Building Code Height Limits vs. Planning/Zoning Code Height Limits

This Chart is a general summary of 2010 California Building Code (CBC) requirements related to building heights for the three main construction types commonly used for residential construction in the Bay Area. Also included is a discussion of recommended height limits for Planning and Zoning Codes so that they dovetail with the CBC requirements. It follows that Planning or Zoning height limits below--or just above--what is allowed by the CBC are not practical in that they tend to reduce the cost-effectiveness of the selected construction type. For example, for a Type V-A building on-grade and where it is desired to promote community or retail use of the ground floor, a height limit of 30' would not allow three floors. At the other end of the spectrum, for Type I, a height limit of 100' would practically not be used as the cost to exceed the mid-rise limit would not be justified by the additional story or two allowed.

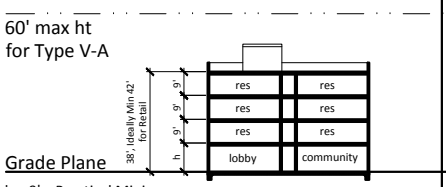
Notes

1. The following is a general summary only. It is not a comprehensive analysis of any specific site, nor does it take into account local modifications or other requirements, such as those relating to building area, bulk, sunlight access, setbacks, etc.
2. Building height is defined in the Building Code as the vertical distance from grade plane to the average height of the highest roof surface. This generally does not include uninhabited roof structures such as equipment and elevator structures, etc. Note that for Building Code purposes, height is not measured to a parapet. Planning Codes on the other hand, may typically measure height to the top of parapet or other prominent feature.

Type V-A On Grade

One-hour rated, light frame (wood or metal) construction

For R.2 buildings (apartments), when equipped throughout with an approved automatic sprinkler system, the maximum building height is 60' and no greater than four stories.



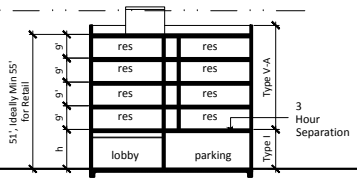
h = 9' Practical Minimum
h = 11' (Shown) Practical Minimum with decent height for first floor lobby, community functions
h = 15' Practical Minimum for Retail (12' ceiling w/ 2' mech. plenum plus 1' nominal structure)

Type V-A On Podium

One-hour rated, light frame (wood or metal) construction; concrete (Type I) podium.

For R.2 buildings (apartments), when equipped throughout with an approved automatic sprinkler system, the maximum building height is no greater than five stories, four stories of Type V-A over one story of Type I construction.

Note: For R Occupancies over a Type I parking garage ONLY (entry lobby excluded), it is possible to count only the number of stories above the podium against the allowed story limits, but the height limit remains. No retail or other habitable space would be allowed under this scenario.

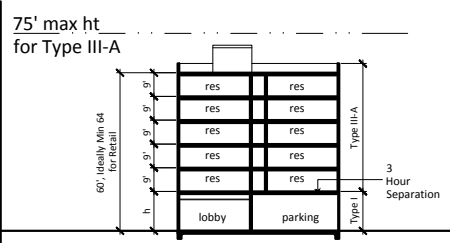


h = 9' Practical Minimum
h = 11' (Shown) Practical Minimum with decent height for first floor lobby, community functions
h = 15' Practical Minimum for Retail (12' ceiling w/ 2' mech. plenum plus 1' nominal structure)

Type III-A On Podium

One & two-hour rated, light frame (wood or metal) construction; concrete (Type I) podium

Type III A construction differs from Type V primarily in that all exterior bearing walls must be of two-hour construction and non-combustible materials. More critically, when compared to Type V A (and when equipped throughout with an approved automatic sprinkler system) and the first level is of Type I construction, an additional story is allowed and the building height limit rises to 75', though that height is probably not achievable with typical floor-to-floor heights.



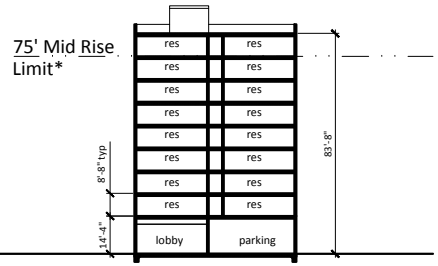
h = 9' Practical Minimum
h = 11' (Shown) Practical Minimum with decent height for first floor lobby, community functions
h = 15' Practical Minimum for Retail (12' ceiling w/ 2' mech. plenum plus 1' nominal structure)

Type I Mid Rise & High Rise

Type I construction is structural steel or concrete. For all practical purposes, for residential buildings in the Bay Area, concrete is used even for high-rise buildings. Besides lower cost, concrete allows for a smaller floor-to-floor distance, allowing extra floors to be squeezed under Zoning and Building Code limits.

Mid-Rise: Unless you consider residential ceiling heights of less than 8', nine stories is the most that can fit under the 75' limit (see below). Some adjustment between the ground floor and upper floor heights can be made depending on structural slab thickness, first floor uses, and other factors.

High-Rise: The CBC classifies all buildings above the 75' limit (see below) to be high-rise, triggering additional and costly requirements.



*When any FLOOR LEVEL is greater than 75' above the LOWEST** point of Fire Department access, the building becomes a "High-Rise".

**If the lot is sloping, this will affect the total allowed height.

Zoning Height Recommendations

If public/retail use programmed for ground floor, then Zoning Height should be MIN 42' (45+' is better) exclusive of roof structures/parapet

If public/retail use programmed for ground floor, then Zoning Height should be MIN 51' (55' is better, to max allowed 60' best) exclusive of roof structures/parapet

If public/retail use programmed for ground floor, then Zoning Height should be MIN 60' (63+' is better) exclusive of roof structures/para pet

Mid-Rise: Zoning Height should be a minimum of 84'+.

High-Rise: See the discussion in the introductory paragraph. Once the mid-rise limit is breached, a Zoning Height limit allowing only a few stories above mid-rise does not make much sense.

Note: Increasing the ground floor to 20' allows for two floors of parking but would probably cut a residential floor off the project to stay within the mid-rise limit.

Prepared for EBHO by Mayers Architecture w/contribution from Pyatok Architects