

Inner Neighborhoods

Prototype 1:

10,000 SF site in the R2 zone

- 1a. Cottage Cluster **A-3**
- 1b. Cottage Court **A-5**
- 1c. Contextual Rowhouses . . . **A-7**
- 1d. Contextual Rowhouses
Variant **A-9**

Prototype 2:

5,000 SF site in the R1 zone

- 2a. Townhouse Cluster **A-11**
- 2b. House-plex **A-13**

Prototype 3:

10,000 SF site in the R1 zone

- 3a. Shared Court
Rowhouses **A-15**
- 3b. Corner Rowhouses **A-17**

Outer East neighborhoods

Prototype 4:

95' wide by 180' deep site in the R2 zone

- 4a. Courtyard
Townhouses **A-19**
- 4b. Big Cottage Court **A-21**
- 4c. Mirrored Green **A-23**

Prototype 5:

90' wide by 220' deep site in the R1 zone

- 5a. Courtyard Flats **A-25**
- 5b. Courtyard
Townhouses **A-27**

The Infill Design Toolkit:

Medium-Density Residential Development

A Guide to Integrating Infill Development into Portland's Neighborhoods



CITY OF PORTLAND
BUREAU OF
PLANNING

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Housing Prototypes

Solutions for achieving density and neighborhood-friendly design on small infill sites

The housing prototypes of this section are intended to serve as a problem-solving tool to help improve the design of medium-density infill housing projects, particularly in the R2 and R1 multidwelling zones. The prototypes highlight medium-density housing types and configurations that are suitable for common infill situations, meet City regulations and design objectives, and are feasible from a market perspective. They illustrate solutions for common infill design challenges such as balancing parking needs with pedestrian-friendly design and providing usable open space while achieving density goals. They are also intended to help broaden the range of housing types being built in Portland by presenting innovative configurations, with a particular focus on arrangements conducive to ownership housing. The prototypes continue characteristic neighborhood street frontage patterns by featuring house-like building volumes along street fronts and by providing opportunities for landscaping.

The prototypes are based on site configurations common in different parts of the city, such as those of close-in neighborhoods where infill sites are typically in increments of the 50'-wide lots established by Streetcar Era platting; and the very different sites typical in Outer East where lots are larger but disproportionately deep. This set of housing prototypes is intended to be the beginning of a collection that will be added to over time to expand the range of design solutions.

Each prototype includes cross references to other sections of the Infill Design Toolkit. These sections can be referenced for more detailed information on specific design issues and for information on case studies and built examples.

Guiding Criteria

The housing prototypes were designed to:

- Meet City regulatory requirements;
- Be financially realistic;
- Minimize the prominence of vehicle areas, while limiting impervious surfaces and providing at least one parking space per unit;
- Provide usable outdoor space;
- Respond to typical neighborhood contextual situations (through site design, arrangement of building volumes, etc.); and
- Include configurations conducive to ownership housing (such as by allowing housing units to be on separate lots).

Regulatory Review

To ensure that the housing prototypes illustrate “approvable” configurations that can meet the requirements of the various City regulatory agencies, they have been reviewed by the following City bureaus:

- Planning
- Development Services
- Office of Transportation
- Environmental Services (*regarding stormwater management*)
- Fire and Rescue

Caveats

While the housing prototypes focus on illustrating configurations that meet regulatory standards, in certain cases code adjustments or appeals would be necessary for particular aspects of the prototypes to be approved. In these situations, the “Regulatory Notes” included with each prototype highlight aspects of the prototypes that would require additional review. (Their inclusion here does not guarantee the outcome of a code adjustment request or appeal.)

Also note that the prototypes do not take into account area-specific regulations or design review criteria that may apply to a site, or other site-specific issues and constraints. For example, Prototypes 1b, 2a, 4a, 4b, and 5b would not meet requirements of the Community Design Standards (applicable in areas with design review), which call for all primary buildings to be set back no further than 25 feet from front lot lines. Bureau of Development Services staff and other relevant agencies should be consulted regarding site-specific issues and the general applicability of the prototype configurations to any particular site.

Pitched roofs are used for the prototypes because many community members consider them to be more “design neutral” than flat roofs in a generalized residential context. The intent of this is to encourage attention to be focused on more fundamental aspects of housing form and site organization, rather than on the relative merits of traditional or contemporary architectural style. The illustrated roof forms are not intended to indicate that other roof forms would not be equally or more appropriate for any particular housing project or specific context.



Prototype Sites

The prototype sites and their attendant issues are summarized below:

Inner neighborhoods

- **Prototype 1: 10,000 SF site in the R2 zone**
What can be built besides 4-5 rowhouses?
Opportunities for courtyard housing?
- **Prototype 2: 5,000 SF site in the R1 zone**
How to fit 3-5 units, plus parking?
- **Prototype 3: 10,000 SF site in the R1 zone**
Opportunities for courtyard housing and additional homeownership possibilities? (Such sites often require too great a density for conventional rowhouses to be practical.)

Outer East neighborhoods

- **Prototype 4: 95' wide by 180' deep site in the R2 zone**
How to design density for narrow sites?
Homeownership opportunities?
- **Prototype 5: 90' wide by 220' deep site in the R1 zone**
On a busy arterial street?
How to provide livable housing close to traffic, contribute to a transit-oriented environment, transition to lower-density housing, and fit 14-20 units and vehicles?

Housing Prototypes Consulting Team

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