Code Concepts Memo

DUPLEXES AND COTTAGE CLUSTERS

Urbsworks, Inc | Portland Oregon 97239 USA | 503 827 4155 | www.urbsworks.com

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INTRODUCTION

Project Overview

On August 12, 2020, the City of Portland adopted the Residential Infill Project (RIP 1) which constitutes the majority of their HB 2001 implementation effort. For the past five years, The City's Bureau of Planning and Sustainability (BPS) has been working to allow duplexes, triplexes, quadplexes and second ADUs in their R7, R5, and R2.5 single-dwelling zones, which represents 90% of the single-dwelling residential lots in the City.

This project is addressing the requirement to allow for middle housing in large-lot, lower- density R10 and R20 zones. The areas where these zones apply tend to be in the outskirts of Portland, predominantly in the West Hills and Pleasant Valley area. These areas have been identified as having significantly deficient sewer, storm water drainage and transportation infrastructure (substandard and unbuilt streets).

RIP 1 did not address the requirement to allow for cottage clusters. Portland's current provisions allow for cottage clusters through a discretionary planned development approval process, but do not have a clear and objective standards track. The City reduced the review process and costs for these types of developments, but has not developed a specific "Cottage Cluster" code.

The City incorporated alternative right-of-way standards for lots served by common greens, shared courts, and alleys as part of the land division code. Expanding upon these tools with intentional development standards that adequately respond to the challenges of multi building development in the single dwelling zones, will better facilitate micro-neighborhoods within neighborhoods, to fully achieve the vision of the house bill (HB 2001).

The City is in the early stages of preparing a code amendment package to encompass the remaining elements (middle housing in large lot zones and cottage clusters) to comply with HB 2001. Urbsworks is the DLCD-provided consultant and is working with the City to assist in development concepts for the necessary code changes to comply with the cottage cluster and duplex code requirements.

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THE CONCEPTS

Cottage Clusters

The Cottage Clusters code audit consists of an inventory and review of all provisions in HB 2001 that apply to the required housing type, both those in the OAR (Division 46), and those on the Large City Model Code (LCMC). Three other cottage cluster codes were reviewed in order to compare definitions, numerical requirements, and dimensions with those of HB 2001. These included:

- The Langley, Washington, Cottage Housing Development code (one of the first contemporary cottage cluster model codes), written in the 1990's when Washington state architects and city planners were attempting to re-legalize cottage clusters as a housing type.
- Provisions under consideration for adoption in Madras, Oregon, that includes some provisions from Bend, Oregon—referred to as the "central Oregon model code.".
- Milwaukie, Oregon, Final Report on Cottage Cluster Feasibility Analysis, written in June 2019; specifically Appendix D: Proposed Cluster Housing Code Recommendations.

The audit provides a number of points of comparison for specific standards. For example, the requirement that common courtyards be faced on at least two sides by cottages, and that 50% of cottages face the courtyard, are common across all of the audited codes. On the other hand, the amount of square footage per unit that must be dedicated to the common courtyard differs, with HB 2001 requiring 150 square feet per unit, while the three model codes require 400 square feet per unit.

Project Meetings and Issues Raised

Portland IBTER Meetings

None of the comparison codes address the issue of providing infrastructure to cottage lots very thoroughly, however, this was the focus of the Portland IBTER (Infrastructure-based Time Extension Request) committee meetings held for this project. Representatives from BDS, Water, BES, Transportation, Fire, and other bureaus attended, and meetings were held monthly between February and April 2021.

Some bureau representatives were concerned about the conceptual cottage cluster layouts that were presented. The layouts illustrated strict adherence to the HB 2001 required minimums for development and siting and did not address the provision of infrastructure. See Attachment A (Prototype Studies).

For example, there was concern about providing utility connections to dwelling units that may be set far back from a public street, easement, or tract, on a deep site, with limited frontage—especially if cottages are on individual lots. HB 2001 defines a cottage cluster as cottages on a single lot, and the Prototype Studies model this scenario. However, with the May 2021 passage of state legislation (SB 458), which requires cities to adopt an expedited land division process, cottage cluster provisions adopted in 2022 will need to allow for separate dwelling units on their own lots. SB 458 would apply to cottage clusters and other HB 2001-required middle housing types.

Anticipating an expedited land division scenario generated discussion about coordinating the dimensions of the currently allowed private street type (tract) known as "Common Greens," with the HB 2001-required *common courtyard*. If the HB 2001 *common courtyard* met current city standards for Common Greens, subsequent conversion through a land division could be more readily facilitated and ensure infrastructure service is provided and maintained. This would require that the HB 2001 requirement for Common Courtyard minimum width (15 feet) remains the same as the Portland Bureau of Development Services' Common Green minimum width standard, which is set currently at 15 feet (figure below).

At right is guidance from Portland Bureau of Development Services regarding the Common Green and Pedestian Connection Improvements (Figure 19). It is one of the examples of how private rights-of-way could be designed, and is included in the "PERMANENT RULE, Private Rights-of-Way - Streets, Alleys, Shared Courts, Common Greens and Pedestrian Connections."

The figure notes that a common green must include at least 400 square feet of grassy area, play area, or dedicated gardening space, which must be at least 15 feet wide on the narrowest dimension. In addition the figure refers to stormwater facilities:

Stormwater facilities may be located within common greens or pedestrian connections. See Section III.L for specific standards.

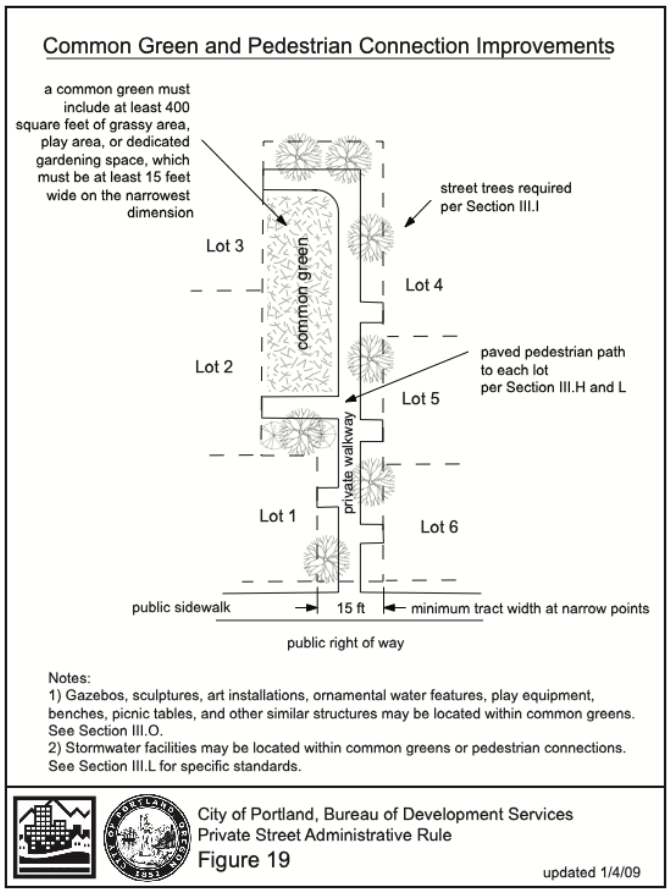


Figure 19 from City of Portland, Bureau of Development Services Private Street Administrative Rule

In one regard the Portland requirement for the Portland Common Green goes beyond what is required by HB 2001, and requires a minimum public street frontage of 15 feet. No such standard exists in HB 2001, but if Portland adopted such a standard for a cottage clusters, individual lot clusters may be easier to move through an expedited land division process.

By coordinating Portland's *Common Greens* requirements with those for HB 2001 cottage cluster , specifically those for the *common courtyard,* the city may be able to craft HB 2001-compliant amendments which anticipate both possible cottage cluster developments—co*ttages on a single lot*, and *cottages on individual lots*.

During the IBTER meetings, bureau representatives shared siting and operational demands of their respective services. One example that illustrates how the common courtyard may need to accommodate utilities was in the location and siting of drywells for stormwater (figure below).

These types of utility needs should be taken into account in the common courtyard standards, particularly if a goal is to anticipate and prepare for the most approvable infrastructure service arrangement for cottage cluster middle housing types.

At right is an excerpted page from Portland's 2020 Stormwater Management Manual, showing a simplified diagram of a typical drywell on private property (Figure SW-180- from Simplified Design Approach standards).

The manual specifies sizing and siting criteria for the location of stormwater facilities, applicable in areas of Portland where soils and slopes can accommodate infiltration.

Requirements for stormwater drywells are typical of the infrastructure service issues that would apply to common courtyards and should be taken into account, especially where separate utilities will be necessary for individual cottage lots surrounding a common courtyard.

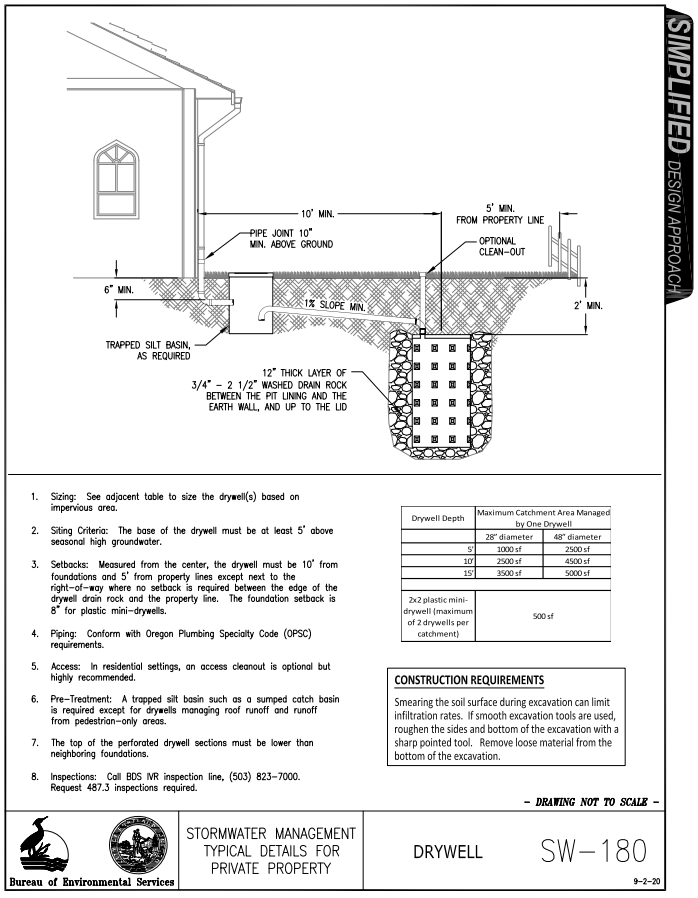


Figure SW-180 from Portland's 2020 Stormwater Management Manual Drywell

Stakeholder interviews and focus groups

People who participated in the interviews and focus group represented a wide range of interests, including homebuilders, affordable housing providers, and senior living advocates. All agreed that cottage cluster-style development was an important housing type and agreed making them easier to develop was important. They agreed that making them fee simple and being able to divide the land on which the cluster sat should be the ultimate goal of new regulations. Enabling cottages to be "owned" was seen as a superior way of providing affordable dwelling options, as opposed to cottages sharing a lot. Converting cottages to condominiums was discussed, but it was cited as complicated and costly, and was particularly difficult for affordable housing providers.

In May of 2021, the Oregon state legislature passed SB 458, which, following on from HB 2001, adds a requirement for cities to expedite land division for middle housing. This would address some of the concerns expressed by interview participants, although it may cause separate issues for public and private infrastructure providers (see Portland IBTER Meetings).

Where there was disagreement amongst interviewees was on the detail of the code provisions that the city will adopt. Some participants wanted much more flexibility (i.e., on unit sizes); others argued for more design requirements to ensure that cottages were going to function well from a physical and social perspective. The push-pull between the city's need to adopt a single, basic "by right" provision (allowing development applicants to achieve easy approval), and the complexity and nuance of the cottage cluster housing type was evident.

Some of the flexibility that was argued for—on dwelling unit size, for example—is not allowed by HB 2001. Unit sizes are fixed at maximum footprint of 900 square feet, and an averaging of unit sizes allows some flexibility in the size of each individual cottage, but the parameters are clearly set.

The HB 2001 parameters clearly establish a goal for affordability. When cottages are small and parking is clustered, the cost of each unit goes down and the number of units that become possible on a lot goes up. Listening to the discussion by focus group participants it is clear that there is a tendency to make units big, add garages, and reduce density; however, such designs would contradict the goal for affordability. Allowing such designs is possible today, through the city's Planned Development review.

HEARD AT INTERVIEWS AND FOCUS GROUP

Affordability

Balance amenities and cost: consider options for minimal amenities in favor of affordability.

Fee simple lot structure is less complex and less costly to develop.

Design

Shared open spaces should be clearly delineated so that it's apparent who "owns" the space and who is responsible for maintenance.

The size of the cluster is important to create a connected feeling among residents. Consider a top-end number of units per cluster.

Create layers of spaces from private to public.

A pattern book of design options accompanying clear and objective standards would be useful.

Flexibility

Create spaces that are good for a diverse mix of people from different backgrounds, different stages of life including families, single people, and seniors.

Consider a maximum average unit size to allow for variation in units.

Design for adaptability as needs evolve.

Cottage Cluster Concepts: Optimizing approvability, affordability, and design

Cottage clusters are an important housing type for addressing affordability and as such, were given special priority in HB 2001 rules. HB 2001 require cities to adopt cottage clusters as a specific housing type, and Division 46 and the Large City Model Code (LCMC) include prescriptive standards that cities are required to write into their zoning codes.

There are only a few areas in which a city may depart form the required standards. In looking for the right size for Portland's cottage cluster code provisions, these standards were reviewed thoroughly and discussed with the focus groups and the IBTER team (see Cottage Cluster Code Audit).

The Code Audit identifies which standards can be "flexed." The role of the Concepts was to highlight the benefits and drawbacks of each flex, or design option.

In addition, the Concepts measure the interplay between the following competing interests:

- Approvability, infrastructure serviceability, and ease of land division
- Dwelling unit yield (density) and affordability benefits
- Design for amenities, i.e., separation between units, and dimensions and area of the common courtyard

The development intensity scenarios, or Concepts, hold constant a few factors, and adjust those design or siting standards which are flexible. The results illustrate a range of possible configurations, and their effect on the competing interests of approvability, affordability, and design.

What is held constant in all Concepts:

- Parking is provided, if possible, but not required
- Common courtyard has access (frontage) on a public street
- Dwellings share a single lot

Cottage footprints are varied, as follows:

- For the 5,000 square foot lot Concepts, cottage footprints are 400 square feet.
- For the 10,000 square foot lot Concepts, cottage footprints range from 500 square feet to 700.
- For the 20,000 square foot lot Concepts, cottage footprints range from 500 square feet to 900.

Notes: 1) On any of the cottages illustrated, an upper level could provide additional dwelling square footage. 2) While the building code allows smaller sized homes, 400 square feet (roughly the size of a two car garage) is the smallest unit size that was used for these cottage cluster concept scenarios based on real examples of Accessory Dwelling Units.

HB 2001 requirements that are "flexed":

- Separation /space between dwellings
- Size of common courtyard

Finally, the tests were conducted on three different lot sizes: 5,000, 10,000, and 20,000 square feet, and "intensity" is defined as the number of dwelling units on a lot (density).

On the next page is a by-the-numbers comparison of the high-medium and low development scenarios. For the Concept scenario illustrations, see page 27.

Overview of Concepts

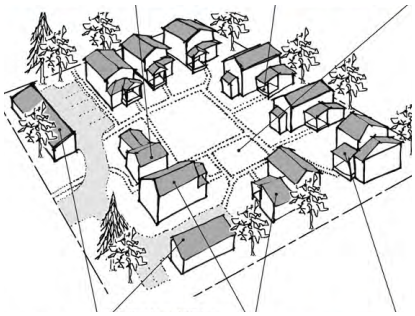
Scenario	High intensity (more cottages)	Medium intensity (medium #of cottages)	Low intensity (fewer cottages)
Factors held constant for each scenario	**15** feet, common courtyard width **6** feet between cottages	**24** feet, common courtyard width **10** feet between cottages	**24+** feet, common courtyard width **10** feet between cottages
Description	Minimal width common courtyard, less space between units	More width to common courtyard, more space between units	Generous common courtyard, more space between units
	Results from prototype tests		
5,000 square foot lot	**4** cottages no parking on site	**3** cottages no parking on site	same as medium intensity scenario
10,000 square foot lot	**8** cottages no parking on site	**6** cottages no parking on site	**5** cottages no parking on site
20,000 square foot lot	**11** cottages some parking on site	**8** cottages some parking on site	**7** cottages one parking space for each cottage on site

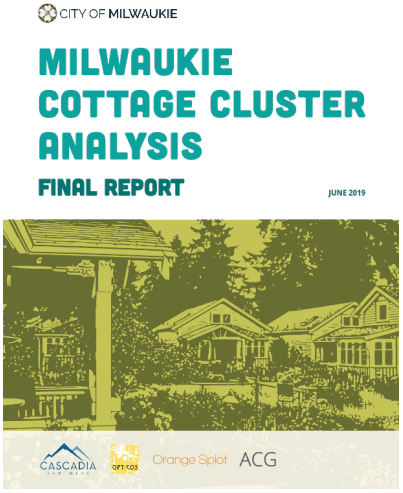
Code Audit

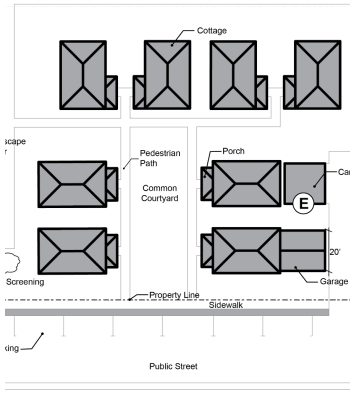
The Department of Land Conservation and Development (DLCD) provided cities with several tools to assist in the implementation of House Bill 2001. The first is the set of administrative rules that specify in detail how local governments are required to satisfy the broad intent of HB 2001. The rules were incorporated on December 9, 2020 as Division 46 of Chapter 660 of the Oregon Administrative Rules (OAR 660-046, "Middle Housing"). These rules are referred to as "OAR." The administrative rules which guide implementation establish specific and detailed standards (referred to as minimum compliance) to ensure the intent of the law is carried out in local zoning regulations. The second tool is the Large City Model Code ("LCMC"). The Model Code provides a benchmark against which local middle housing regulations can be compared to establish compliance with HB 2001. Additionally, a city can elect to adopt the Model Code in its entirety or portions of it.

How to read the code audit

The audit refers to *what is being regulated* and *how it is being regulated* by the OAR and/or the LCMC. Regulated items appear in the same order as they appear in the rules. Each subsection includes the OAR standard for a particular item (e.g., minimum number of cottages), compared with the LCMC standard. If the item is not regulated by either the LCMC or the OAR, or both, it is noted (i.e., "no requirement in the LCMC"). The OAR to LCMC comparison is followed by a summary of points on which one or more of the three cottage cluster model codes differ.







The Code Audit compares cottage cluster regulations found in five documents: The HB 2001 rules documents (OAR, or Division 46, and the Large City Model Code, or LCMC), Langley, Washington, Cottage Housing Development code (circa 1995), the 2021 Madras, Oregon, proposed cottage cluster ordinance, and the 2019 "Final Report on Cottage Cluster Feasibility Analysis," prepared for the City of Milwaukie, Oregon.

Cottage Cluster Items regulated by Oregon Revised Statutes (OAR) and the Large City Model Code (LCMC)

Definitions

- For Common courtyard (LCMC, Ch 1.B.2)
- For Cottage (LCMC, Ch 1.B.4)
- For Cottage Cluster project (LCMC, Ch 1.B.6)

Applicability

Approval process

Permitted uses (LCMC CH 5.A.1)

- *Not addressed:*
  - *Dwelling types permitted (OAR and LCMC assume all dwelling types are cottages)*

Numerical standards

- Minimum number of cottages (660-046-0205)
- Number of cottages per common courtyard (660-046-0205)
- Maximum number of cottages (DLCD Open Forum #1)

Development standards (called Siting Standards in OAR) – OAR 660-046-0220 and LCMC Ch 5.B.2

- Minimum lot size
- Minimum lot width
- Density, maximum
- Density, minimum
- Setbacks: General
- Setback: Front, side, rear, perimeter
- Building separation
- Unit size, average
- Lot or parcel coverage
- FAR
- Cottages on individual lots
- Infrastructure (OAR 660-046-0220 / 4.i)
- Building height, in feet
- Off-street parking
- Conversions
- *Not addressed:*
  - *Required private open space*
  - *Maximum lot size*

Design standards – LCMC

- Cottage orientation
- Common courtyard design
- Required private open space
- Community buildings
- Pedestrian access
- Windows
- Parking design: clustered parking
- Parking location and access
- Parking location and access: Screening
- Parking location and access: Garages and carports
- Accessory structures
- Existing structures
- Conversions
- *Not addressed:*
  - *Common open space: Ownership and tracts*
  - *Common open space: Phasing*
  - *Private open space design*

DEFINITIONS

The HB 2001 legislation includes the following definitions:

- For Common courtyard (LCMC, Ch 1.B.2)
- For Cottage (LCMC, Ch 1.B.4)
- For Cottage Cluster project (LCMC, Ch 1.B.6)

Definition: Common courtyard	**Per LCMC, Ch 1.B.2** "Common courtyard" means a common area for use by residents of a cottage cluster. A common courtyard may function as a community yard. Hard and soft landscape features may be included in a common courtyard, such as pedestrian paths, lawn, groundcover, trees, shrubs, patios, benches, or gazebos.
Definition: Cottage	**Per LCMC, Ch 1.B.4** "Cottage" means an individual dwelling unit that is part of a cottage cluster.
Definition: Cottage cluster	**Per OAR** "Cottage Cluster" means a grouping of no fewer than four detached dwelling units per acre with a footprint of less than 900 square feet each that includes a common courtyard. A Medium or Large City may allow Cottage Cluster units to be located on a single Lot or Parcel, or on individual Lots or Parcels. **Per LCMC, Ch 1.B.5** "Cottage cluster" means a grouping of no fewer than four detached dwelling units per acre, each with a footprint of less than 900 square feet, located on a single lot or parcel that includes a common courtyard. Cottage cluster may also be known as "cluster housing,""cottage housing," "bungalow court," "cottage court," or "pocket neighborhood."
Definition: Cottage cluster project	**Per LCMC, Ch 1.B.6** "Cottage cluster project" means a development site with one or more cottage clusters.Each cottage cluster as part of a cottage cluster project must have its own common courtyard.

Comparison with other codes

In one of the other cities studied, "Cottage" means a detached single-family dwelling under 1,200 square feet (excluding garages, porches, and other outdoor areas) that shares common open space with other cottages.

APPLICABILITY, APPROVAL PROCESS, AND PERMITTED USES

The HB 2001 required cottages to be permitted outright (LCMC CH 5.A.1)

- It does not address dwelling types permitted; the OAR and LCMC assume all dwelling types are cottages.

Comparison with other codes

In one of the other cities studied (Milwaukie), siting and design standards apply to three development intensities or zoning contexts. Depending on the context, cottages are allowed to be attached, or a combination of attached and detached, as follows:

- *Low density neighborhoods— Cottages are required to be detached*
- *Transit-connected locations— Cottages are allowed to be detached and attached*
- *Commercial and multifamily zones— Cottages are allowed to be detached and attached*

NUMERICAL STANDARDS

The HB 2001 legislation specifies:

- Minimum number of cottages (660-046-0205)
- Number of cottages per common courtyard (660-046-0205)
- Maximum number of cottages (DLCD Open Forum #1)

Minimum number of cottages	**Per OAR 660-046-0205** No requirement to set a minimum number, density addressed below. May require a minimum of three, four, or five dwelling units in a Cottage Cluster. May allow, but may not require, greater than five units in a Cottage Cluster
Number of cottages per common courtyard	**Per OAR 660-046-0205** Must allow up to eight cottages per common courtyard May permit greater than eight dwelling units per common courtyard
Maximum number of cottages	**Per DLCD Open Forum #1** City may set a maximum

Comparison with other codes

In the Langley, Washington, Cottage Housing Development code (one of the first contemporary cottage cluster model codes), the minimum number of cottages in a cluster is 4; the maximum number is 12.

In the central Oregon example, the minimum and maximum number of cottages in a cluster is graduated by zone:

Zone —Minimum number / Maximum number:

- R-1—4 / 12
- R-2—6 / 16
- R-3—6 / 14

DEVELOPMENT AND SITING STANDARDS

In the OAR 660-046-0220 and LCMC Ch 5.B.2, HB 2001 legislation regulates the following physical characteristics of cottage clusters

- Minimum lot size
- Minimum lot width
- Density, maximum
- Density, minimum
- Setbacks: General
- Setback: Front, in feet
- Setback: Side, in feet
- Setback: Rear, in feet
- Building separation
- Unit size, average, in sq ft
- Lot or parcel coverage
- FAR
- Cottages on individual lots
- Infrastructure (OAR 660-046-0220 / 4.i)
- Building height, in feet
- Off-street parking
- Conversions
- *Not addressed:*
  - *Required private open space*

Minimum lot size	**Per 660-046-0220** Not required to apply minimum Lot or Parcel size. If a city applies standards: If the minimum Lot or Parcel size in the same zone for a detached single-family dwelling is 7,000 square feet or less, the minimum Lot or Parcel size for a Cottage Cluster may be no greater than 7,000 square feet. If the minimum Lot or Parcel size in the same zone for a detached single-family dwelling is greater than 7,000 square feet, the minimum Lot or Parcel size for a Cottage Cluster may not be greater than the minimum Lot or Parcel size for a detached single-family dwelling. **Per Ch 5.B.2** Shall meet the minimum lot size, width,and depth standards that apply to detached single family dwellings in the same zone.
Minimum lot width	Not required to apply minimum Lot or Parcel size. If a city applies standards, it may not require a minimum Lot or Parcel width that is greater than the standard for a single-family detached dwelling in the same zone.

Minimum lot size: Comparison with other codes

Regarding minimum lot size, the central Oregon model code, has a formula for new land-divided cottage lots (a new lot for a single cottage cluster) that requires the lot to be 150% of cottage footprint. It would allow a 1,000 sq ft cottage to be on a new lot of 1,500 sq. ft., which is a fairly typical pre-existing small lot size in most cities. In addition, the 150% standard allows the lot to size up or down with a smaller (or larger) cottage.

Density, maximum	**Per OAR** May not apply density maximums. **Per LCMC** Jurisdiction's pre-existing density maximums do not apply.
Density, minimum	Must meet a minimum density of at least four units per acre.

Setbacks: General	**Per LCMC** Shall meet the minimum and maximum setback standards that apply to detached single family dwellings in the same zone, except that minimum setbacks for dwellings in excess of the following are invalid: May not require perimeter setbacks to be greater than those applicable to detached single-family dwellings in the same zone Additionally, perimeter setbacks applicable to Cottage Cluster dwelling units may not be greater than ten feet.

Setback: Front, in feet	Not greater than 10 feet (OAR)	10 (LCMC)
Setback: Side, in feet	Not greater than 10 feet (OAR)	5 (LCMC)
Setback: Rear, in feet	Not greater than 10 feet (OAR)	10 (LCMC)

Setbacks: Comparison with other codes

The Milwaukie model code proposed 6 feet between eaves as the minimum separation between cottages. It also proposes a maximum front setback (20 feet).

Building separation	**Per OAR** 10 feet The minimum distance between structures may not be greater than what is required by applicable building code requirements or 10 feet. **Per LCMC** Minimum distance of six (6) feet. The minimum distance between all other structures, including accessory structures, shall be in accordance with building code requirements.

Unit size, average, in sq ft	**Per OAR** May limit the minimum or maximum size of dwelling units in a Cottage Cluster. Must apply a maximum building footprint of 900 square feet per dwelling unit. May exempt up to 200 square feet in the calculation of dwelling unit footprint for an attached garage or carport. May not include detached garages, carports, or accessory structures in the calculation of dwelling unit footprint. **Per LCMC** The maximum average floor area for a cottage cluster is 1,400 square feet per dwelling unit. Community buildings shall be included in the average floor area calculation for a cottage cluster.

Unit size: Comparison with other codes

The Langley, Washington, Cottage Housing Development is quite specific regarding unit size: the maximum first floor or main floor area for an individual principal structure in a CHD (Cottage Housing Development) shall be as follows:

- *For at least 50 percent of the units, floor area shall not exceed 650 square feet.*
- *For no more than 50 percent of the units, the floor area may be up to 800 square feet.*

The total floor area of each cottage shall not exceed either one and one-half times the area of the main level or 975 square feet, whichever is less.

The central Oregon code specifies 1,200 square feet (excluding garages, porches, and other outdoor areas).

The Milwaukie model code proposes the following footprint standards, and explains that these dimensions are needed to maintain the affordability benefits of cottage housing:

	Low density neighborhoods	*Transit-connected locations*	*Commercial and multifamily zones*
Max footprint per home, sq. ft.	*1,000*	*1,200*	*1,200*
Max total footprint per building sq. ft.	*1,650*	*No requirement*	*No requirement*
Max floor area per home sq. ft.	*1,600*		
Max average floor area per home sq. ft.	*1,000*		

Lot or parcel coverage	**Per OAR** May not apply Lot or Parcel coverage **Per LCMC** No requirement in LCMC
FAR	**Per OAR** May not apply floor area ratio standards **Per LCMC** No requirement in LCMC

Lot coverage and FAR: Comparison with other codes

HB 2001 does not allow cities to apply floor area ratio or lot coverage standards to cottage clusters, however, as we evaluate conceptual site plans it may be helpful to look at how other cities have done so.

The Langley, Washington, Cottage Housing Development applies a restriction as follows: "maximum lot coverage for principal and accessory structures shall not exceed 40 percent."

The central Oregon code applies lot coverage, graduated by zone as follows:

	R-1	*R-2*	*R-3*
For shared cottage lot (all cottages on a single lot)	*50%*	*60%*	*50%*
For cottage lot (one cottage on an individual lot)	*90%*	*90%*	*90%*

The Milwaukie model code applies different site coverages as follows:

	Low density neighborhoods	*Transit-connected locations*	*Commercial and multifamily zones*
Lot coverage maximum, in square feet	*50%*	*65%*	*70%*
Impervious area maximum, in square feet	*60%*	*30%*	*25%*
Vegetated site area, minimum, in square feet	*35%*	*30%*	*25%*
Tree cover, minimum at maturity	*40%*		

Cottages on individual lots	Nothing precludes allowing Cottage Cluster dwelling units on individual Lots or Parcels within the Cottage Cluster development.
Infrastructure	**Per OAR660-046-0220 / 4.i** City shall work with an applicant for development to determine whether Sufficient Infrastructure will be provided, or can be provided, upon submittal of a Cottage Cluster development application. **Per LCMC** No requirement in LCMC

Infrastructure issues: Comparison with other codes

None of the comparison codes address the issue of providing infrastructure to cottage lots very thoroughly, however, this was the focus of the Portland IBTER (Infrastructure-based Time Extension Request) committee meetings held for this project, see page 5.

Building height, in feet	**Per OAR** No standard **Per LCMC** The maximum building height for all structures is 25 feet or two (2) stories, whichever is greater.

Building height: Comparison with other codes

The Milwaukie model code applies different site coverages as follows:

	Low density neighborhoods	Transit-connected locations	Commercial and multifamily zones
Max # of stories	2	2.5	3
Max structure height between 5 and 10 of rear lot line	15		
Max height to eaves facing common green	1.618 times the narrowest average width between two closest buildings		

Off-street parking	**Per OAR** May not require more than one off-street parking space per dwelling unit May allow but may not require off-street parking to be provided as a garage or carport. Nothing precludes city from allowing on-street parking credits to satisfy off-street parking requirements. **Per LCMC** Zero (0) spaces per unit with a floor area less than 1,000 square feet One (1) space per unit with a floor area of 1,000 square feet or more Spaces may be provided for individual cottages or in shared parking clusters. A credit for on-street parking shall be granted for some or all of the required off-street parking as provided in subsection (b).

Off-street parking: Comparison with other codes

The Milwaukie model code is quite specific regarding bicycle parking

Spaces per unit, minimum: 1 / .5 / .25

Dry, secure bike parking per unit, minimum: 1.5

Guest bicycle parking spaces per unit, minimum: .5

DESIGN STANDARDS – LCMC

- Cottage orientation
- Common courtyard design
- Required private open space
- Community buildings
- Pedestrian access
- Windows
- Parking design: clustered parking
- Parking location and access
- Parking location and access: Screening
- Parking location and access: Garages and carports
- Accessory structures
- Existing structures
- Conversions
- Not addressed:
  - Common open space: Ownership and tracts
  - Common open space: Phasing
  - Private open space design

Cottage orientation	**Per LCMC** Cottages must be clustered around a common courtyard, meaning they abut the associated common courtyard or are directly connected to it by a pedestrian path, and must meet the following standards:
	Each cottage within a cluster must either abut the common courtyard or must be directly connected to it by a pedestrian path.
	A minimum of 50 percent of cottages within a cluster must be oriented to the common courtyard and must: Have a main entrance facing the common courtyard; Be within 10 feet from the common courtyard, measured from the façade of the cottage to the nearest edge of the common courtyard; and Be connected to the common courtyard by a pedestrian path.
	Cottages within 20 feet of a street property line may have their entrances facing the street.
	Cottages not facing the common courtyard or the street must have their main entrances facing a pedestrian path that is directly connected to the common courtyard.

Cottage orientation: Comparison with other codes

The Langley, Washington, Cottage Housing Development requires at least 50 percent of the cottage unit shall abut the common open space, and all of the cottage units shall be within 60 feet walking distance of the common open space.

The central Oregon code requires at least 50 percent of the cottages to abut a common open space, and for each cottage to be connected to a common open space by a pedestrian pathway.

Common courtyard design	**Per LCMC** Each cottage cluster must share a common courtyard in order to provide a sense of openness and community of residents. Common courtyards must meet the following standards (see Figure 26):
	· The common courtyard must be a single, contiguous piece.
	· Cottages must abut the common courtyard on **at least two sides** of the courtyard.
	· The common courtyard must contain a minimum of **150 square feet per cottage** within the associated cluster (as defined in subsection (1) of this section (C)).
	· The common courtyard must be a minimum of **15 feet wide a**t its narrowest dimension.
	· The common courtyard shall be developed with a mix of landscaping, lawn area, pedestrian paths, and/or paved courtyard area, and may also include recreational amenities. Impervious elements of the common courtyard shall not exceed 75 percent of the total common courtyard area.
	· Pedestrian paths must be included in a common courtyard. Paths that are contiguous to a courtyard shall count toward the courtyard's minimum dimension and area. Parking areas, required setbacks, and driveways do not qualify as part of a common courtyard.

Common courtyard design: Comparison with other codes

The Langley, Washington, Cottage Housing Development and the central Oregon code require that a common open space have cottages abutting at least two sides, and that the square foot-per-cottage allotment be a minimum of 400 square feet per unit.

The central Oregon code requires the common court width to be a minimum average width of 20 feet, and also specifies:

- *Design: Areas such as utility vaults, perimeter setbacks and common parking areas and driveways are not counted in a common open space requirements.*
- *Common open space may contain drainage swales and utilities, provided the area is otherwise usable for open space purposes. Open space areas may not contain roadways or parking areas.*

Ownership	Ownership is not addressed in OAR nor LCMC

Common courtyard ownership: Comparison with other codes

- *Ownership: Common open space area must be either located within common tracts or subject to a recorded instrument acceptable to the City to ensure the common open space will perpetually benefit all residents of the cottage cluster development.*

Phasing	Phasing is not addressed in in OAR nor LCMC

Common courtyard phasing: Comparison with other codes

- *Phasing: Common open space areas must be constructed and landscaped prior to filing a final plat or, in the case of a site plan, construction and landscaping will be tied to final occupancy of the first cottage.*

Frontage	Frontage on a street is not addressed in in OAR nor LCMC

Common courtyard frontage: Comparison with other codes

- *None of the codes examined specified required street frontage for the common open space area.*

Required private open space	Private open space is not addressed in OAR nor LCMC

Required private open space: Comparison with other codes

Most of the other codes require an allocation of private open space in addition to the common open space requirement. In addition, the Langley, Washington, Cottage Housing Development code, while it does not set standards for the design of private open space, requires design review. [1]

The central Oregon code specifies that each cottage cluster development must provide 400 square feet of private open space per cottage for the exclusive use by the occupants of the applicable cottage. Private open space must be either part of the cottage lot or abut the applicable cottage for a single lot cottage cluster development. Required private open space for each cottage must be shown on submitted plans. Covered entries and uncovered patios and

[1] The high quality of common and private open space in the Langley examples may be the result of extensive design guidance, presumably administered through design review. "Patterns" and design guidelines developed by Ross Chapin cover private open space dedication, "layers" of privacy, transition from public open space to private open space, the important of porches, etc. See http://www.pocket-neighborhoods.net/blog/codes-for-courtyards/ Ross Chapin was one of the stakeholders interviewed for the Portland Cottage Cluster project.

decks in excess of the required 80 square feet in MDC 18.30.210(8)(b) may be included in the private open space calculation.

Community buildings	**Per LCMC** Cottage cluster projects may include community buildings for the shared use of residents that provide space for accessory uses such as community meeting rooms, guest housing, exercise rooms, day care, or community eating areas. Community buildings must meet the following standards: Each cottage cluster is permitted one community building, which shall count towards the maximum average floor area. A community building that meets the development code's definition of a dwelling unit must meet the maximum 900 square foot footprint limitation that applies to cottages, unless a covenant is recorded against the property stating that the structure is not a legal dwelling unit and will not be used as a primary dwelling.

Community building: Comparison with other codes

The Milwaukie model code sets a maximum footprint for the common building, that ranges from 1,500 to 3,000 square feet, depending on the context zone.

Pedestrian access	**Per LCMC** An accessible pedestrian path must be provided that connects the main entrance of each cottage to the following: The common courtyard; Shared parking areas; Community buildings; and Sidewalks in public rights-of-way abutting the site or rights-of-way if there are no sidewalks. The pedestrian path must be hard-surfaced and a minimum of four (4) feet wide.
Windows	Cottages within 20 feet of a street property line must meet any window coverage requirement that applies to detached single family dwellings in the same zone
Parking: clustered parking design	Off-street parking may be arranged in clusters, subject to the following standards: Cottage cluster projects with fewer than 16 cottages are permitted parking clusters of not more than five (5) contiguous spaces. Cottage cluster projects with 16 cottages or more are permitted parking clusters of not more than eight (8) contiguous spaces. Parking clusters must be separated from other spaces by at least four (4) feet of landscaping. Clustered parking areas may be covered.

Parking: location and access	Off-street parking spaces and vehicle maneuvering areas shall not be located: Within of 20 feet from any street property line, except alley property lines; Between a street property line and the front façade of cottages located closest to the street property line. This standard does not apply to alleys. Off-street parking spaces shall not be located within 10 feet of any other property line, except alley property lines. Driveways and drive aisles are permitted within 10 feet of other property lines.
Parking: Screening	Landscaping, fencing, or walls at least three feet tall shall separate clustered parking areas and parking structures from common courtyards and public streets.
Parking: Garages and carports	Garages and carports (whether shared or individual) must not abut common courtyards. Individual attached garages up to 200 square feet shall be exempted from the calculation of maximum building footprint for cottages. Individual detached garages must not exceed 400 square feet in floor area. Garage doors for attached and detached individual garages must not exceed 20 feet in width.

Parking: Comparison with other codes

The central Oregon code specifically requires a garage, as follows:

There must be a fully enclosed garage for each cottage with a garage door, attached or detached from the cottage, that is sufficient to store an average-size car (minimum 150 square feet) and constructed of similar materials, colors, and designs as the cottage. An individual garage shall not exceed 400 square feet in size and a shared garage must not exceed 1,200 square feet in size. Garages may not take direct access from a street other than an internal private street, alley, or driveway.

In addition to the required garages, cottage cluster developments must provide one communal off-street parking space per five cottages in the cottage cluster development.

Accessory structures	Accessory structures must not exceed 400 square feet in floor area.
Existing structures	**Per OAR 660-046-0205** A Large City must allow for the development of Cottage Clusters, including those created through additions to or conversions of existing detached single-family dwellings **Per LCMC** On a lot or parcel to be used for a cottage cluster project, an existing detached single family dwelling on the same lot at the time of proposed development of the cottage cluster may remain within the cottage cluster project area under the following conditions: · The existing dwelling may be nonconforming with respect to the requirements of this code. · The existing dwelling may be expanded up to the maximum height in subsection (B)(4) or the maximum building footprint in Chapter 1, subsection (B)(1); however, existing

	dwellings that exceed the maximum height and/or footprint of this code may not be expanded. · The floor area of the existing dwelling shall not count towards the maximum average floor area of a cottage cluster. · The existing dwelling shall be excluded from the calculation of orientation toward the common courtyard, per subsection (1)(a) of this section (C).
Conversions	**Per OAR 660-046-0230** A preexisting detached single-family dwelling may remain on a Lot or Parcel with a Cottage Cluster as described below: · The preexisting single-family dwelling may be nonconforming with respect to the requirements of the applicable code; · The preexisting single-family dwelling may be expanded up to the maximum height, footprint, or unit size required by the applicable code; however, a preexisting single-family dwelling that exceeds the maximum height, footprint, or unit size of the applicable code may not be expanded; · The preexisting single-family dwelling shall count as a unit in the Cottage Cluster; · The floor area of the preexisting single-family dwelling shall not count towards any Cottage Cluster average or Cottage Cluster project average or total unit size limits; or A Large City may apply a time limit on the conversion of a single-family dwelling to a Cottage Cluster not to exceed five years.

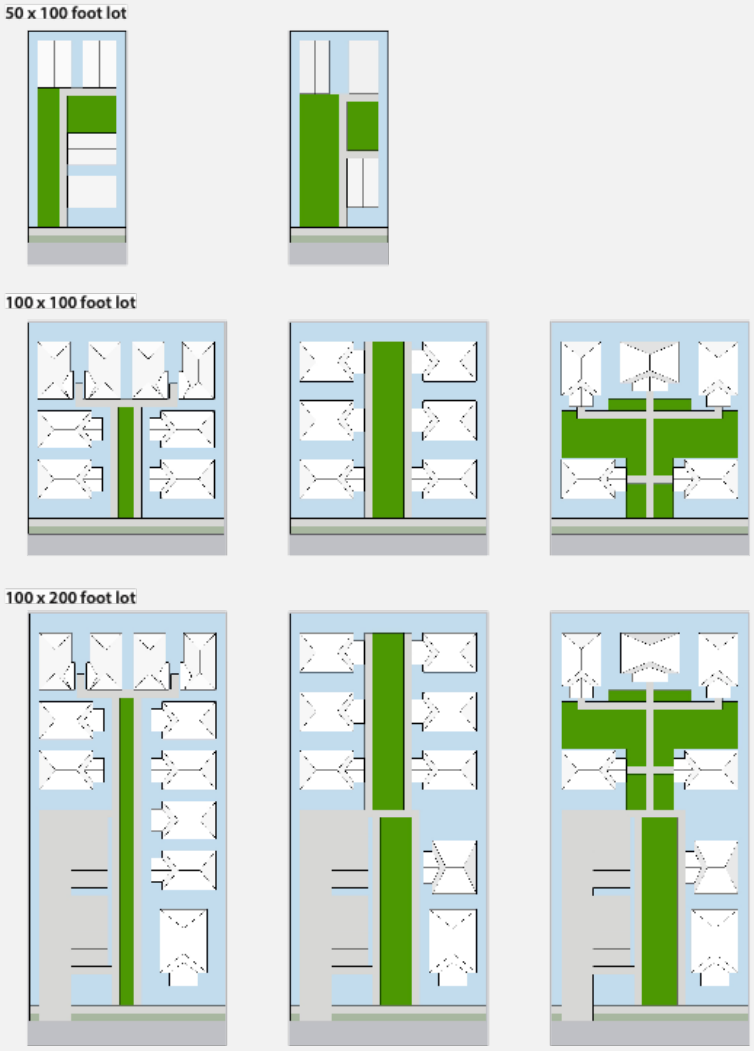
COTTAGE CLUSTER CONCEPTS

The code audit helped to clarify what standards from the OAR and/or the Large City Model Code could be flexible and which standards were required to be applied. As noted in the code audit, the OAR has certain standards that could not be adjusted such as maximum building footprint, minimum setbacks, and maximum parking requirements. Other standards have a degree of flexibility because they are either not regulated in the OAR, such as required street frontage for the common courtyard, or a maximum is set in the OAR and there are opportunities to go with a different numerical standard, provided it isn't more restrictive than the OAR.

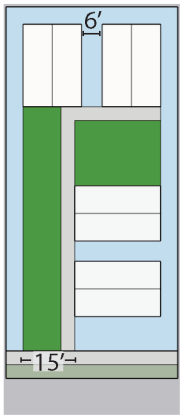
Standards that allow a degree of flexibility include:

- Building separation (within a range of 6 – 10 feet)
- Common open space required square footage per unit (within a range of 150 – 400)
- Minimum common courtyard width (within a range of 15 – 24 feet)

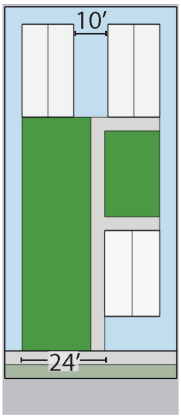
These standards were modeled and tested to see how each variable performed on typical lot sizes ranging from 5,000 square feet to 20,000 square feet.



50 x 100 foot lot



High

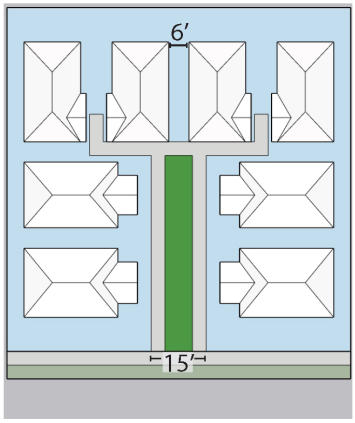


Medium/Low

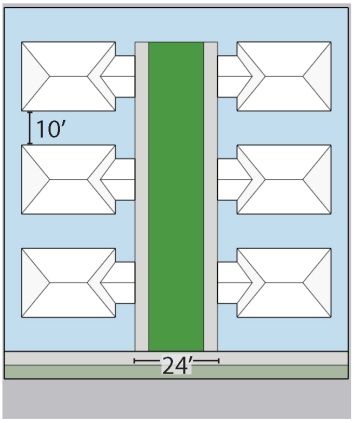
High intensity: using a courtyard width of 15 feet and building separation of 6 feet, **4 units** were achieved. Note, each unit has a footprint of 400 square feet. While the building code allows smaller sized homes, 400 square feet (roughly the size of a two-car garage) is the smallest unit size that was used for these concept scenarios based on real examples of Accessory Dwelling Units.

Medium/Low intensity: using a courtyard width of 24 feet and building separation of 10 feet, **3 units** were achieved.

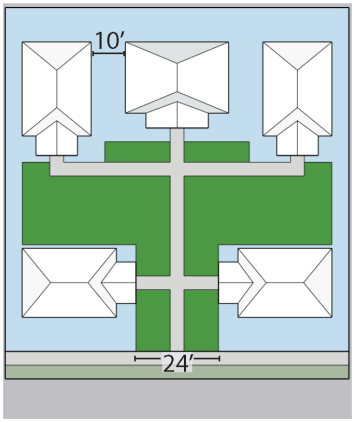
100 x 100 foot lot



High



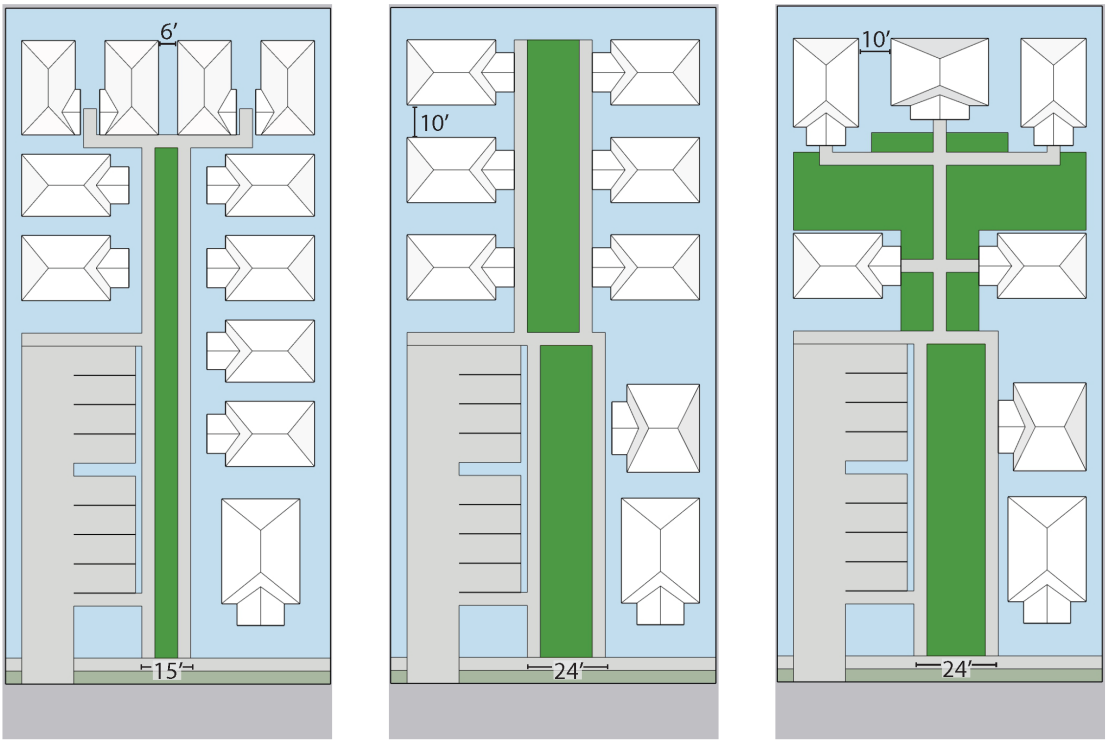
Medium



Low

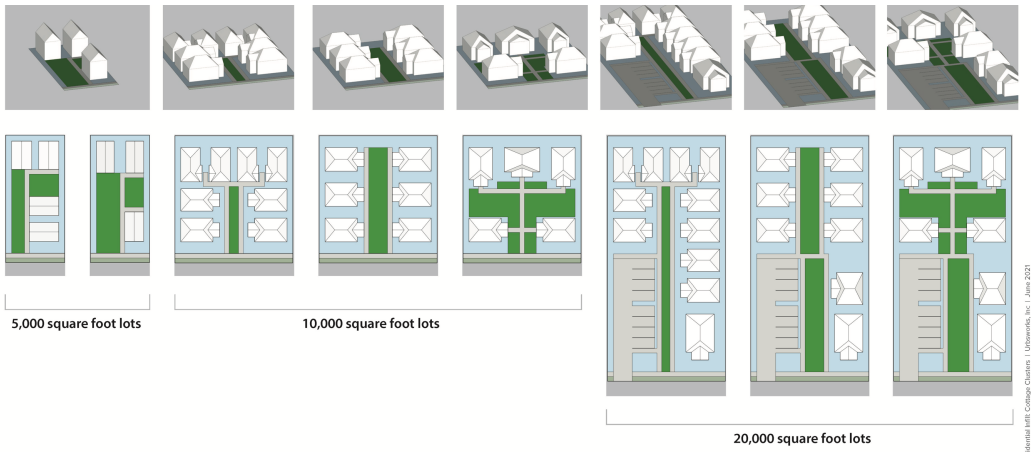
100 x 100 foot lots (10,000 square feet)	**High intensity:** using a courtyard width of 15 feet and a building separation of 6 feet**, 8 units** were achieved. **Medium intensity**: using a courtyard width of 24 feet and building separation of 10 feet, **6 units** were achieved. **Low intensity:** using a courtyard width of 24 feet and building separation of 10 feet, **5 units** were achieved.

100 x 200 foot lot



High | Medium | Low

100 x 200 foot lots (20,000 square feet)	**High intensity:** using a courtyard width of 15 feet and a building separation of 10 feet, **11 units** were achieved. **Medium intensity:** using a courtyard width of 24 feet and building separation of 10 feet, **8 units** were achieved. **Low intensity:** using a courtyard width of 24 feet and building separation of 10 feet, **7 units** were achieved.



Cottage cluster prototypes (Attachment A)

Recommendations for cottage cluster siting and design standards

Standards in the table were tested on different lot sizes and in different cottage configurations. See Attachment A for further detail.

Development Prototype Standards	High intensity	Medium intensity	Low intensity
Setbacks, in feet: Front / side /rear	0 - 10 / 5 / 5 -10	10 / 5 / 5 - 10	10 / 5 / 10
Building separation, in feet	6	10	10
Common open space, required square feet per unit	150	300	400
Common courtyard, minimum width, in feet	15	24	24
Common courtyard frontage on a street	required	required	not required
Footprint per unit, maximum, in square feet	900	900	900
Floor area per unit, average, maximum (square feet)	1,400[1]	1,400[2]	1,400[2]
Maximum height, in feet	25	25	25
Units, minimum	4	4	4
Units, maximum	18	16	8

[1] Per LCMC, The maximum average floor area for a cottage cluster is 1,400 square feet per dwelling unit. Community buildings shall be included in the average floor area calculation for a cottage cluster.

02

DUPLEXES

Introduction to duplexes

An existing conditions report was conducted for low density zones R10 and R20 as an earlier part of this project. Findings from this effort help to inform the proposed duplex concepts for low, medium, and high intensity development. Both the key findings and proposed concepts are described on the following pages.

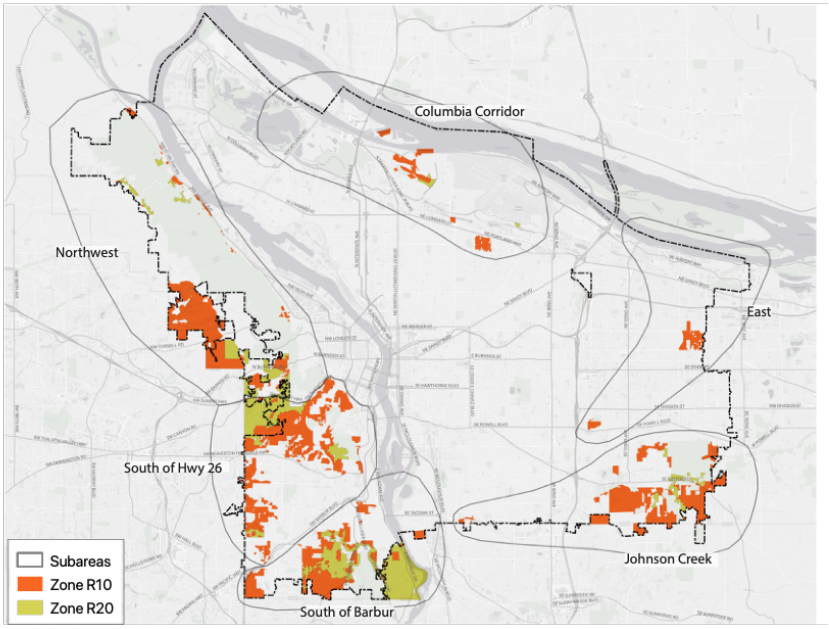
R10 AND R20 LOTS

EXISTING CONDITIONS IMPLICATIONS FOR DUPLEXES

Urbsworks, with support from City of Portland BPS staff, explored existing conditions, opportunities and challenges in R10 and R20 zoned areas. The report addressed demographic characteristics, land use, urban form, housing characteristics, mobility, infrastructure and the environment to better understand the unique issues in lower density zones. See Attachments D (Existing conditions summary) and E (Existing conditions maps and data).

Subareas that were mapped

Six subareas were defined in advance of this project and key findings are organized by these subareas.



6 subareas include:

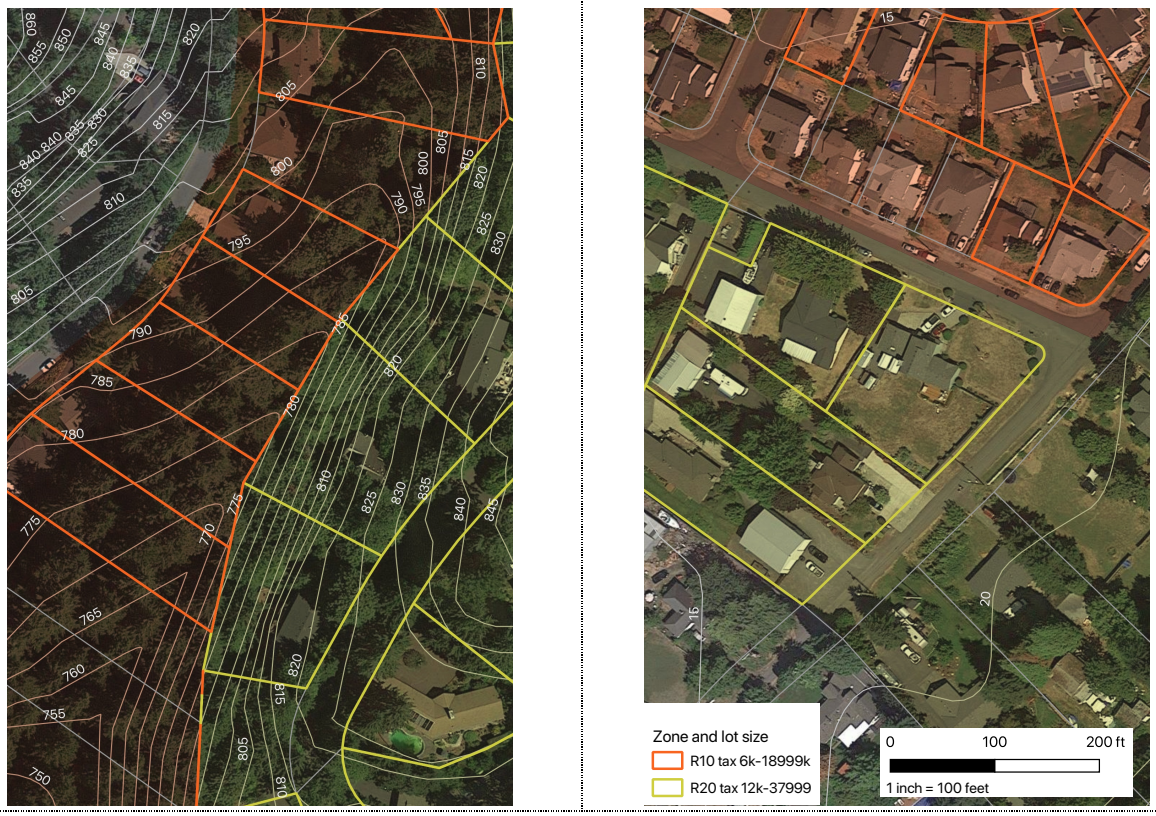
- **Northwest Portland**: from the NW city boundary to Hwy 26
- **South of Hwy 26**: between Hwy 26 and SW Barbur Blvd.
- **South of Barbur**: Southwestern city boundary to Barbur Blvd.
- **Columbia Corridor**: North and northeast near Columbia Boulevard
- **Kelly Butte/Wilkes**: North of NE Glisan Street, along eastern city boundary and areas adjacent to Kelly Butte Natural Area
- **Johnson Creek**: Southeast edge of the city in areas adjacent to Powell Butte and along Johnson Creek

Key findings from the existing conditions report:

- East and west subareas are dramatically different from one another in terms of demographics[1], infrastructure constraints, and topography.
- Generally, east subareas are more racially diverse, have lower income-earners, and lower levels of educational attainment. These areas have a lower rate of home ownership as compared with west subareas, though still higher than the citywide average.
- Generally, west subareas are have more white people, higher incomes, and more people with advanced degrees.

[1] All subarea data is from 2019 American Communities Survey 5-year estimates. Data was collected related to population, race and ethnicity, Income, age, education, housing tenure, and commute mode

- The Opportunity Map from the 2035 Comprehensive Plan categorizes Portland neighborhoods into varying levels of opportunity, scored low to high, based on a number of factors including childhood education, employment, transportation, access to family wage jobs, and healthy eating and active living. All subareas get a low rating on the opportunity scale, likely because these areas are towards the edges of the city and are less likely to be a part of a walkable urban environment.
- There is a significant difference in the economic vulnerability level for the east and west subareas. Using the existing Economic Vulnerability Assessment map–which takes into account four factors of vulnerability including renter households, low-income households, people of color, and lacking four-year degrees–shows west subareas are primarily in the least vulnerable categories, while those in the east are in the two highest levels of vulnerability.
- Infrastructure constraints are more concentrated on the west than the east, though they exist throughout all R10 and R20 areas to some degree.
- Other constraints such as fire access, wildfire risk, and landslide risk are more prominent on the west, since these sites are often steeply sloped, with heavily forested areas.



The image on the left shows R10 and R20 lots in Northwest portland with heavy tree canopy and steep grades.Image on the right shows side-by-side R10 and R20 lots in northeast Portland with relatively flat lots and minimal tree canopy.

DUPLEX CONCEPTS

Summary of duplex concepts

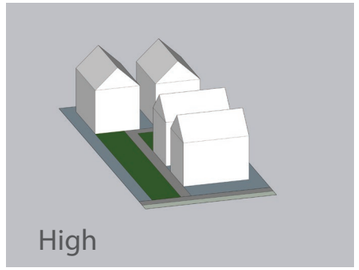
In the following high, medium, and low intensity Concepts for duplexes on large lots, density is defined as the number of dwelling units. These scenarios build from the city's "preferred approach for RIP 2," (City presentation 06/08/21), which among other things, proposes to limit all middle housing types except duplexes in the R10 and R20 zones, and considers some additional standards such as:

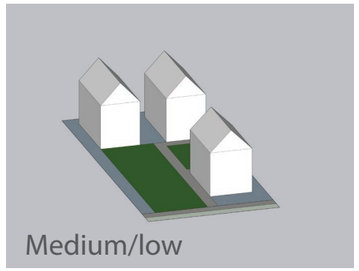
- Maximum building size cap (i.e., FAR, but not to exceed a set amount of square feet).
- Maximum Impervious area
- Maximum parking standards

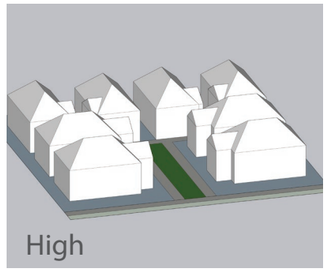
High (following RIP 1 scaled FAR precedent)	**Medium**	**Low** (one FAR regardless of structure type)
Impose an FAR limit which reduces the maximum size of a building, similar to that which will apply to R7, R5, and R2.5 zones. For a duplex the maximum FAR is increased. Consider applying the bonus FAR for affordable units, similar to the way it is granted for the smaller lot zones. In this scenario the FAR is proportional to the other zones. Of the three scenarios, this one potentially results in the highest intensity development, defined as dwelling unit density.	Impose no FAR limitations but impose development standards such as maximum impervious area, or maximum parking standard.	Impose a single FAR limit which reduces the maximum size of a building. No increase in the FAR would be possible, regardless of the number of dwellings. This scenario reduces the maximum building size that is possible, in accordance with Comprehensive Plan policy: "Areas within the designation generally have multiple significant development constraints that may pose health and safety risks if the land were more densely developed." This approach does not incentivize an additional unit.

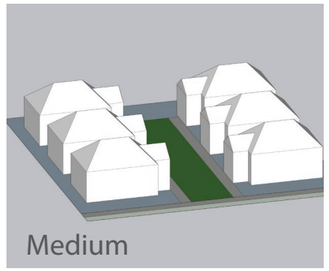
ATTACHMENT A

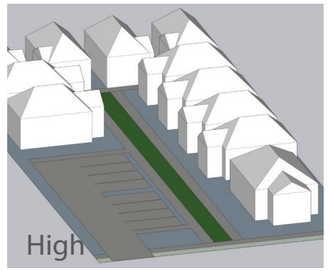
Cottage Cluster Prototypes

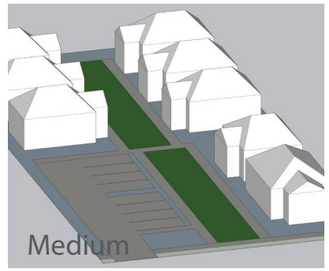


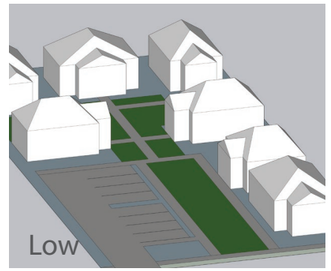


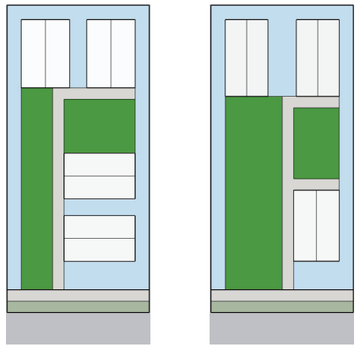


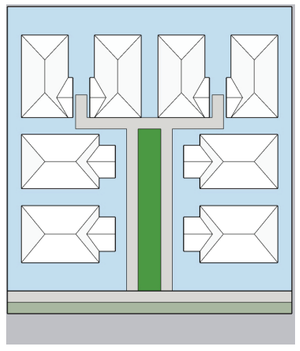


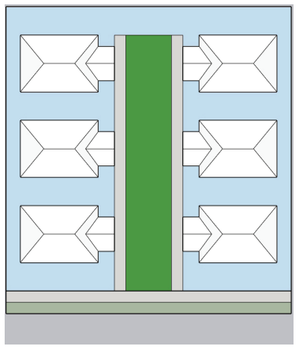


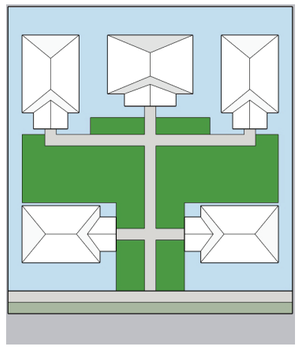






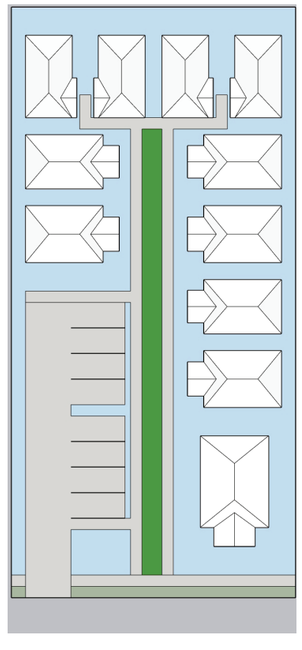


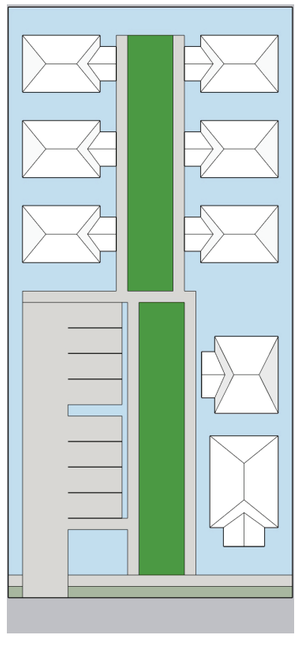


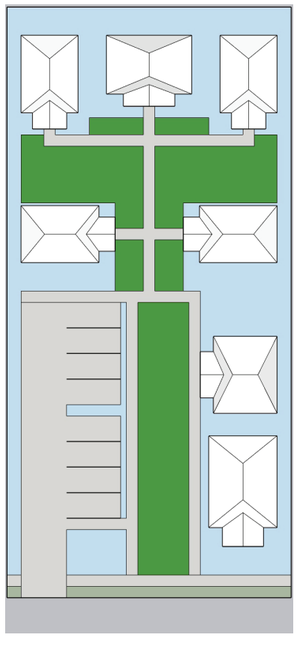


5,000 square foot lots

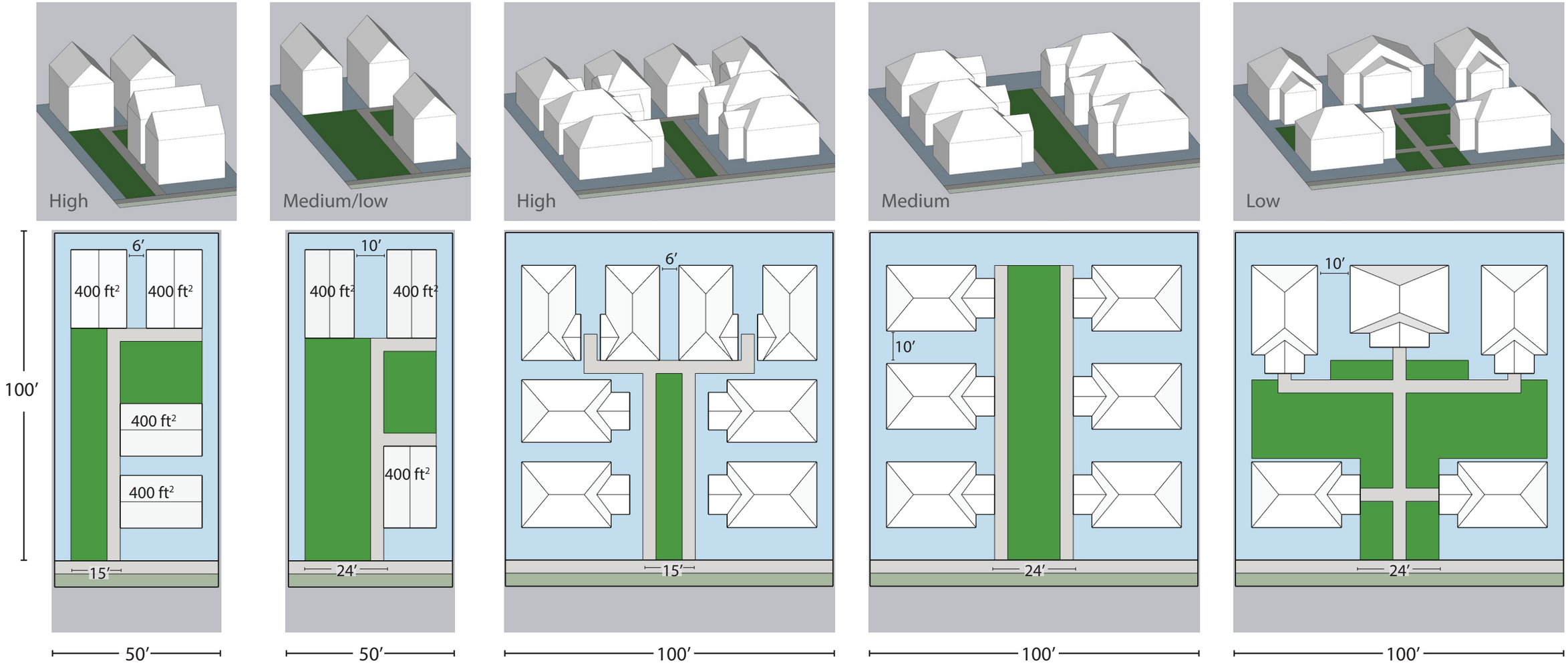
10,000 square foot lots







20,000 square foot lots



5,000 square foot lots

Prototypes show classic 1.5-story contemporary cottages (e.g., small footprint with a loft); both examples use a minimum building footprint of 400 square feet.

High intensity

Using the minimum dimensions, four units were achieved. The courtyard area provides over 400 square feet of courtyard space per unit.

Medium/low intensity

With the expanded dimensions, only three units were achieved and the overall courtyard area provides over 700 square feet of courtyard space per unit.

10,000 square foot lots

High intensity

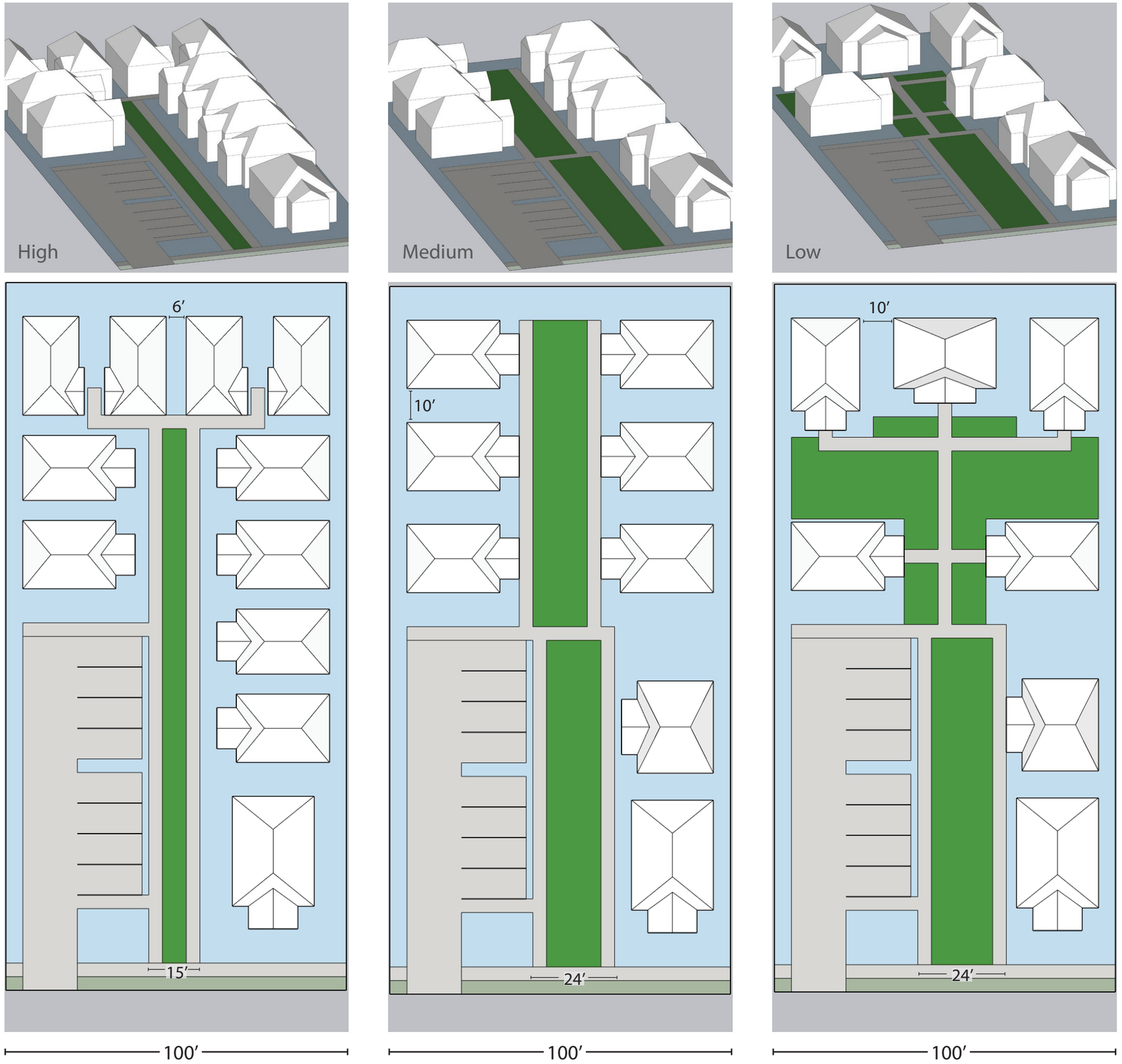
Using a courtyard width of 15 feet and building separation of six feet, eight units were achieved. The courtyard area provides less than 150 square feet of courtyard space per unit (the amount required by the Large City Model Code but not required by the OAR).

Medium intensity

A medium intensity development prototype for cottage clusters, illustrating six detached cottages on a single lot. The courtyard area provides 360 square feet of courtyard space per unit using the expanded dimensions for building separation and courtyard width.

Low intensity

A low intensity development prototype for cottage clusters, illustrating five detached cottages on a single lot using the expanded dimensions for building separation and courtyard width. The courtyard area provides over 625 square feet of courtyard space per unit.



20,000 square foot lots

High intensity
Using a courtyard width of 15 feet and building separation of six feet, 11 units were achieved along with eight parking spaces on site (.7 spaces per unit). The courtyard area provides over 200 square feet of courtyard space per unit.

Medium intensity
Using expanded dimensions for building separation and courtyard width, eight units were achieved. On-site parking is one space per unit. The courtyard area provides over 550 square feet of courtyard space per unit.

Low intensity
A low intensity development prototype for cottage clusters, illustrating seven detached cottages on a single lot. Over one parking space per unit is provided. The expanded dimensions provide a generous courtyard space with over 825 square feet of courtyard space per unit.

The following pages represent earlier prototype studies that were also done as part of this project.

Large City Model Code Minimum Standards

Large City Model Code (minimal standards, by the "book"—HB 2001)— The LCMC is very minimal on dimensions that may affect IBTER concerns

HB 2001 Model Code Standards

The City of Portland Bureau of Planning and Sustainability is continuing updates to their zoning code to comply with House Bill 2001.

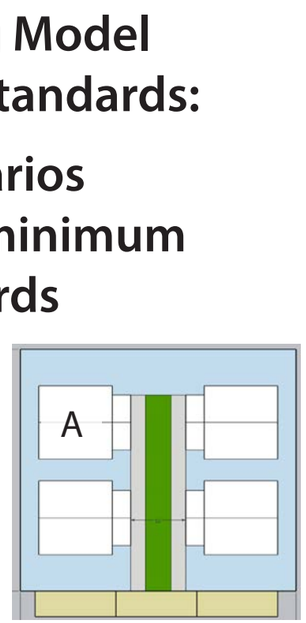
House Bill 2001 was passed by the Oregon legislature in August 2019 and requires cities in Oregon to amend their zoning codes to permit forms of "middle housing." One of the types of housing that Portland will be required to allow is "cottage clusters."

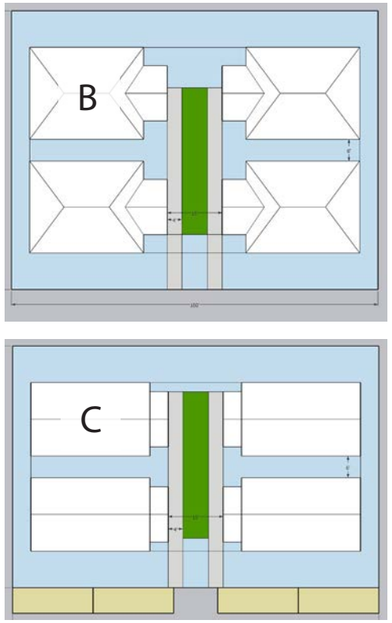
Large City Model Code	
LOT SIZE	
Lot area (minimum sq ft)	7,000
Lot width / depth	NA
SETBACKS	
Front and rear (feet)	10
Side (feet)	5
UNITS	
Number of units	No fewer than 4 per acre (detached)
Building footprint (sq ft)	Less than 900
Average unit size	1,400
Building height	25 feet maximum or 2 stories
Building separation minimum (feet)	6
PARKING	
Parking on site	0 per unit = less than 1,000 sq ft. 1 per unit = 1,000 sf and greater
Parking on street	Can count towards minimum
COMMON SPACE	
Common space area minimum	150 sq ft per unit
Common space width	15 feet minimum
Street frontage minimum	NA

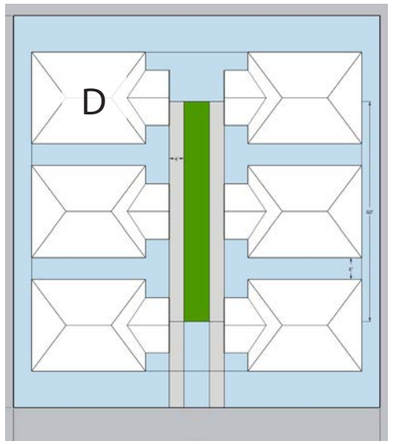
Standards that allow for flexibility

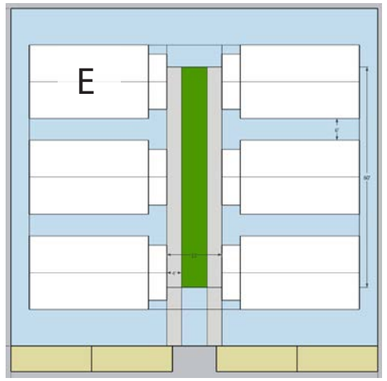
Testing Model Code Standards:

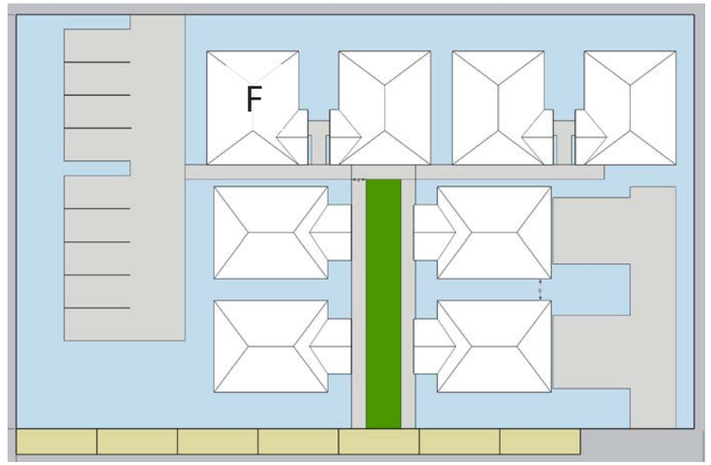
6 scenarios using minimum standards











	A	B	C	D	E	F
LOT SIZE						
Lot area (sq ft)	4,950	7,600	6,600	10,700	9,200	21,244
Lot width/ depth (ft)	75 / 66	100 / 76	100 / 66	100 / 107	100 / 92	188 / 113
SETBACKS						
Front and rear / side	10 / 5	10 / 5	10 / 5	10 / 5	10 / 5	10 / 5
UNITS						
Number of units	4	4	4	6	6	8
Building footprint (sq ft)	475	872	725	872	725	872
Average unit size	875	872	1,400	872	1,400	1,400
Height / # of stories	2	1	2	1	2	2
Building separation (feet)	6	6	6	6	6	6
PARKING						
Parking on site	0	0	0	0	0	13
Parking on street	3	0	4	0	4	7
COMMON SPACE						
Common space area	800	600	600	900	900	1400
Common space per unit	200	150	150	150	150	175
Street frontage	15	15	15	15	15	17.5

Testing Standards for Greater Approvability

Large City Model Code (minimal standards, by the "book"—HB 2001)— The LCMC is very minimal on dimensions that may affect IBTER concerns

Meeting Division 46 benchmarks instead of LCMC dimensional standards allows us to "flex" on certain things

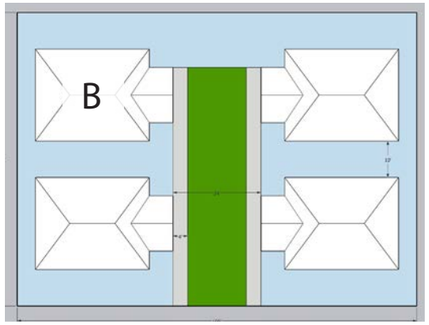
» Space between units, minimum dimension of common green

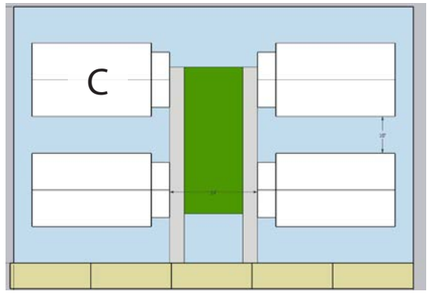
» Flexing may provide "more approvable" designs than the LCMC designs

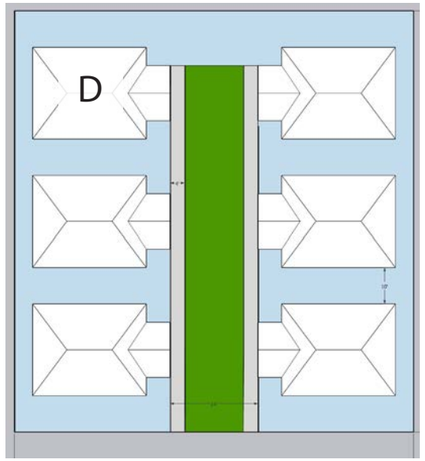
Large City Model Code	
LOT SIZE	
Lot area (minimum sq ft)	7,000
Lot width / depth	NA
SETBACKS	
Front and rear (feet)	10
Side (feet)	5
UNITS	
Number of units	No fewer than 4 per acre (detached)
Building footprint (sq ft)	Less than 900
Average unit size	1,400
Building height	25 feet maximum or 2 stories
Building separation minimum (feet)	6
PARKING	
Parking on site	0 per unit = less than 1,000 sq ft. 1 per unit = 1,000 sf and greater
Parking on street	Can count towards minimum
COMMON SPACE	
Common space area minimum	150 sq ft per unit
Common space width	15 feet minimum
Street frontage minimum	NA

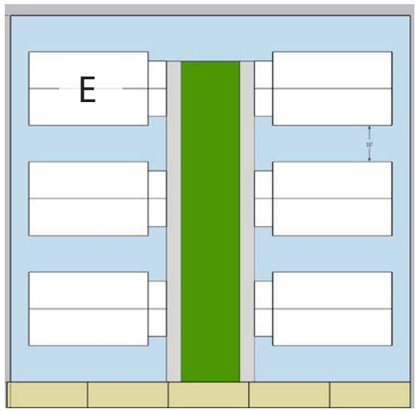
Standards that allow for flexibility

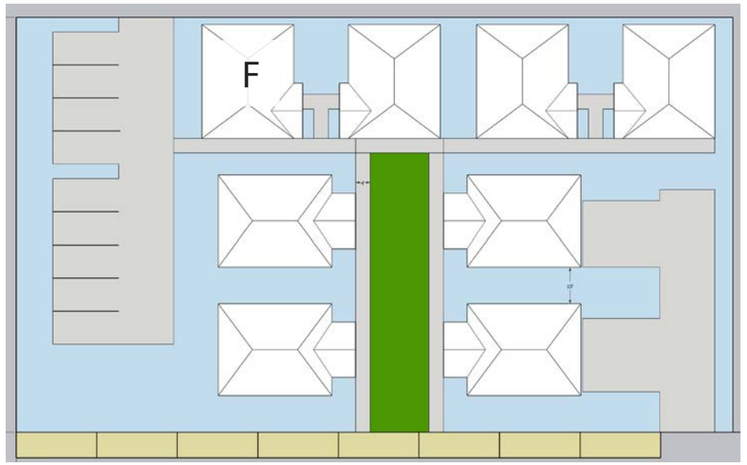
Testing expanded standards











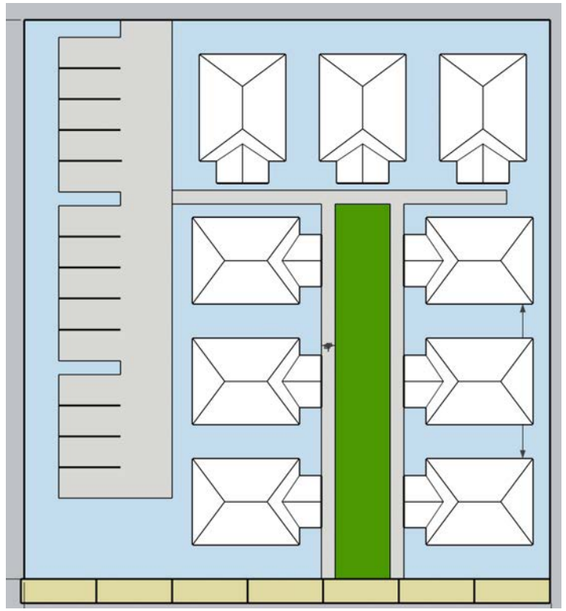
	B	C	D	E	F
LOT SIZE					
Lot area (sq ft)	8,720	7,630	12,535	9,200	22,487
Lot width/ depth (ft)	109 / 80	109 / 70	109 / 115	109 / 100	199 / 113
SETBACKS					
Front and rear / side	10 / 5	10 / 5	10 / 5	10 / 5	10 / 5
UNITS					
Number of units	4	4	6	6	8
Building footprint (sq ft)	872	725	872	725	872
Average unit size	872	1,400	872	1,400	1,400
Height / # of stories	1	2	1	2 (4 units) 1 (2 units)	2
Building separation	**10**	**10**	**10**	**10**	**10**
PARKING					
Parking on site	0	0	0	0	13
Parking on street	0	5	0	5	8
COMMON SPACE					
Common space area	1,560	1,068	2,348	2,100	1,920
Common space per unit	390	267	391	350	240
Street frontage	**24**	**24**	**24**	**24**	**24**

How big is too big? Should the city set a maximum number of units per cluster?

	G	H	I
LOT SIZE			
Lot area (sq ft)	24,939	35,136	41,004
Lot width/ depth (ft)	153 /163	144 / 244	153 / 268
SETBACKS			
Front and rear / side	10 / 5	10 / 5	10 / 5
UNITS			
Number of units	9	15	15
Building footprint (sq ft)	872	872	872
Average unit size	872	872	872
Height / # of stories	1	1	1
Building separation	**10**	**6**	**10**
PARKING			
Parking on site	14	22	25
Parking on street	7	6	7
COMMON SPACE			
Common space area	2,712	2,940	5,280
Common space per unit	301	196	352
Street frontage	**24**	**15**	**24**

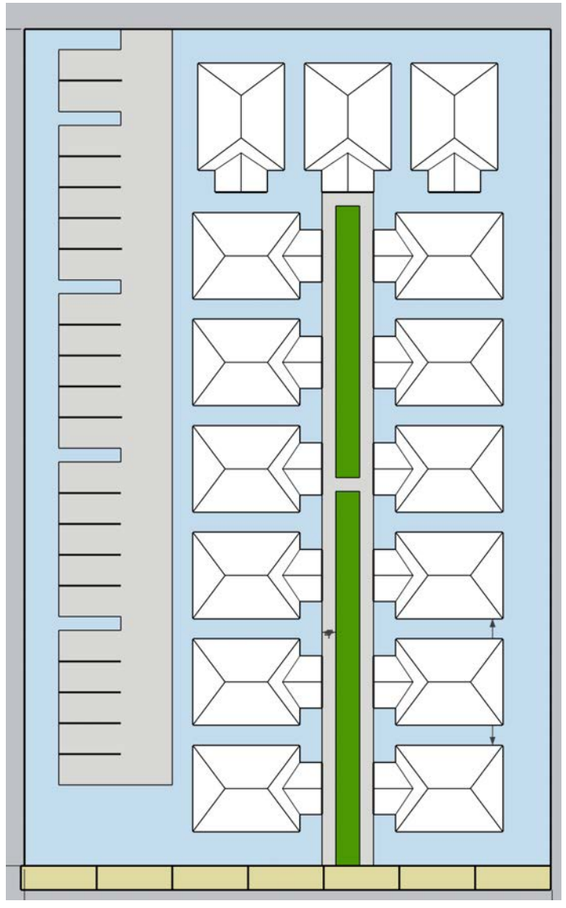
G

9 unit cottage with expanded standards



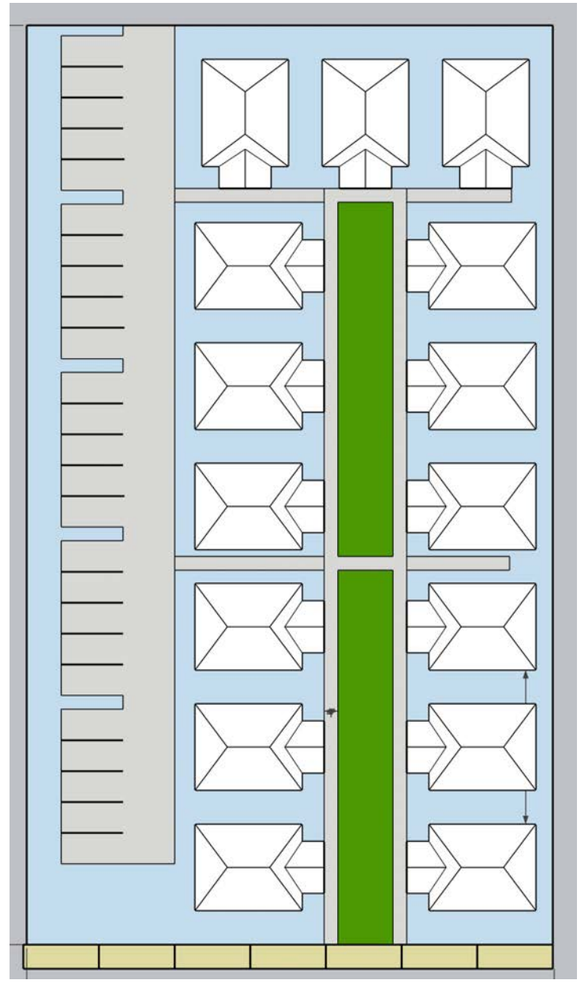
H

15 unit cottage with minimum standards



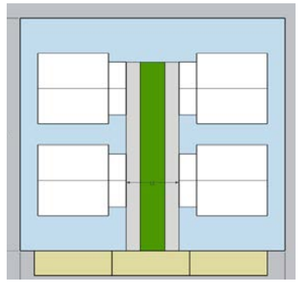
I

15 unit cottage with expanded standards



How small is too small? Should the city allow clusters on smaller lots (less than 7,000 sq ft)?

Should there be a minimum building footprint?



4 units on a 5,000 square foot lot

Meets the minimum standards of the model code

	A
LOT SIZE	
Lot area (sq ft)	4,950
Lot width/ depth (ft)	75 / 66
SETBACKS	
Front and rear / side	10 / 5
UNITS	
Number of units	4
Building footprint (sq ft)	475
Average unit size	875
Height / # of stories	2
Building separation (feet)	6
PARKING	
Parking on site	0
Parking on street	3
COMMON SPACE	
Common space area	800
Common space per unit	200
Street frontage	15

urbsworks

Date: 08 March 2021

Subject: City of Portland – HB2001 Code Update Project

To: City of Portland Project Management Team

From: Marcy McInelly AIA, Erika Warhus, Urbsworks, Inc.

HB2001 CODE UPDATE PROJECT FOR CITY OF PORTLAND

Task 4: Stakeholder Interviews – Cottage Clusters

From the scope of work:

The consultant together with BPS staff will convene interviews with cottage cluster stakeholder participants including residents, builders, real estate professionals, housing providers, aging and disability advocates and others with experience or expertise in the building, financing, designing and/or permitting of cottage cluster-like developments. Interviews will be with small (2-3 person) shared interest parties. These 1-hour interviews are intended as open ended conversations with 3-5 prompting questions as needed to better understand barriers and key challenges faced in the development of cottage clusters as well as desired attributes and opportunities that can be leveraged through zoning or other tools. Consultant will draft a summary memo describing the key observations or findings raised during the interviews. There will be at least one project meeting between BPS, other bureau staff and the Consultant to discuss the stakeholder interview summary memo.

Description:

Urbsworks worked with the Project Management Team to develop a list of potential interviewees and interview questions. On February 12th, a request was sent to a list of developers, housing advocates, and others to solicit participation in small group interviews. Urbsworks received responses from five people and two separate interviews were scheduled. Attached are summaries from each interview.

In addition, the project team received several written responses and they are attached in this package.

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HB2001 Code Update Project for City of Portland

COTTAGE CLUSTER STAKEHOLDER INTERVIEW #1 SUMMARY

Date and time: February 18, 2021, 10 – 11 am

Attendees: Morgan Tracy, JP McNeil, Marcy McInelly, Erika Warhus, Diane Linn, Patrick Jackson

Agenda

Time – 1 hour	Topic	Who
5 minutes	Introductions	Morgan
5 minutes	About our cottage cluster questions, Portland's Residential Infill Project (RIP), and this project.	
45 minutes	Facilitated discussion	Marcy, Morgan
5 minutes	Thank you, what happens next	Morgan

Interviewees

- **Diane Linn, Executive Director, Proud Ground Land Trust** –Perspective of homeownership with targeting AMI 60% and lower. Goal of the land trust is to provide permanent affordability, primarily to people of color. Proud Ground is closely partnered with Habitat for Humanity.
- **Patrick Jackson, architect and developer** – Developer of cottage cluster-like developments—Hastings Green and Macleay Overlook, among others. Perspective of market rate developer interested in creating fee simple community-driven design concepts.

Questions

1. How would you describe a cottage or a cottage cluster? What are some features that you find important in a cottage cluster?
2. If you have built a cottage cluster, what motivated you to do so?
3. If you haven't built a cottage cluster, what has prevented you from doing so?

Discussion

- Cottage clusters "break the mold" for what is possible because you can build with more density while being creative about open spaces.
- Being able to bring communities together is appealing but it comes with challenges. Proud Ground and Habitat for Humanity are focused on affordability, so simple is better. With a cottage cluster you can get efficiencies in building costs. Overall, long term affordability, durability, and functionality are what they are looking for.
- Efficiency in building is a critical piece.
- If cottage clusters were fee simple, that would make things easier than working with the legal requirements and liability risks that come with condominiumization.

Importance of fee simple small-scale residential development

- Fee simple is the best community land trust structure. It's a faster, more efficient model. Fee simple is ideal for Proud Ground because it allows them to hold the land in trust. Their model is to hold the land in trust and home buyers buy the unit itself. This keeps units affordable in the long term. They also provide down payment assistance grants. If homeowners want to sell in the future, they get the principle on their mortgage back and 25% of the appreciation of land. This also makes it possible for Proud Ground to sell the unit to then next family on their wait list.
- Proud Ground does have condo projects, but they are structured differently. They are more complex and have added costs associated with condominiums
- Fee simple is less complex and costly and is easier for the development of market-rate housing as well. Condos face challenges with social contract and legal issues. Fee simple is a step in the right direction. Access requirements and right-of-way frontage and infrastructure requirements add cost. The Macleay project was held up for over a year in the planning process. Streamlining the process would make this housing type more feasible.

Balancing amenities and cost

- Everyone likes amenities, the challenge is that they add cost, so they need to be done in a thoughtful way. The bottom line is affordability, and we have a housing affordability crisis. BIPOC communities cannot afford rental or ownership in Portland right now.
- While there is efficiency in building multiple units, amenities hike prices way up, driving them out of the range of affordability.
- Areas in common are harder to manage. With any shared space, a structure is needed that empowers the people living there to deal with issues that are going to come up when people live in close proximity to one another. The more you can define each person's space and responsibility the better. Cohousing or "co-community" is a different model altogether because everyone is buying in to the culture.
- It is important to clearly delineated the shared open spaces, so it is clear who is responsible for maintenance. One of the site plans shown as an example (Green Grove Cohousing) suggested an ambiguity between common areas and private areas that may cause questions about who "owns" the space, and therefore who is entitled to use it and who is responsible for maintaining it.
- Co-housing isn't really that affordable because amenities drive the costs up. Unless it's heavily subsidized, is usually for higher income families.
- For market-driven projects, the amenities are what is appealing: They are one incentive for a developer wanting to do this type of development. The shared open spaces are the thing that creates community. With Hastings Green the garden and common lawn are assets where community-building takes place. The cottage model also provides a sense of safety and security.

Unit size and parking

- Parking is really site dependent. For a project not close to walkable amenities and transit lines, parking is more important on site. If on-street parking is available, it shouldn't be required at all.
- 900 square feet seems small. Consider 1,000 as the top end and not much less than that at the bottom. 900 square feet is harder for a layout and changes the relationship of ground floor to second floor bedrooms.
- From an affordable housing perspective, 900 is on the small side because they are trying to serve families with kids. 2-3 bedrooms is really an important element of family housing. Why dictate the minimum size of the units at all?

Question posed by City

- Should there be an option for land division if the project is affordable? (Morgan)

- Responses:
    - The two are not mutually exclusive. Land division itself is a cumbersome process and the cost is high. Condos become the only option. Land division for affordable housing does make sense, and possibly it makes sense for the private sector if it means they can provide more entry-level housing.
    - Condo defect laws have effectively taken entry level homeownership option off the table.

HB2001 Code Update Project for City of Portland

COTTAGE CLUSTER STAKEHOLDER INTERVIEW #2 SUMMARY

Date and time: February 23, 2021, 9 – 10 am

Attendees: Morgan Tracy, JP McNeil, Marcy McInelly, Erika Warhus, Ross Chapin, Mike Mitchoff, Garlynn Woodsong

Agenda

Time – 1 hour	Topic	Who
5 minutes	Introductions	Morgan
5 minutes	About our cottage cluster questions, Portland's Residential Infill Project (RIP), and this project.	
45 minutes	Facilitated discussion	Marcy, Morgan
5 minutes	Thank you, what happens next	Morgan

Interviewees

- **Ross Chapin, Architect** –Designer of many cottage cluster developments, leader in cottage cluster housing and other small scale housing type.
- **Mike Mitchoff, Portland Houseworks**–Builder of smaller, missing middle houses, participated in RIP 1 on the stakeholder committee, interested in building more affordable housing and smaller footprint.
- **Garlynn Woodsong, developer**– Developer of middle housing, participated in RIP 1 on the stakeholder committee, performed a cottage cluster study for City of Milwaukie, which was informative about cottage cluster forms.

Questions

1. How would you describe a cottage or a cottage cluster? What are some features that you find important in a cottage cluster?
2. If you have built a cottage cluster, what motivated you to do so?
3. If you haven't built a cottage cluster, what has prevented you from doing so?

Discussion

RC = Ross Chapin, MM = Mike Mitchoff, GW = Garlynn Woodsong

What is a cottage cluster?

- Smaller than average detached home that's part of a larger grouping and has a shared community element. Could be on a single lot or shared lot. They are located within a larger previously developed jurisdiction (larger neighborhood or community). (MM)
- A "cottage cluster" indicates single detached dwelling. In Milwaukie project we used the term "housing cluster" which could include attached units like stacked townhome clusters and townhome clusters. Attached clusters aren't

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appropriate for all locations. Prioritize near frequent transit or neighborhood centers/downtown. Hierarchy of clusters: detached (lower) attached (higher). (GW)

- The word "cottage" can be misleading. At its core, and historically, it's a *modest home for working people.* Cottage has been taken over by cottage style which is not the same thing. Likes the term "housing cluster," which communicates the scale of sociability and a design which provides a sense of coherence at the sub-neighborhood scale. (RC)
- Hard question. Smaller is maybe not better, but it's what his customers want. Smaller generally equals more affordable. "Cottage" equates to smaller scale and can see a limit on size of to 900 square feet. Has personally designed projects in the "spirit of a cottage," but a unit that is bigger than 1,000 – 1,200 sf. 5000 sf loses "cottage" characteristics. As a builder, doesn't like limits on size. But acknowledges that unless there is a maximum size it is hard to define what a cottage is and isn't. In the spirit of cottages: smaller than average. He struggles with the cap but sees the intent of one. (MM)

Size of units

- For the Milwaukie policy and recommendations project (Milwaukie Cottage Cluster and Analysis Report, 2019), they created a maximum average unit size for the development. It's not about capping the individual unit but getting to an overall average. This still achieves affordability on site and allows for housing diversity. Stresses that the 900 square feet in the HB 2001 is the maximum footprint of the dwelling, is not a limit on the dwelling's total square footage. (GW)
- Want to see spaces that are good for a diverse mix of people from different backgrounds, different stages of life including families, single people and seniors. Having different sizes in the cluster means that it can serve different people and diverse households. Maximum average size seems like a good approach. The size of the home is important but what is most important is the size of the cluster (see below). (RC)

Morgan: What about serving families and who might need 3 bedrooms?

- A larger footprint building is a struggle because it defeats the purpose and is no longer affordable. Building for a 1.7-person household—based on data and housing needs. Look at who's buying the houses. 650 – 1800 sf. Number of people in the home is 2 on the high end. A 1-2 bedroom home works well for who is buying. Once you start adding a third bedroom then you usually need a second bathroom, which drives cost up. (MM)
- Agree. Market for 3 bed homes is overstated. There's a lot of options for single family homes on the market. If you're asking the question how many people need ground floor options? With three bedrooms you could have a master on main plus 2 beds upstairs. More than likely if you put a 3-bedroom house on market you're going to get one to two people living in it because there isn't a whole lot of demand. Demand is for the smaller unit types. (GW)
- MM: Some projects were 4 units on one site with a range from 1,200 down to 600 square feet. It was well received, and in the end the success of the project should be determined by the end user. 1,800 square feet is on the large end and loses the "cottage" feel. (GW)
- In order to create good policy, you need to look at the success of built projects. What works what doesn't? What's successful and why? Let examples drive the policy decisions. Policy can't determine good design, but it can bring in some key elements. (RC)

Scale of sociability

- Size of house vs. size of development are different things and the size of the cluster is most important. That's the scale of sociability. There is room for difference in unit sizes but there is a "right" number so that people feel connected to the space, feel a sense of community rather than anonymity. 10 – 12 units is a good top-end, but you could have multiple clusters in the same project. Danielson Grove project is a good example. On the 2-acre site there

is one cluster of 10 and another cluster of 6. Scale of sociability is similar to single dwellings, as in who do you relate to? Likely it's neighbors on either side, maybe a couple across the street and in the back. (RC)

- Agree that multiple clusters are good on a larger site; "subsidiarity" is important. But an exact top-end number for a cluster is harder to determine. Especially if they are stacked townhomes where 12 clustered would be 24 different units. Is that too many? It is still a limited set of eyes forming that community. (GW)

Orientation:

- The front two are oriented to the street. The back units are surrounding a communal area. Has learned that people want to be a part of a community but also really like their private space and that needs to be well delineated in order to appeal. The more open a project is, the more it needs to be oriented inward. Striking that balance is important. (MM)
- Really important to anchor key design approaches, and they need to be named. It's about both community and personal space. The tighter the community, the more important the private space becomes. Orientation is important but not necessarily that all units face the street. Where's the front? Consider layers of personal space from the private, semi-private buffer, sidewalk, and common area. Nested houses help create more privacy for individual units. Density is given a bad word because of not addressing personal space and privacy. This is not about single dwellings but orientation and design. People need places to retreat to. Side yard living is a good example of semi-private space. 10 feet works really well. Refuge: private garden in the back. (RC)
    - Note: Following the interview, Ross Chapin sent material that illustrates and names some of his key design approaches (see attachments).
- Shared commons is a key design element and the location and use of this space matters. The communal space needs an element (outdoor fire/sitting area, common house, workshop, garden, play area, etc). It's best if there is a range of possibilities so it's not prescriptive and allows for flexibility. There could be a need for a pattern book/design elements that accompanies the clear and objective standards. (RC)
- The common structures are the hardest to figure out how to regulate. For Milwaukie, they determined not to regulate it and just allow for it. If cluster includes retail component that's great too. There should be no use restrictions on the common structures within cluster housing. (GW)

Obstacles:

- Traditional builders don't build clusters for two reasons: they're expensive and complicated to build/develop. If the city had a point person that was a planning expert in clusters that would be very valuable so that when a person comes in for an early assistance application, they are filtered directly to that person. The process takes a very long time and is complicated. Few people are willing to commit with such challenges. How to encourage others to get involved? Send a message the city is willing to help. (MM)
- Second the call for technical assistance. There's a need for guidelines in addition to the code. All things shouldn't be regulated but the city should share wisdom. That would be powerful. (GW)
- It's important to state the intentions of cottage housing. What is the intention for the code? It's about neighborhood location and availably for parking and transit in immediate area. There should be flexibility in parking design as well. It's a niche market that's not for everyone. People choose this setting and it's value-based. (RC)
- Get the policy and code to align. Limit the number of hurdles a person has to overcome. Most people can't afford the hassle. They want to deliver good housing but will default to the standard because the policy doesn't create an easy path. (RC)

ATTACHMENTS

Several stakeholders who were either invited to participate or did participate in the interviews send along additional material for the cottage cluster discussion. This material is attached in the following pages including:

- Design Essentials for Pocket Neighborhoods, Ross Chapin Architects
- Letter, Shanley Lazas, Portland State University
- Letter, Age-Friendly Portland and Multnomah County Executive Committee

What is a Pocket Neighborhood?

Pocket Neighborhoods are clustered groups of neighboring homes gathered around an open space — such as a garden courtyard, joined backyards, pedestrian street or a reclaimed alley.

These are settings where nearby neighbors can easily know one another, where parents feel at ease with children venturing beyond the front gate, where those with far-flung families find friendship, and where an elder will feel safe and cared for.

The design of pocket neighborhoods will vary from place to place, but there are a few key design essentials that make them work well . . .

Scale of Sociability

Humans are social creatures.

Conversation is spontaneous in small groups. Pocket Neighborhoods are designed around this fact of our human nature.

We like to gather in small groups. We love to chat, tell stories, reminisce, argue, laugh.

In small groups, conversation is spontaneous. It's what we do. This is the Scale of Sociability.

In a large group, say 40 or 100, anything resembling communication must be organized. In small groups, it's effortless.

Shared Commons

Why is shared outdoor space so important in a pocket neighborhood?

During the daily flow of life through this space, nearby neighbors offer 'nodding hellos' or stop for a chat along the garden walk. These casual conversations can eventually grow into caring relationships and a meaningful sense of community — all fostered by the simple fact of shared space.

The commons has clearly defined boundaries, beginning at the entrance from the street and extending to the gates of the private yards. This creates a clear sense of territory by anyone who enters. A stranger walking into the commons is likely to be addressed with a friendly, "can I help you?" At the same time, a child has a safe zone to play in or have time with a shirt-tail auntie.

Common Buildings & Gardens

An advantage of living in a pocket neighborhood is having shared buildings and gardens.

The least expensive amenity is a common tool shed. One lawn mower can easily be shared by a few neighbors! Along with a few rakes, shovels and pruners.

An outdoor barbeque or fireplace is another. At the end of the day when the grill is fired up, it's likely to attract an improptu get together.

A multi-purpose building can host potlucks, meetings, exercise groups and movie nights.s

Pocket neighborhoods of any size will enjoy the benefits of a community vegetable garden.

Beyond being amenities, these common facilities foster relationships among neighbors and strengthen their sense of community.

Room-Sized Porch

A room-sized front porch is a key element in fostering neighborly connections. Its magic comes from the way it is both private and public, belonging to the household while being open to passersby.

Making a good porch is both an art and a science.

Get the location right. Make it part of the primary entrance, connected to the front yard and in view of the street or public walkway.

Make it a living space. While a porch gives charm to a house, it should not be 'faux' porch appliqued just for looks, or a key-fumbling porch just to get out of the rain. Make it a useable outdoor room, a place to gather for supper, linger with friends, or settle in with a book.

Define the edge. Whether required or not for safety, don't leave out the railing. It defines a critical social boundary. Don't make it too high, though, or it will feel like a cage. 27 to 30 inches is just right for 'perching' and for placing a cup of coffee. And who doesn't like a flowerbox?

Layers of Personal Space

Community is wonderful, but too much community can be suffocating. On the other hand, with too much privacy, a person can feel cut off. *Layers of Personal Space* helps acheive a balance between privacy and community.

In this photo there are five layers: in from the sidewalk is a border of shrubs and flowers; then a low fence to demarcate the private yard; a covered porch with a low railing and flowerboxes; and then the front door.

These public to private gradients continue inside the house: active living spaces are toward the front and more private personal spaces are toward the back and upstairs. A private garden can be in the sideyard or secluded in back.

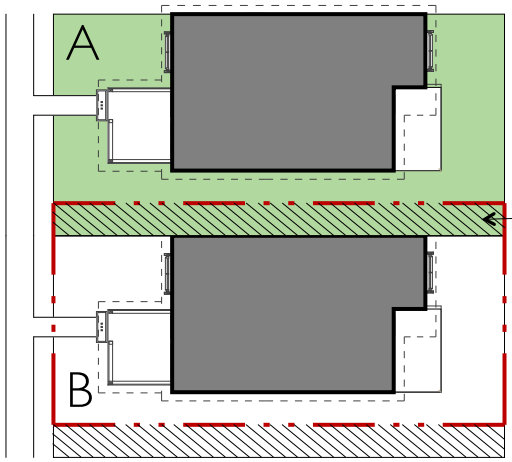
Nested Houses

Having a next-door house or apartment peering into your own can be uncomfortable and claustrophobic.

Nested Houses have open and closed sides that 'nest' together: the open side has large windows facing its side yard, while the closed side has high windows and skylights to bring in ample light while preserving privacy.

A five-foot sideyard is useless except to store ladders and rusty bicycles. Make use of a full sideyard extending to the face of the neighboring building through *limited use easements*.

Building code-wise, the setback of the building to the property line is greater than the threshold that triggers fire separation requirements.



limited use easement granted to Lot A from Lot B

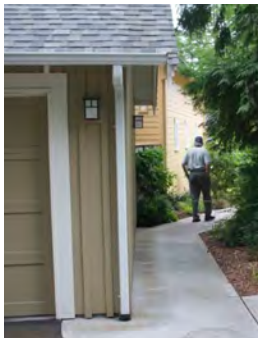
Corraling the Car

In America, nearly everyone has a car. But cars don't need to dominate our pedestrian spaces.

Locate parking to be a good neighbor. Don't let garage doors greet your guests. Shield parked cars from the street and the commons.

When planning a development from scratch, place garages and parking areas off of a lane to the rear. Including mailboxes, gardens and community buildings will make the lane lively.

Consider locating parking remotely so that residents and guests walk from their car door to the front door through the shared commons — a daily activity that fosters interaction. While this may meet resistence, don't let go too quickly. This layout allows more flexible use of the site, limits the dominace of garages and driveways, decreases the amount of hard surface and allows more light into a home.



Eyes on Shared Space

The first line of defense for personal and community security is a strong network of neighbors who know and care for one another.

When the active spaces of houses look onto shared common spaces, including access lanes, a stranger is noticed, an elder who may have fallen will find help and children can play with caring eyes looking on. If daily patterns are askew next door or there is an emergency, help is close by.

March 1, 2021

Re: Cottage Clusters

Urbsworks, Inc.
City of Portland, Bureau of Planning and Sustainability

To Whom It May Concern:

Please accept this letter regarding middle housing, cottage clusters, and housing that meets the needs of Portlanders when considering older adults, multigenerational households, and diverse communities. I am writing this letter as a student of urban and public affairs at Portland State University working on an age-friendly practicum with the Bureau of Planning and Sustainability[1] and as an advocate for accessible housing.

Cottage clusters are distinguished by community-oriented design elements such as building orientation around at least one common open space, and careful design of features facing common areas and public space.[2] Elements that support intergenerational communities, such as a variety floor plans[3,4] that are adaptable to evolving needs,[4] should be included in community-oriented design considerations. In lower density zones far from amenities and services, cottage clusters should be located in transit-connected locations (e.g., 0.25 miles to a frequent transit stop using a complete sidewalk network)[2] with consideration of paratransit services.

Cottage cluster housing can support multigenerational households, which are more likely to be Black, Hispanic, or Asian than White households.[5] Since family composition and disability count varies amongst these racial and ethnic groups,[5,6] design processes should focus on cultural preferences in regards to layout and accessibility features.[7] Future displacement resulting from renovation and/or modification costs[8] can be mitigated by appropriately designing cottage clusters for aging in place.

Based on statewide research efforts and lessons learned from the City of Milwaukie, several suggestions for cottage clusters should be considered by the City of Portland. Having an explicit cottage cluster code is helpful, but has not always incentivized cottage cluster development.[2] Unit and density maximums, as well as excessive setback and separation requirements, can be overly restrictive and financially discourage developers.[2] While prioritizing community-oriented design elements, design standard guidelines should be flexible.[2,9] An incentive-based approach to cottage clusters is appropriate (e.g., density bonuses,[9] SDC and fee waivers or reductions,[2,10] expedited permit processes[10]).

Thank you for advancing opportunities around cottage clusters. Based on my research this winter, cottage clusters can provide appropriate housing options to meet the needs of older adults, multigenerational households, and diverse communities; however, it is important to pay attention to the needs of people of all ages and abilities, as well as diverse communities. As a follow-up to this letter, please be aware that I intend to submit a final report summarizing my research that will be available in April for your reference. Please feel free to contact me if you have any further questions.

Shanley Lazas
(484)-947-7802 (mobile)
shanleylazas@gmail.com or slazas@pdx.edu

[1] During winter term, 2021, I am working with Alan DeLaTorre from the Bureau of Planning and Sustainability to research and develop a literature review to inform the development of age-friendly housing and environments in Portland.

[2] City of Milwuakie Community Development. (2019). *Milwaukie Cottage Cluster Analysis Final Report.* Retrieved from: https://www.milwaukieoregon.gov/communitydevelopment/cottage-cluster-feasibility-study

[3] Urban Land Institute. (2014). *Residential Futures II: Thought-Provoking Ideas on What's Next for Multigenerational Housing and Intergenerational Communities.* https://americas.uli.org/residential-futures-ii-thought-provoking-ideas-whats-next-multigenerational-housing-intergenerational-communities/

[4] Enterprise Green Communities. (2016). *Aging in Place Design Guidelines For Independent Living in Multifamily Buildings.* https://www.enterprisecommunity.org/resources/aging-place-design-guidelines-18245

[5] Pew Research Center. (2010). *The Return of the Multi-generational Family Household.* https://www.pewresearch.org/social-trends/2010/03/18/the-return-of-the-multi-generational-family-household/

[6] Chicago Urban League. (2020). *An Epidemic of Inequities: Structural Racism and COVID-19 in the Black Community.* Retrieved from: https://chiul.org/reports/

[7] National Association of Home Builders. (2014). *What Home Buyers Really Want: Ethnic Preferences*. https://nahbclassic.org/generic.aspx?sectionID=607&genericContentID=226056

[8] Kenan Institute of Private Enterprise. (2017). *U.S. Older Adults: Demographics, Living Arrangements, and Barriers to Aging in Place.* https://kenaninstitute.unc.edu/publication/u-s-older-adults-demographics-living-arrangements-and-barriers-to-aging-in-place/

[9] Oregon Department of Land Conservation and Development. (2016). *Character-Compatible, Space-Efficient Housing Options for Single-Dwelling Neighborhoods.* https://www.oregon.gov/lcd/UP/Pages/Space-Efficient-Housing.aspx

[10] Oregon State University Policy Analysis Laboratory. (2018). *Cottage Cluster Housing in Corvallis, OR.* Retrieved from: https://liberalarts.oregonstate.edu/spp/opal/projects

March 3, 2021

Re: Age-friendly Cottage Clusters

Age-Friendly
PORTLAND & MULTNOMAH COUNTY

Dear Bureau of Planning and Sustainability and Urbsworks:

AARP Oregon describes age-friendly efforts as creating places where people of all races, ages, and abilities can thrive.[i] Please accept this letter on behalf of the Age-Friendly Portland and Multnomah County Executive Committee, in response to the following questions:

1. **How would you describe a cottage or a cottage cluster?**
2. **What are some features that you find important in a cottage cluster?**

What is a Cottage Cluster?

We generally understand cottage clusters to be a collection of smaller one-to-two story homes that share common space on a common property. Variations can and should exist with respect to the:

- Number of housing units;
- specific form of the units (e.g., attached, detached);
- underlying land uses (e.g., lower or higher density, single or multifamily zones);
- housing tenure type (rent or own); and
- overall household composition (e.g., related, unrelated).

We strongly feel that cottages and cottage clusters must address the needs of individuals, families, and households with respect to accessibility and matching needs across the life course by adhering to concepts of visitability, universal design, and/or another defined measure of accessibility. Additionally, the City should be intentional about building socially connected environments, a critically important element of cottage clusters. We encourage you to work directly with the community to co-design plans, policies, and design guidelines that will influence the siting and eventual development of such clusters, as well as amenities that are located in close proximity to the cottages.

Important Features of an Age-Friendly Cottage Clusters

First and foremost, it is critically important that the Bureau of Planning and Sustainability, and vendors/consultants working on cottage housing, to approach this work by centering racial and disability equity and ensuring that those communities are able to engage in this important work. The project should use the City of Portland and Multnomah County equity frameworks to achieve equitable outcomes for Black and Brown communities, older adults, families, and people with disabilities.

City of Portland efforts to advance cottage cluster housing must go beyond the application of a racial and disability equity lens. It must also strive to address the affordable housing and homelessness crises that face our community. We encourage you to consider financial incentives for developers of cottage cluster housing that may increase production, improve affordability, and advance the availability of new housing options.

In addition to the suggestions below, members of this Committee encourage planners and policymakers to consider approaches to accessible design; we support the written comments from Shanley Lazas, March 1, 2021.

Although visitability is an important tool for increasing accessibility of housing, it is only one tool. The following policies from Portland's 2035 Comprehensive should also be integrated into your efforts:

- Community Involvement - Process Design and Evaluation, Policy 2.34: Accessibility
- Design and Development - Residential Areas, Policy 4.12: Residential area continuity and adaptability
- Housing - Diverse and Expanding Housing Supply, Policy 5.7: Adaptable Housing; Policy 5.8: Physically-accessible Housing; Policy 5.9: Accessible Design for All; Policy 5.19: Aging in Place; and Policy 5.53: Responding to Social Isolation

The following information is offered to inform the project work related to social connections and intentional housing developments within close proximity to one another (note: print copies of articles without online references can be made available upon request):

- Older adults and families who are interested in living in multigenerational housing environments can be well-served by cottage cluster housing;[ii]
- cottage clusters support intentional relationships and preserve a sense of privacy, if designed appropriately;[iii]
- facilitating residents' ability to live in close physical proximity can lead to increased social participation,[iv] and;
- increased social connectivity has been shown to result in:
    - Better physical and mental health outcomes for older adults;[v]
    - reduced rates of suicide (especially among older men);[vi]
    - fewer readmissions to the hospital.[vii]

The Age-Friendly Portland and Multnomah County Executive Committee:

Alan DeLaTorre, City of Portland
Bandana Shrestha, AARP Oregon
Erin Grahek, Multnomah County
Jay Bloom, community advisor
Margaret Neal, Portland State University

[i] DeMonnin, J. (2020). Older Adults Help Oregon's Economy. AARP Oregon Retrieved from: https://states.aarp.org/oregon/older-adults-help-oregons-economy.

[ii] Spevak, E. (n.d.). Friends of all ages: Life in a multigenerational community, the American Institute of Architects. Retrieved from: https://www.aia.org/articles/5636-friends-of-all-ages-life-in-a-multigeneration:61

[iii] Brinig, M. F. (2014). Grandparents and accessory dwelling units: preserving intimacy and independence. Elder Law Journal, 22, 381.

[iv] Levasseur, M., Généreux, M., Bruneau, J. F., Vanasse, A., Chabot, É., Beaulac, C., & Bédard, M. M. (2015). Importance of proximity to resources, social support, transportation and neighborhood security for mobility and social participation in older adults: results from a scoping study. BMC Public Health, 15(1), 503.

[v] Norstrand, J., & Chan, K. T. (2014). The relationship between health and community across aging cohorts. Journal of Aging Research, 2014.

[vi] Fässberg, M., Van Orden, K., Duberstein, P., Erlangsen, A., Lapierre, S., Bodner, E., . . . Waern, M. (2012). A systematic review of social factors and suicidal behavior in older adulthood. International Journal of Environmental Research and Public Health, 9(3), 722-745.

[vii] Valtorta, N. K., Moore, D. C., Barron, L., Stow, D., & Hanratty, B. (2018). Older adults' social relationships and health care utilization: A systematic review. AJPH Research, 108(4), e10–e10.

Attachment C: Example Cottage Cluster Codes

CITY of LANGLEY, WASHINGTON

Ordinance No. 1016

WHEREAS, the City of Langley has adopted a Comprehensive Plan that sets forth the goals and objectives by which development within the City is governed; and

WHEREAS, the City has adopted a Zoning Ordinance to implement its Comprehensive Plan; and

WHEREAS, certain changes are necessary from time to time to ensure that zoning and development regulations are consistent with City goals and policies; and

WHEREAS, RCW 36.70A (the Washington Growth Management Act) allows for amendments to a jurisdiction's zoning and development regulations, provided that such amendments are consistent with the jurisdiction's Comprehensive Plan; and

WHEREAS, the amended zoning regulations set forth herein are deemed to be consistent with the City of Langley Comprehensive Plan;

NOW, THEREFORE, the City of Langley do hereby ordains as follows:

Section 1. Langley Municipal Code Section 18.10 Fairgrounds Overlay District, is hereby amended as follows:

18.10.030 Geographic applicability.

The provisions of this chapter shall apply solely to the area **located on the westerly side of Langley Road as** identified on the official zoning map, constituting that area owned by Island County, with an **underlying zoning designation of P-1, Public Use** and operated by ~~**the Island County Fair Association**~~ **a public or non-profit agency.**

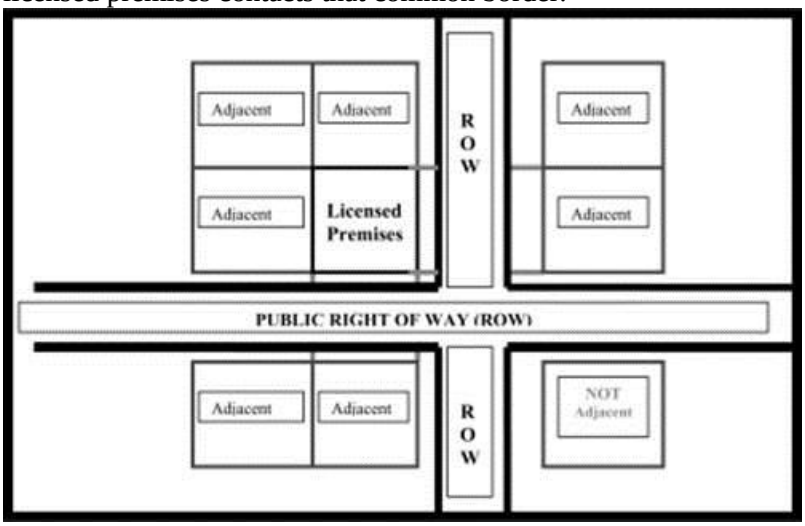
Section 2. Langley Municipal Code Section 18.01.040 Definitions, is hereby amended as follows:

"Accessory building" means a building which is subordinate to the principal building, and is incidental to the use of the principal building on the same lot. Examples include sheds, shops, garages, greenhouses and barns.

"Accessory dwelling unit" means a room or set of rooms either in a single-family residence or a separate building on the same lot as a single-family residence that has been designed or configured to be used as a separate dwelling unit. The accessory dwelling unit generally includes living, sleeping, kitchen and bathroom facilities and has a lockable entrance door.

"Accessory use" means a use incidental and subordinate to the principal use on the same lot.

"Adjacent" means having a common endpoint or border where the extension of the property lines of the licensed premises contacts that common border.



"Adult family home" means a regular family abode of a person or persons who are providing personal care, room, and board to more than one but not more than four adults who are not related by blood or marriage to the person or persons providing the services; except that a maximum of six adults may be permitted if the Washington State Department of Social and Health Services determines that the home is of adequate size and that the home and the provider are capable of meeting standards and qualifications set forth in Chapter 18.22.

"Alley" means a public or private thoroughfare or way which affords means of access to abutting property but not intended for general traffic circulation.

"Alteration" means a change or rearrangement of the structural parts of existing facilities or an enlargement by extending the side or increasing the height or depth or moving from one location to another. In buildings for business, commercial, industrial or similar uses, the installation or rearrangement of partitions affecting more than one-third of a single floor area shall be considered an alteration.

"Amendment" means a change in the wording, context or substance of this title or a change in the zone boundaries upon the zoning maps adopted hereunder.

"Battery electric vehicle (BEV)" means any vehicle that operates exclusively on electrical energy from an off-board source that is stored in the vehicle's batteries, and produces zero tailpipe emissions or pollution when stationary or operating.

"Bed and breakfast inn" means a building or group of buildings on a lot which is designed or used for rental for transient lodging, where:

1. Not more than six rooms are available for such rental;

2. Breakfast is the only meal served to persons renting such rooms, and no meals are served to members of the general public;

3. In the residential zone no other business, service or commercial activity is conducted or provided on the premises, except as expressly permitted by this title; and

4. No room is rented to more than two persons.

"Bed and breakfast room (commercial)" means a room used for rental to not more than two persons for transient lodging, situated in a building which is used primarily as a commercial establishment, where:

1. The persons renting such room are only served breakfast, and no meals are served to members of the general public; and

2. The room(s) are located above the first or street level or behind the street front side of the building.

"Bed and breakfast room (residential)" means a room used for rental to not more than two persons for transient lodging situated in a building which is used primarily as the dwelling for a non-transient family, or, in the case where there is an approved accessory dwelling unit on the same property, the principal dwelling is owner-occupied, and where:

1. The persons renting such room are only served breakfast, and no meals are served to members of the general public;

2. No other business, service or commercial activity is conducted or provided on the premises, except as expressly permitted by this title; and

3. If the principal dwelling ceases to be owner-occupied, the bed and breakfast use shall be terminated.

"Boardinghouse" means a dwelling unit in which not more than four roomers, lodgers or boarders are housed or fed for compensation. "Boardinghouse" does not include rest home or convalescent home.

"Brewery" means a business licensed by the State of Washington that makes and sells beer at wholesale or retail, and includes an on-site location for consumer tasting and purchase.

"Building" means a structure having a roof for the shelter of persons or property.

"Building area" or "building site" means the portion of a lot within which a structure may be built, bounded by setbacks.

"Building height," for the purposes of this code, means the vertical distance measured from the grade to the highest point of the roof (see exemptions in definition of "grade" below).

Building, Principal or Main. "Principal or main building" means the building which accommodates the principal use of a site or lot.

"Campground" means an area of land on which accommodation for temporary occupancies such as tents or recreational vehicles is permitted and which is used primarily for recreational purposes.

"Carport" means a covered space for the housing, primarily, of motor vehicles and enclosed on not more than two sides by wall, screens, cabinets or other types of enclosures.

"Circus" means a public entertainment event consisting typically of a variety of performances by acrobats, clowns, and trained animals, which may also include amusement rides and carnival attractions.

"City forester" means a **paid or** volunteer position appointed by the mayor and confirmed by the city council to perform the duties required to implement and administer the provisions of this chapter. The city forester shall have demonstrated education and/or professional experience necessary to fulfill the duties as assigned. A certified arborist is preferred, but not required, to fill the city forester position.

"Closed record hearing" means a hearing on the existing record. No new evidence may be presented at the hearing.

"Commercial" means a business use or activity at a scale greater than home occupation involving retail or wholesale marketing of goods and services. Examples of commercial uses include offices and retail shops.

"Conditional use" means a use allowed in one or more zones which, because of characteristics peculiar to such use, the size, technological processes or equipment, or because of the exact location with reference to surroundings, streets and existing improvements or demands upon public facilities, requires a special permit in order to provide a particular degree of control to make such uses consistent and compatible with other existing or permissible uses in the same zone and mitigate adverse impacts of the use.

"Condominium" means real property, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of those portions. Real property is not a condominium unless the undivided interest in the common elements is vested in the unit owners, and unless a declaration and a survey map and plans have been recorded. Condominiums must meet all provisions of Chapter 64.34 RCW.

"Conference center" means a facility accommodating groups of persons for short periods for the purposes of seminars, workshops and related activities. No overnight accommodations are provided.

"Cottage housing" means a development comprised of at least four cottages (single-family dwelling units) arranged on at least two sides of a common open space with a maximum of 12 cottages per development.

"Coverage" means the total area of ground covered by all buildings or structures on a site measured from the outside of external walls or supporting members.

"Day care center" means a single purpose group child day care program, including nurseries for children of working parents, guardians and custodians; nursery schools for children under minimum age for education in public schools; privately conducted kindergartens when not a part of a public or parochial school; and programs covering after school care for school children provided any such day care center is licensed by the state or county and conducted in accordance with state and local requirements.

"DBH" means the diameter of the tree at breast height.

"Demolition by neglect" shall mean deterioration of the building to the extent that it creates or permits a hazardous or unsafe condition. Deterioration of exterior walls or other vertical supports, horizontal members, roofs, chimneys, exterior wall elements such as siding, wooden walls, brick, plaster or mortar to the extent that it adversely affects the character of the historic district or could reasonably lead to irreversible damage to the structure.

"Density" means the maximum number of permitted dwelling units allowed on each acre of land or fraction thereof.

"Detached building" means a building surrounded on all sides by open space.

Development, Multifamily. “Multifamily development” means a development of three or more dwellings on the same property and designated for occupancy by three or more families living independently of each other in separate dwelling units.

“Dwelling” means a building designed exclusively for residential purposes, including one-family, two-family and multiple-family dwellings.

“Dwelling unit” means one or more rooms designed for or occupied by one family for living or sleeping purposes and containing kitchen facilities for use solely by one family. An efficiency apartment constitutes a dwelling unit within the meaning of this title.

Dwellings, Types Of.

1. Dwelling, One-Family. “One-family dwelling” means a detached building designed for occupancy by one family, providing complete housekeeping facilities for one family and containing one dwelling unit. A manufactured home may be considered a one-family dwelling if sited per “manufactured home siting standards.”

Dwelling, One-Family (Attached). “One-family dwelling (attached)” means a building designed for occupancy by one family on an individually owned lot where the building abuts one or more lot lines and shares a common wall with an adjoining dwelling unit(s). Also known as “townhouse.”

2. Dwelling, Two-Family (Duplex). “Two-family (duplex) dwelling” means a detached building, designed for occupancy by two families living independently of each other and containing two dwelling units.

3. Dwelling, Multifamily. “Multifamily dwelling” means a detached building designed for occupancy by three or more families living independently of each other and containing three or more dwelling units.

“Easement” or “access” means a private right-of-way not less than 20 feet wide which provides vehicular access to a street.

“Electric scooters and motorcycles” means any two-wheel vehicle that operates exclusively on electrical energy from an off-board source that is stored in the vehicle’s batteries and produces zero emissions or pollution when stationary or operating.

“Electric vehicle” means any vehicle that operates, either partially or exclusively, on electrical energy from the grid, or an off-board source, that is stored on-board for motive purpose, including: (1) a battery electric vehicle; (2) a plug-in hybrid electric vehicle; (3) a neighborhood electric vehicle; and (4) a medium-speed electric vehicle.

“Electric vehicle charging station” means a public or private parking space that is served by battery charging station equipment that has as its primary purpose the transfer of electric energy (by conductive or inductive means) to a battery or other energy storage device in an electric vehicle. An electric vehicle charging station equipped with Level 1 or Level 2 charging equipment is permitted outright as an accessory use to any principal use.

“Electric vehicle charging station, public” means an electric vehicle charging station that is (1) publicly owned and publicly available (e.g., park and ride parking, public library parking lot, on-street parking) or

(2) privately owned and publicly available (e.g., shopping center parking, non-reserved parking in multifamily parking lots).

"Electric vehicle charging station, restricted" means an electric vehicle charging station that is (1) privately owned and restricted access (e.g., single-family home, executive parking, designated employee parking) or (2) publicly owned and restricted (e.g., fleet parking with no access to the general public).

"Electric vehicle parking space" means any marked parking space that identifies the use to be exclusively for the parking of an electric vehicle.

"Essential public facilities" means airports, sewage treatment plants, jails, and power plants.

"Facade" means any exterior wall of a structure including projections from and attachments to the wall (examples: decks, balconies, porches and chimneys).

"Family" means an individual or two or more persons customarily living together as a single housekeeping unit and using common cooking facilities.

"Fence" means a masonry wall, or a barrier composed of posts connected by boards, rails, panels or wire for the purpose of enclosing space or separate parcels of land, but not including retaining walls.

"Floor area" means the total number of square feet of habitable floor area measured at the floor line of each floor. The floor area of a single-family or two-family dwelling shall include:

1. The principal building, including attached accessory structures, used as or convertible to habitable space. Detached accessory structures are not included in the floor area.

2. One-half of the total area of a daylight basement.

3. "Habitable floor area," for the purposes of floor area calculations, shall mean the gross building square footage, less the floor area dedicated to walls, stairways, and bathrooms.

4. "Attached accessory structure" means those structures that are directly connected to the principal building and share a warm wall with the principal building.

"Foster home" means a home licensed and regulated by the state and classified by the state as a foster home, providing care and guidance for not more than three unrelated juveniles.

"Garage" means an accessory building or space within the principal building used for storage of vehicles.

"Garage, parking or commercial" means a building used for storage, repair or servicing of motor vehicles as a commercial use.

"Grade" means the average of the existing or finished ground level, whichever is lower, at the center of all walls of a building or beneath the proposed structure, whichever is applicable. The following items are exempt when making height determinations:

1. Radio and television aerials and flagpoles.

2. Other Features. Open rails, planters, skylights and chimneys may exceed the height limits by four feet or may extend four feet above the ridge of a pitched roof.

3. Wireless communication antenna arrays up to a height of 15 feet from the highest point of the roof.

"Guest houses" means an accessory, detached building designed exclusively for residential purposes and without any cooking facilities; situated on the same parcel as a one-family dwelling; for the use of visitors as nonpaying guests of the one-family dwelling; which cannot be segregated or separately leased, rented, sold or transferred, given or otherwise conveyed unless the parcel is of sufficient size to meet density, platting and other city code requirements for a separate legal lot; of not more than 800 square feet; which provides one parking space in addition to those required for a one-family dwelling; and there shall be no more than one guest house per parcel or lot.

"Hazard tree" means any tree, or part thereof, that the city forester **or a certified arborist** determines is subject to a high probability of failure, due to structural defect or disease, and which poses a potential threat to people or property in the event of failure. The determination of "hazard" does not require the judgment that a tree is in danger of imminent failure.

"Hazardous waste" means all dangerous and extremely hazardous waste as defined in RCW 70.105.010(15), or its successor, except for moderate risk waste as set forth in RCW 70.105.010(17), or its successor.

"Hazardous waste storage" means the holding of hazardous waste for a temporary period, as regulated by the State Dangerous Waste Regulations, Chapter 173-303 WAC, or its successor.

"Hazardous waste treatment" means the physical, chemical or biological processing of hazardous waste for the purpose of rendering these wastes non-dangerous or less dangerous, safer for transport, amenable for energy or material resource recovery, amenable for storage, or reduced in volume, as required by the State Dangerous Waste Regulations, Chapter 173-303 WAC or its successor.

"Hazardous waste treatment storage facility, on site" means treatment and storage facilities which treat and store hazardous wastes generated on the same property.

"Hearing body" means any agency of the city that has been designated by this code to conduct hearings.

"Hedge" means a fence or boundary formed by a dense row of shrubs or low trees.

"Home day care" means a dwelling which provides regular custodial care for one to six children or adults, including all children under six years of age residing within the dwelling where day care services are conducted, for periods of less than 24 hours.

"Home occupation" means an economic enterprise operated within a dwelling unit, or buildings accessory to a dwelling unit, incidental and secondary to the residential use of the dwelling unit, the occupation is carried on by a member of the family residing within the dwelling place, and does not change the character of the dwelling.

"Hospital" means a building designed and used for medical and surgical diagnosis, treatment and housing of persons under the care of doctors and nurses.

"Hotel" means any building containing six or more guest rooms where lodging, with or without meals, is provided for compensation, where no provisions are made for cooking in any individual room or suite.

"Impervious surface" means surfaces that do not absorb water. Examples of such surfaces include buildings and parking areas, roads, sidewalks or driveways of concrete or asphalt.

“In-home family day care” means a residential dwelling providing in-home care for 12 or fewer children and licensed by the state of Washington.

“Institution” means structure(s) and related grounds used by organizations providing educational, medical, social, cultural and recreational services to the community, such as hospitals, vocational or fine arts schools, colleges and universities, elementary and secondary schools, community centers, religious facilities, museums and performing arts centers.

“Licensed premises” means any establishment licensed to sell alcoholic beverages for consumption on the premises at any time.

“Liquor bar” means a table or counter where alcohol is stored or prepared and served to customers who sit or stand at the bar. Liquor bars can only be in lounges or in premises where minors are not allowed at any time.

“Lot” means an area or parcel of land as shown on an officially recorded plat or subdivision, or an area or parcel of land to which a deed or contract is officially recorded as a unit of property, or which is described by metes and bounds or as a fraction of a section.

“Lot coverage” means any surface artificially covered or hardened so as to prevent or impede the percolation of water into the soil including, but not limited to, roof tops, paved areas, swimming pools, and decks.

“Lot line” means any line enclosing the lot area.

Lot Line, Rear. “Rear lot line” means the lot line which is opposite and most distant from the street lot line; provided, however, that where, under this definition, a particular parcel or lot would have more than one rear lot line, the city building official shall determine which lot line shall be considered as the rear lot line for purposes of this title.

Lot Line, Side. “Side lot line” means any lot line that is not a street or rear lot line.

Lot Line, Street. “Street lot line” means any lot line that abuts a street.

Lot, Through. “Through lot” means a lot fronting on two streets that is not a corner lot.

“Lot width” means the distance between the side lot lines measured at right angles to the line establishing the lot depth at a point midway between the front lot line and the rear lot line. Any area used as an access easement shall be excluded from the computation of the lot width.

“Lounge” means the portion of a restaurant or other principal use that is used primarily for the preparation, sale, and service of beer, wine, or spirits. Minors are not allowed in a lounge.

“Manufactured home” means a structure, transportable in one or more sections from its manufacturer, retailer or wholesaler, to its destination, designed primarily for residential occupancy by human beings, and built to Uniform Building Code standards.

Manufactured Home Siting Standards. A manufactured home may be allowed to be placed within any residential zone that allows single-family homes, provided the following conditions are met:

1. The home must be placed on a permanent foundation;

2. If applicable, skirting must be provided;

3. The home shall have a pitched roof and shall be made of either composition, shakes or shingles;

4. All requirements of this title and other applicable regulations must be met.

"Medical-dental clinic" means an establishment for treatment of outpatients, and providing no overnight care for patients.

"Medium-speed electric vehicle" means a self-propelled, electrically powered four-wheeled motor vehicle, equipped with a roll cage or crush-proof body design, whose speed attainable in one mile is more than 25 miles per hour but not more than 35 miles per hour and otherwise meets or exceeds the federal regulations set forth in 49 CFR Part 571.500.

"Mixed use" means a development involving a combination of uses including residential and commercial. Typically, a mixed use project may have commercial uses at street level with residential uses in the second floor.

"Mobile home" means a vehicle bearing the "mobile home" insignia of the Washington State Department of Labor and Industries.

"Modulation" means a stepping back or projecting forward of sections of the facade of a structure within specified intervals of structure width and depth, as a means of breaking up the apparent bulk of the continuous exterior walls.

"Motel" means a building containing units which are used as individual sleeping units having their own private toilet facilities and sometimes their own kitchen facilities, designed primarily for the accommodation of transient automobile travelers. Accommodations for trailers are not included.

"Multifamily dwelling" means a building containing three or more dwelling units.

"Native plant" means plants and trees that occur naturally in a particular region, ecosystem, or habitat without direct or indirect human intervention.

"Neighborhood electric vehicle" means a self-propelled, electrically powered four-wheeled motor vehicle whose speed attainable in one mile is more than 20 miles per hour and not more than 25 miles per hour and conforms to federal regulations under 49 CFR Part 571.500.

"Night club" shall mean any alcoholic beverage sales commercial activity which engages in the sale of alcoholic beverages in conjunction with providing live entertainment (including the playing of recorded music) or dancing between the hours of 6:00 p.m. to 2:00 a.m. regardless of whether such establishment is simultaneously offering restaurant meal service.

"Nonconforming lot" means a lawfully established lot which does not conform to the provisions of this title.

"Nonconforming structure" means a lawfully erected structure which does not conform to the provisions of this title.

"Nonconforming use" means a lawfully established use which does not conform to the provisions of this title.

"Nonelectric vehicle" means any motor vehicle that does not meet the definition of "electric vehicle."

"Nursing or convalescent facility" means a facility licensed by the state which provides full time special care and supervision, including nursing, dietary and other personal services for chronically ill, aged or infirm persons. Such care shall not include surgical, obstetrical or acute illness services which are customarily provided in hospitals.

"Office" means a building or separately defined space within a building used for business. The use of an office does not include on-premises sales or manufacture of goods.

"Open space" means any part of a lot unobstructed by structures from the ground upward.

"Parking facility" means a land area or building used for the storage of vehicles excluding parking areas for single-family residences.

"Parking space" means an area accessible to vehicles and used exclusively or principally for vehicle storage.

"Party of record" means any person who has submitted oral or written comments on a permit subject to the regulations of this chapter.

"Person" means any person, firm, business, corporation, partnership or other associations or organization, marital community, municipal corporation, or governmental agency.

"Personal service" means businesses engaged in providing care of the corporeal person or his apparel, not including health care.

"Plug-in hybrid electric vehicle (PHEV)" means an electric vehicle that (1) contains an internal combustion engine and also allows power to be delivered to drive wheels by an electric motor; (2) charges its battery primarily by connecting to the grid or other off-board electrical source; (3) may additionally be able to sustain battery charge using an on-board internal-combustion-driven generator; and (4) has the ability to travel powered by electricity.

"Primary or principal use" means the predominant use of the land or building to which all other uses are secondary.

"Private parking" means parking facilities for the noncommercial use of the occupant and guests of the occupant.

"Public facility" means land or structures owned by or operated for the public use and necessity.

"Public hearing" means an open record hearing at which evidence is presented and testimony is taken.

"Public space" means a space that is open and accessible to all and may be used for a variety of purposes including active or passive recreation, socialization, entertainment, cultural events, commerce or travel. If space is for passive recreation, it must have amenities for people such as places to sit, public art and trash receptacles.

"Rapid charging station" means an industrial grade electrical outlet that allows for faster recharging of electric vehicle batteries through higher power levels and that meets or exceeds any standards, codes, and regulations set forth by Chapter 19.28 RCW and consistent with rules adopted under RCW 19.27.540.

"Recorded" means filed for the purpose of record with the Auditor of the county.

"Recreational vehicle" means a motor home or trailer less than 35 feet in length or a pickup-mounted camper designed for temporary housing.

"Restaurant" means an establishment with special space and accommodations where, in consideration of payment, food, without lodgings, is habitually furnished to the public.

"Retreat center" means a facility similar to a conference center but providing overnight accommodations only for participants in the center's activities.

"Rezone" means a change in classification from one zoning district to another.

"Screen, screening" means a continuous fence, hedge or combination of both**,** which obscures vision through 80 percent or more of the screen area, not including drives or walkways.

"Secondary use" means a use subordinate to the principal or primary use which may exist only when a principal or primary use is existing on the same lot. The floor area of a secondary use must be less than that devoted to the principal or primary use.

"Semi-public space" means outdoor space that is privately owned but is open and accessible to all. However, it may be restricted to those utilizing a good or service. Examples include outdoor restaurant seating, entertainment venues and seating areas. Space restricted to hotel/motel patrons does not qualify as semi-public space. If space is for passive recreation, it must have amenities for people such as places to sit, public art and trash receptacles.

"Senior retirement facility" means a residential facility designed for and occupied by at least one person per unit who is 65 years or older, providing centralized services for the residents, including but not limited to meals, housekeeping, and transportation. Individual cooking facilities are not provided and personal vehicles are discouraged.

"Sensitive areas" are identified and defined in Chapter 16.20.

"Service area" means the area of a licensed premises where customers may order and consume alcoholic beverages.

"Service station" means a place used for the repair, servicing and/or supplying of gasoline and oil for motor vehicles.

"Setback" means the minimum distance required by this title for buildings and/or other structures to be set back from the street, side or rear lot lines, rights-of-way or access easements.

"Setback area" means the lot area between the lot lines and the setback lines.

"Setback line" means a line which is parallel to a lot line or access easement located at the distance required by the setback.

"Sign" means a structure or graphic display designed to inform or attract the attention of persons not on the premises on which the sign is located.

"Sign area" means the area of the smallest rectangle that can be drawn around all parts of the sign from the viewpoint exposing the largest surface area, excluding simple support structures. Sign supporting structures which are part of the sign display shall be included in the area of the rectangle.

"Sign face" means any side of a sign which contains advertising or graphic display which is visible to the public.

Sign, Freestanding. "Freestanding sign" means any sign not attached to a building.

Sign, Offsite. "Offsite sign" means a permanent sign not located on the same lot as the business or use it is intended to serve.

Sign, Permanent. "Permanent sign" means a sign nailed, glued, screwed or similarly fastened to foundation systems capable of holding it in position.

Sign, Temporary. "Temporary sign" means a sign or advertising display intended to be displayed for a fixed event and not permanently affixed to a structure or the ground.

"Significant tree" means any living woody perennial plant characterized by a main stem or trunk having many branches and having a diameter of 12 inches or more measured at breast height. For bifurcated or multi-trunked trees, the diameters of the individual stems are added together to determine if a tree meets the 12-inch minimum diameter to qualify as a significant tree.

"Single-family dwelling" means a building containing only one dwelling unit.

"Site plan" or "binding site plan" means a scale drawing which identifies and shows areas and locations of all streets, roads, improvements, utilities, open spaces and other information specified in this title. The binding site plan shall contain inscriptions or attachments setting forth the limitations and conditions established by the city and the provisions for ensuring development in conformance with the site plan.

"Street" means the public or private right-of-way or easement which provides vehicle access to abutting property.

"Street lot line" means the boundary between the street right-of-way and abutting property.

"Street setback" **or "front-yard setback**" means the minimum distance required for buildings to be set back from the street lot line. **Street setbacks apply to both public and private streets. For corner lots, the street setback applies to both streets. For through lots, the street setback applies to either frontage. The Planning Official shall have the authority to reduce street or front yard setbacks for corner lots or through lots by up to fifty (50%) percent, upon a finding that such reduction is consistent with the intent of this code.**

"Structure" means a combination of materials constructed and erected permanently on the ground or attached to something having a permanent location on the ground, not including utility poles and related pad-mounted or ground-mounted distribution equipment, residential fences less than six feet high, retaining walls, rockeries and other similar improvements of a minor character less than four feet high.

"Submerged lands" means land at or below the ordinary high water mark.

"Tavern" means an establishment with special space and accommodation for sale by the glass and for consumption on the premises, of beer, as herein defined.

"Temporary building or structure" means a building or structure not having or requiring permanent attachment to the ground or to other structures which have no required permanent attachment to the ground.

"Tourist accommodations – commercial" means a dwelling unit serving as a single rental for periods not exceeding 29 consecutive days and containing sleeping and cooking facilities.

Townhouse. See the definition of "dwelling, one-family (attached)."

"Use" means the purpose which land or structures now serve or for which it is occupied, maintained, arranged, designed or intended.

"Variance" means a modification of the terms of this title granted to a particular property.

"Vehicle" means a transportable device designed to carry passengers or goods or perform work in motion.

"Wellness Retreat" means a facility intended to provide a broad range of wellness activities or services within a single compound. Accessory uses for a Wellness Retreat may include lecture halls, medical clinics, lodging, restaurant, or event space. If located in the RS 15000 zone, a wellness retreat shall be located on a lot of not less than five (5) acres of land, and shall include a buffer of not less than one hundred (100) feet from any lot with an existing dwelling.

"Winery" means a business licensed by the State of Washington that makes and sells wine at wholesale or retail, and may include an on-site location for consumer tasting and purchase.

"Wireless communications antenna array" means one or more rods, panels, discs or similar devices used for the transmission or reception of radio frequency signals through electromagnetic energy, which may include:

1. Antennas equal to or less than 15 feet in height; and

2. Parabolic antennas equal to or less than 39.37 inches (one meter) in diameter with an area not more than 50 square feet in aggregate.

"Wireless communications facility" means any unsafe facility for the transmission and/or reception of radio frequency signals through electromagnetic energy usually consisting of an equipment shelter or cabinet, a support structure used to achieve the necessary elevation, and the transmission and reception devices or antennas.

"Wireless communications service" means the providing or offering for rent, sale or lease or other value received, the transmittal of information between or among points by satellite or similar facilities, with or without benefit of any closed transmission medium.

"Yard" means the lot area between lot lines and the building area.

Yard, Front. "Front yard" means the area between the street lot line and the building line extending the full width of the lot or the street setback area.

Yard, Rear. "Rear yard" means the area between the rear lot line and the building area extending the full width of the lot or the rear setback area.

Yard, Side. "Side yard" means the side setback area between the side lot lines and the building area, extending the full length of the building area.

"Zone" or "zone district" means a defined area of the city within which the use of land is regulated and certain uses permitted and other uses excluded as set forth in this title. (Ord. 1005 § 3, 2014; Ord. 1004 § 4 (Exh. E), 2014; Ord. 989 § 2, 2013; Ord. 967 § 1, 2012; Ord. 963 § 1, 2011; Ord. 914, 2008; Ord. 820, 2002; Ord. 799, 2001; Ord. 798, 2001; Ord. 788, 2000; Ord. 771, 1999; Ord. 754, 1997; Ord. 733, 1997; Ord. 730, 1996; Ord. 714, 1996; Ord. 703, 1995; Ord. 696, 1995; Ord. 687, 1994; Ord. 527, 1989)

Section 3. Langley Municipal Code Section 18.09.010 Land Use Table, is hereby amended to add the following land uses:

CITY OF LANGLEY	**ZONING DISTRICTS**							
Land Uses	**CB**	**NB**	**P-1**	**Mixed Residential**	**RS5000**	**RS7200**	**RS15000**	**NB Retail Overlay***
Accessory Dwelling Unit	**S**	**S**	**S**	**S**	**S**	**S**	**S**	**X**
Brewery	**P**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Winery	**P**	**X**	**X**	**X**	**X**	**X**	**CU**	**X**
Wellness Retreat	**CU**	**CU**	**CU**	**X**	**X**	**X**	**P**	**X**

Section 4. Langley Municipal Code Section 18.22.020 Landscape design and tree retention, is hereby amended as follows:

18.22.020 Landscape design and tree retention.

A. Purpose. The city of Langley's identity is defined by its beautiful natural setting and human scaled downtown characterized by extensive landscaped gardens both on private properties and within the public realm of streets, parks and open spaces. Langley is surrounded by mature coniferous forest that delineates the urban city from the rural county while strengthening the city's sense of place within the surrounding landscape. The preservation and enhancement of these features are important to the future of the city to achieve environmental, social and economic sustainability. Other objectives are to:

1. Retain existing vegetation, tree stands and significant trees by incorporating them into the site design.

2. Incorporate native vegetation and drought resistant plant material into new landscape developments as appropriate.

3. Provide vegetated screening between different land uses and intensities.

4. Minimize the visual and physical impact of parking areas with vegetative screening and shade.

5. Provide vegetated screening between residential and nonresidential areas.

6. Beautify the commercial districts with extensive gardens and landscape installations.

7. Create pedestrian oriented spaces in the downtown with a blend of hardscape and landscape features.

8. Balance the desire to preserve trees and vegetation with the desire for openness of space and sun exposure.

9. Maintain and increase bluff stability by intercepting runoff and groundwater via landscaping.

10. Ameliorate weather and climate impacts by retaining and planting trees to block and filter wind, provide shade where desired and store carbon.

B. Applicability. The standards herein apply to any multi-family development, all subdivisions (plats), and all nonresidential development including site plans, binding site plans and planned unit developments. Single- and two-family lots are exempt from the requirements of this section with the exception of the standards addressing the preservation of significant trees (subsection (I) of this section) or if vegetation is to be preserved as part of a subdivision approval.

C. Professional Designer. All landscape plans shall be prepared by a licensed landscape architect or landscape designer qualified to provide landscape design services as exhibited by experience with past projects, education or a combination thereof.

D. Submittal Requirements. All landscape plans shall include the following:

1. A detailed site plan of all existing and proposed trees and vegetation at a minimum scale of one inch = 30 feet identifying all existing and proposed landscaping.

2. A detailed plant and tree list showing the type of species and size at installation and whether the plants are native or nonnative. Nonnative species may be allowed with evidence of their suitability for the proposed application.

3. A narrative identifying the overall design concept for the proposed landscaping plan and demonstrating compliance with the requirements of this section.

E. Standards for Parking Lots and Walkways.

1. A minimum of one tree for every eight parking spaces is required for planting along the interior of parking lots and one tree for every four spaces along the exterior of parking lots and along the right-of-way.

2. A minimum of 10 feet between the edge of the right-of-way and the parking lot shall include extensive landscaping consisting of trees, shrubs and plants to soften the visual impact of the parking lot. The intent is not to create a completely opaque vegetative screen, but to soften the visual impact of the parking areas.

3. All trees shall be a minimum two-inch caliper when planted.

4. Dedicated walkways through parking areas shall include a minimum of five feet of landscaping along both sides of the walkway.

5. Walkways along building frontages shall have a minimum 10 feet of landscaped area between the walkway and the building.

F. Street Trees.

1. A street tree shall be planted for every 40 feet of frontage along the street and shall be located either within the right-of-way or along the frontage of the property within 10 feet of the right-of-way.

2. The street tree species must be demonstrated to be appropriate for the given location, that it will not damage infrastructure in the area (sidewalks, roadway, utility lines, etc.), unnecessarily block views from public or private property. The property owner shall demonstrate an ability to properly maintain the tree by submitting a management plan for review and approval.

3. When selecting a street tree applicants shall consult with the Seattle department of transportation street tree list as a guide and reference support for the selected species within the street list unless an alternative is specifically approved.

G. Site Design Techniques. Sites shall be designed to include, but not be limited to, the following features unless determined by the city to not be applicable or appropriate for the specific project:

1. Landscape open areas created by building modulation.

2. Retain natural vegetation and undisturbed open space.

3. Use plants that require low amounts of water, including native drought-resistant species.

4. Locate trees on storefront street frontages at appropriate spacing so that at maturity building signage and entrance are clearly visible from the street and sidewalk.

5. Plant a mix of evergreen and deciduous plants to maintain year-round color and interest.

6. Incorporate on-site natural objects such as rocks, boulders and tree stumps into landscape design where possible.

7. Shrubs, grasses and other non-tree vegetation shall be included in the plan as appropriate to the site on a case-by-case basis.

8. Incorporating seating areas and public art into the landscape design is encouraged.

9. Planters, hanging baskets, window boxes or other landscape features along the street for sites that do not have landscape areas on site.

H. Planting Requirements.

1. Intent. The intent of this section is to encourage the use of native species and nonnative species that have adapted to the climate of Whidbey Island.

2. Requirements. Landscape designs shall conform to the following provisions:

a. Areas that do not include landscaping required by this chapter including parking, structures or other site improvements should be planted or preserved with native vegetation.

b. New plant materials shall include native species or nonnative species that have adapted to the climatic conditions of the coastal region of the Puget Sound region. Species on any state noxious weed list are expressly prohibited.

c. New plant materials shall consist of drought resistant species, except where site conditions within the required landscape areas assure adequate moisture for growth.

d. New tree plantings shall be a minimum two-inch caliper if deciduous or six feet in height if evergreen. Soil planting types and depth shall be sufficient for tree planting.

e. Existing vegetation may be used to augment new plantings to meet the standards of this chapter at a ratio of 1:1.

I. Tree Retention and Protection.

1. A plan of all existing significant trees shall be provided with applications for development subject to these standards.

2. Where feasible, projects shall be designed to avoid the removal of significant trees without diminishing allowed uses, densities and intensities or the function of the proposed development through development clustering or other site design techniques. Safety, solar access for active and passive solar design and local food production will also be considered as part of review of the tree retention plan.

3. Projects may be required to preserve significant trees with a native growth protection area when the tree preservation is determined to be commensurate with the project's impact or voluntarily by the applicant.

4. No significant tree may be removed from any property without first obtaining authorization from the city planning official following consultation with the city forester. **In lieu of consultation with the city forester, the planning official may accept written consultation from a certified arborist selected from the approved Island County list.** Any significant tree removed shall be replaced with an appropriate species. Consultation with neighbors is encouraged to avoid conflicts with views and infrastructure. A significant tree may be authorized for removal based on the following criteria:

a. The tree has been deemed hazardous by a certified arborist.

b. The tree is dead or dying. Confirmation from a certified arborist may be required.

c. The property owner desires solar access for passive or active solar energy or for agricultural purposes upon a showing that removal of the tree will significantly increase solar access.

d. View Preservation or Retention. The city may authorize the removal of significant trees(s) for view preservation and retention upon determining that it is not feasible to retain the tree and preserve or retain the view through pruning. Any significant tree removed must be replaced with two additional trees in suitable locations that will not block views from the subject property in the future unless determined by the planning official to not be reasonable or feasible.

e. Approved site development including structures, driveways, parking areas and walkways.

5. Trees within critical areas or buffers may not be authorized for removal unless the tree(s) are deemed to be dead, dying and hazardous as approved by the planning official. Trees removed from critical areas must be replaced with an appropriate native species.

J. Enforcement. In addition to the enforcement provisions of Chapter 1.14 the city may require the replacement of any significant tree at a ratio of up to 4:1 if removed in violation of this section.

K. Modifications. The planning official may approve modifications to the standards contained in this section to achieve the overall purpose and intent of this section. (Ord. 1004 § 4 (Exh. E), 2014)

Section 5 - Severability. If any section, sentence, clause or phrase of this Ordinance should be held to be invalid or unconstitutional, the invalidity or unconstitutionality thereof shall not affect the validity or constitutionality of any other section, clause or phrase of this Ordinance.

Section 6 – Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five days from the date of publication.

PASSED BY THE CITY COUNCIL OF THE CITY OF LANGLEY, WASHINGTON, and approved by the Mayor at a regular meeting held this ___ day of _____, 2015.

_____
FRED McCARTHY, Mayor

ATTEST:

_____
DEBBIE L. MAHLER, Director of Finance/Clerk

APPROVED AS TO FORM:

_____
JEFF TARADAY, City Attorney

CITY OF MILWAUKIE

MILWAUKIE COTTAGE CLUSTER ANALYSIS

FINAL REPORT

JUNE 2019

CASCADIA PARTNERS

OPTICOS

Orange Splot

ACG

ACKNOWLEDGEMENTS

CITY OF MILWAUKIE

Staff

Alma Flores
Valeria Vidal
Dennis Egner
David Levitan
Templest Blanchard
Leila Aman
Vera Kolias
Jaime Crawford

City Council

Mayor Mark Gamba
Councilor Lisa Batey
Councilor Angel Falconer
Councilor Kathy Hyzy
Councilor Wilda Parks

Planning Commission

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Vice Chair John Henry Burns
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Robert Massey

METRO

Rebecca Small
Patrick McLaughlin

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Kiley Ford
Sherry Grau
Stephan Lashbrook
Martha McLennan
Mary-Rain O'Meara
Matthew Rinker

Property Owners

Tony DaRosa
Michelle DaRosa
Jennifer Dillan
Mark Fretz
Donna Lomnicki

CONSULTING TEAM

Cascadia Partners

Alex Joyce
Garlynn Woodsong
Alex Steinberger
Neil Heller
Victor Tran
Irene Kim

Opticos Design

Dan Parolek
Alex Vondeling
Drew Finke
John Miki

Orange Splot

Eli Spevak

ACG

Ayreann Colombo

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EXECUTIVE SUMMARY

CLUSTER HOUSING: THE NEXT GENERATION

The focus of this document is Milwaukie's update of its cottage cluster ordinance, resulting in an innovative cluster housing code that uses pro-forma-based planning and empowers developers to build market-rate workforce and affordable housing more quickly and efficiently by design.

With people increasingly priced out of opportunities to live closer to the center of the Portland region, surrounding cities continue to feel rising housing pressures. This is particularly evident in Milwaukie, as the next city south of SE Portland, especially now that the new MAX Orange line has opened and brought with it increased accessibility to the rest of the region.

Milwaukie's original Cottage Cluster Code generated zero development applications or actual cottage clusters. This Cottage Cluster Housing Study and the resulting Cluster Housing Code showcases innovative solutions for cities in the 21st century to allow context-sensitive infill development affordable to households with a diverse mix of incomes. The study heard from developers who are struggling to provide

The proposed Cluster Housing Code showcases innovative solutions for cities in the 21st century to allow context-sensitive infill development affordable to diverse mix of incomes.

market-rate housing within the confines of existing zoning codes, and learned lessons from these narratives to inform this set of proposed solutions to deploy in Milwaukie.

Cluster housing product types, including cottage clusters, townhome clusters, apartment clusters, and others, can be found in communities great and small. These updated cluster housing standards are meant to be compatible with many different community types, as they are scalable from lower intensities in neighborhoods, to higher intensities around high-quality transit and in commercial and mixed-use areas.

THE PROPOSED CLUSTER HOUSING CODE RESULTING FROM THIS STUDY CONSISTS OF THE FOLLOWING KEY ELEMENTS:

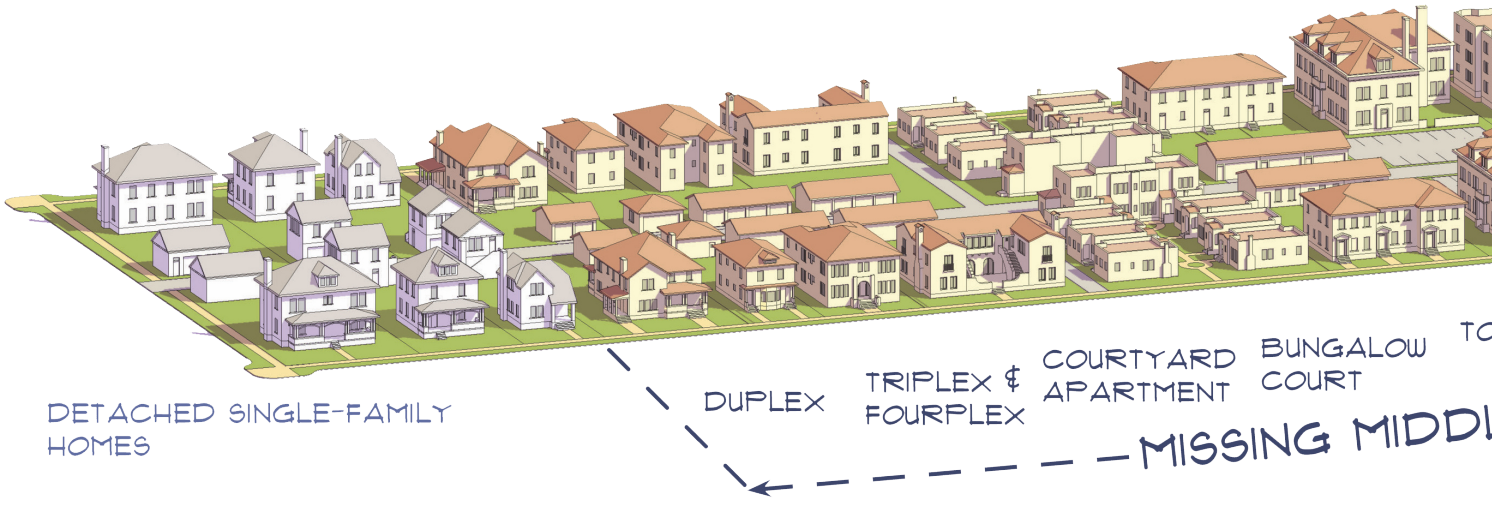
- **Form is regulated rather than density**, using elements such as heights, setbacks, and lot coverage
- **The intensity of form scales based on context**, from lower-intensity residential base zones, to higher-intensities within walking distance of high-quality transit and in higher-intensity base zones
- **Cluster housing locations within walking distance of high-quality transit** are defined as "transit-connected locations"
- **No restrictions on site or lot size**
- **Restrictions on the individual footprint and overall floor areas** of homes in a cluster housing development, as well as a restriction on the maximum average floor area, intended to act as a measure to ensure affordable outcomes while allowing for a diverse range of home sizes
- **Design guidelines specifying orientation and design elements** facing common green and public streets that encourage a sense of community and place
- **Allowance for a common building or other indoor community space** to help further create a sense of community
- **Requirement for minimum amounts of vegetation** on the site and between the street and the front homes, and a maximum amount of allowed impervious area, to encourage trees and plantings to provide shade, air quality benefits, and rainwater infiltration capabilities
- **Reduced off-street parking requirements** that require less parking in areas well-served by transit and nearby amenities
- **Bicycle parking requirements** sufficient to provide for the use of the bicycle as a reasonable everyday transportation solution
- **Flexible design requirements for bicycle and pedestrian pathway connections** through the site, including conditional allowance of woonerfs to provide for a shared common space and auto drive aisle to access parking located near the center of long, skinny sites

02
INTRODUCTION

The cottage cluster feasibility study is one part of the City of Milwaukie's multi-pronged approach to diversifying its housing stock to increase the supply of workforce and affordable housing.

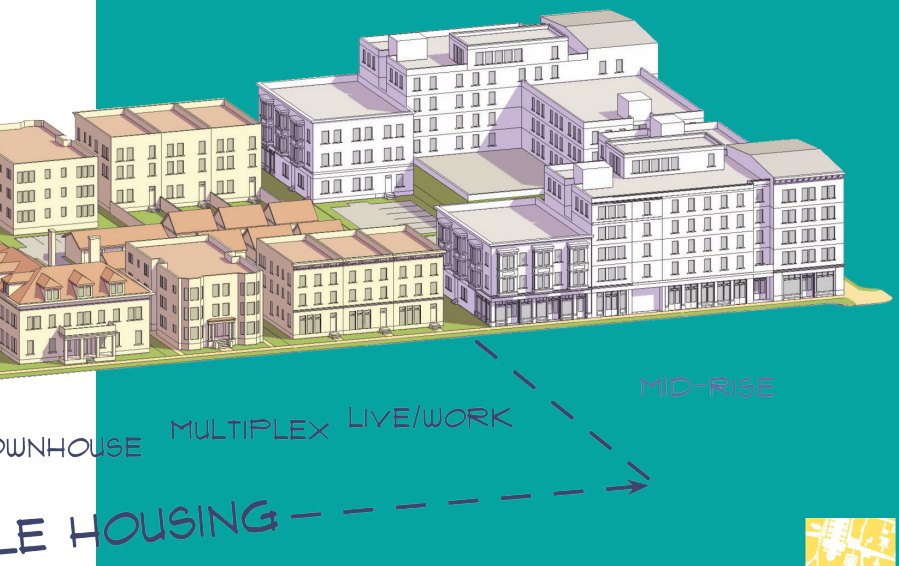
Cottage cluster and shared court housing product types represent an opportunity to capitalize on market strengths to expand housing options, with smaller, more affordable units that fit the scale and density of a residential neighborhood.

Cottage cluster and shared court housing product types are referred to in this report collectively as cluster housing. Cluster housing is itself one flavor of missing middle housing.



WHAT IS MISSING MIDDLE HOUSING?

Missing Middle is the term for all housing product types that are not single family homes on their own lot or large apartment buildings, including townhomes, duplexes, triplexes, fourplexes, small house-scale multiplexes, and live-work units.



BACKGROUND

There are very few missing middle housing options available in Milwaukie today. During the 1950s, the US Department of Housing and Urban Development (HUD) distributed zoning codes that mostly banned its construction. Some American cities, like Portland, have large amounts of old missing middle housing stock that were constructed before the adoption of those template-based codes. Cities like Milwaukie that experienced most of their growth during or after the 1950s do not have many examples of missing middle housing. Milwaukie's city leadership identified this lack of missing middle types as an obstacle to achieving greater housing diversity and affordability, and commissioned this study to identify solutions.

The study is divided into three phases:

1. **Learn**
2. **Design**
3. **Implement**

During all phases, the project was guided by community feedback from a Stakeholder Advisory Group (SAG), including representatives of neighborhoods, property owners, community nonprofits, and other stakeholders.

Milwaukie's city leadership identified the lack of missing middle types as an obstacle to achieving greater housing diversity and affordability, and commissioned this study to identify solutions.

PHASE 1: LEARN

- Identify issues and barriers to cottage clusters development in Milwaukie, and examine potential solutions
- Audit the zoning code
- Identify candidate properties for conceptual planning and design
- Understand community desires and expectations regarding outcomes for the study
- Establish performance measures based on community feedback

GENERAL STUDY QUESTIONS

- Where are cottage clusters appropriate in Milwaukie?
- What specific obstacles does the current zoning code represent to the feasibility of development of cottage clusters?
- What is the demand for smaller units in Milwaukie?
- What is the specific demand for detached rentals?
- What income categories should be chosen to assess the potential affordability of housing options studied, in relation to Area Median Income (AMI)?
- How does an HOA fee fit in, if applicable?

PHASE 2: DESIGN

- Perform a market assessment for cottage cluster types in the Milwaukie context
- Establish conceptual designs for the candidate sites
- Engage the SAG to examine the current zoning in relation to the proposed new zoning code, including the architecture and design for prototype development on project study sites
- Perform pro forma analyses on designs
- Analyze the affordable housing potential of these and related designs
- Use the analysis to inform the final concepts for development of each site, and inform an updated zoning code section to regulate cluster housing types

PHASE 3: IMPLEMENT

- Host an open house to collect feedback on revised drafts of project proposals from the community
- Gather feedback from the Planning Commission and City Council
- Draft new cluster housing code for adoption by the City alongside the Comprehensive Plan at a later date

03
ENGAGEMENT

The following groups were engaged during the analysis:

- Stakeholder Advisory Group (SAG)
- Property owners of project study sites
- Planning and Zoning Commission
- City Council

Additionally, project materials were posted online on a project web page, and project summaries were sent out in the City's printed newsletter.

STAKEHOLDER ADVISORY GROUP

Four meetings were held with the SAG throughout the project, and SAG members were encouraged to use project materials to present information to their networks.

The SAG included:

- Representatives with experience in constructing accessory dwelling units in SE Portland and Milwaukie
- Landowners of property in Milwaukie that could become cluster housing sites
- Neighborhoods containing project study sites
- Partner agencies, such as the Clackamas County Housing Authority
- Organizations that could construct cluster housing projects if/when they become feasible to build in Milwaukie.

PERFORMANCE MEASURES

Performance measures were developed with the SAG to assess the success of the project and its achievement of project goals. At the initial two SAG meetings, a list of project performance measures was developed, reviewed, and approved, including:

- Establish partnerships between owners & builders
- Seek solutions for a range of income levels, including workforce housing
- Test renter and owner solutions
- Create models and lessons that can be reproduced locally and regionally
- Craft financially feasible zone standards
- Right-size SDCs
- Develop context sensitive parking standards
- Cultivate broad-based interest in community
- Design easily accessible materials

PUBLIC OPEN HOUSE

The City hosted a "Missing Middle Housing Options" Open House for the project on April 3rd, 2019 to gather feedback from the community on the site designs and code recommendations for cottage clusters in the city. Cascadia Partners provided two presentations throughout the event to be able to provide information about the cottage cluster feasibility study as well as context for the proposed site designs. Poster boards asked if participants would support (green dot stickers) or not support (red dot stickers) each proposed code amendment and added sticky notes for additional comments. General comment cards were also available. All responses were summarized and provided to the Planning Commission and City Council.

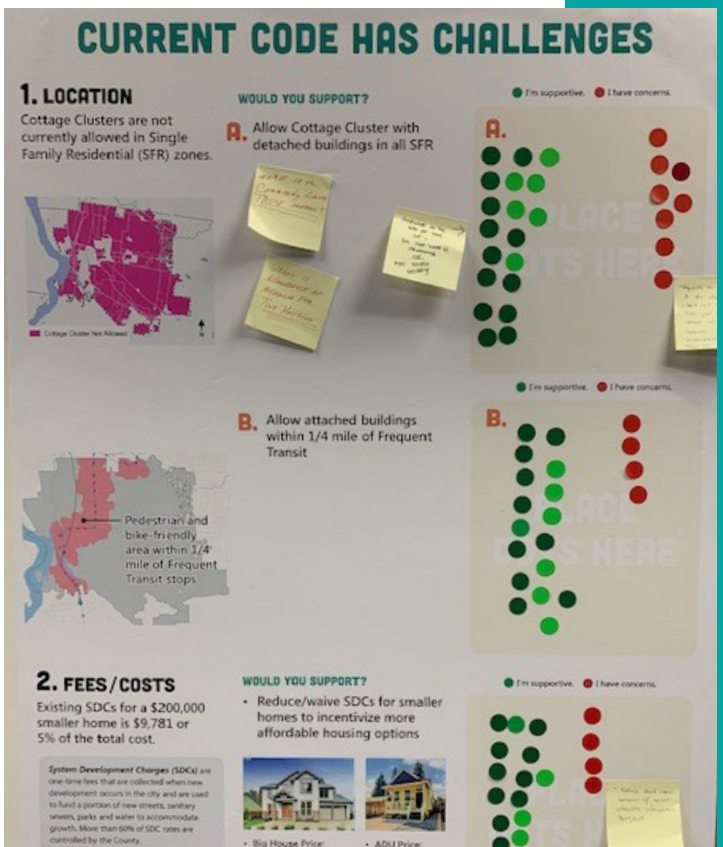
WHAT WE HEARD AT THE OPEN HOUSE

Most participants were supportive of the revised code recommendations. Participants were most concerned about providing less than one parking space per unit in order to build more cluster housing on a site. However, others felt code changes should consider a future with autonomous vehicles and a less car-oriented society.

"

Make sure that tree canopy and greenspace is maintained as much as possible.

- Open house participant



"

Cottage clusters is a move in the right direction. I'd like to see modified building codes to allow for tiny housing.

- Open house participant

PLANNING COMMISSION AND CITY COUNCIL

These proposed cluster housing standards were presented to a joint session of Milwaukie's Planning Commission and City Council on April 16, 2019, and to City Council on May 21, 2019. Feedback from both meetings included:

- Define the concept of Maximum Average Floor Area more clearly, so that it can be more easily understood by decision makers
- Perform tests to determine how low the maximum average floor area standard can be set without negatively impacting development potential, with the goal of incentivizing as much workforce housing production as possible
- Clarify that existing homes allowed to remain within a housing cluster when the cluster is developed around them may be excluded from the maximum average floor area calculation
- Help City Council better understand the impacts of a tiny housing cluster on small sites, such as 5,000 to 7,000 sf lots, by showing how clusters of 3 to 5 homes can meet porch orientation, setback, lot coverage, vegetation, and other standards
- Look into recommending a change in how parking in driveways is regulated, to allow parking within the first 20 ft of the property line to count towards required minimum parking requirements
- Look into reducing the amount of parking required if some of that parking is set aside for shared vehicles
- Look into establishing a map of streets that can be designated as having characteristics, such as ROW width and street classification, potentially acceptable to accommodate head-in or angled on-street parking
- Look into which SDCs and fees to reduce or waive, and if a reduction, the amount of the reduction.

04

ZONING CODE ANALYSIS

THE APPROACH

The existing Cottage Cluster Housing code, Section 19.505.4 of the Milwaukie Municipal Code (to which all code references in this document refer) was thoroughly reviewed, in combination with the applicable elements of the code:

- Section 19.201: Definitions
- Chapter 19.300: Base zones
- Chapter 19.700: Transportation & street frontage standards
- Chapter 12.16: Access Management

The zones where the existing Cottage Cluster Housing code could be most easily applied (i.e. without a Conditional Use permit) were identified as:

- R3: Medium Density Residential
- R2.5: Medium Density Residential
- R2: Medium Density Residential
- R1: High Density Residential
- R1-B: High Density Residential-Business Office
- GMU: General Mixed Use

For each of these zoning classifications, three to four sizes of sites were analyzed for a hypothetical build-out of the highest and best use allowable under the Cottage Cluster code:

- Tiny: 6-7,000 sq ft site (only for R1, R1-B, and GMU)
- Small: ~12,000 sq ft site
- Medium: ~25-26,000 sq ft site
- Large: ~73,000 sq ft site

A matrix was developed to list all possible combinations of zoning code and site size (see Table 1). Existing properties already identified as a part of the outreach efforts that fell into one of these categories were used as the basis for the analysis. In all other instances, a hypothetical site was analyzed to determine the feasibility of developing a cottage cluster of that size under each particular zoning classification.

For sites with an existing property identified, the purchase price in the pro forma was set to the last known transaction amount for the site. For all other sites, a representative value per square foot was used.

The analysis showed that no combination of zoning and site size results in a scenario where a for-profit cottage cluster development would be feasible under the existing zoning code.

18%

is the general rate of return that investors are seeking in the market.

None of the scenarios studied produced higher than an 11% return. This return is only found on 26,000 sf sites in a General Mixed Use (GMU) zone. In addition, the maximum number of units in a cottage cluster (12) for a 26,000 sf site would not meet the minimum density threshold for a GMU zone (25 dwelling units per acre), and therefore would be illegal under the current zoning code. In other words, there is no incentive for a private developer or landowner to build cottage cluster developments under the existing code.

TABLE 1. RATE OF RETURN UNDER EXISTING COTTAGE CLUSTER CODE

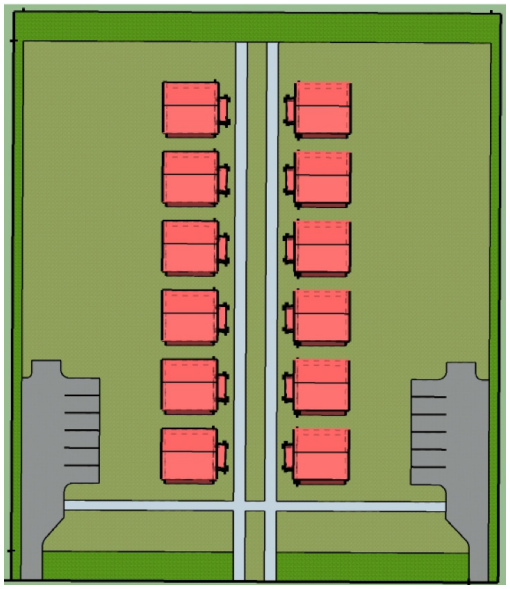
Site Size	Tiny	Small	Medium	Large
Zoning	6-7,000 sq ft	~12,000 sq ft	~25-26,000 sq ft	~73,000 sq ft
R3	n/a	2.81%	1.06%	-5.27%
R2.5	n/a	2.22%	6.59%	0.11%
R2	n/a	-0.51%	6.66%	2.05%
R1	-15.91%	9.63%	9.63%	0.04%
R1-B	-9.23%	9.59%	9.63%	0.04%
GMU	-31.26%	1.34%	**10.96%**	-0.04%

ZONING CODE ANALYSIS: LESSONS LEARNED

LESSON 1

Large sites are limited by the current cottage cluster code's maximum number of units, which is 12.

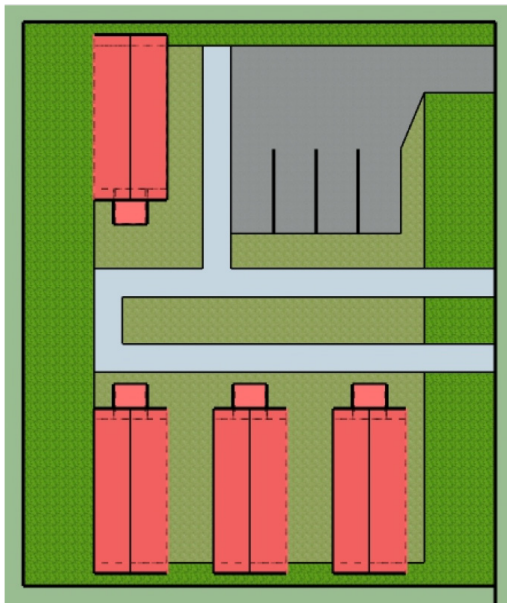
At the other end of the size spectrum, smaller sites come with a lower acquisition cost, meaning that a lower total number of units must be built before the site cost is paid back. However, the number of units required to achieve a feasible development is not legal on these sites.



LESSON 2

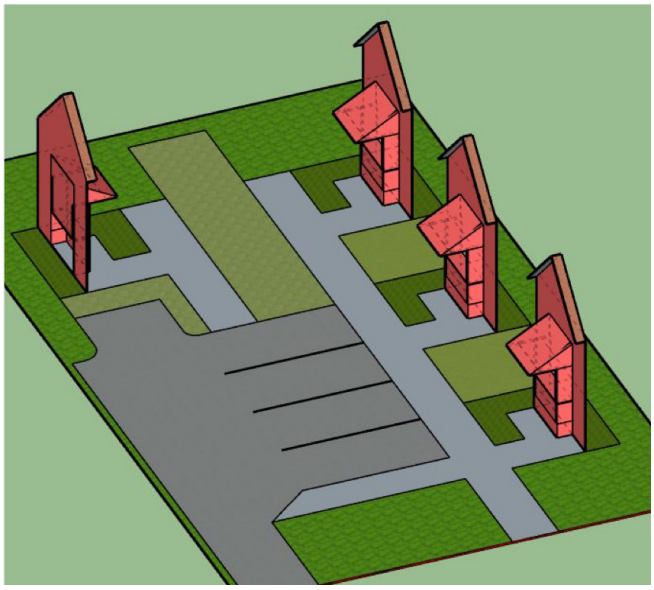
Small sites are limited by density limits.

Building a sufficient number of units on a smaller site would result in a number of units per acre that exceeds the allowable densities for those zones. Indeed, on a certain number of smaller sites, there simply is not enough room on the site to accommodate all of the setbacks required by the combination of the base zoning and the cottage cluster codes.



LESSON 3

Setback requirements make the development of sites below a certain size impossible, as the entire buildable area of the site is used up by setbacks, leaving insufficient area for the construction of the minimum number of cottages (4).



On a 6,000 sf site, no building area remains to place cottages once all of the setback requirements are met. Only the front porches could be constructed, as porches are allowed to intrude into the front setback of each cottage.

- Front site setback: 15 ft
- Side site setbacks: 5 ft each side
- Rear site setback: 15 ft
- Space between cottages: 10 ft
- Minimum front yard depth: 10.5 ft
- Minimum rear yard depth: 7.5 ft
- Cottage other setback: 5 ft
- Minimum private open space per cottage: 100 sq ft
- Minimum dimensions of all sides of private open space: 10 ft
- Minimum common open space area per cottage: 100 sq ft
- Minimum dimension of one side of common open space: 20 ft

05

FINANCIAL FEASIBILITY

This section will provide an overview of key findings from the market analysis, sensitivity analysis of the new proposed code, and its implications on housing affordability.

The goals of the financial feasibility studies:

- **Audit the existing zoning code to determine what impacts it has on the development feasibility of cottage cluster developments** on a range of sites in zones where cottage clusters are currently allowed and the residential zones where cottage clusters are not currently allowed.
- **Model the effects of different potential policy changes** on the feasibility of cluster housing development, and what the resulting price points of homes might be.
- **Determine which design concepts would be economically feasible for market-rate developers to construct.** A market study was performed to understand the variables in financial feasibility, including construction costs, sales prices, rents, and projected changes in these variables over the five year near-term planning horizon for the project.

MARKET ANALYSIS

The market analysis is based on demographic trends, home sales data, and developer interviews. Findings of the market analysis for the next five years include:

- Ownership products will continue to dominate the Milwaukie housing market, though a loss of renters over recent years could indicate growing pent-up demand for rental products
- Milwaukie will continue to add households including first time home buyers, retirees, and families with children
- The existing housing stock is exceptionally uniform in terms of lot size, home size, and number of bedrooms; so new development that diversifies the housing stock will likely do well in the market
- It appears that Metro's 2015 Population and Household Forecast is very conservative; estimates based on this forecast indicate a demand for about 55 to 60 new homes per year between 2018 and 2023
- It is very likely that with new housing added in Milwaukie, the city could experience significantly higher rates of growth in

population and households than it has seen over the last two decades of very low population and household growth.

See Appendix B for the full market analysis report.

NEW CODE AUDIT PRO FORMA ANALYSIS

Part of Cascadia Partners' development process for new codes involves sensitivity testing to understand how the proposed code performs in terms of reducing housing costs for new units produced under such a code.

SAG members expressed a shared goal of providing more workforce housing. This is generally measured using the concept of Area Median Income (AMI), which is calculated by the U.S. Department of Housing and Urban Development (HUD) annually for different communities. By definition, 50% of households within the specified geographic area earn less than AMI, and 50% earn more.

Workforce Housing vs. Affordable Housing

AMI is adjusted based on household size. The concept of workforce housing is sometimes defined as housing that is affordable to households making 80% to 120% AMI. Affordable housing is defined as housing affordable to households making less than 80% AMI.

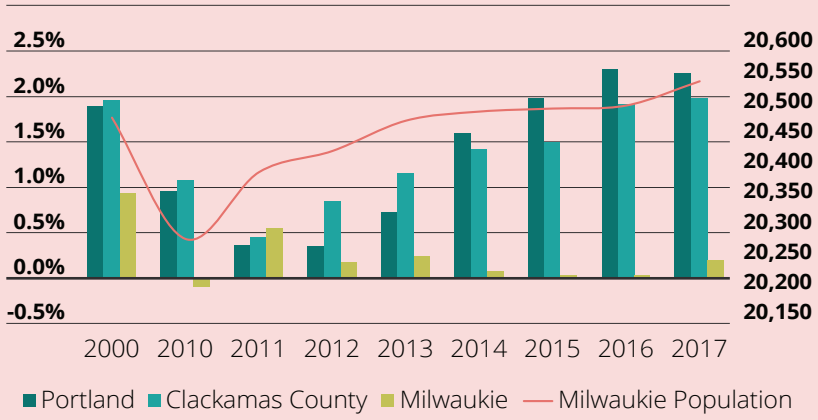
By that definition, housing in Milwaukie is affordable to households making $41,850 (for a 1-person household at 80% AMI) to $85,890 (for a 4-person household making 115% AMI*).

** While 115% AMI is the cut-off for the multi-family tax exemption, 120% AMI is sometimes used as the upper limit for the definition of workforce housing. HUD only publishes figures up to 115%, however.*

TABLE 2. INCOME LEVELS AND MAXIMUM RENTS (HUD), 2017

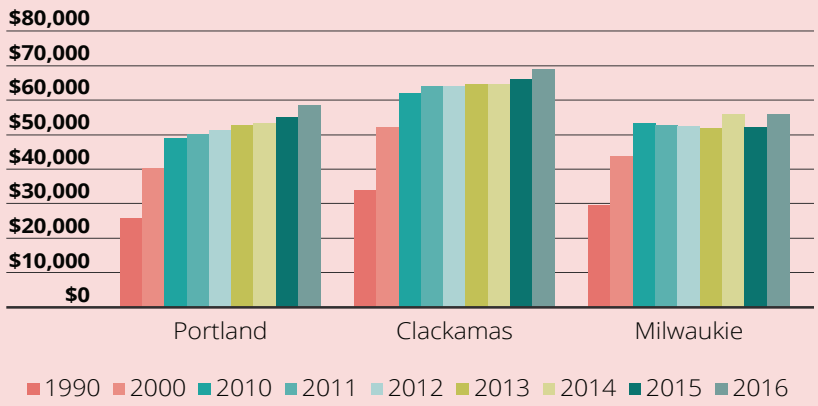
	1-PERSON HOUSEHOLD		2-PERSON HOUSEHOLD		4-PERSON HOUSEHOLD	
INCOME LEVEL	ANNUAL INCOME	MAX AFFORDABLE RENT	ANNUAL INCOME	MAX AFFORDABLE RENT	ANNUAL INCOME	MAX AFFORDABLE RENT
115% AMI (Current level for multi-family tax exemption)	$60,160	$1,504	$68,710	$1,718	$85,890	$2,147
100% AMI	$52,310	$1,308	$59,750	$1,494	$74,690	$1,867
80% AMI (Low-income)	$41,850	$1,046	$47,800	$1,195	$59,750	$1,494
50% AMI (Very Low-income)	$26,150	$654	$29,900	$748	$37,350	$934
30% AMI (Extemely Low-income)	$15,700	$393	$17,950	$449	$24,600	$615

FIGURE 1. POPULATION GROWTH RATE, 2000-2017



Milwaukie has grown by about 0.4% annually since 1990. Given low rates of housing production in Milwaukie, it is likely that its relatively slower growth is due largely to the lack of housing available in the city.

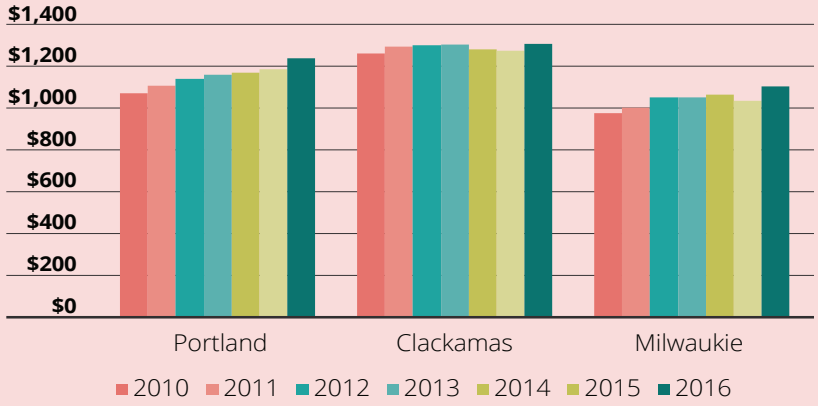
FIGURE 2. MEDIAN HOUSEHOLD INCOME, 1990-2007



Median household income in Milwaukie has remained relatively flat since 2010 increasing at 0.8% annually with some years experiencing a decline, which may indicate that higher income households are leaving the city.

On the other hand, Portland and Clackamas County have consistently seen small but positive gains in median household income since 2010.

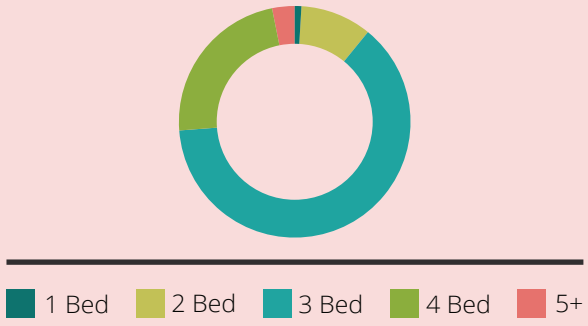
FIGURE 3. MEDIAN MONTHLY HOUSING COSTS, 2010-2016



Median monthly housing costs have increased since 2010 by over 2% annually in both Portland and Milwaukie while Clackamas County's costs have remained relatively stable increasing by only 0.6% annually.

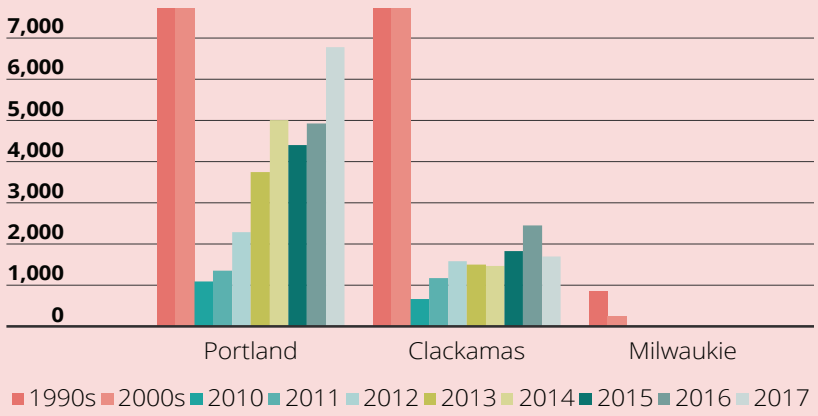
Generally, since 2000, the increase in the median cost of housing for owners and renters has outpaced the increase in median household income by roughly 0.5% to 1% per year.

FIGURE 4. HOME SALES BY AVERAGE NUMBER OF BEDROOMS, 2011-2018



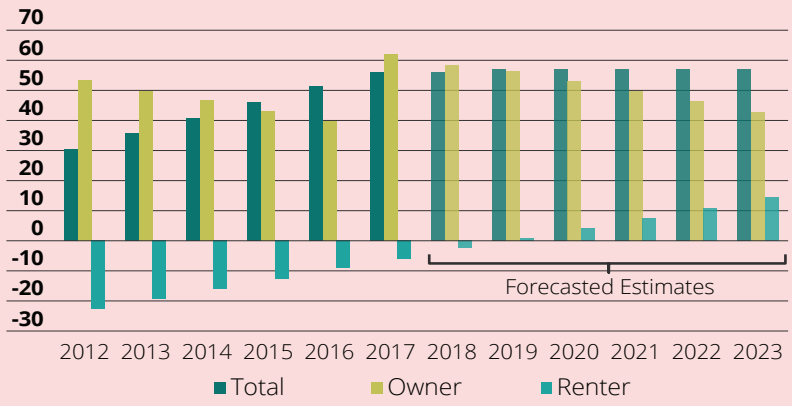
The vast majority of the homes sold are between 1,100 and 2,300 square feet, with three or four bedrooms, and sit on lots of about 0.17 acres in size; 90 to 95% of this housing stock was built before the year 2000.

FIGURE 5. RESIDENTIAL BUILDING PERMITS ISSUED, 1990-2017



The bulk of new housing units added since 1990 were constructed prior to 2000, resulting in an average annual growth rate in housing units since 1990 of 0.5% per year. This likely has a causal relationship to the 0.4% annual growth in households since 1990.

FIGURE 6. DEMAND FOR NEW HOUSING, 2012-2023



Over the next five years to 2023, 343 new housing units are needed based on population and household growth forecasts prepared by Metro. Of these, roughly 307 new homes will be needed to meet ownership demand, and 36 new homes will be needed to meet rental demand.

HOUSING AFFORDABILITY ANALYSIS

Market rate options

Market-rate affordability can be provided at a fairly deep level. Pairing these built form types with affordable housing policies can allow for true affordable housing to be provided using the cluster housing product type.

Sensitivity testing of policies on hypothetical site

A series of pro forma analyses were conducted on a hypothetical study site to determine the relative impact of different policy changes on home prices. The study site is a hypothetical 14,000 sf lot in an R7 zone. Policies tested include:

- Baseline assessment of two standard single-family homes, if the lot were subdivided into two
- Price per home if the existing cottage cluster code were made an allowed use and a four-home cluster built on the site
- Impact of removing the density limit that otherwise would come from the underlying base zone
- Reduction in setbacks and separation standards
- Reduction in private and shared yard standards
- Change in parking policy to allow on-street parking to count towards required minimum parking for the site
- Increase in the allowable height limit to a full two stories
- Allow attached unit types

The results are shown in Table 3.

Cluster housing in Milwaukie represents a compelling opportunity to provide mixed-income housing affordability in the neighborhood context with appropriately scaled developments and greater access to more diverse housing options.

Lessons Learned

On the hypothetical site, home prices could be as low as $190,000 per home, which would be affordable to a household earning 68% AMI. Rents for market-rate homes could be less than $1,540 per month, which would be affordable to households earning 82% AMI.

These results show that it's possible to build market-rate workforce and affordable courtyard housing in Milwaukie, but that there are no silver bullets for affordability. Multiple changes to standards are required, and the density limit change is required for any other zone changes to have an impact. Smaller units are more affordable, but they must be allowed.

TABLE 3. RESULTS OF SENSITIVITY TESTING OF HYPOTHETICAL SITE

	Zone Standards	Sales Price Per Unit	# of Units	Monthly Mortgage Payment	Monthly Rent Per Unit
LESS AFFORDABLE	Standard single-family home	$575,800 **(181% AMI)**	1	$2,473	$3,361 **(180% AMI)**
	Current cottage cluster standard	$334,000 **(107% AMI)**	4	$1,434	$2,900 **(155% AMI)**
	Remove density limit	$231,000 **(82% AMI)**	5	$992	$2,061 **(110% AMI)**
	Reduce setbacks and separation standards	$216,300 **(77% AMI)**	7	$929	$1,888 **(101% AMI)**
	Reduce private and shared yard standards	$207,100 **(74% AMI)**	8	$889	$1,773 **(95% AMI)**
	Allow on-street parking to count	$202,100 **(72% AMI)**	9	$868	$1,674 **(90% AMI)**
	Increase height to two full stories	$199,600 **(71% AMI)**	10	$857	$1,643 **(88% AMI)**
MORE AFFORDABLE	Allow attached unit types	$191,000 **(68% AMI)**	15	$820	$1,538 **(82% AMI)**

TABLE 4. COST BREAKDOWN OF LARGE SINGLE FAMILY HOMES VS. SMALLER HOMES

DEVELOPMENT COSTS	LARGE SINGLE FAMILY HOUSE (2,350 SF)		SMALLER HOME (620 SF)	
	TOTAL	/SQFT	TOTAL	/SQFT
SITE ACQUISITION	$55,125	$8	$14,002	$9
HARD COST	$292,250	$123	$101,420	$164
SOFT COST	$187,884	$80	$71,614	$116
EXPECTED RETURN	$40,491	$17	$15,084	$24
TOTAL COST	$575,750	$228	$202,120	$302

Policy testing on real-world study sites

On the four real-world study sites studied in detail, Opticos Design developed two scenarios for each site:

1. **"Max Build" scenario** to test the maximum feasible development intensity in order to determine the potential impacts on pricing; and
2. **"Ready-to-Build" scenario** that meets the property owner's vision while gaining sufficient financial return on investment.

Cascadia Partners developed pro formas for each design scenario on each site. All the design concepts were adjusted to provide the same rate of return to the developer, so all achieve financial feasibility goals. Each study site was tested assuming a set of draft new policies that included:

- a reduction in parking and setback requirements
- an increase in allowable height and density
- Waiving the maximum number of units allowed on a site

The results are shown below in Table 5.

TABLE 5. RESULTS OF REAL-WORLD STUDY SITES

STUDY SITE	10325 SE 36TH AVE		3736 SE HARVEY ST		10244 SE 43RD AVE		4420 SE JOHNSON CREEK BLVD	
SCENARIO	Design 1	Design 2	Design 1	Design 2	Design 1	Design 2	Design 1	Design 2
# HOMES	11	9	16	13	36	10	36	34
LOW SIZE	1-bed, 400 sf	1-bed, 700 sf	1-bed, 510 sf	2-bed, 700 sf	1-bed, 450 sf	1-bed, 700 sf	1-bed, 700 sf	1-bed, 700 sf
LOW PRICE	$126K	$235K	$182K	$248K	$142K	$249K	$221K	$229K
LOW AMI	29%	54%	42%	57%	33%	57%	51%	53%
HIGH SIZE	3-bed, 1,090 sf	3-bed, 1,000 sf	2-bed, 765 sf	3-bed, 1,000 sf	2-bed, 900 sf	3-bed, 1,050 sf	3-bed, 1,050 sf	3-bed, 1,000 sf
HIGH PRICE	$278K	$317K	$256K	$302K	$274K	$366K	$268K	$313K
HIGH AMI	64%	73%	59%	69%	63%	84%	62%	72%
AVG SIZE	963 sf	967 sf	701 sf	865 sf	675 sf	980 sf	875 sf	985 sf

Lessons Learned

1. None of the design concepts developed for the study sites resulted in a maximum average home size of greater than 1,000 square feet. This can be seen as the threshold of financially feasible and affordable (at less than 80% AMI) cottage cluster development.
2. The degree of affordability in market-rate housing seems to be dependent on the development intensity that is allowed and attained on each site.
3. Some of the scenarios envisioned lower parking ratios than might be allowable under the proposed cluster housing code, unless the underlying zone were to be changed. Yet, even with these caveats, all of the design scenarios for all of the study sites appear to be affordable at less than 85% AMI, with the lowest-price options being affordable to households under 60% AMI.

NONPROFIT & SUBSIDIZED AFFORDABLE HOUSING OPTIONS

Deeper affordability could be provided by subsidized affordable housing providers. There are at least three broad opportunity types for affordable housing to be provided in Milwaukie using the cluster housing program:

- Land trusts
- Affordable housing developments
- Government purchase of individual homes to be provided as dispersed affordable housing

Learn more about these opportunity types in Appendix C.

06

INITIAL SITE DESIGN CONCEPTS

Candidate sites for the initial site design concepts were selected based on:

- the need for a diversity of sites, including a diversity of sizes, shapes, and underlying zoning
- the location outside of a floodplain
- a property owner(s) willing to participate in the process
- the potential to accommodate cluster housing and no other current development proposals or activity that might preclude the eventual development of a housing cluster

DESIGN PROCESS

Cascadia Partners developed a draft pro forma for each site, which set up design goals including number of homes and home size, that achieved financial return targets. Opticos developed a series of design studies to test against various policies, such as lot coverage, parking, common green space area requirements, and the other elements of a cluster housing code. For each site, a design concept was chosen that best achieved the right balance of factors to achieve policy and financial goals.

Design concepts for each site were also reviewed with the site's property owner including pro formas. A pro forma training was held with each owner to transfer knowledge of how to use the pro forma spreadsheet, which was delivered to each owner for their further use.

Two scenarios were developed for each site:

"Max Build" scenario tested the hypothetical and physical maximum build-out of each site within maxed-out code parameters (such as height, parking, and common area dimensions).

"Ready-to-Build" scenario met the property owner's vision and aspirations, and met the need to provide a sufficient financial return on investment.

STUDY SITE SELECTION METHOD

1. GIS property screen

A GIS property screen was used to rank potential study area sites based on lot size, neighborhood, relationship to flood plains, underlying zoning, proximity to transit/LRT, presence of sidewalks, presence of bicycle facilities, and other factors.

2. Property owner outreach

The resulting list of sites was cross-referenced with City staff's knowledge of property owners based on past experience with permit inquiries to develop an initial list of potential property owner participants for the study. The project team conducted outreach to potential participants to perform due diligence and determine which owners would be most suitable for the study. Offers were made to suitable owners to participate in the study, and four were chosen for the study. These owners joined the SAG and remained engaged in the project. The project team visited each site and interviewed each owner to determine their aspirations, visions, and constraints.

STUDY SITE SELECTION CRITERIA

- Need for a diversity of sites, including a diversity of sizes, shapes, and underlying zoning
- Location outside of a floodplain
- Property owner(s) willing to participate in the process
- Site with potential to accommodate cluster housing and no other current development proposals or activity that might preclude the eventual development of a housing cluster

Concept 1:

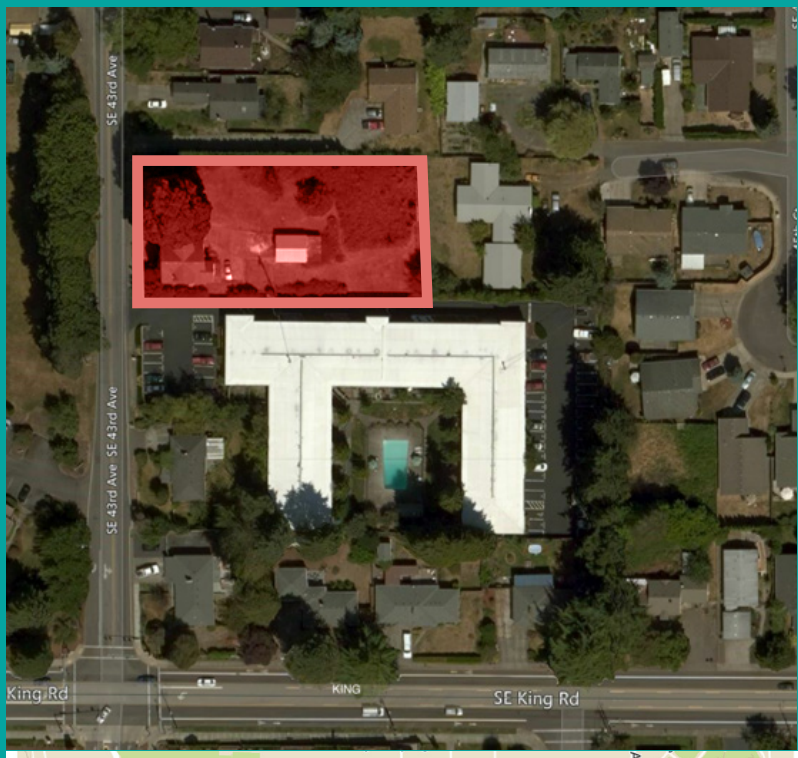
FULL LOT REDESIGN

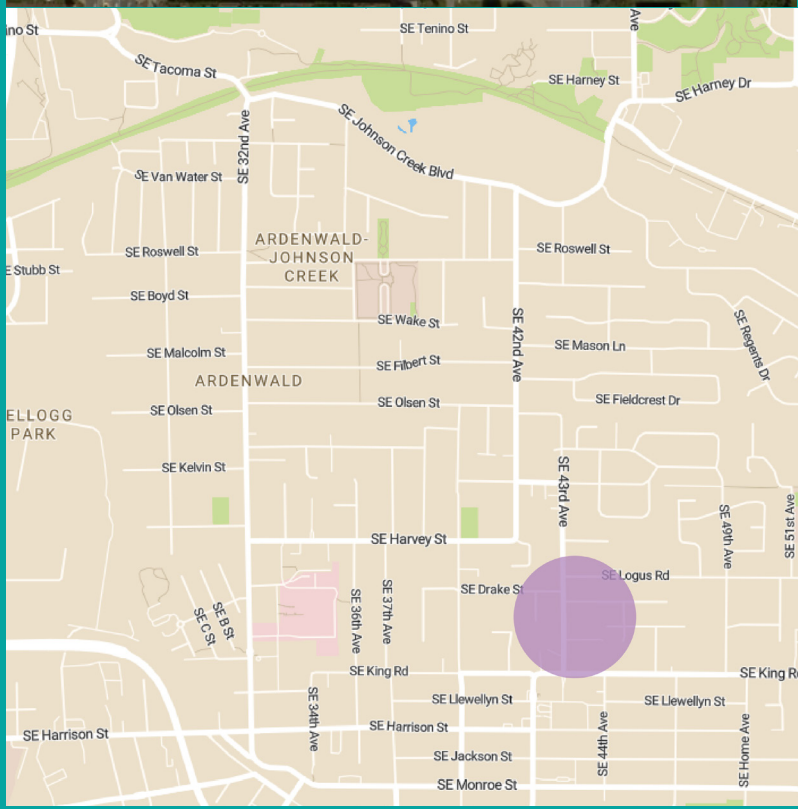
Location: 10244 SE 43rd Ave

Near a commercial center with grocery store, restaurants and retail, and served by a bus line, this commercial center represents an opportunity for a future village center area that could service as an amenities anchor for the surrounding neighborhood. A large apartment complex and a few single family homes are between this site and the commercial center. Increased intensity is thus appropriate for the future context of this site.

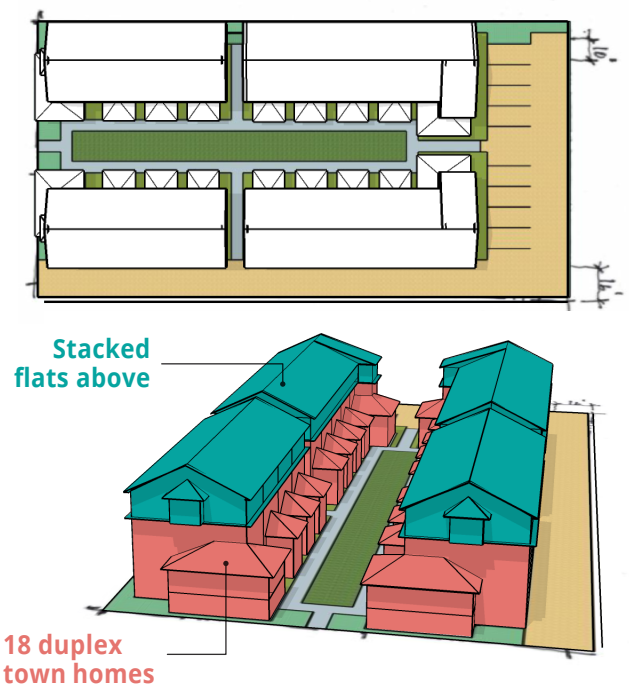
At nearly 26,700 sq ft , this site is largely flat. It features an large deciduous tree in the front yard, and a number of small fruit trees on the property. An existing house anchors the other half of the street frontage next to the large tree.

Currently zoned R7, the max build concept explores the possibility of re-zoning this site to allow for more intense development of attached building types, whereas the second concept explores a less-intense vision that more closely resembles the form of the existing zoning.

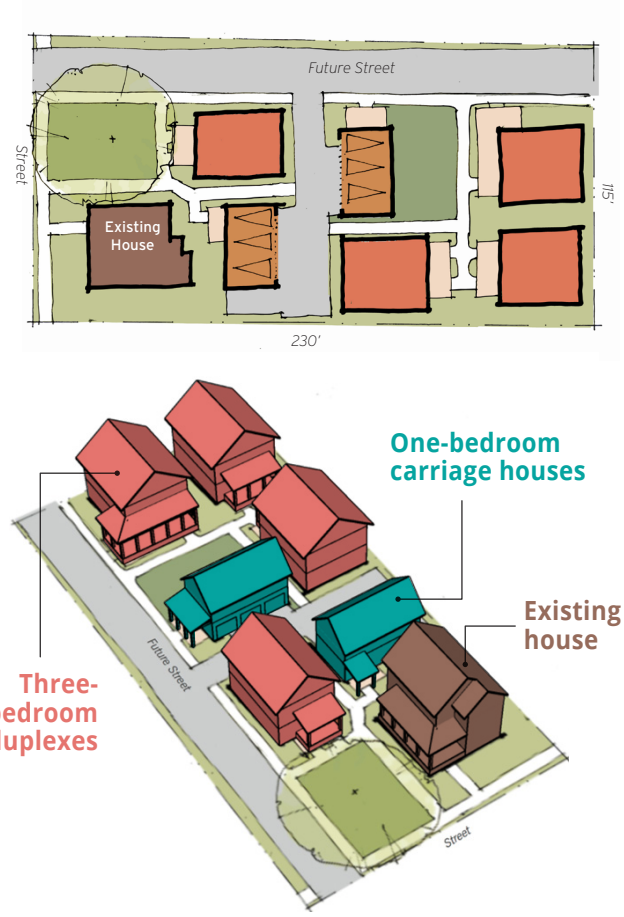




Max Build Scenario	
UNITS	36 total units
UNIT TYPE/ AFFORD-ABILITY	• 18 two-bedroom; 900 sq ft; $274,000 each; **affordable at 63% AMI** • 18 one-bedroom, 450 sq ft; $142,000 each; **affordable at 33% AMI**
AVERAGE HOME SIZE	675 sq ft
PARKING	9 parking spaces in the rear; 0.25 spaces per home*



Ready-to-Build Scenario	
UNITS	10 total units spread across six buildings, in addition to existing house
UNIT TYPE/ AFFORD-ABILITY	• 8 three-bedroom; 1,050 sq ft; $366,000 each; **affordable at 84% AMI** • 2 one-bedroom; 700 sq ft; $249,000 each; **affordable at 57% AMI**
AVERAGE HOME SIZE	980 sq ft
PARKING	Two three-car garages and dedicated surface parking*



** It is assumed that the transit-adjacent location, plentiful bicycle parking, and the changing nature of the transportation economy (including on-demand services such as Lyft and Uber) would provide for mobility for site residents and visitors in the future.*

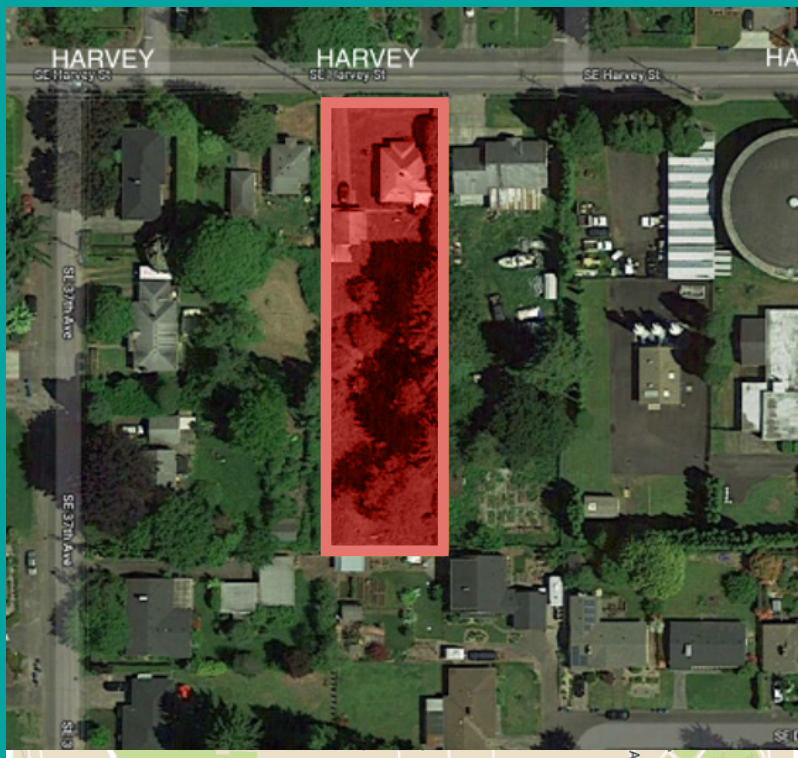
Concept 2:

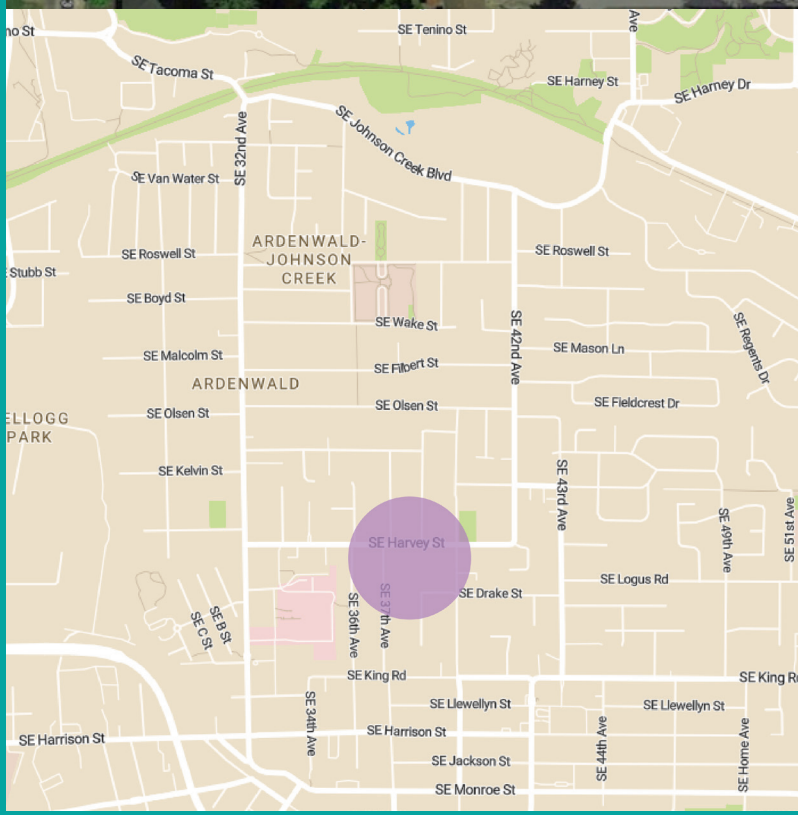
NARROW LOT REDESIGN

Location: 3736 SE Harvey Street

The site at 3736 SE Harvey Street is a long, narrow, mostly-flat lot that's roughly 80 ft wide and 300 ft deep. It features an older existing house and garage closer to the street, with a large garden occupying most of the site. During interviews, the property owner expressed no particular attachment to save the house or garage, so both concepts envisioned their replacement with smaller structures better-located to accommodate the site design.

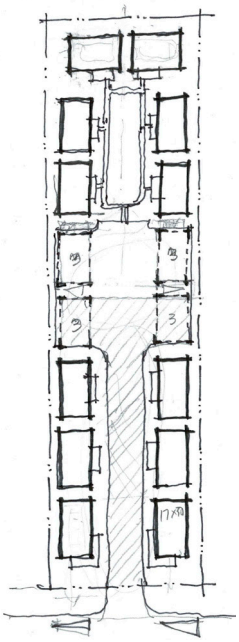
The existing zoning is R7, making this site suitable for testing the application of a cluster housing code on a long, skinny site in a residential neighborhood context.

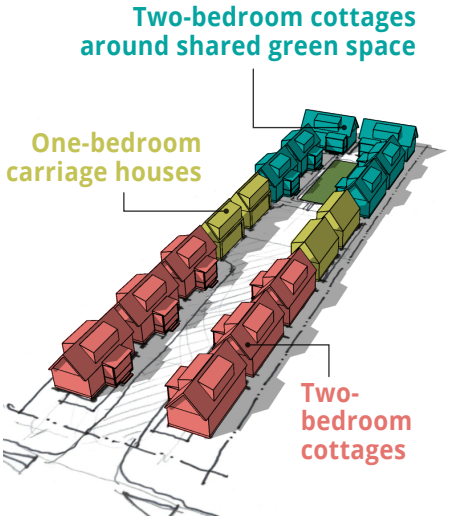




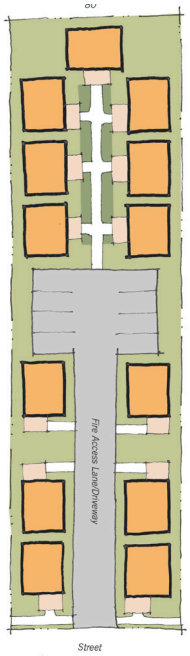
Due to the relatively skinny width of the lot at 80 ft, the initial design concept explored using a "Woonerf" concept – a shared court that places emphasis on providing a safe space for bicycles and pedestrians while allowing automobiles to pass through as guests in the space.

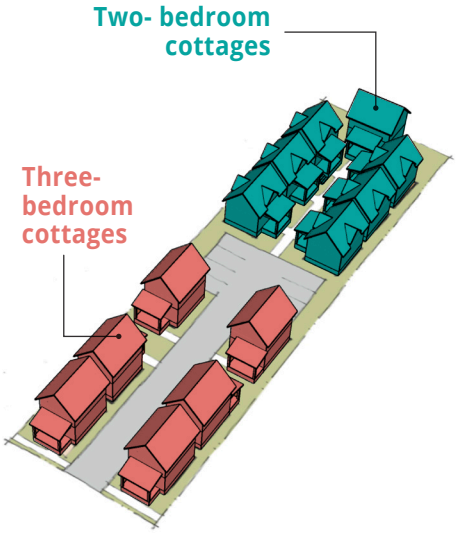
Max Build Scenario	
UNITS	16 total homes
UNIT TYPE/ AFFORD-ABILITY	• 12 two-bedroom; 765 sq ft; $256,000 each; **affordable at 59% AMI**
	• 4 one-bedroom; 510 sq ft; $182,000 each; **affordable at 42% AMI**
AVERAGE HOME SIZE	701 sq ft
PARKING	Three garage parking spaces below each carriage house





Ready-to-Build Scenario	
UNITS	13 total homes
UNIT TYPE/ AFFORD-ABILITY	• 6 three-bedroom; 1,000 sq ft; $302,000 each; **affordable at 69% AMI**
	• 7 two-bedroom; 700 sq ft; $248,000 each; **affordable at 57% AMI**
AVERAGE HOME SIZE	865 sq ft
PARKING	8 parking spaces; 0.5 spaces per home*





** This concept was developed when the proposed parking ratio for this site was 0.5 spaces per home. The parking ratio for housing clusters in R7 base zones not within walking distance of high-quality transit has since been raised to one space per home, meaning that this site design would need to see at least two cottages converted into carriage houses, each with three parking spaces underneath, in order to provide the required amount of off-street parking.*

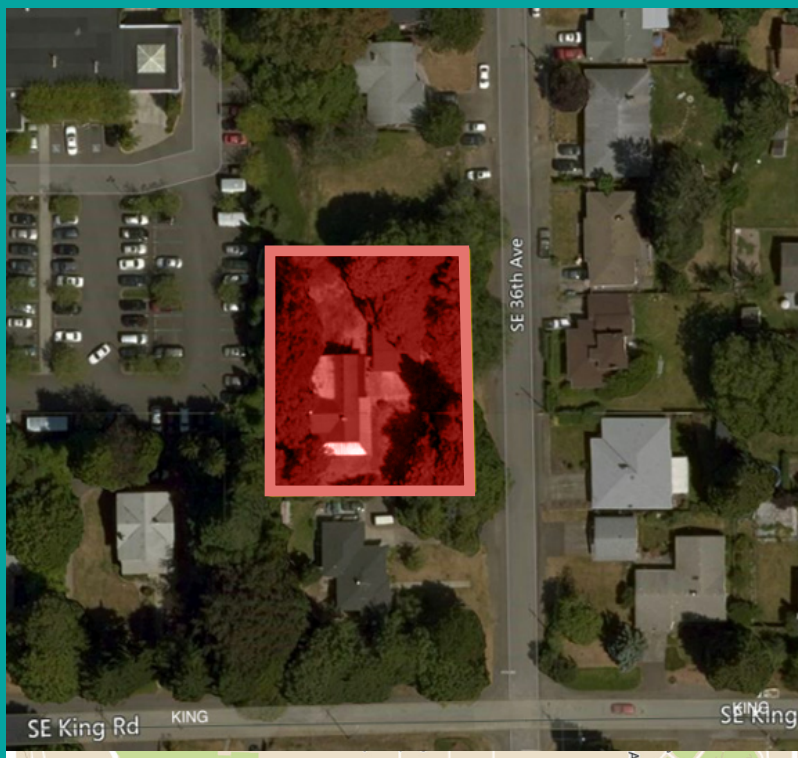
Concept 3:

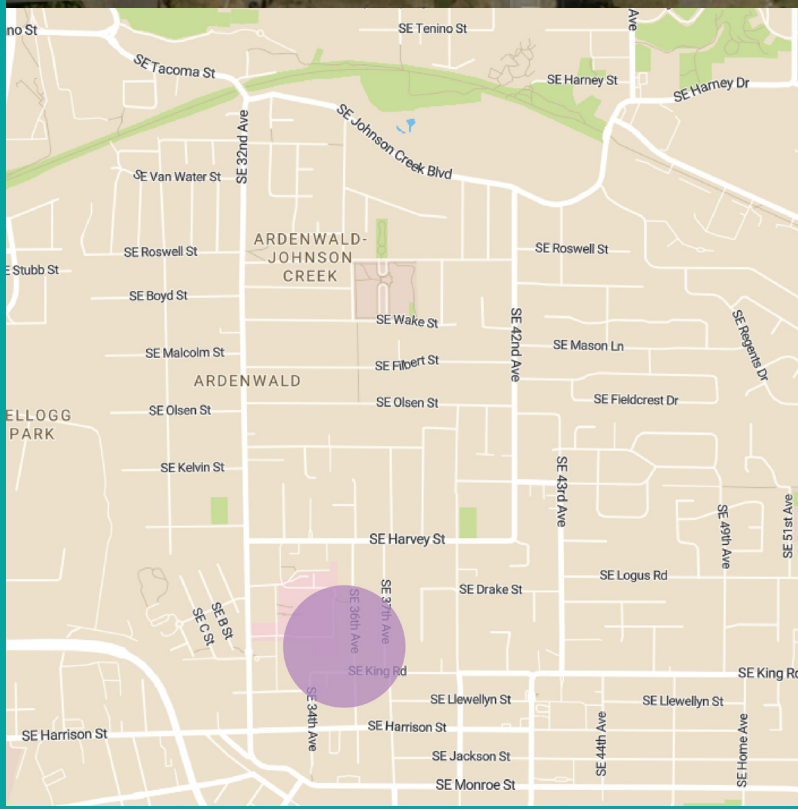
FULL LOT REDESIGN #2

Location: 10325 SE 36th Avenue

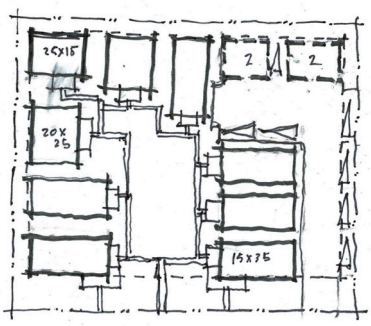
The site is nearly square, at 125 x 150ft, providing 24,000 sf of area to design within. The back of the lot drops off to the adjacent Providence Milwaukie Hospital's parking lot. Taller houses up against this lot line would benefit from a view looking towards Portland's West Hills.

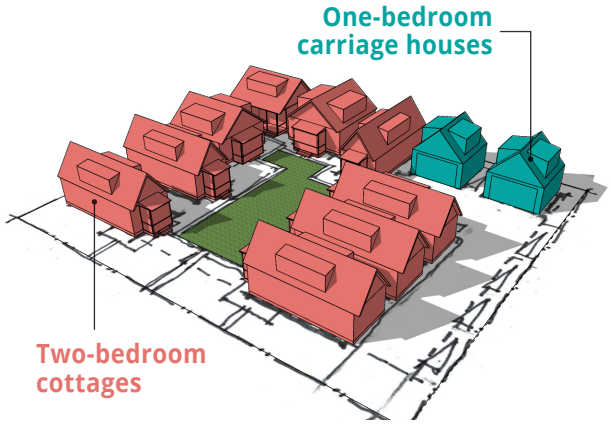
The existing zoning is R7, leading to a lower intensity residential character.



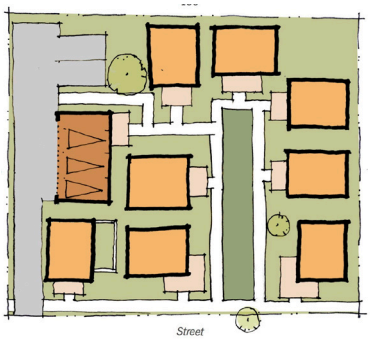


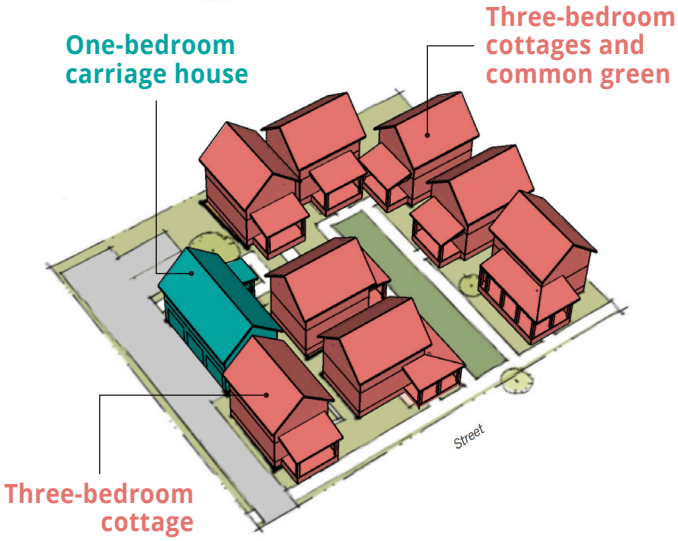
Max Build Scenario	
UNITS	11 total homes
UNIT TYPE/ AFFORD-ABILITY	• 9 three-bedroom; 1,090 sq ft; $278,000 each; **affordable at 64% AMI**
	• 2 one-bedroom; 400 sq ft; $126,000 each; **affordable at 29% AMI**
AVERAGE HOME SIZE	963 sq ft
PARKING	11 parking spaces; 1 space per home





Ready-to-Build Scenario	
UNITS	13 total homes
UNIT TYPE/ AFFORD-ABILITY	• 8 three-bedroom; 1,000 sq ft; $317,000 each; **affordable at 73% AMI**
	• 1 one-bedroom; 700 sq ft; $235,000 each; **affordable at 54% AMI**
AVERAGE HOME SIZE	967 sq ft
PARKING	13 parking spaces; 1 space per home





Concept 4:

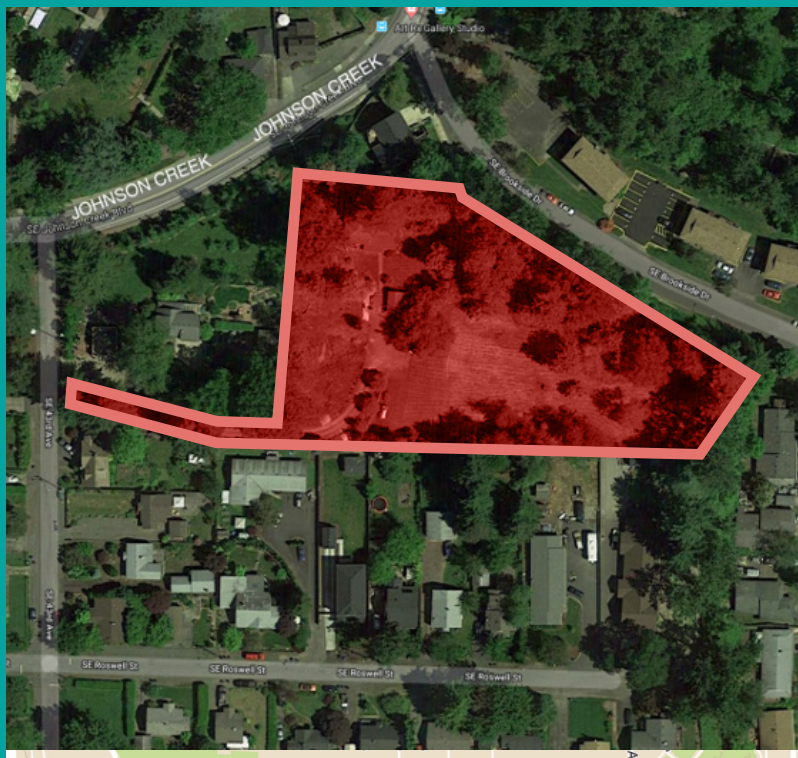
OPEN SPACE REDESIGN

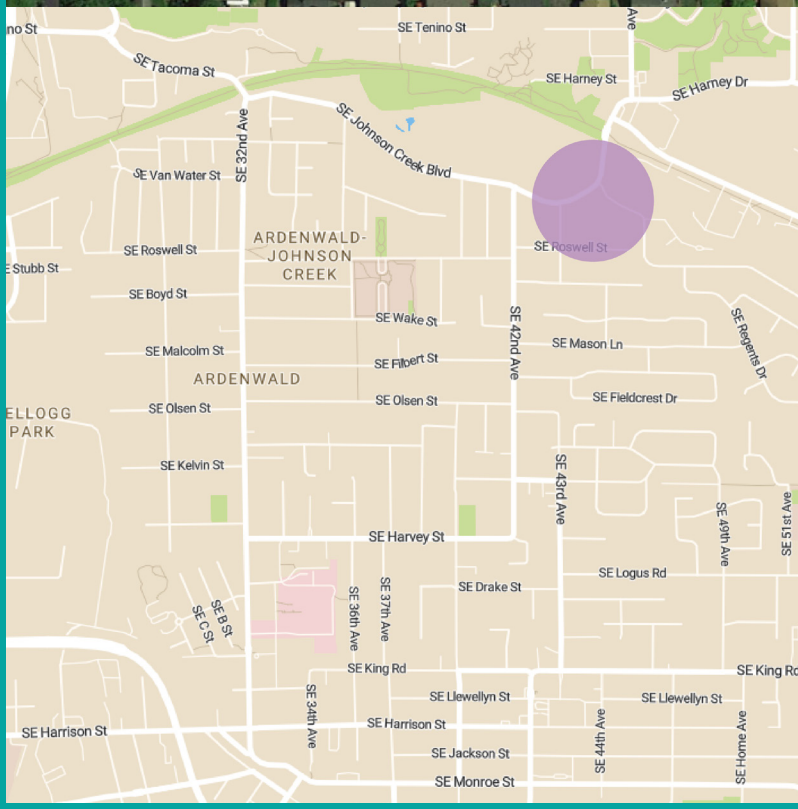
Location: 4420 SE Johnson Creek Boulevard

This site is perhaps the most interesting of all the sites, for reasons beginning with the address: the site is not actually located on SE Johnson Creek Blvd. It originally included a parcel that fronted onto Johnson Creek Blvd, but when that parcel was sold off, this parcel did not receive a new address. Now, however, access is via a long, narrow flagpole driveway from SE 43rd Ave, making this, at 2.11 acres, effectively an extremely large flag lot.

The bulk of the site is relatively flat, except for along the eastern edge of the property where it slopes steeply down through a forested slope to SW Brookside Drive. It features a small number of larger, older fruit trees left over from its agricultural past.

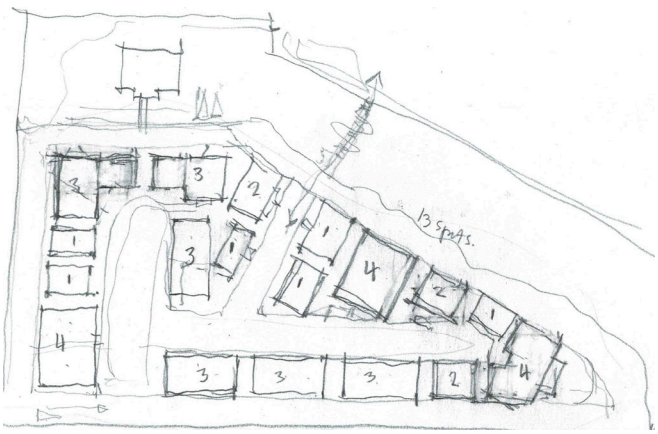
The site is currently zoned R7, but given its proximity to the Frequent Service bus line on Johnson Creek Blvd, as well as the Springwater Corridor bicycle trail just to the north, a case could be made for the site to support higher intensity than would otherwise be envisioned in an R7 zone.

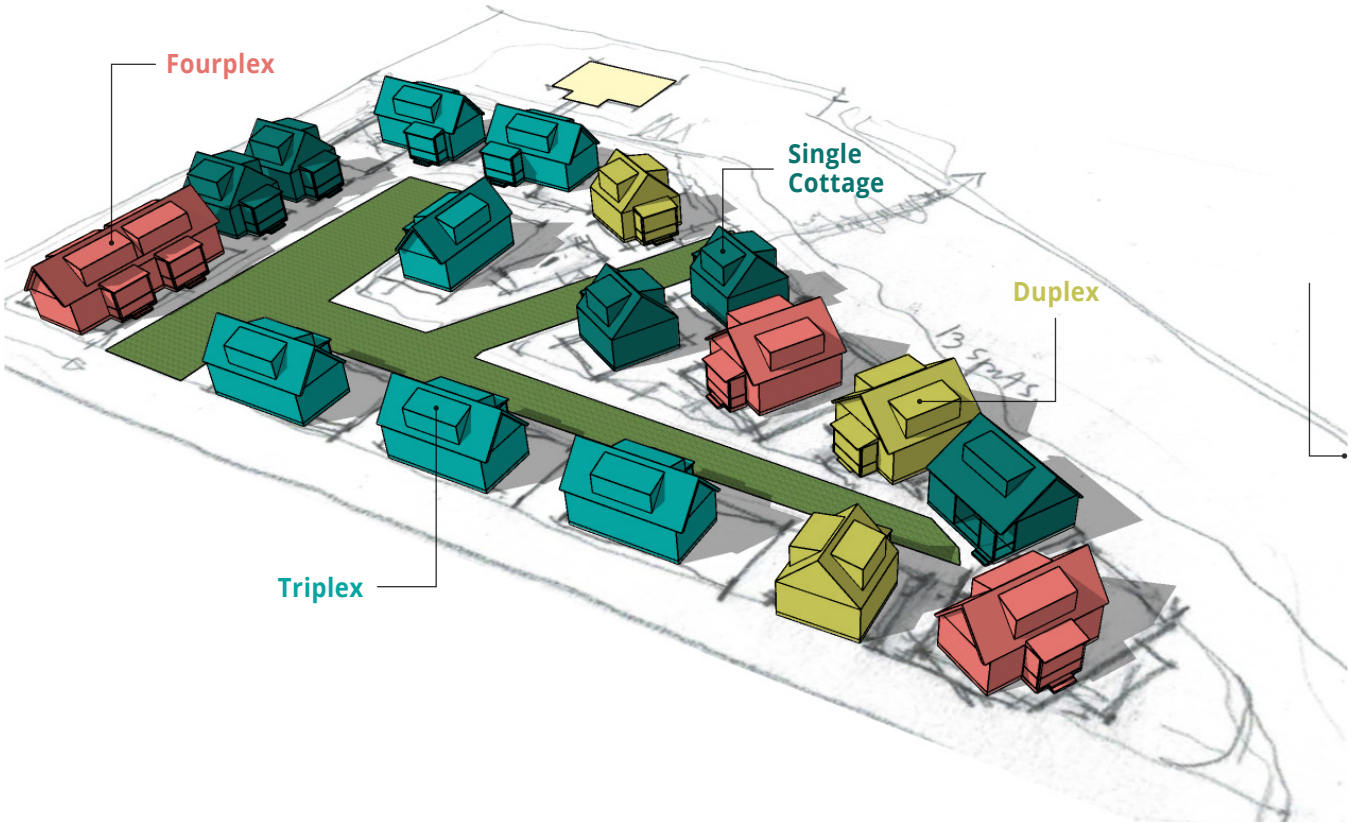




Homes on the site are clustered around a three-pronged common green. A loop road surrounds the housing cluster with most parking provided on-street on this road. A trail with a ramp and staircase would thread down the forested slope to provide access to Johnson Creek Blvd via Brookside Drive.

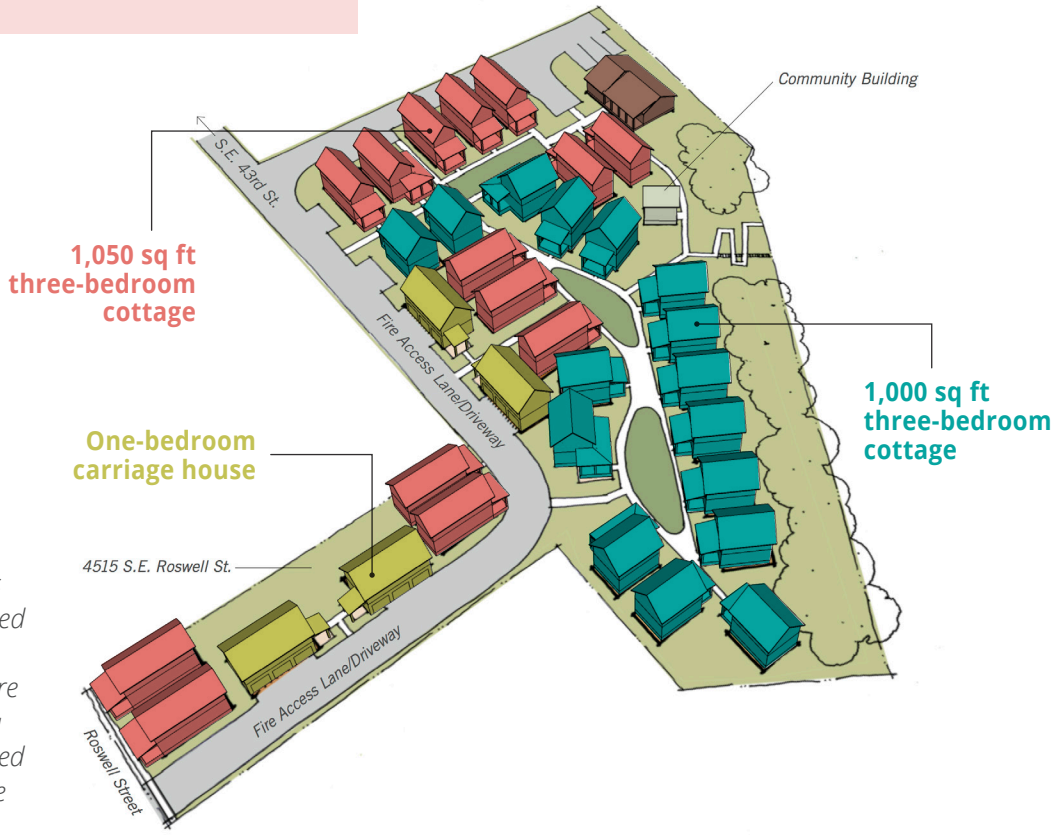
Max Build Scenario	
UNITS	36 total homes
UNIT TYPE/ AFFORD-ABILITY	• 18 one-bedroom; 700 sq ft; $221,000 each; **affordable at 51% AMI** • 18 three-bedroom; 1,050 sq ft; $268,000 each; **affordable at 62% AMI**
AVERAGE HOME SIZE	875 sq ft
PARKING	On-street parking





Based on property owner feedback, this scenario includes fire access lane due to the narrow width of the existing driveway. A revised circulation plan emphasizes an internal sidewalk network, with automobiles kept to the south and west edges of the site and more cohesive common green spaces.

Ready-to-Build Scenario	
UNITS	34 total homes
UNIT TYPE/ AFFORD-ABILITY	• 4 one-bedroom; 700 sq ft; $229,000 each; **affordable at 53% AMI**
	• 16 three-bedroom; 1,000 sq ft; $313,000 each; **affordable at 72% AMI**
	• 14 three-bedroom; 1,050 sq ft; $328,000 each; **affordable at 75% AMI**
AVERAGE HOME SIZE	985 sq ft
PARKING	19 parking spaces



The neighboring property at 4515 SE Roswell St was added to this concept based on conversations with the property owner and the fire marshal, indicating that a new access lane would need to be provided to meet the fire code.

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07

PROPOSED CLUSTER HOUSING CODE RECOMMENDATIONS

PURPOSE AND TITLE

Milwaukie's original Cottage Cluster code contained a single use type that was only allowed in a certain set of zones, not including the lower-density residential R5, R7, and R10 zones which cover the majority of the city. The proposed revised code is retitled the "Cluster Housing Code" to reflect the three types of standards it contains:

1. **low-density neighborhoods;**
2. **commercial and multifamily zones; and**
3. **transit-connected locations**

These standards allow a mix of building types, including attached types such as townhomes that could not be accurately referred to as "cottages."

APPLICABILITY

The revised code is proposed to apply in three types of locations within Milwaukie: The base zones R5, R7, and R10; transit-connected locations; and all other commercial and multifamily base zones where cluster housing is allowed.

Low density neighborhoods

Cluster housing is allowed in the base zones R5, R7 and R10, outside of the area considered to be transit-connected locations.

Commercial and multifamily zones

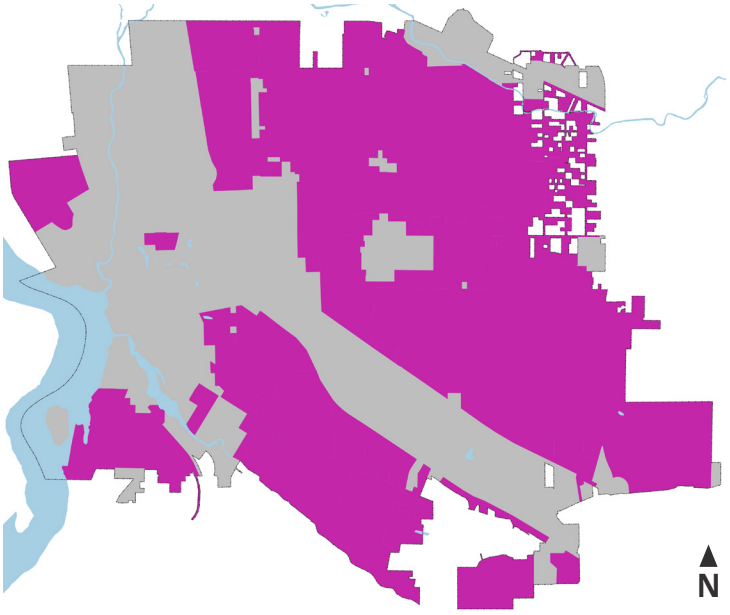
Cluster housing is also is allowed within commercial, mixed use and multifamily zones where cluster housing is listed as an allowed use (R-1, R-1B, R-2, R-2.5, R-3, GMU). Conditional Use review is required for Limited Commercial zones (C-L) and Neighborhood Mixed Use zones (NMU).

Transit-connected locations

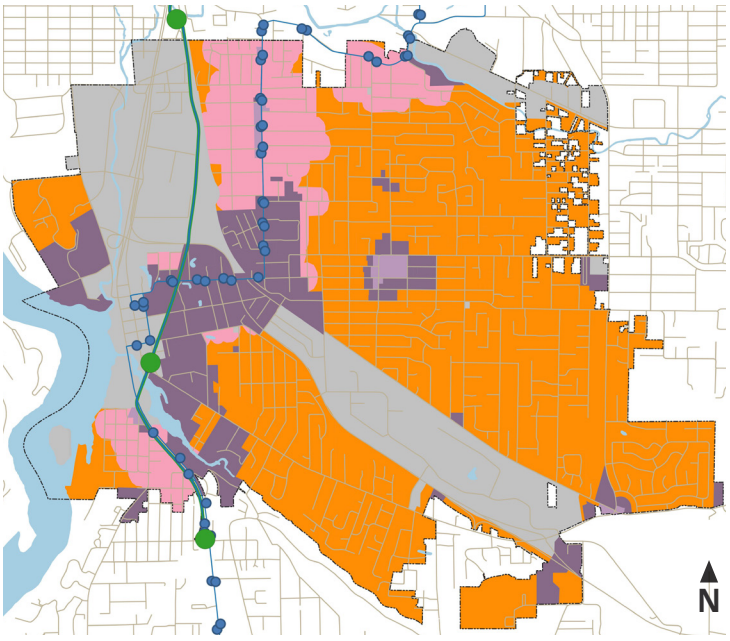
The third location where cluster housing is allowed are transit-connected locations within the base zones R5, R7, and R10. A lot is considered to be in a "transit-connected location" if the applicant can show that it is (or will be by the time construction is complete) directly connected by a complete sidewalk network to a frequent transit service stop within a 1/4 mile walk.

** Sidewalk network data not available. Map shows areas that would count as transit-connected locations if the sidewalk network were built out.*

*** Conditional use permit required for cluster housing in the NMU and C-L zones.*



Residential zones where cottage clusters are currently not allowed



TriMet MAX Line/ Station

TriMet Frequent Transit Service

Low Density Neighborhood

Transit-connected Locations*

Commercial/ Multifamily Zones

Commericial/ Multifamily Zones**

Cluster Housing Not Allowed

The proposed code revisions are summarized below. See Appendix D for further details on the code revisions.

LAND DIVISIONS

- Allow a cluster housing development on any size site to include a land division resulting in new lots with **no minimum lot size, and no maximum density limitations**.

DEVELOPMENT STANDARDS

- **Proposed cluster housing code supersedes the base zone development standards** for height, density, minimum lot size, setbacks, yards, lot coverage, and minimum vegetation, as well as other design standards and parking standards. These proposed standards are shown in Table 4.

The development standards are intended to:

1. **Promote market-rate provision of homes affordable to households of a variety of incomes and sizes.**
2. **Encourage a design that balances a reduction in private outdoor space with shared outdoor common area.**
3. **Promote community-building both within a housing cluster and with the surrounding neighborhood.**

SIZE

- **Total footprint of each home:** Maximum 1,200 sq ft (or 1,000 for lots that are not in a transit-connected location in base zones R5, R7 and R10); maximum footprint per building containing one to four homes in a low-density neighborhood is 1,650 sq ft
- **Total floor area of each home:** Maximum 1,600 sq ft
- **Average floor area of all homes:** Maximum 1,000 sq ft (existing homes excluded)

HEIGHT

- **Maximum number of stories:**
  - 2 stories in low density neighborhoods (R5, R7, and R10)
  - 2.5 stories in transit-connected locations within base zones
  - 3 stories in commercial and multifamily zones
- **Maximum height to the highest eaves on any building facing a common open:**
  - 1.618 times the width of that common green between the two closest buildings across its narrowest average width.
- **Daylight basements exempted from floor count.**

ORIENTATION

- **Front façade orientation:**
  - must be oriented toward common open space or public street.
- **If a home does not face a common open space or public street:**
  - must be oriented toward an internal pedestrian circulation path.
- **Minimum 50% of all cluster homes** must be oriented towards common open space.

TABLE 6. CLUSTER HOUSING DEVELOPMENT STANDARDS

Standards	Low-density neighborhoods	Transit-connected locations	Commercial and multifamily zones
HOME TYPES			
Buiding types allowed	Detached houses containing 1-4 homes	Detached and Attached	Detached and Attached
HOME SIZE			
Max building footprint per home	1,000 sf	1,200 sf	1,200 sf
Max total footprint per building	1,650 sf	no requirement	no requirement
Max floor area per ho me	1,600 sf		
Max average floor area per home	1,000 sf		
HEIGHT			
Max # of stories	2	2.5	3
Max structure height between 5 & 10 ft of rear lot line	15 ft		
Max height to eaves facing common green	1.618 times the narrowest average width between two closest buildings		
SETBACKS, SEPARATIONS, AND ENCROACHMENTS			
Separation between eaves of structures (minimum)	6 ft	6 ft	6 ft
Side and rear site setbacks	5 ft		
Front site setback (minimum)	15 ft	10 ft	0-10 ft
Front site setback (maximum)	20 ft		
LOT COVERAGE, IMPERVIOUS AREA, VEGETATED AREA			
Lot coverage (maximum)	50%	55%	60%
Impervious area (maximum)	60%	65%	70%
Vegetated site area (minimum)	35%	30%	25%
Tree cover (minimum at maturity)	40%		
COMMUNITY AND COMMON SPACE			
Community building footprint (maximum)	1,500 sf	2,000 sf	3,000 sf
PARKING			
Automobile parking spaces per primary home (minimum)	1	0.5	0.25
Dry, secure bicycle parking spaces per home (minimum)	1.5		
Guest bicycle parking spaces per home (minimum)	0.5		

HOME TYPES

- **Allow detached primary houses containg 1 to 4 homes in R5, R7, or R10 base zones** in non-transit-connected locations
- **Allow detached and attached home types** in transit-connected locations and in all other base zones.
- **Allow accessory dwelling units (ADUs)** for any detached or attached single family home in a cluster housing development, in compliance with recent state legislation in Oregon where ADUs are allowed.

SETBACKS, SEPARATIONS, AND ENCROACHMENTS

- **Minimum rear and side setbacks:**
  - » 10 ft rear setback for structures above 15 feet high in zones R5, R7, and R10
  - » 5 ft rear setback for all other structures within a cluster development
  - » 5 ft side setback for all cluster housing development
- **Minimum front setback:**
  - » 15 ft in the R5, R7, and R-10 base zones
  - » 10 ft in transit-connected locations
  - » 10 ft in all other locations, unless the base zone allows for a smaller setback
- **Maximum front setback:**
  - » 20 ft, unless a greater setback is required due to steep slopes or natural features
- **Minimum separation between eaves:**
  - » 6 ft separation required between the eaves of each independent structure, unless the structure is attached directly to another structure (e.g., townhomes), in which case no separation is required
- **Maximum front stair encroachment into common green space:**
  - » 20% of the width of the green
- **Maximum eave overhang onto common green space:**
  - » 24 inches, or to the extent allowable by the building code

FRONT PORCHES AND ENTRIES

- **Front porch or recessed entryway required** on each primary home in a cluster development.
  - » The front door of the dwelling must open onto the porch or recessed entry
  - » Entire front porch area or recessed entry must be covered
  - » Surface of the front porch or recessed entry not to exceed 48 in above grade, as measured from the average ground level at the front of the porch.
- **Minimum porch depth:** 6.5 ft
- **Minimum porch width:** at least 60% of the length of the front façade

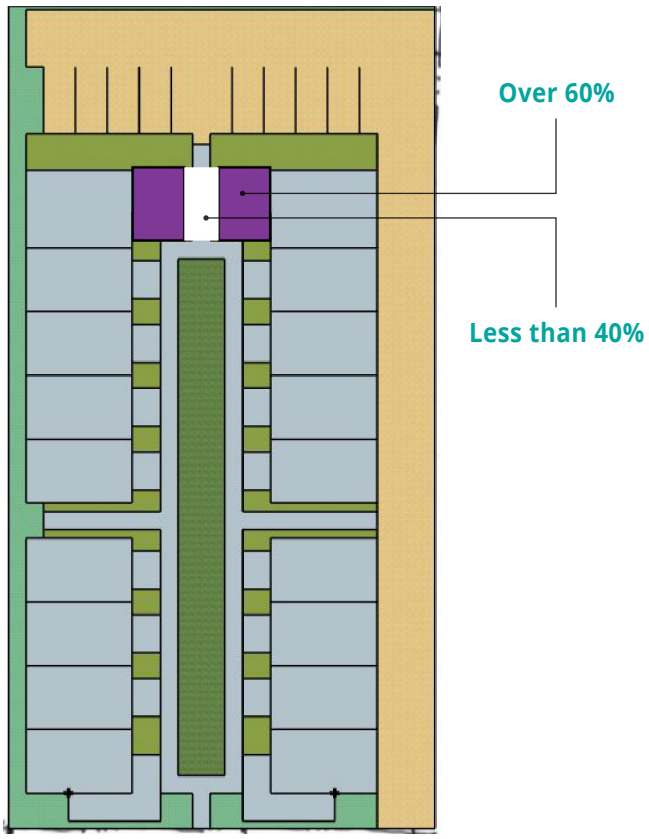
- **Minimum dimensions of recessed entry:** 5 ft by 5 ft

CLUSTER HOUSING DESIGN STANDARDS

- **Front porch fronting a street:**
  - » Minimum 60% coverage of the width of the home and is at least 8 ft deep.
- **Windows and doors:**
  - » Minimum 15% coverage of the façade area if oriented toward a street, common open space, or interior walkway
  - » Windows must be vertical or square in orientation – at least as tall as each window is wide.
  - » Allow horizontal window openings to be filled by either two or more vertically-oriented windows with maximum of two different sizes or a horizontal window with a band of individual lites across the top. Lites must be either vertical or square and must cover at least 20% of the total height of the window.

SITE DESIGN AND OTHER STANDARDS

- **Minimum of 3 primary homes required in cluster development** with an adequately sized and central common open space.
- **A common open space must meet the following standards:**
  - » Minimum 100 sq ft of area for each home, excluding ADUs
  - » Minimum dimensions of 20 ft by 12 ft;
  - » Entrance to at least one common open space area must be visible and accessible from an adjacent public street
    - » Homes must enclose at least 60% of three sides of common open space areas to which at least half of the homes are oriented.



INDOOR COMMUNITY SPACE

- **Allow community building or other common indoor space** for the shared use of its residents and guests;
  - » **Maximum footprint:**
    - » 1,500 sq ft in the R-5, R-7, and R-10 zones
    - » 2,000 sq ft in transit-connected locations
    - » 3,000 sq ft in all other locations

Photo credit: Ross Chapin

LOT COVERAGE, IMPERVIOUS AREA, VEGETATED AREA AND TREE COVER

- **Maximum footprint of all structures within a housing cluster:**
  - » 50% of the site area in the R5, R7, and R-10 base zones
  - » 55% of the site in transit-connected locations
  - » 60% in all other locations
- **Maximum footprint of impervious surfaces, including all structures:**
  - » 60% of the site area in the R5, R7, and R-10 base zones
  - » 65% of the site in transit-connected locations
  - » 70% in all other locations
- **Minimum footprint of vegetation and landscaped, pervious areas:**
  - » 35% of the site area in the R5, R7, and R-10 base zones
  - » 30% of the site in transit-connected locations
  - » 25% in all other locations
- **Minimum required footprint of vegetation and landscaped, pervious areas:**
  - » 50% of front yard between front of homes and the adjacent street
- **Tree plan required for approval:**
  - » Minimum 40% site coverage with summer tree canopy at tree maturity.
  - » Must include maintenance procedures to ensure tree health, including proper watering systems such as drip irrigation or graywater systems.

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08

CONCLUSION & NEXT STEPS

This analysis of cluster housing in Milwaukie clearly shows that, with the changes described, cluster housing has very strong potential to deliver meaningful workforce housing in an attractive and livable format. This proposal has been finely tuned to balance the scale of development so that it does not overwhelm surrounding neighborhoods, while allowing for sufficient development intensity to allow price points affordable as workforce housing.

RECOMMENDED NEXT STEPS IN THE EVOLUTION OF CLUSTER HOUSING STANDARDS

01

Develop a set of design standard guidelines for cluster housing that provide specific design strategies to:

- create the feeling of a shared outdoor room within common green areas;
- create a sense of community within each housing cluster; and
- provide a sense of timeless quality that will stand the test of time while still enabling the provision of affordable workforce housing.

The cluster housing format has historically provided some of our most enduring examples of quality workforce housing, not just in the Portland region, but also up and down the West Coast and across the country.

With the shifting focus of housing development in the United States after World War II to focus rather exclusively on single family homes and large-scale apartment buildings, cluster housing production dwindled and nearly vanished. Now, however, it has been revived by Ross Chapin, Eli Spevak, and other New Urbanists and practitioners. This project continues and encourages this revival by showing a path forward to use the cluster housing format to provide affordable market-rate workforce housing that fits and enhances the community.

02

Establish a set of streets (or sections of streets) and a map of locations where head-in or angled on-street parking would be acceptable, possibly with two tiers of allowance:

1. one where on-street parking would be allowed unconditionally, and
2. one where it would be allowed only in combination with some amount of property dedication.

03

Develop a set of SDC and fee reductions and/or waivers to incentivize cluster housing development in Milwaukie in the near term. Market this incentive to the development community along with the launch of the new cluster housing program, possibly with a well-advertised sunset date (within five or ten years).

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MILWAUKIE COTTAGE CLUSTER ANALYSIS

APPENDICES

A

EXPERT REVIEW OF ZONING CODE ANALYSIS

Peer review of the existing cottage cluster zoning code analysis and proposals for the new code was conducted over several months in two phases. The initial peer review was conducted with Opticos Design, leading directly to recommendations for the proposed new code. The first draft of the proposed new code was then reviewed with Eli Spevak of Orange Splot, and with CNU-Cascadia.

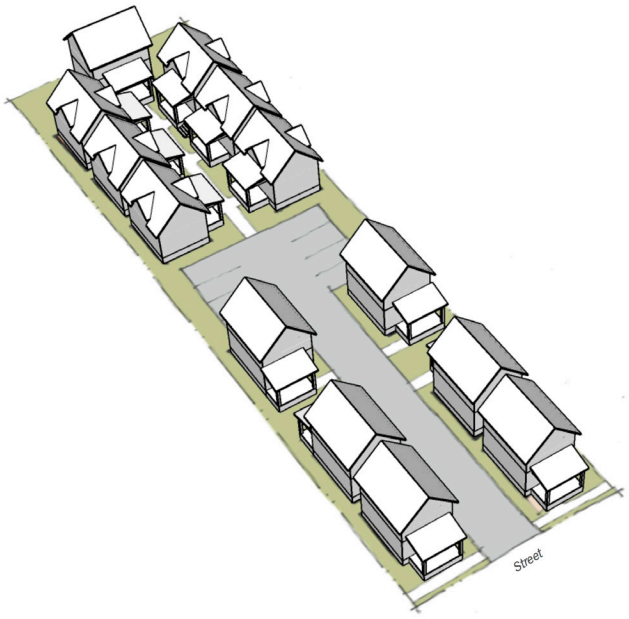
Initial review with Opticos Design including the following general comments and suggestions:

- Cluster housing should be allowed without requiring a lot subdivision process, which works better with detached buildings than for attached units, and may not be compatible with stacked units
- Private open space should not be required; a key component of cluster housing is shared open space.
- Provide a minimum (and perhaps maximum) common open space width and length that is defined relative to the surrounding building heights
- The shared court should be accessible from the front street
- Use the project study sites to confirm that the common open space requirement per unit can be met, or otherwise determine a reasonable reduction in size
- The current code restricts material types facing the street to only two, lap or shake material - could other materials be allowed?
- Consider allowing multiple common greens on a site
- Limit cluster housing heights in low density residential zones to two
- Allow more height in higher density zones where the base zone height is also taller

Follow-up peer review with CNU-Cascadia and Eli Spevak of Orange Splot included the following themes, comments, and suggestions:

- Consider waiving some SDCs and fees in order to “prime the pump” and encourage construction of new cluster housing projects in Milwaukie

- Allow cluster housing developments below a certain size threshold to use existing water connections, rather than charging SDCs for new connections
- Classify SDCs and fees by those that seem fair, and those that need to scale more appropriately
- Do not use language referring to the classic dichotomy of "single family" vs "multifamily", which is misleading when it comes to single family (which may in fact contain multiple families, or just an individual or unrelated persons rather than a "family"), and indeed may soon evolve to include more Missing Middle housing types; instead, refer to lower intensity and higher intensity zones
- Define zones and housing types by virtues of form, such as height and lot coverage, as well as proximity to high quality transit
- Provide for multiple ownership options, including fee simple (single family or townhome on own lot), condominium, and others, such as housing cooperatives.
- Eliminate minimum lot size standards to allow for parcelization and sale of fee-simple homes; do not require any minimum lot frontage, depth, or width for new lots created within a cluster housing development
- Offer incentives to encourage more cluster housing:
  - » Type 1 review by right
  - » Waive SDCs
  - » Right-size infrastructure requirements
- Determine incentives for a developer to choose to use the provisions of the Cluster Housing Code in multifamily or commercial zones, rather than just building a simple apartment building, such as:
  - » Allow for a townhome on its own lot where otherwise single dwellings on own lots might not be allowed
- Establish a gradation of pedestrian path size minimums, for units served by the same path:
  - » 3 ft for up to 4 units
  - » 4 ft for 4 to 20 units
  - » 5 ft for more than 20 units
- Allow woonerfs (shared pedestrian / bicycle space where automobiles are allowed as low-speed guests, use design elements such as permeable pavers to communicate the intent of the space)



Require bicycle parking:

- » Especially in the context of a city that lacks a complete sidewalk network or widespread high-quality transit, bicycles represent the lowest-hanging fruit in terms of a low-carbon transportation solution
- » 1.5 dry, secure bicycle parking spaces for each unit, minimum

- Don't regulate density, instead just regulate elements of form such as site coverage and height
- Require tall narrow vertical windows, rather than horizontal windows
- Do not require or specify a minimum site or lot size
- 50% lot coverage is too strict, allow for up to 60%
- Regulate common open space to achieve the desired feeling of spaciousness, and encourage more balconies, porches, rooftops, etc to provide more open space
- The common open space should be regulated and designed to feel like an outdoor room, using planters and other elements to visually make it as room-like as possible
- Providing two paths around a green, narrowing down to one path at entries, and widening out again, creates the necessary separation between private, semi-private, and public space; the fact of the common green is defined as the area in the middle of the two paths
- Consider providing setback bonuses, SDC breaks, or landscape requirement reductions for developers proposing innovative solutions to daylight and views, because dense proposals provide other public benefits
- Do not require additional common open space for ADUs
- Do not require front porches on the interior of a cluster housing development; instead, focus on making the entry, and allow recessed entries
- Require front porches facing the public street to help contribute to the sense of neighborhood community
- Don't regulate style; there are beautiful modern-style cluster housing developments out there, such as Aqua in Miami, that include wonderful contributing elements such as useable roof decks, patios, balconies, tall vertical windows, and a tight street presence.

Photo credit: Duany Plater-Zyberk

B

DETAILED MARKET ANALYSIS

DEMOGRAPHICS: POPULATION, HOUSEHOLDS AND TENURE

Milwaukie has grown by about 0.4% annually since 1990, with most growth occurring between 1990 and 2000, some negative growth between 2000 and 2010, and annual population increases of 0.2% since 2011. For comparison's sake, the City of Portland and Clackamas County have grown by 1.4% and 1.5% annually over the same period. Given the low rates of housing production in Milwaukie, it is likely that its relatively slower growth is due largely to the lack of housing available in the city.

Household size in Milwaukie decreased between 1990 and 2010 from 2.35 to about 2.30, where it has remained since. Portland, by comparison, has crept upwards from

FIGURE 7. POPULATION GROWTH RATE, 2000-2017

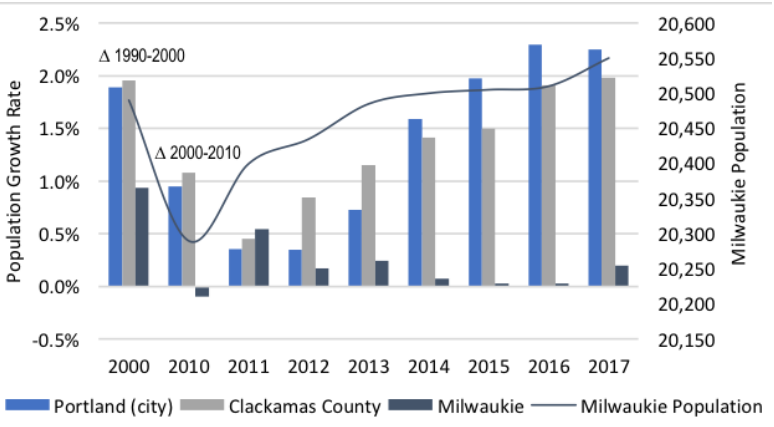
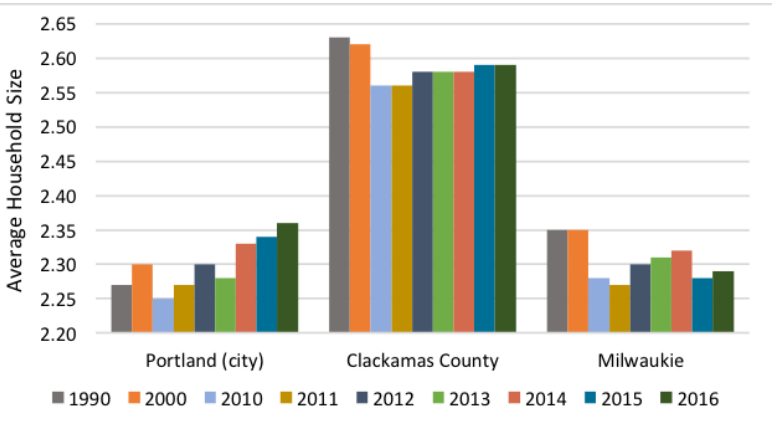


FIGURE 8. AVERAGE HOUSEHOLD SIZE COMPARISON, 1990-2016



2.27 in 1990 to 2.35; and Clackamas County has consistently remained at 2.60 people per household. Most households in Milwaukie have one or two people; between 2011 and 2016, marginal household growth in the city occurred in four and four or more person households. The city has been losing population under 35 and between the ages of 55 and 64, typically one-person and downsizing households; it has been gaining population between the ages of 34 and 54, and over the age of 65.

Owner-occupied homes have made up between 55% and 60% of Milwaukie's housing stock at a relatively constant rate over the past 26 years. Since 2010 Milwaukie has been gaining home owners and losing renters, but at low rates (0.6% owner gain / renter loss). By comparison, Portland has been gaining renter over owner households at much higher rates (0.1% owner and 1.6% renter), as has Clackamas County (0.5% owner, 1.9% renter); unlike Milwaukie, neither Portland nor Clackamas County has been losing owners or renters in absolute terms. It is very likely that, with very low housing production over recent decades in Milwaukie, that existing units have been converted from rentals to ownership, pushing renters out of the city for lack of alternative rental homes within the city for them to go to.

FIGURE 9. OWNER-OCCUPIED HOMES COMPARISON, 1990-2016

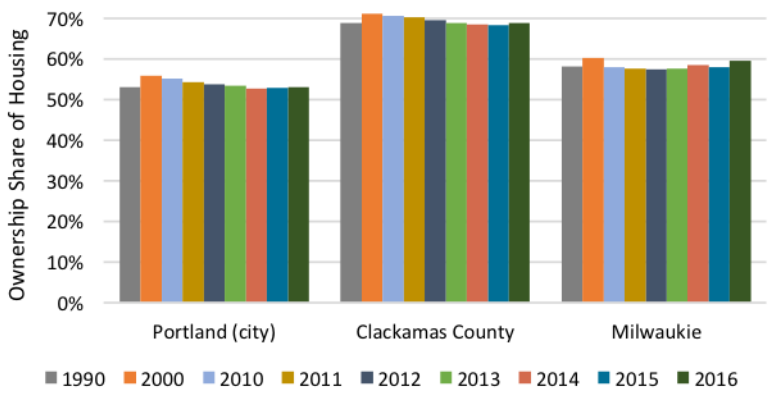


FIGURE 10. RESIDENTIAL BUILDING PERMITS ISSUED BETWEEN 1990-2017

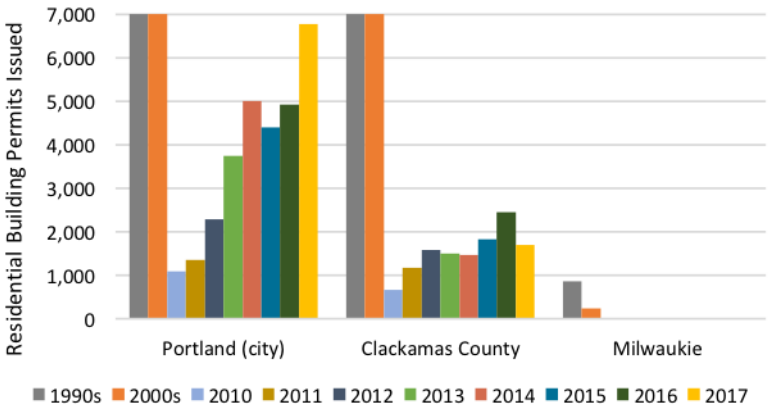
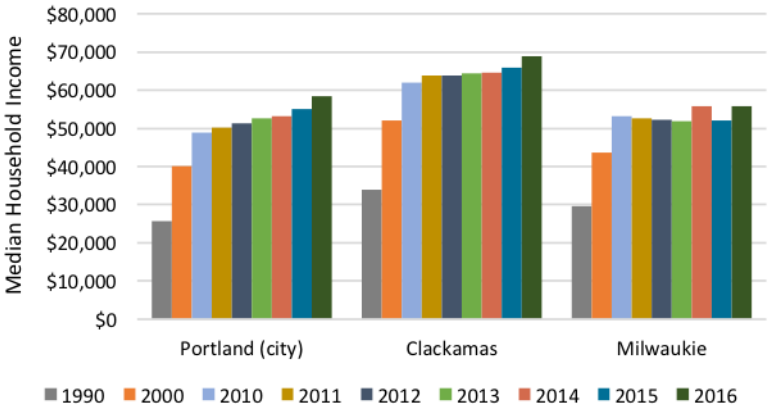


FIGURE 11. MEDIAN HOUSEHOLD INCOME, 1990-2016



HOUSING STOCK

Milwaukie added almost no housing between 2000 and 2017 (the latest year for which market study data was available when it was conducted in August, 2018). Since 2000, 294 housing units have been added, including only 40 between 2010 and 2017. The bulk of new housing units added since 1990 were constructed prior to 2000, resulting in an average annual growth rate in housing units since 1990 of 0.5% per year. This likely has a causal relationship to the 0.4% annual growth in households since 1990.

HOUSEHOLD INCOME AND HOUSING COSTS

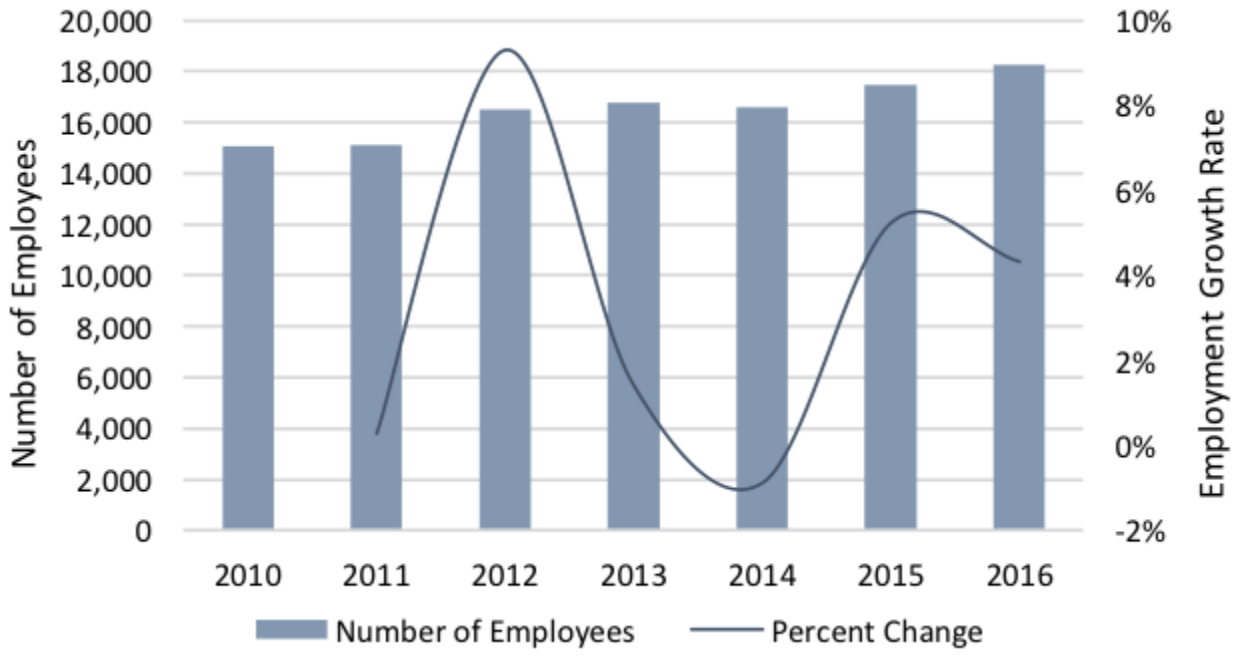
Since 2010, median household income in Milwaukie has remained relatively flat, with 0.8% annual increases in some years balanced by declines in other years, indicating that higher income households are leaving the city. Portland and Clackamas County, on the other hand, has been small but consistently positive gains in median household income since 2010.

Median housing costs have increased by over 2% annually since 2010 in Milwaukie. Since 2000, the increase in the median cost of housing for owners and renters has outpaced the increase in median household income by roughly 0.5% to 1% annually. This indicates that housing has been consistently getting less affordable in Milwaukie, as wage increases of earners have not kept pace with housing cost increases.

EMPLOYMENT

Unlike housing, employment in Milwaukie has average an annual growth rate of about 3.2%, with significantly higher growth in some years. With employment growth roughly 18 times higher than population growth in Milwaukie, presumably an increasing amount of employees would prefer to find housing close to their jobs in the city.

FIGURE 12. EMPLOYMENT BETWEEN 2010-2016



HOUSING STOCK SALES TREND DATA

Home sales data of nearly 3,000 RMLS transactions between 2011 and 2018 were analyzed, and the results indicate an exceptionally uniform housing stock. The vast majority of the homes sold are between 1,100 and 2,300 square feet, with three or four bedrooms, and sit on lots of about 0.17 acres in size; 90 to 95% of this housing stock was built before the year 2000. Comparing the most recent home sales to existing housing unit data from the U.S. Census reveals significant demand for newer housing, specifically homes built after 2010.

A growth in sales prices per square foot since 2011 indicates that demand is more significant for smaller than larger homes: in general, sales price per square foot is higher for smaller homes. When price per square foot for similar units is compared over time, the pattern of demand that emerges indicates that the price per square foot for a two-bedroom home has been increasing by 14% per year since 2011, while since then it has only been increasing by 10% for three bedroom and 8% for four bedroom homes, annually. Similarly, the average price per square foot for homes of 400 to 800 square feet in size has been increasing by 22% per year since 2011, whereas since then it has only been increasing by 13% annually for 800 to 1,200 square foot homes, by 10% for homes

FIGURE 13. HOME SALES BY AVERAGE SQUARE FEET AND LOT SIZE, 2011-2018

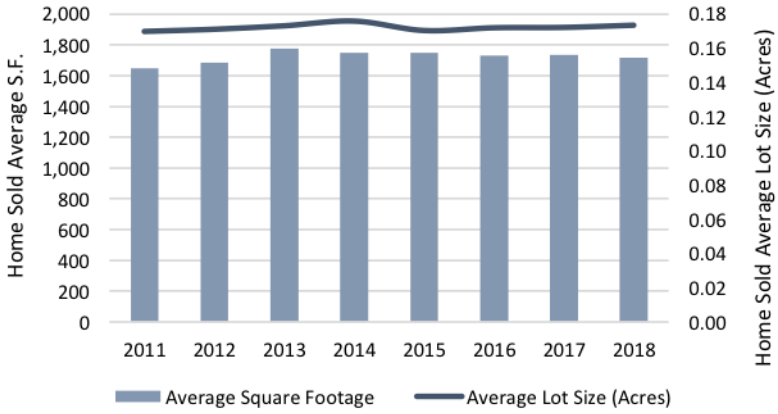


FIGURE 14. HOME SALES BY AVERAGE NUMBER OF BEDROOMS, 2011-2018

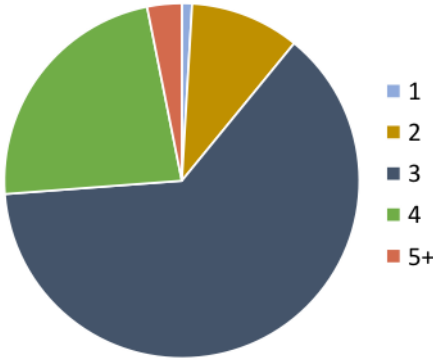


FIGURE 15. HOME SALES BY YEAR BUILT VS AGE OF HOUSING STOCK, 2011-2018

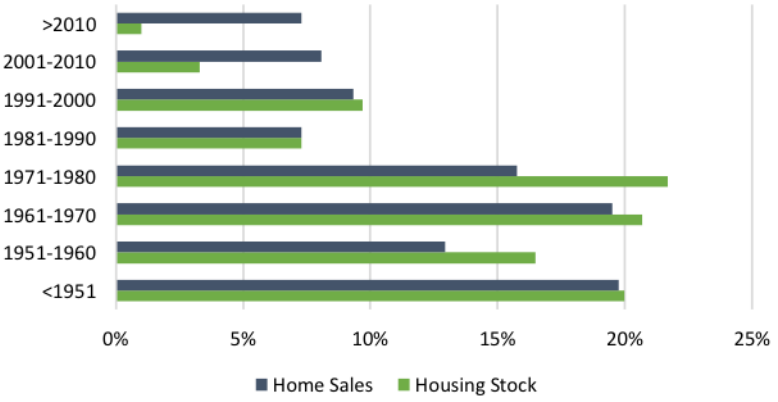


FIGURE 16. SALES PRICE/SQUARE FOOT BY NUMBER OF BEDROOMS IN MILWAUKIE, 2011-2018

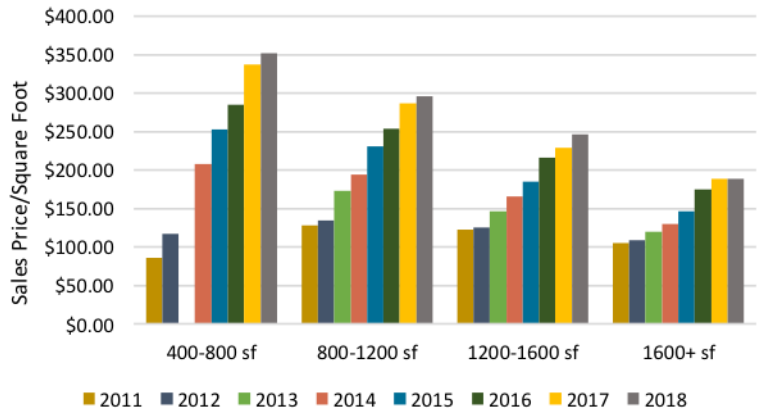


FIGURE 17. SALES PRICE/SQUARE FOOT BY UNIT SIZE IN MILWAUKIE, 2011-2018

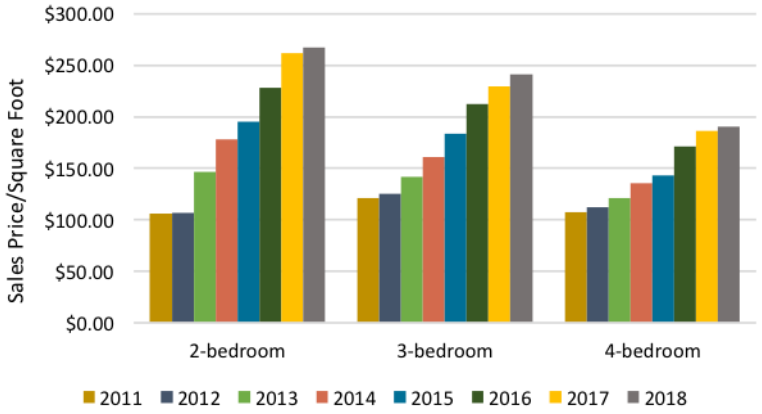
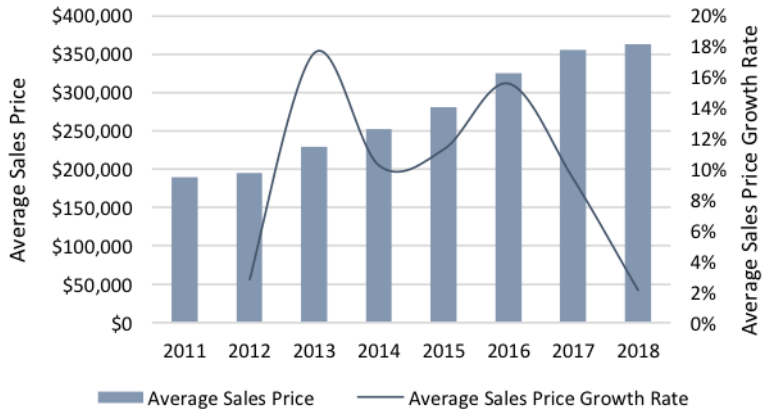


FIGURE 18. AVERAGE SALES PRICE IN MILWAUKIE, 2011-2018



of 1,200 to 1,600 square feet, and by 9% annually for homes larger than 1,600 square feet.

Home prices in Milwaukie have increased by about 10% annually since 2011, from an average of $189,500 in 2011 to about $363,000 in 2018, almost doubling over seven years.

New homes in housing clusters will likely find a ready market, as buyers in Milwaukie have been willing to pay increasingly more for smaller homes. Average pricing for new homes for sale with an average size of 800 to 2,000 square feet will likely increase by about 7.8% to $336 per square foot, from roughly $231 in 2018. For smaller homes of 600 to 1,100 square feet, pricing is projected to increase from an average of $285 per square foot in 2018 to roughly $450 per square foot in 2023.

RENTAL MARKET DATA

Since 2014, rent has increased by 9% to 10% annually for all home types except studios. Assuming an annual increase in rents of about 6% over the next five years, average rents are anticipated to rise from $1.33 per square foot in 2018 to $2.05 per square foot by 2023, or from $1,409 to $1,687 in average monthly rent from 2018 to 2023.

FIGURE 19. AVERAGE RENTS, RENTS/SF AND UNIT SIZES, 2014-2018

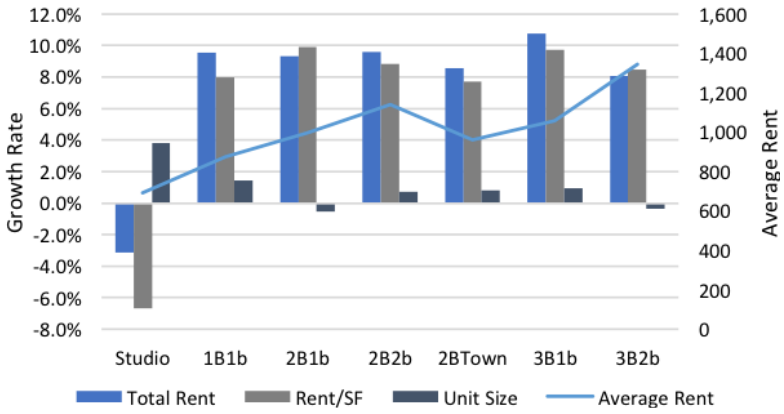


FIGURE 20. ESTIMATED PRICING FOR RENTAL HOUSING, 2018-2023

Estimated Current Demand (2018) | One to Three Bedroom Units (Avg 600-1,100 Square Feet)

Unit Type	Average	Range of Unit Pricing			
	SqFt	Low	High	Average	Avg $/SqFt
1 Bed	600	$795	$1,113	$954	$1.59
2 Bed	850	$1,008	$1,332	$1,224	$1.44
3 Bed	1,100	$1,213	$1,836	$1,443	$1.31
Totals/Weighted Avg	**1,061**	**$795**	**$1,836**	**$1,409**	**$1.33**

Forecasted Values (2023) | One to Three Bedroom Units (Avg 600-1,100 Square Feet)

Unit Type	Average	Range of Unit Pricing			
	SqFt	Low	High	Average	Avg $/SqFt
1 Bed	600	$1,064	$1,489	$1,277	$2.13
2 Bed	850	$1,551	$2,049	$1,800	$2.12
3 Bed	1,100	$1,624	$2,457	$2,041	$1.86
Totals/Weighted Avg	**1,061**	**$1,064**	**$2,457**	**$1,687**	**$2.05**

ESTIMATED HOUSING DEMAND

Over the next five years to 2023, 343 new housing units are needed based on population and household growth forecasts prepared by Metro. Of these, roughly 307 new homes will be needed to meet ownership demand, and 36 new homes will be needed to meet rental demand. Given the apparent demand for smaller units over the past seven years, the number of smaller households in Milwaukie, and the overwhelming uniformity of its housing stock, it is likely that new smaller homes will outperform larger homes.

FIGURE 21. DEMAND FOR NEW HOUSING BY OWNERSHIP AND RENTAL DEMAND, MILWAUKIE, 2012-2023

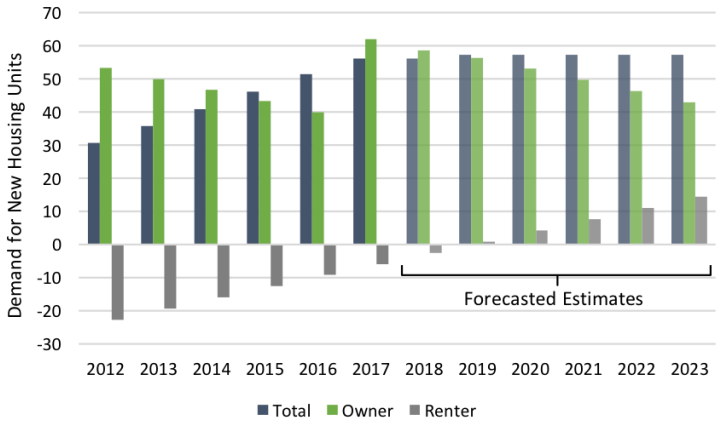


FIGURE 22. ESTIMATED PRICING FOR OWNERSHIP HOUSING, SCENARIO A, MILWAUKIE, 2018-2023

Estimated Current Demand (2018) | One to Three Bedroom Units (Avg 600-1,100 Square Feet)

Unit Type	Average	Range of Unit Pricing			
	SqFt	Low	High	Average	Avg $/SqFt
1 Bed	600	$171,708	$233,573	$214,635	$357.72
2 Bed	850	$234,317	$309,633	$284,527	$334.74
3 Bed	1,100	$255,463	$386,646	$303,794	$276.18
Totals/Weighted Avg	**1,061**	**$171,708**	**$386,646**	**$300,801**	**$285.27**

Forecasted Values (2023) | One to Three Bedroom Units (Avg 600-1,100 Square Feet)

Unit Type	Average	Range of Unit Pricing			
	SqFt	Low	High	Average	Avg $/SqFt
1 Bed	600	$229,784	$312,574	$271,179	$451.96
2 Bed	850	$360,525	$476,409	$418,467	$492.31
3 Bed	1,100	$341,867	$517,420	$429,644	$390.59
Totals/Weighted Avg	**1,061**	**$229,784**	**$517,420**	**$371,109**	**$450.62**

FIGURE 23. ESTIMATED PRICING FOR OWNERSHIP HOUSING, SCENARIO B, MILWAUKIE, 2018-2023

Estimated Current Demand (2018) | One to Four Bedroom Units (Avg 800-2,000 Square Feet)

Unit Type	Average	Range of Unit Pricing			
	SqFt	Low	High	Average	Avg $/SqFt
1 Bed	800	$201,915	$306,849	$252,394	$315.49
2 Bed	1,200	$177,778	$383,562	$315,492	$262.91
3 Bed	1,600	$166,935	$523,111	$386,495	$241.56
4 Bed	2,000	$156,077	$446,132	$380,480	$190.24
Totals/Weighted Avg	**1,659**	**$156,077**	**$523,111**	**$376,777**	**$230.58**

Forecasted Values (2023) | One to Four Bedroom Units (Avg 800-2,000 Square Feet)

Unit Type	Average	Range of Unit Pricing			
	SqFt	Low	High	Average	Avg $/SqFt
1 Bed	800	$270,208	$410,634	$340,421	$425.53
2 Bed	1,200	$273,533	$590,157	$431,845	$359.87
3 Bed	1,600	$223,397	$700,041	$461,719	$288.57
4 Bed	2,000	$208,866	$597,025	$402,945	$201.47
Totals/Weighted Avg	**1,659**	**$208,866**	**$700,041**	**$407,785**	**$336.31**

C

NON-PROFIT AND SUBSIDIZED AFFORDABLE HOUSING OPTIONS

Deeper affordability could be provided by subsidized affordable housing providers. There are at least three broad opportunity types for affordable housing to be provided in Milwaukie using the cluster housing program:

- Land trusts
- Affordable housing developments
- Government purchase of individual homes to be provided as dispersed affordable housing

LAND TRUSTS

When a land trust develops or acquires a site, it can provide affordable housing using three broad mechanisms: writing down the cost of the land; renting homes at cost without marking up for profit; and restricting the resale price of homes sold.

Land cost write-down

One of the primary tools used by a community land trust to provide housing at affordable prices is to remove the price of land from the price of each home. The land trust in effect holds the land, then sells the homes on top of it without including the cost of land in the selling price of the home. This can lead to a commensurate reduction in housing costs that depends on how much of the price of each home is made up of the cost of the land, which in turn depends on the initial cost of the land and the number of homes placed on that land.

Land trust rental homes

When land trusts provide rental housing, that housing can be offered at a reduced rate for two reasons: 1) the cost of the land may not need to be paid back through revenue from rents, and 2) the land trust, as a non-profit, does not need to show a return on investment beyond that needed to cover costs. Sometimes, a land trust will also be structured as a Community Development Corporation (CDC), allowing it to focus on providing housing and services to low-income and vulnerable populations.

Land trust home sales

When a land trust sells homes that it develops, it will often deed-restrict the home, such that the revenue from any future sale is constrained;

one popular model is to only allow the seller to collect up to 50% on the gain in property value due to appreciation, ensuring that the home will remain relatively more affordable than market-rate homes for sale in the same area. While this restricts the wealth-building potential of such homes for their buyers, it does not completely preclude the opportunity to build wealth through home ownership, and it also offers the opportunity to engage in such wealth-building to populations that may not otherwise have access to it at all, due to the high costs of market-rate housing.

AFFORDABLE HOUSING DEVELOPMENTS

When an entire site is developed by an affordable housing provider, a number of different tools can be combined to allow for homes to be brought to market at deep levels of affordability, potentially including for households making less than 30% of AMI. These include: subsidies to purchase the site; low-interest financing for construction; and other tools to allow for services to be provided for residents with additional needs beyond the basic need for housing within financial reach. Many of these tools are policy-based, such that the degree of affordability that is attainable is based on the specific policies being implemented by the tool, more so than the physical design of the homes being provided.

GOVERNMENT PURCHASE OF INDIVIDUAL DISPERSED-LOCATION HOMES

By definition under this proposed cluster housing code, cluster housing developments bring at least three homes to market on each site; potentially, these can include a mix of home sizes and types, at different price points. Under a dispersed-location home purchase program, funding from Metro's Affordable Housing Bond or other sources could be used to purchase one or more homes from the developer of a housing cluster, to be managed as affordable housing to help meet regional goals for affordable housing production. The benefits of such a program would include allowing the costs of home production to be carried by the private sector, while allowing the public sector to purchase homes on the open market in order to meet policy goals for affordable housing production. It's possible that deeper affordability benefits could be attained if low- or no-interest financing could be provided for the construction of mixed-income housing clusters, from which some units could be purchased as affordable housing, and some sold (or rented) at market rates.

D

PROPOSED CLUSTER HOUSING CODE RECOMMENDATIONS

LAND DIVISIONS

The proposed revised code would allow a cluster housing development on any size site to include a land division resulting in new lots with no minimum lot size, and no maximum density limitations. It would allow access to each new lot be provided flexibly, including using pedestrian paths through private common areas controlled by a Home Owners Association (HOA) or otherwise dedicated for common, rather than private or limited use.

DEVELOPMENT STANDARDS

The proposed revised cluster housing code supersedes the base zone development standards for height, density, minimum lot size, setbacks, yards, lot coverage, and minimum vegetation, as well as other design standards and parking standards.

These proposed standards are shown in Table 4. These proposed cluster housing standards are intended to:

1. promote market-rate provision of homes affordable to households of a variety of incomes and sizes,
2. encourage a design that balances a reduction in private outdoor space with shared outdoor common area, and
3. promote community-building, both within a housing cluster, and between the cluster and its surrounding neighborhood.

SIZE

The total footprint of a home in a housing cluster is proposed to be limited to 1,200 sq ft (or 1,000 for lots that are not in a transit-connected location in base zones R5, R7 and R10). The total building footprint of a house containing two to four homes is limited to 1,650 sq ft in low-density neighborhoods. The total floor area of each home is proposed to be limited to 1,600 sq ft, and the maximum average floor area of all homes in a housing cluster shall not exceed 1,000 sq ft.

TABLE 7. CLUSTER HOUSING DEVELOPMENT STANDARDS

Standards	Low-density neighborhoods	Transit-connected locations	Commercial and multifamily zones
HOME TYPES			
Buiding types allowed	Detached houses containing 1-4 homes	Detached and Attached	Detached and Attached
HOME SIZE			
Max building footprint per home	1,000 sf	1,200 sf	1,200 sf
Max total footprint per building	1,650 sf	no requirement	no requirement
Max floor area per ho me	1,600 sf		
Max average floor area per home	1,000 sf		
HEIGHT			
Max # of stories	2	2.5	3
Max structure height between 5 & 10 ft of rear lot line	15 ft		
Max height to eaves facing common green	1.618 times the narrowest average width between two closest buildings		
SETBACKS, SEPARATIONS, AND ENCROACHMENTS			
Separation between eaves of structures (minimum)	6 ft	6 ft	6 ft
Side and rear site setbacks	5 ft		
Front site setback (minimum)	15 ft	10 ft	0-10 ft
Front site setback (maximum)	20 ft		
LOT COVERAGE, IMPERVIOUS AREA, VEGETATED AREA			
Lot coverage (maximum)	50%	55%	60%
Impervious area (maximum)	60%	65%	70%
Vegetated site area (minimum)	35%	30%	25%
Tree cover (minimum at maturity)	40%		
COMMUNITY AND COMMON SPACE			
Community building footprint (maximum)	1,500 sf	2,000 sf	3,000 sf
PARKING			
Automobile parking spaces per primary home (minimum)	1	0.5	0.25
Dry, secure bicycle parking spaces per home (minimum)	1.5		
Guest bicycle parking spaces per home (minimum)	0.5		

The restriction on the maximum average floor area is intended to ensure that increased production of workforce housing is an outcome of the cluster housing code adoption.

HEIGHT

The height for all structures in a housing cluster is proposed to be restricted to: two stories in base zones R5, R7, and R10, except for lots in transit-connected locations within those base zones, where the height shall not exceed 2.5 stories; and 3 stories in all other base zones and locations.

To ensure that the heights of buildings around a common green do not overwhelm the scale of that green, the height to the highest eaves on any building facing a common open is restricted to exceed 1.618 times the width of that common green between the two closest buildings across its narrowest average width. Daylight basements are proposed to be exempted from counting towards the number of floors of height allowed for structures in a housing cluster development.

ORIENTATION

The front of a home is defined as the façade with the main entry door and front porch. This façade will need to be oriented toward either a common open space or public street. If a home is not contiguous to either of these, then it should orient toward an internal pedestrian circulation path. At least half of all the homes in a housing cluster need to be oriented toward its common open space.

HOME TYPES

The proposed revised code allows detached houses containing one to four homes in the R5, R7, or R10 base zones that are not in a transit-connected location; it allows for attached home types in transit-connected locations and in all other base zones.

Accessory dwelling units (ADUs) are allowed for any detached or attached single family home in a cluster housing development, in compliance with recent state legislation in Oregon broadening the situations where ADUs are allowed and encouraged. Indeed, the pro forma sensitivity testing performed for this project shows that accessory units to homes in a housing cluster could allow for the deepest levels of housing affordability within each cluster.

SETBACKS, SEPARATIONS, AND ENCROACHMENTS

The proposal allows for the front stairs of a home to encroach into a common green by no more than 20% of the width of the green; and for eaves to overhang the common green by up to 24 in.

The minimum space between the eaves of structures is proposed to be 6 ft, unless the structures are directly attached (e.g., townhomes), in which case no separation is required.

The proposal requires structures above 15 feet in height within a cluster development to be located at least 10 ft from the rear lot line(s) in zones R5, R7, and R10, and it requires all structures within a cluster development to be located no closer than 5 ft from the rear lot line, and at least 5 ft from the side lot line(s), of the site on which the housing cluster is developed. It allows parking, steps, ramps, drive aisles, and retaining walls to encroach into these side and rear setback areas as needed, within the overall lot coverage and lot vegetation requirements.

The proposed minimum setback between the nearest home and the site's front street lot line is 15 ft in the R5, R7, and R-10 base zones; 10 ft in transit-connected locations; and 10 ft in all other locations, unless the base zone allows for a smaller setback, in which case it allows for the smaller setback. It restricts the maximum front setback to 20 ft, unless a greater setback is required because of steep slopes. It allows porches to intrude into the front setback to within 5 ft of the front lot line. It allows walkways, sidewalks, steps, ramps, drive aisles, and retaining walls to encroach into the front setback as needed, within the limitations of the required amount of vegetation within the front setback.

CLUSTER HOUSING DESIGN STANDARDS

The intent of the housing cluster design standards is to create homes that engage with the street and each other in a manner that builds community and contributes positively to the neighborhood public realm. To this end, the proposed standards require homes in a cluster fronting a street to include a front porch facing the street that covers at least 60% of the width of the home and is at least 8 ft deep. The standards require that windows and doors account for at least 15% of the façade area for façades oriented toward a street, common open space, or interior walkway, and that these windows be either vertical or square in orientation – at least as tall as each window is wide. Horizontal window openings are allowed to be filled by either two or more vertically-oriented windows that are either all the same size, or with no more than two sizes used, or a horizontal window with a band of individual lites across the top; the lites must be either vertical or square and must cover at least 20% of the total height of the window.

FRONT PORCHES AND ENTRIES

The proposed standards require each primary home in a cluster to have a porch or recessed entryway on the front of the home. This area is intended to function as an outdoor room that extends the living space of the home into the semipublic area between the home and the open space.

When a porch is provided, the minimum porch depth is to be 6.5 ft, and the width of the porch is to be at least 60% of the width of the overall length of the front façade.

When a recessed entry is provided, it is to have minimum dimensions of 5ft by 5ft.

The front door of the dwelling is to open onto the porch or recessed entry. The entire area of the front porch or recessed entry is to be covered, and the surface of the front porch or recessed entry is not to exceed 48 in above grade, as measured from the average ground level at the front of the porch.

SITE DESIGN AND OTHER STANDARDS

Under this proposal, a cluster housing development is to include a minimum of 3 primary homes. It must include an adequately sized and centrally located common open space, as a key component of cluster housing developments. A common open space needs to meet the following standards: the common open space is to have at least 100 sq ft of area for each home in the housing cluster development, excluding ADUs; the minimum dimensions for the common open space are 20 ft by 12 ft; the entrance to at least one common open space area in a cluster housing development is to be

visible and accessible from an adjacent public street; and homes are to enclose at least 60% of three sides of common open space areas to which at least half of the homes in a cluster housing development are oriented. Enclosure is defined as the sum of the widths of all the homes on each side of a common open space area over the width of that side of that common open space area. This requirement is intended to provide the feeling of an outdoor room for the common open space area.

INDOOR COMMUNITY SPACE

Each cluster housing development may feature a community building or other common indoor space for the shared use of its residents and guests; such a building or space may have a footprint not to exceed: 1,500 sq ft in the R-5, R-7, and R-10 zones; 2,000 sq ft in transit-connected locations; or 3,000 sq ft in all other locations.

LOT COVERAGE, IMPERVIOUS AREA, VEGETATED AREA AND TREE COVER

The standards for lot coverage, impervious area, vegetated area, and tree cover are intended to provide for the eventual growth of an urban forest canopy that covers at least 40% of the area of the City of Milwaukie, with ample room for gardens and other vegetation, as well as for natural functions provided by permeable surfaces, such as stormwater infiltration (though this particular function can also be provided using solutions such as dry wells).

To this end, the total footprint of all structures within a housing cluster are not to exceed: 50% of the site area in the R5, R7, and R-10 base zones; 55% of the site in transit-connected locations; or 60% in all other locations. Impervious surfaces, including all structures, are not to exceed: 60% of the site area in the R5, R7, and R-10 base zones; 65% of the site in transit-connected locations; or 70% in all other locations. Vegetation and landscaped, pervious areas are to cover at least: 35% of the site area in the R5, R7, and R-10 base zones; 30% of the site in transit-connected locations; or 25% in all other locations. The area of the site's front yard, between the front homes and the adjacent street, is to be at least 50% covered by vegetation and landscaped, pervious areas. A tree plan is to be approved and followed that includes the planting of tree species in appropriate locations to cover at least 40% of the site with summer tree canopy at tree maturity. The tree plan must include maintenance procedures to ensure tree health throughout each tree's lifetime, including proper watering through means such as drip irrigation or greywater systems.

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CASCADIA PARTNERS

OPTICOS

Orange Splot

jla public involvement

CITY OF MILWAUKIE

NOTE: This code was provided by Nick Snead, City of Madras, and city attorney Garrett Chrostek; it is under consideration by the City of Madras for adoption or adaptation. It may include provisions from City of Bend.

EXHIBIT B

AMENDMENTS

Double underlines is language added
~~Strikethrough~~ is language deleted

Chapter 18.05 INTRODUCTORY PROVISIONS

…

18.05.030 Definitions.

The following words and phrases are defined as follows to the extent they are referenced in the Development Code:

…

"Cottage" means a detached single-family dwelling under 1,200 square feet (excluding garages, porches, and other outdoor areas) that shares common open space with other cottages.

"Cottage Cluster" a development that includes several cottages, a shared open space, and related improvements.

"Cottage Lot" a lot within a cottage cluster development subdivision on which a cottage will be sited.

…

Chapter 18.15 LAND USE ZONES

…

18.15.040 Single-Family residential (R-1).

(1) Permitted Uses.

…

(h) Cottage cluster developments subject to MDC 18.30.210.

…

18.15.050 Multifamily residential (R-2).

(1) Permitted Uses.

…

(l) Cottage cluster developments subject to MDC 18.30.210.

…

18.15.060 Planned residential development (R-3).

…

(2) Permitted Uses. The following uses are permitted outright in the Planned Residential Development (R-3) Zone:

…

(j) Cottage Cluster developments subject to MDC 18.30.210.

…

Chapter 18.25 SUPPLEMENTARY PROVISIONS

…

18.25.050 Off-street parking.

…

Table 18.25.050-1. Required Vehicle Parking

BUILDING TYPE	PARKING SPACES REQUIRED (Spaces per 1,000 sq. ft. unless otherwise noted)
…	
RESIDENTIAL	
Single-Family Dwelling	1.0 space per dwelling unit
Cottage Clusters	See MDC 18.30.210(9)
…	

…

Chapter 18.30 SPECIAL STANDARDS FOR CERTAIN USES

…

18.30.210 Cottage Cluster Developments

(1) Purpose. The purpose of this section is to:

a. Provide a housing type that responds to differing household sizes and ages (e.g., retirees, small families, single-person households), and offers opportunities for affordability;

b. Provide opportunities for small, single-family dwellings in several residential zoning districts by creating special land division and on-site development regulations that allow this type of use;

c. Encourage creation of usable open space for residents of the development through flexibility in density and development standards;

d. Support growth management through efficient use of urban residential land; and

e. Provide regulations to ensure compatibility with surrounding uses.

f. The provisions in this Section 18.30.210 control over conflicting provisions in the MDC.

(2) Review Procedures. If a cottage cluster development is proposed with multiple units on an individual lot, then such development is subject to site plan and design review apply in accordance with the provisions of MDC Chapter 18.40. If the cottage cluster development involves a land division, then the development is also subject to the provisions of MDC Chapter 18.60.

(3) Minimum Standards. Notwithstanding anything in the Development Code or Design and Construction Standards to the contrary, cottage cluster developments are subject to the following minimum standards.

	R-1	R-2	R-3
Maximum Density (Gross Acre Rounded Down)	7	14	9
Minimum Number of Units	4	6	6
Maximum Number	maximum density or 12, whichever is less	maximum density or 16, whichever is less	maximum density or 14, whichever is less
Minimum Lot Size of Existing Parcel	1 acre	.66 acre	Same as R-2
Minimum Resulting Lot Size for Land Divisions (Square Feet)	150% of cottage footprint^	150% of cottage footprint	150% of cottage footprint
Maximum Height	30 feet	Same as underlying zone	35 feet
Setbacks	See MDC 18.30.210(5)	See MDC 18.30.210(5)	See MDC 18.30.210(5)
Maximum Lot Coverage --Cottage Lot --Single Lot	 90% 50%	 90% 60%	Same as R-1

^including any accessory structures on the cottage lot

(4) Existing Uses. On a site to be used for a cottage cluster development, existing detached single-family dwellings may remain, will be considered a cottage regardless of compliance with standards applicable to a cottage, but cannot be made more non-conforming with the standards applicable to a cottage. The existing dwellings must be included in the maximum permitted cottage number/density.

(5) Setbacks and Building Separation. Because cottage cluster developments are a unique type of development, setbacks are measured differently than for a traditional development. The exterior boundary of the cottage cluster developments area is considered to be the edge of the development area for the purposes of calculating perimeter setbacks from surrounding properties. For buildings on lots within the cottage cluster developments, the separation between other on-site buildings is measured, not the distances to interior property lines, unless setbacks from property lines are necessary to meet the building code (interior setbacks).

a. Perimeter Setbacks.

i. The minimum front setback is the same as the underlying zone or 12 feet, whichever is greater.

ii. The minimum setback from all other exterior boundary property lines is the same as the underlying zone or 10 feet, whichever is greater.

b. Interior Building Separation.

i. There must be a minimum separation of six feet between the eaves of the cottages. On cottage sides with a main entrance, the minimum separation is 10 feet. Structures other than cottages must meet minimum building code setback requirements.

(6) Required Common Open Space. Common open space is intended to be an amenity shared by all residents of the cottage cluster development.

a. Provide a centrally located open space area for the cottage cluster development and have cottages abutting at least two sides.

b. Contain a minimum of 400 square feet per cottage.

c. At least 50 percent of the cottages must abut a common open space.

d. Each cottage must be connected to a common open space by a pedestrian pathway.

e. Areas such as utility vaults, perimeter setbacks and common parking areas and driveways are not counted in a common open space requirements.

f. Common open space may contain drainage swales and utilities, provided the area is otherwise usable for open space purposes. Open space areas may not contain roadways or parking areas.

g. Required common open space must be subject to easements, rental agreements, or other instruments acceptable to City to ensure occupants of all cottages within the cottage cluster development can use a common open space. Such instrument must be approved and recorded prior to filing a final plat or prior to obtaining the first building permit.

h. Common open space must have a minimum average width of 20 feet.

i. Common open space areas must be constructed and landscaped prior to filing a final plat or, in the case of a site plan, construction and landscaping will be tied to final occupancy of the first cottage.

j. Common open space area must be either located within common tracts or subject to a recorded instrument acceptable to the City to ensure the common open space will perpetually benefit all residents of the cottage cluster development.

k. In addition to any other requirement, at least one recreational amenity must be provided within a common open space for any cottage cluster development with 8 or more dwellings and two recreational amenities will be provided for any cottage cluster development with 12 or more dwellings. Recreational amenities include swimming pools, playgrounds, sport courts, covered seating area, outdoor cooking facilities, and other amenities acceptable to the Decision Maker. Recreational facilities may be located within required common open space, but at least 50% of the required common open space area must remain landscaped.

(7) Required Private Open Space. Each cottage cluster development must provide 400 square feet of private open space per cottage for the exclusive use by the occupants of the applicable cottage. Private open space must be either part of the cottage lot or abut the applicable cottage for a single lot cottage cluster development. Required private open space for each cottage must be shown on submitted plans. Covered entries and uncovered patios and decks in excess of the required 80 square feet in MDC 18.30.210(8)(b) may be included in the private open space calculation.

(8) Development Standards.

a. At least 50 percent of the cottages must be oriented around and have their main entrance facing common open space.

b. Each cottage must include a covered entry and/or an uncovered patio or deck. Cottages that abut common open space must orient the covered entry and/or uncovered patio or deck to a common open space. Conformance with these standards is achieved when each cottage includes one of the following:

i. A covered entry of at least 80 square feet with a minimum dimension of six feet on any side;

ii. An uncovered patio or deck of at least 80 square feet with a minimum dimension of six feet on any side. When the cottage abuts a common open space, a landscape buffer no less than three feet in width must be provided between the uncovered patio or deck and a common open space. The buffer must include a fence, wall or similar structure not to exceed three and one-half feet in height, except decorative arbors, gates, and similar features which must not exceed six feet in length; or

iii. A combination of subsections (8)(b)(i) and (ii) of this section that is at least 80 square feet with a minimum dimension of six feet on any side of the covered entry and uncovered patio or deck.

c. Pedestrian pathways in compliance (five feet in width, made of concrete, and otherwise compliant with the Americans with Disabilities Act) must be included to provide for movement of occupants and guests from and between sidewalks, parking areas, cottages, and other cottage cluster development amenities. These pathways must be shown on the subdivision tentative plan or site plan and be part of the common areas/tracts.

d. Accessory dwelling units are not permitted in cottage cluster developments.

e. Accessory structures for common usage are allowed in common open space areas. Other accessory structures (including garages and storage sheds) may not be located within common open space area.

(9) Parking. Parking for cottage cluster developments must be located on the cottage cluster development property and identified on the tentative subdivision plan and/or site plan. On-site parking must meet the following standards:

a. There must be a fully enclosed garage for each cottage with a garage door, attached or detached from the cottage, that is sufficient to store an average-size car (minimum 150 square feet) and constructed of similar materials, colors, and designs as the cottage. An individual garage shall not exceed 400 square feet in size and a shared garage must not exceed 1,200 square feet in size. Garages may not take direct access from a street other than an internal private street, alley, or driveway.

b. In addition to the required garages, cottage cluster developments must provide one communal off-street parking space per five cottages in the cottage cluster development.

c. Communal parking areas may not include more than five adjoining garages or parking spaces and must be separated from other communal parking areas and cottages by at least five feet of landscaping or as required by the fire code, whichever is greater.

c. Parking must not be located in the perimeter setbacks and must be screened from public streets and adjacent residential uses by a landscape buffer containing landscaping and/or architectural screening. The width of the landscape buffer is the same width as the perimeter setbacks.

d. Parking is allowed between or adjacent to structures only when it is located toward the rear of the cottage and is served by an alley or private driveway.

f. All parking must provide a minimum of 24 feet for maneuvering and backing movements from garages and/or parking areas.

(10) Frontage Requirements. Individual cottage lots created as part of a cottage cluster developments subdivision are not required to have frontage on a public or private street. However, the development site must have the minimum frontage on a public or private street as required by the underlying zone.

(11) Public Utilities. All cottage lots must be served by individual services from a private or public distribution main. Any deviations from City standards must be approved by the Public Works Director. Private services, franchises, sewer and water, must not cross property lines unless there is no means of providing private service laterals from a distribution main, as approved by the Public Works Director. Where private services are permitted to cross property lines, the services must be placed in an easement acceptable to City.

(12) Cottage cluster developments must provide trash enclosures, either at a centralized location or incorporated into the design of individual townhomes. Trash enclosures must be constructed of similar materials, colors, and designs as the cottage(s) and screened from adjacent properties and rights-of-way. Trash collection bins or carts must be approved by the collection company. The trash enclosures and service areas are subject to the same setback standards from all public or private streets as the

cottages, and must be provided internal to the cottage cluster development whenever and wherever practicable.

(13) Each cottage cluster development must satisfy the Landscaping Standards for the applicable zone. Notwithstanding the foregoing, the Landscaping Standards can be satisfied across the cottage cluster development (as opposed to satisfied on each cottage lot).

(14) Covenants, Conditions and Restrictions. Subsequent to final plat approval but prior to issuance of a building permit for any structure in a cottage cluster development, a set of conditions, covenants and restrictions (CC&Rs) for the cottage cluster development must be reviewed and, if approved by the City, recorded with Jefferson County. The CC&Rs run with the land and may be removed or modified only upon approval of the City. The CC&Rs must create a homeowners' association that will provide for maintenance of all common areas in the cottage cluster development.

(15) Some cottage cluster developments may be subject to master planning. See MDC Chapter 18.55.

…

Chapter 18.40 ZONING REVIEW, SITE PLAN REVIEW, AND DESIGN REVIEW

…

18.40.020 Site plan review.

Purpose. To determine compliance with this Development Code for development not subject to zoning review.

(1) Applicability. Site plan review is required for the following:

(a) All conditional uses.

(b) All new nonresidential development.

(c) New multifamily dwelling buildings.

(d) New or expanded outdoor uses of 3,000 square feet or greater.

(e) Any expansion or alteration of an existing structure in excess of 10,000 square feet or that requires a new or modified point of access.

(f) All townhome developments.

(g) Cottage cluster developments.

…

Chapter 18.55 MASTER PLANNED DEVELOPMENTS

18.55.010 Master planned development approval process.

(2) Applicability. Unless the site is fully site plan approved for a single use, a master development plan is required prior to dividing or otherwise developing any site five acres or greater for nonresidential and

mixed-use developments, 20 acres or greater for residential developments, or any development proposing 12 or more townhomes or cottages. Notwithstanding the foregoing, larger sites may be divided; provided, that all resulting lots or parcels are at least 10 acres in size or greater and a deed restriction is recorded requiring a master plan prior to further division of the resulting parcels. In addition, a developer may voluntarily seek a master development plan for any property or group of contiguous properties two acres in size or greater or any development containing townhomes or cottages.