

Single Staircase Reform: A Simple Building Code Change with Big Impacts

What is it?

Single Staircase Reform is a modern update to building codes. It allows small apartment buildings (typically 4–6 stories tall) to use one staircase and an elevator, instead of the currently required two staircases connected by a long hallway.

This change might sound small—but it unlocks high quality apartments, family-sized units, more affordable housing, and walkable streets — the backbone of ‘15 minute’ sustainable communities.

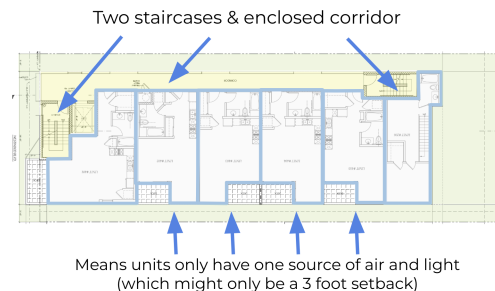
The current LA building code requires that multi-family buildings over three stories have two staircases that are connected by an enclosed corridor. This creates a “hotel” style layout, with all the units off a long hallway on one side of the building (or a hallway down the center with units off both sides). Most units in these “single-loaded” or “double-loaded” corridor buildings only have windows on one side of the unit. This can translate to most of the units being studios and one-bedrooms – often with windowless bedrooms.

The Better Way: Single Staircase Design

But there is an alternative. A Single Staircase has been used all over the world for hundreds of years. And they’re just as safe. [Studies](#) from the U.S. and abroad show no increased fire risk in well-designed single-stair buildings.

A single staircase also allows for a courtyard design so apartments have windows on two sides, which allows for cross-ventilation. This design can create higher-quality homes that self-cool instead of relying on expensive and energy-inefficient mechanical cooling. Courtyards also increase quality of life as they provide an open space for children to play, people to relax in green space, and to build community.

WALKABILITY: Along commercial corridors, fine grain retail is



What if two staircases become **one central staircase** allowing family-sized units and a usable courtyard?



lot-line-to-lot-line — and a Single Staircase courtyard building allows housing to be built above the shops lot-line-to-lot-line. Residential over retail creates a customer base for shops, which increases vibrancy which creates walkability – and a virtuous cycle.



Walkable neighborhoods with housing over retail are the backbone of a “15 Minute City” where “everything a resident needs is in a 15 minute walk or bike ride” — errands, amenities, jobs, schools and transit — without needing a car, and can go without onsite parking. Parking has a multitude of negative (and even catastrophic) effects on the feasibility of housing — it raises rent and adds significant costs to projects. Narrow lots can be too space-constrained to fit a second staircase, requiring the need to combine parcels into a larger lot. This practice, known as land assembly, can be so costly that in Los Angeles it has resulted in up to a 40% increase in land acquisition costs and extensive delays that further raise the cost of construction.

CLIMATE: A 15-minute street is the backbone of any sustainable neighborhood because passenger vehicles account for 28% of CA GHG emissions (residential housing is 6%, also a significant number). Single Staircase Reform unlocks vibrant retail, which in turn can support adjacent car-free/car-light housing of different typologies, such as garden courtyards, townhomes, and mass timber high rises.

RANGE OF BENEFITS: Single-staircase buildings unlock the potential for high quality of life and sustainability in an interlocking systems-approach. Additional benefits include:

- *Quality of life and lower cost of living:*
 - Creating bright, airy high quality family-size homes with leafy courtyards
 - Allowing small and tiny-sized parking-free units that are high-quality and naturally affordable to Moderate and Low Income households
 - Courtyards foster community
 - Aligning with AFFH to add affordable housing in high-opportunity areas as well as Neighborhood Opportunity Zones of all levels
 - Better Streetscapes, human-scale buildings, and curb appeal for homeowners to build equity
 - Revitalization of small businesses
- *Sustainability:*
 - Reducing mechanical AC with cross-ventilation, unlocking zero-carbon buildings
 - Unlocking a 15-minute community, creates zero-carbon mobility
- *Scalable and fast construction:*
 - Commercial parcels along the same street are identical in size to simplify construction and allow for small infill Standard Plans
 - Standardizing can unlock prefab and modular construction

IMPLEMENTATION: Livable Communities Initiative ([LCI](#)), a plan adopted by the LA

City Council to create 15-minute neighborhoods in Los Angeles. The LA City Council passed a motion that could reform this key building code: [CF: 25-0247](#). Other cities including Santa Monica, San Diego and San Francisco are moving forward. The LCI also sponsored the State bill [AB 835](#) which will facilitate this reform.

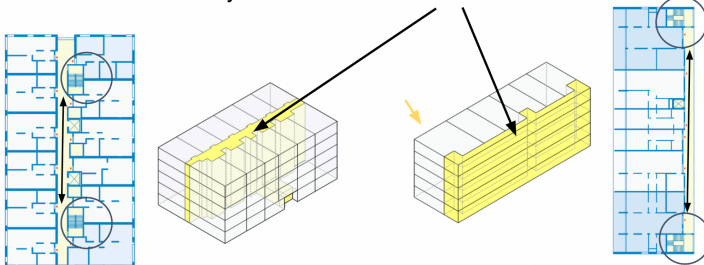
[OVERVIEW of Single Stair](#) research.

READING & RESOURCES:

- [Pew study on safety](#)
- [SingleStair.com - design competition](#)
- [HUD Study on Single-Stair Housing](#)
- [Harvard Study on Single-Stair Reform](#)
- [Sensible Density Working Group Report](#)
- [Point Access Block Building Design: Options for Building More Single-Stair Apartment Buildings in North America](#)
- [Understanding Single-Stair Reform Efforts Across the United States](#)



Because we require **two staircases** along **one corridor**, one side of every unit is on a corridor



Double Loaded Corridor

Single Loaded Corridor

floor plan (left) and axonometric drawing (right), Lorch Lab

