Calculating Density Metrics

INTRO

A major part of the planning process is determining how much development potential is desired throughout the city. There are two primary ways of regulating how much development and housing is permitted on a property: dwelling units per acre (du/acre) and floor area ratio (FAR). These two methods can be used in conjunction with one another or apply separately to particular land uses. This document looks at a range of development types and their corresponding du/acre and FAR that could be desired for Napa.

1. Dwellings units per acre (du/ac).

Dwellings units per acre (du/ac) permit how many individual dwellings can be located on any one property. For example, a single family home on a 1 acre lot would have a density of 1 du/ac. Likewise, if a 50 unit apartment building is on a 0.5 acre lot, the density would be 100 du/ac. The physical size of the lot determines how many dwellings can fit on a site; a 0.5 acre lot with a density maximum of 20 du/acre would only be permitted for up to 10 dwelling units. Du/ac does not dictate unit size or unit type. Other bulk controls such as setbacks, height limits, and lot coverage apply to the building form.

2. Floor area ratio (FAR).

Floor Area Ratio (FAR) is a tool widely used throughout California and the US to regulate building form and intensity. It is the ratio of total building space in relation to lot size. It can be calculated quickly based on information that is readily available to planners, architects, and developers - simply take the total building square footage and divide by the area of the lot.

As a regulatory tool, FAR provides flexibility. Unlike traditional bulk controls such as height, lot coverage, and setbacks which create a rigid envelope within which architects must work, FAR does not require a particular building shape or placement; rather it creates a flexible envelope that provides choice. FAR is typically used in combination with other bulk controls. FAR is particularly useful in central business districts and in other areas of high-intensity land use with a mix of office buildings, restaurants, shops, hotels, and tall apartment buildings.

Example: Determining FAR

FAR = 1.0

FAR = 3.0

1 story

2 stories

3 stories

6 stories
Select Project Examples

Laurel & Coombs Street, Napa CA
FAR: 0.4* | 6.2 du/ac* | Height: 30’
*block estimate

The Riverfront, Napa CA
FAR: 2.7* | 29.0 du/ac | Height: 52’
*Estimate residential and non-residential

420 Mendocino, Santa Rosa CA
FAR: 4.0* | 216 du/ac | Height: 85’
*Residential and non-residential

Project type: historic single-detached.
25 units (including accessory dwelling units)

Project type: commercial/office mixed use.
50 units with 70,000 sf non-residential

Project type: urban infill, mixed use.
104 units with ground floor retail.
Comparison of Residential Densities

Low/Medium Density: 5 - 20 du/ac

Overview

5 to 20 du/ac consists of the lower range of residential densities. This range allows for a diverse type and style of homes, from single-detached to duplexes to townhomes and can be applied to most residential areas. Using these densities allows for construction of additional housing while maintaining a lower-density feel. Additional objective design standards could apply to ensure new construction fits into neighborhood character.

ARTIS, Echo Park.
Townhomes with tuck-under parking
2-3 stories, 5 du/ac

Willow Walk, Concord
Townhomes with tuck-under parking
3 stories, 17 du/ac

Lago Los Serranos, Chino Hills
Townhomes with tuck-under parking
2 stories, 12 du/ac

36 on Echo, Echo Park
Townhomes with tuck-under parking
3 stories, 18 du/ac

The District at Arrow Station, Montclair
Townhomes with tuck-under parking
3 stories, 19 du/ac
Comparison of Residential Densities

Medium/High Density: 20 - 50 (du/ac)

Overview

20 to 50 du/ac consists of the mid range of residential densities. This range allows for the development of multi-family, mixed-use, or compact townhomes and can be applied to residential areas where more housing is desired and can be under 3 stories. The placement of small neighborhood stores and increased public transit can become more feasible when surrounded by medium density housing.

Courier Place Apartments, Claremont
Stacked apartments with surface parking
2-3 stories, 22 du/ac

Fair Oaks Court, Pasadena
Stacked condominiums with underground parking
2-3 stories, 25 du/ac

Evanston Court, Pasadena
Stacked condominiums with underground parking
2-3 stories, 27 du/ac

SL70, Silver Lake
Townhome with tuck-under parking
3 stories, 30 du/ac

Gateway Family Apartments, San Diego
Stacked apartments with underground parking
3-4 stories, 48 du/ac
Comparison of Residential Densities

**High Density: 50 - 100 du/ac**

**Overview**

50 to 100 du/ac consists of the upper range of residential densities. This range allows for the development of multi-family, stacked flats, or mixed-use buildings and can be applied to urban centers. With this range, ground-floor retail, restaurants, offices, and public transportation can be used together to create a walkable environment that people can get to everyday needs without a car.

**Coggins Square, Pleasant Hill**
- Townhomes and stacked apartments
- Tuck-under parking
- 4-5 stories, 58 du/ac

**Monterey Station, Pomona**
- Stacked apartments
- Surface parking
- 4 stories, 54 du/ac

**Lusso Lofts, San Diego**
- Townhomes and stacked apartments
- Tuck-under and surface parking
- 2-3 stories, 67 du/ac

**Andalucia, Pasadena**
- Stacked apartments with ground floor retail
- Underground parking
- 4-6 stories, 99 du/ac

**425 Broadway, Santa Monica**
- Stacked apartments with ground floor retail
- Underground parking
- 4-6 stories, 99 units/acre