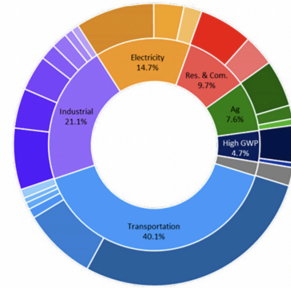


The California Climate Moonshot

THE ISSUE

Los Angeles needs 500,000 new homes and California needs 3.5 million new homes. The Livable Communities Initiative (LCI) is a plan to build housing that is Zero Carbon buildings with Zero Carbon mobility by legalizing, facilitating and zoning for 3-5 story residential over retail in thoughtfully chosen walkable neighborhoods. The LCI revitalizes a classic housing typology of Courtyard Buildings – high quality living at an affordable price, while being economically feasible to build, especially around job centers near Metro stops. By unleashing small builders to build this now-obsolete typology, California has a unique opportunity to catalyze a nascent worldwide movement towards sustainable city living.



WHAT WE ARE DOING

The LCI revitalizes the combination of residential housing over Neighborhood Serving Retail in walkable, bikeable neighborhoods seamlessly connected to transit, creating neighborhoods for people who can't drive, don't want to drive, or are severely impacted by the high cost of car ownership. While this model exists across the globe and some of the world's most beloved neighborhoods, it fell into obsolescence in CA, LA and across the U.S.



In order to do this, the LCI advocates for specific changes to the regulations that have made this urban form impossible to build. For housing: legalize Zero Lot Line Courtyard Buildings with a Single Staircase design. For transportation: identify locations for LCI communities that have existing high-quality mobility such as walkability, transit, and/or safe bike lanes (or identify streets that can be transformed).

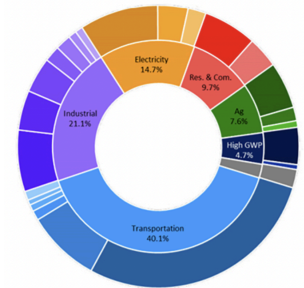
CLIMATE IMPACT

Courtyard Buildings have several key advantages for sustainability. The courtyard design allows for ample air circulation (because all rooms have windows). Design features that were created before air conditioning can lower the temperature inside by more than 10 degrees and eliminate the need for AC: 10 foot high ceilings, thick walls, ample air and cross-breezes. With solar panels, heat pumps, efficient appliances, and no gas hookups, buildings can be net Zero Carbon.

But the biggest impact is that the LCI is a car-light community where residents can conveniently and pleasantly live car-free. The LCI is designed for streets with existing legacy family owned

businesses, small shops and retail that makes it both pleasant to walk and convenient to do errands. This combination of a high quality street with the full range of Neighborhood Serving Retail can create a 15 minute community where everything a person needs on a daily and weekly basis is accessible on foot or by bike, cargo bike, adaptive bike, trike, and golf cart / NEV, and transit.

Together these can zero-out emissions for **residential – 9.7%** and **transportation (cars) – 23%**.



VMT and Commutes: The LCI has the potential to reduce commutes across the region. Currently, 100,000 people commute into Santa Monica for work every day, 63,000 people drive into Westwood, and 20% of UCLA students commute in – because there is not enough housing. The LCI has the potential for 10,000-20,000 units of housing along Westwood Boulevard and in the Village, depending on the height. Students and workers could have the option to eliminate their commutes (which according to U.S. Census data is often 1-2 hours (and even 3 hours) each way).

of the LCI is an urban form that has fallen into obsolescence: residential housing over retail without on site parking or amenities. Regulations have rendered these broadly popular buildings all but impossible to build, because they cannot accommodate parking (where would it go?) But these buildings solve The LCI mobility is also bringing back a model that had fallen into obsolescence – walkable cities with high quality transit and safe biking for all. These two models are how high quality and sustainable cities have been built for hundreds of years all over the world – long before AC, cars, or electricity.

HOUSING

The LCI revitalizes a classic housing typology that does not currently get built (due to regulations and laws preventing them) -- small units above retail in a walkable neighborhood.

WHO WOULD WANT TO LIVE HERE

The LCI model cuts household costs in three ways: savings on car payments, not paying for parking (\$600-\$800/month in LA), and smaller units cost far less than large units. Market research shows there is an enormous demand for walkable cities. A recent [study](#) from the National Association of Realtors says 72% of people will pay more to live in a walkable neighborhood, and 24% will pay “a lot more.” Cars are the #1 source of debt and default in the country, seniors outlive their ability to drive by an average of [7-10 years](#), and 100,000 LA

residents signed the [Healthy Streets](#) petition for more bikeability in LA. The research and evidence shows there is substantial untapped demand for car-free living in LA.

~~Why should we care about car free living — other than traffic, air quality, and climate emissions?
We should care because parking ruins the economics of housing — it raises rents, and it ruins the profitability of building small infill buildings with small affordable units. Parking makes it not affordable, and not profitable to build. Removing parking reverses this: the market can build affordable housing.~~

Cracking the Code: The LCI model – building residential over retail along underutilized commercial corridors – has a unique advantage in the housing space: it opens up the possibility of **standardization**. Standardization works with suburban sprawl – building single-family homes like cookie cutters. But this is the housing we don't want and certainly don't need more of. Building 3 to 5 story buildings, parcel by parcel, identical parcels, opens up the possibility for multi-family standardization. Here's how it works: every parcel on a commercial block is the same size by design – it's how cities lay out street grids: 10 identical parcels per block. And it can repeat block by block for miles (orange boxes). Each parcel on the block can use the same architectural plans. We can create **Standard Plans** – beautiful architectural plans that can get re-used by every parcel on the block. Now builders and property owners have access to world-class architecture at a far lower cost – And it's an off-the-shelf, ready-made solution and hassle-free. The buildings are simple 3-5 story single-staircase courtyard buildings without on-site parking. Then small infill builders can build them over and over again, either by buying parcels, or working with property owners in a land-lease arrangement with profit sharing. And the most exciting part is that through repetition and scaling up pre-fab components, builders estimate that after building 3-4 prototypes, the time it takes can be reduced from 10-12 months to **6 months** from breaking ground to move-in day. Today, building in LA takes 4-7 years.

Standard Plans are a hassle-free, low-friction, low cost, off-the-shelf solution open to small property owners to **encourage** them to build. This is the housing we want- and we want to incentivize it. The Standard Plans can be chosen by neighborhood stakeholders so they fit with the architectural vernacular of the neighborhood and they have broad popular appeal. They can be pre-entitled with a 24-48



hour permit and a guarantee of 60-90 days for a building permit.

The Standard Plans can also have **baked-in sustainable design and features:**

- Courtyards, a cross breeze, high ceilings, thick walls
- No onsite parking
- Rooftop solar, heat pumps, electrification (no gas), water recycling
- Designed for sustainable building materials
- Extras: Colonnades over the sidewalk (which lowers the temperature inside by 10 degrees)



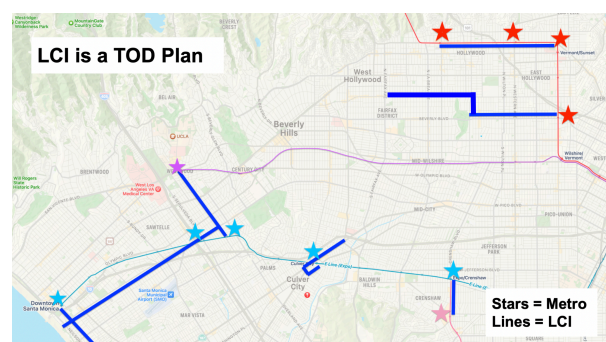
Since this is the **housing we want**, the state and local governments can use a toolbox of policy changes to incentivize it. ADUs offer a model where cities simplified the process and the market built tens of thousands of homes that are far more affordable and cost taxpayers nothing. The explicit goal and intention is to create a vibrant, low-risk, high-reward environment for investment and small businesses to jump in. Cities can create a **market solution that builds Zero Carbon Housing with Zero Carbon Mobility**, at a price point accessible to hundreds of thousands of households.

Details on Mobility

Leverage what we have: The most unique part of the LCI is it leverages two of the region's greatest assets; LA's Historic Main Streets and Historic Villages and world class transit infrastructure. LA was a city of 400 neighborhoods, and the city has vibrant historic main streets and business districts that are already walkable with neighborhood serving retail. By focusing on main streets near job centers that also touch high quality transit (like LA Metro), we can create [15 minute communities](#). Many streets do not need major changes: Culver Blvd and Washington Blvd in Culver City are streets with small retail that directly connect to the Expo Line. Westwood Village and Westwood Blvd touch two Metro stops – the Purple Line and the Expo Line. And Third Street Promenade is in a job center, walkable to the Expo line, and already pedestrianized.

We can focus on locations that have three characteristics:

- 1. Transit:** Adjacent to high-quality transit, particularly LA's Metro
- 2. Walkability:** A street with existing small retail (shops, restaurants) – a vibrant street with Neighborhood Serving Retail so daily and



weekly errands can be done by foot or bike located in job centers.

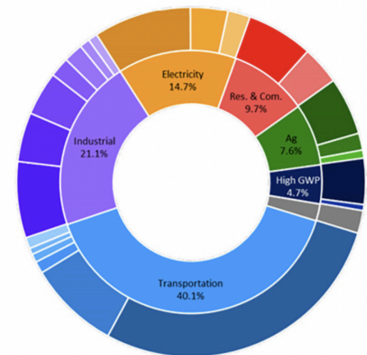
3. Calm the streets for bikes: Start with streets that do not carry essential traffic and are dead-end streets (like Hollywood or Westwood Blvd) and can be calmed to be safe and pleasant for walking and biking without an impact on traffic.

By combining the elements that make a neighborhood walkable and bikeable with high quality transit options, the LCI can make the goal of transit-oriented development a reality, and create an attractive alternative to driving. The LCI [design for our streets](#) is based on best practices in mobility design from Dutch experts and engineers (the world leaders in mobility) and uses the North Star of **uncompromising safety** to be inclusive of all ages and abilities – “ages 8 to 80” – to create a transportation system that is safe for children, seniors and people with disabilities. There is a motto: *“when you build a city for children, you build it for everyone.”*



Impact

Building with sustainable design and materials in walkable, car-free neighborhoods would have a game-changing impact on CA's emissions: **electricity**, **residential**, and the biggest – **transportation** (cars are 23%). LCI buildings can be net carbon zero through electrification, solar panels, heat pumps, and traditional building design – high ceilings, cross-breezes and thick walls that eliminate the need for AC (while banning gas hookups). Transportation emissions can be reduced or eliminated – the LCI is a car-free community in a walkable, bikeable neighborhood near jobs and high-quality transit.

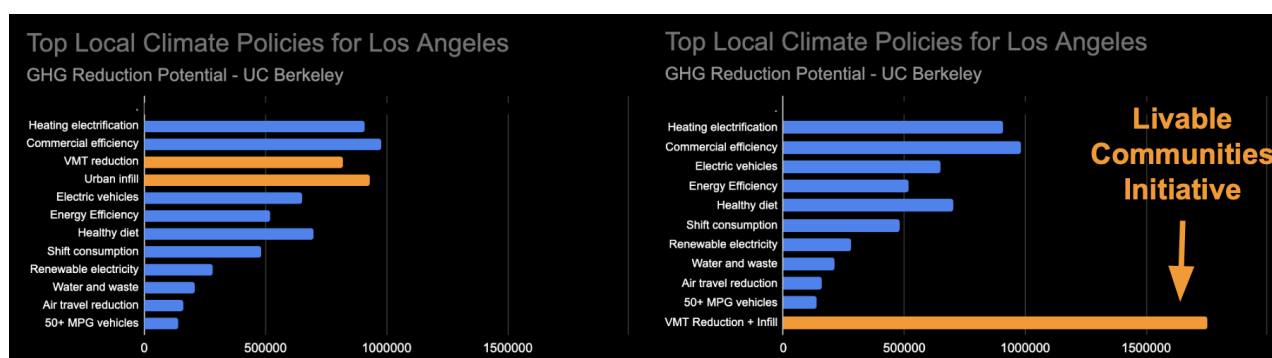


VMT and Commutes: The LCI has the potential to reduce commutes across the region. Currently, 100,000 people commute into Santa Monica for work every day, 63,000 people drive into Westwood, and 20% of UCLA students commute in – because there is not enough housing. The LCI has the potential for 10,000-20,000 units of housing along Westwood Boulevard and in the Village, depending on the height. Students and workers could have the option to eliminate their commutes (which according to U.S. Census data is often 1-2 hours (and even 3 hours) each way).

Creating car free communities in job centers allows people to shed their cars to save on the \$10,000/year expense of leasing or owning a car. Necessary car trips can easily be replaced with Uber, onsite car sharing, and peer-to-peer car sharing options like [Turo](#) (or LCI residents can keep a car and park it in employee parking). It is far better to have everyone using car share for several reasons: (1) One car share replaces 10 cars, so it is a more efficient use of parking spaces

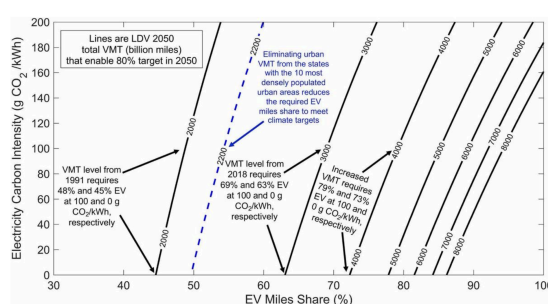
(cars sit idle 95% of the time). (2) Car shares can be EVs, 10X the use of a single EV (and we want 100% of trips to be EV over ICE (internal combustion engines)). (3) Car sharing also re-aligns financial incentives towards ***not owning a car and not driving***: if someone only drives once/week, and a carshare costs \$20-\$30 for the day, they are incentivised to shed their car (the cost of owning a Camry is a fixed cost of \$30/day). Furthermore, the marginal cost of walking, biking, transit, and carpooling are almost free, while taking the car is a fee-per-use – a \$30 fee. This nudges people toward sustainable transportation options.

The Big Picture: According to a tool from UC Berkeley, building housing near jobs and in walkable/bikeable 15 minute communities is the most powerful thing LA can do for climate. The LCI combines them VMT reduction (less driving) and Urban Infill (building near jobs):



Trees and Water: A low car or no car street (for example, Larchmont or Third Street Promenade with housing) helps in other ways: a lush tree canopy reduces the heat island effect. Pocket parks and Bioswales can replace parking lots and unused street space.

The time is now: We have a ticking clock and an urgent situation. [Climate scientists](#) have done the research and math and are sounding the alarm that due to the reality, EVs cannot scale in time to meet our climate goals. The research shows that we cannot reach our transportation climate goals with EVs alone – we need walking, transit and bikes and ebikes. But crucially, transit needs a first mile/last mile solution to scale, which means walkable neighborhoods and Micro-Mobility – bikes and scooters. EVs are essential and necessary, but not sufficient.



Clunkers: One of the most challenging parts of addressing transportation emissions is the 12 year “tail” of ownership on new cars (cars stay in the system for about 12 years). Shifting away from clunkers and to EVs means mothballing cars faster – and will be incredibly expensive (possibly in the trillions). As car-free living becomes an attractive reality, households can shed

cars, and an excess of used cars creates opportunities to push clunkers out of the system more quickly.

Meanwhile, the [evidence](#) also shows that bike lanes cannot scale unless they are 100% safe; people simply won't use dangerous and deadly infrastructure options.

No cost to taxpayers: And because the LCI is market-built affordable and workforce housing, it is a massive climate solution that costs taxpayers nothing, saving tax dollars for other urgent priorities.