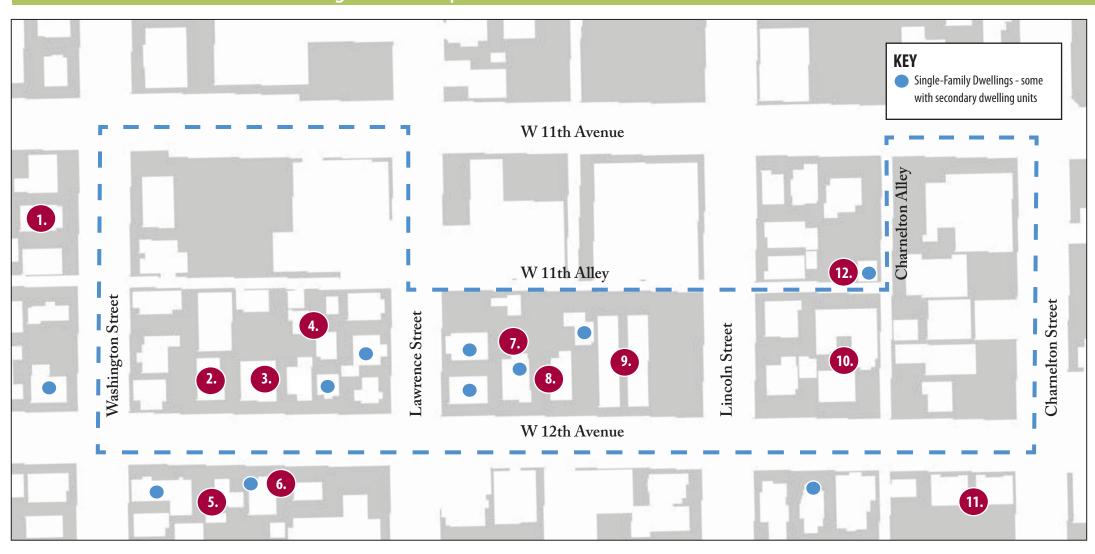
Design Considerations for Cluster Subdivision:

- Limited the size and mass of the dwellings to provide for the intended abundance of shared spaces.
- Cluster subdivisions must provide a minimum of four units.
- Shared open space may be landscaped or as natural areas that celebrate the natural features and views from a site.

• On larger sites where shared open space can provide a prominent design feature and resident amenity.



Walking Tour & Map



A walking tour through one of Eugene's pre-war neighborhoods is a good oppotunity to spot Missing Middle types and see how they function "on the ground." Here is a suggested route within blocks of the city center with just some of the types identified - see if you can find more!





10. Duplex with courtyard apartment behind





11. Duplex (next door to the west is a triplex)

12. Alley access



2. Plex with incompatible apartments









9. Courtyard





5. Secondary dwelling over garage 6. Plex

behind



7. Single Family Home with Secondary Dwelling

3. Plex



7. Alley access secondary dwelling



Research

National

Missing Middle Housing: http://missingmiddlehousing.com

Congress for a New Urbanism (CNU): https://www.cnu.org

Urban Land Institute: https://uli.org

Pocket Neighborhoods by Ross Chapin; Book available at the Eugene Public

Library: https://www.eugene-or.gov/130/Eugene-Public-Library

Oregon

State of Oregon

Character-Compatible, Space-Efficient Housing Options for Single-Dwelling Neighborhoods: https://www.oregon.gov/LCD/TGM/Pages/SpaceEfficientHousing.aspx

City of Portland

- Infill Design Toolkit: https://www.portlandoregon.gov/bps/49254
- Courtyard Housing Design Competition: http://www.courtyardhousing.org/
- Narrow House Design Competition: https://www.huduser.gov/portal/ casestudies/study_101711_1.html

Wood Village Case Study: http://www.oregonmetro.gov/

Washington

The Housing Partnership (Seattle): Materials and sample codes now accessed through Pocket Neighborhoods: http://www.pocket-neighborhoods.net (see *Pocket Neighborhoods* book above)

- Cottage Housing Development
- Cottage Housing in your Community: A Guide to Drafting Cottage Housing Ordinances



Sample Design Code - Single Family Options

The Single Family Options sample code is a design code that was developed for an area planning project in the South Willamette area. The code is not adopted but it does provide sample design standards for many Missing Middle housing types.

Link: https://www.eugene-or.gov/2685/Proposed-Design-Code-Information

