

YIMBY (Yes-In-My-Backyard) Platform for Do-It-Yourself Urbanism

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University of California, Berkeley College of Environmental Design Master of Architecture Thesis

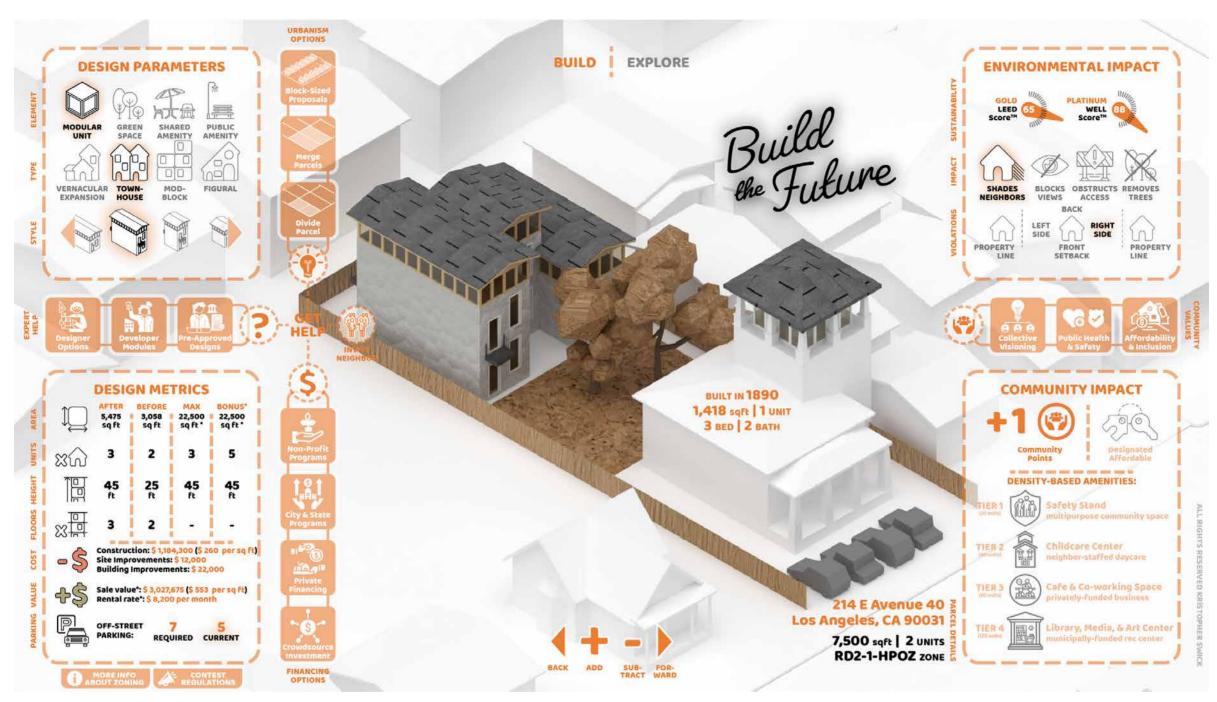
Additional thanks to Christopher Calott, Shannon Jackson, Morten Jensen, Marcel Sanchez Prieto, Luisa Caldas, friends & family

Most icons based on those sourced from the Noun Project.com and some other illustrations sourced from Dimensions.com

INTRODUCTION

At YIMBY, we believe that communities oppose new development because they are excluded from its design and ownership, as they are confronted with formulaic proposals that paper over local character and diversity.

YIMBY invites local residents to envision and participate in the future of their own communities, empowering them to design new developments while connecting them with incentives and financing that can support their vision. The application is loaded with design elements that enhance quality-of-life while adding commercial value, including public amenities, green spaces, and shared amenities.



INTERFACE

YIMBY includes a game-like desktop interface that aims to simplify the design process and integrate a range of pertinent considerations. It is stocked with modules crowdsourced from a diversity of architects & designers. Design proposals are assessed against current conditions and corresponding zoning limitations and users are invited to learn how to work around or contest these regulations. YIMBY also connects residents with more expansive visions for their community, PLUS expert guidance and financial support. All ideas are assessed for their sustainability and contribution to the community so that the expansive vision enabled by YIMBY is laden with support for a better collective future.



DESIGNER OPTIONS

(with content like Houzz.com) 1. Learn how to work with a designer 2. Browse & connect with designers 3. Explore similar projects

DEVELOPER MODULES

Explore off-the-shelf DIY units, Accessory Dwelling Unit (ADU) and Tiny Home builders, including:



PRE-APPROVED DESIGNS

Browse backyard home designs that have been pre-approved by local authorities, similar to the **Pre-Approved Standard Plans** Program from the LADBS:











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DESIGN METRICS				
	AFTER 5,475 sq ft	3,058 sq ft	22,500 sq ft*	80NUS* 22,500 sq ft *
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	45 R	25 R	45 R	45 R
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200



COMMUNITY VALUES

FINANCING OPTIONS

COLLECTIVE VISIONING

YIMBY is founded on the belief that participation is the key to overcoming NIMBY-ism AND is also an essential ingredient in building the best environment for humans:

1. Dwelling is an intrinsically human activity that involves the development of a productive symbiosis between human and home.* This connection is disrupted by overly formulaic and reductive mass housing projects that provide ill-fated one-size-fits-all solutions for overly complex communities.

2. A pluralist city is best suited to a pluralist society, in which diversity is so expansive that no one design can meet all equirements. So, the diversity of our communities should be reflected in the diversity of design preferences that compose our built environment.

NON-PROFIT PROGRAMS

Non-profit architecture and

development companies can help

connect you with local financing

and incentive programs to support

the provision of affordable housing.

This includes The Backyard Homes

Project from LA-Más.

PRIVATE FINANCING

For-profit companies offer to

facilitate a streamlined process for

design, permitting, and

construction, along with their own

in-house design team and financing

support, including Housable and

United Dwelling.

PUBLIC HEALTH & SAFETY

YIMBY proposes that densification is laden with benefits to public health and safety, because it invites increased investment from governmental and private sources plus local homeowners. The BUILD interface is dedicated to assessing the performance of user's design proposals, addressing their environmental performance and impact, effect on adjacent structures, and provision of public amenities and affordable housing.

AFFORDABILITY & INCLUSION

YIMBY prioritizes the provision of affordable housing and illustrates the local financial and zoning programs. In addition to inviting all residents, including renters, to design the future of their own environment, YIMBY integrates their voice in the embedded proposals for new governmental assistance programs. Lastly, the application stipulates a Right-to-Return for all removed rental housing.

CITY & STATE PROGRAMS

Local government provides tax and

other financial incentives for

affordable housing, and special

allowances for low-income housing

development via the 'Density

Bonus.'

CROWDSOURCE INVESTMENT

Platforms like Small Change allow

you to crowdsource funding from

multiple private investors, like

Kickstarter for real estate

development. You can choose your

profit expectations and social

mission to find investors.

ENVIRONMENTAL IMPACT



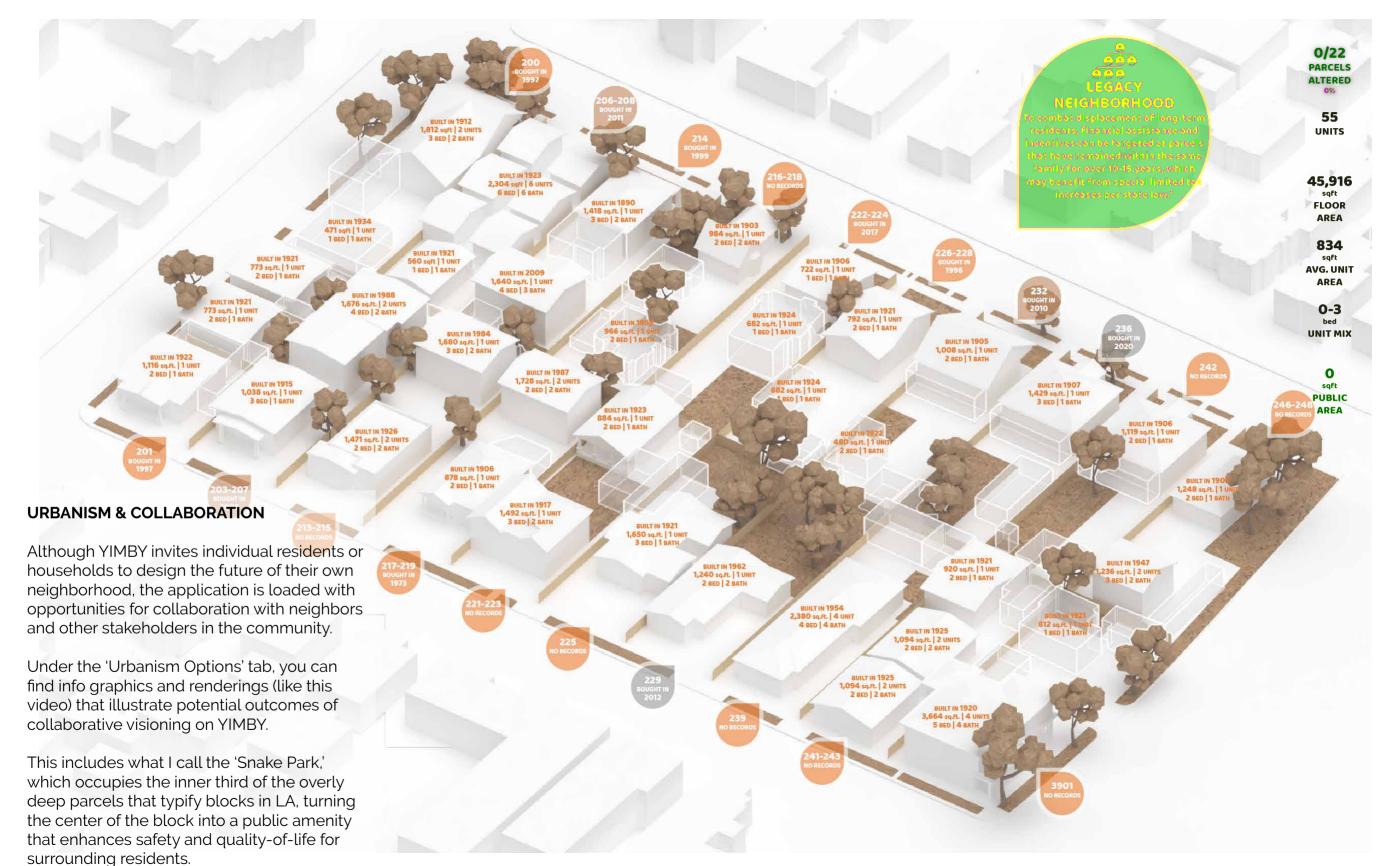
COMMUNITY IMPACT

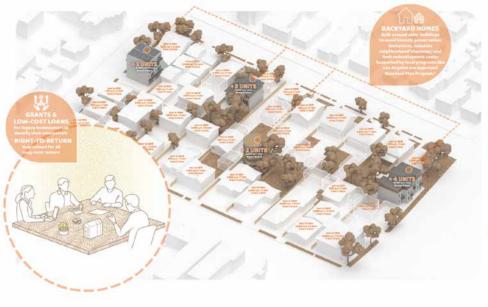




lding occupant

YIMBY proposes to expand investment in lower-income or 'legacy' neighborhoods via targeted low-cost loans and grants for block-based community land trusts, endowed by the government and philanthropy. These collective funds would be controlled by current homeowners AND renters to combat displacement, and could be used to build park space, affordable housing, or other public amenities.

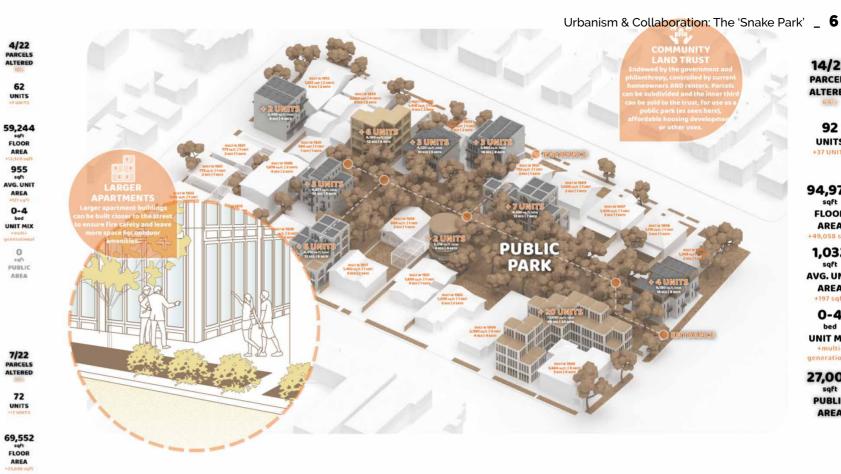


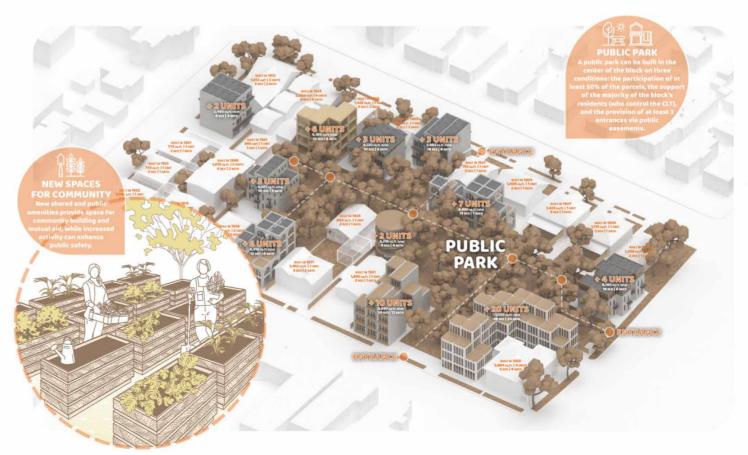




O sqft PUBLIC AREA







14/22 PARCELS ALTERED

> 92 UNITS

94,974 FLOOR AREA

1,032 sqft AVG. UNIT AREA

0-4 **UNIT MIX**

generational

27,000 sqft PUBLIC AREA

16/22 PARCELS ALTERED

> 97 UNITS

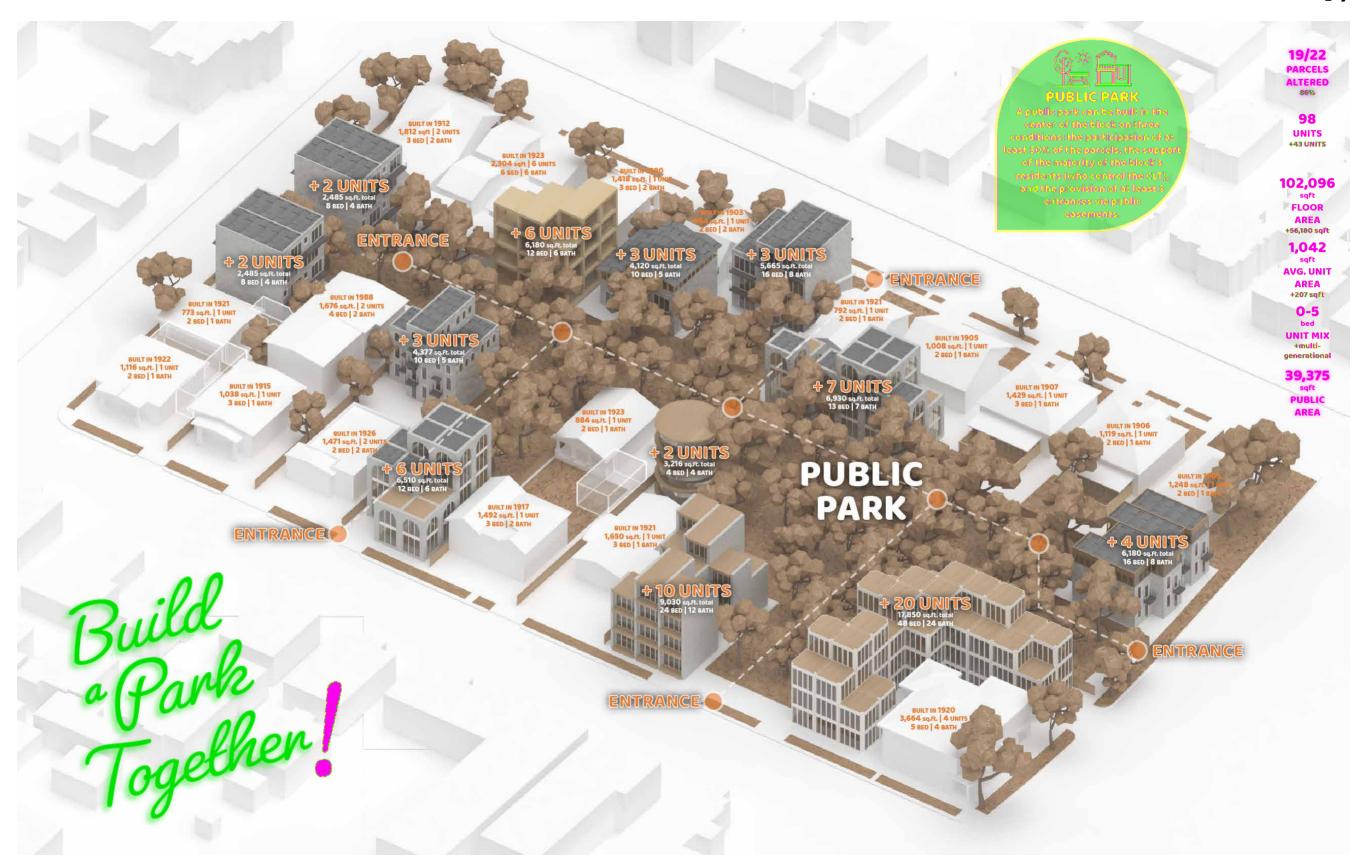
100,384 FLOOR AREA +54,468 sqft

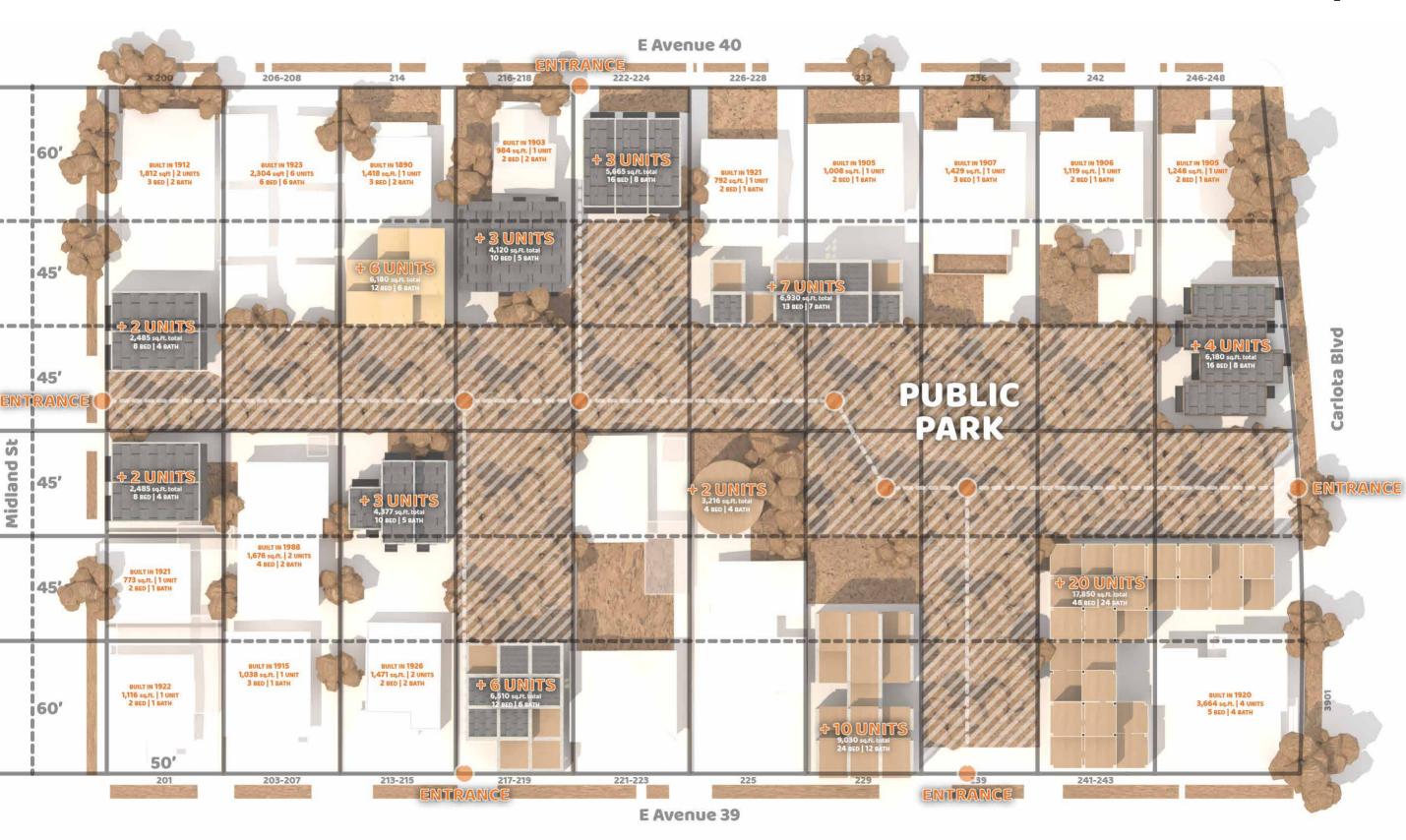
1,035 AVG. UNIT

AREA 0-5

UNIT MIX generational

36,000 sqft PUBLIC AREA













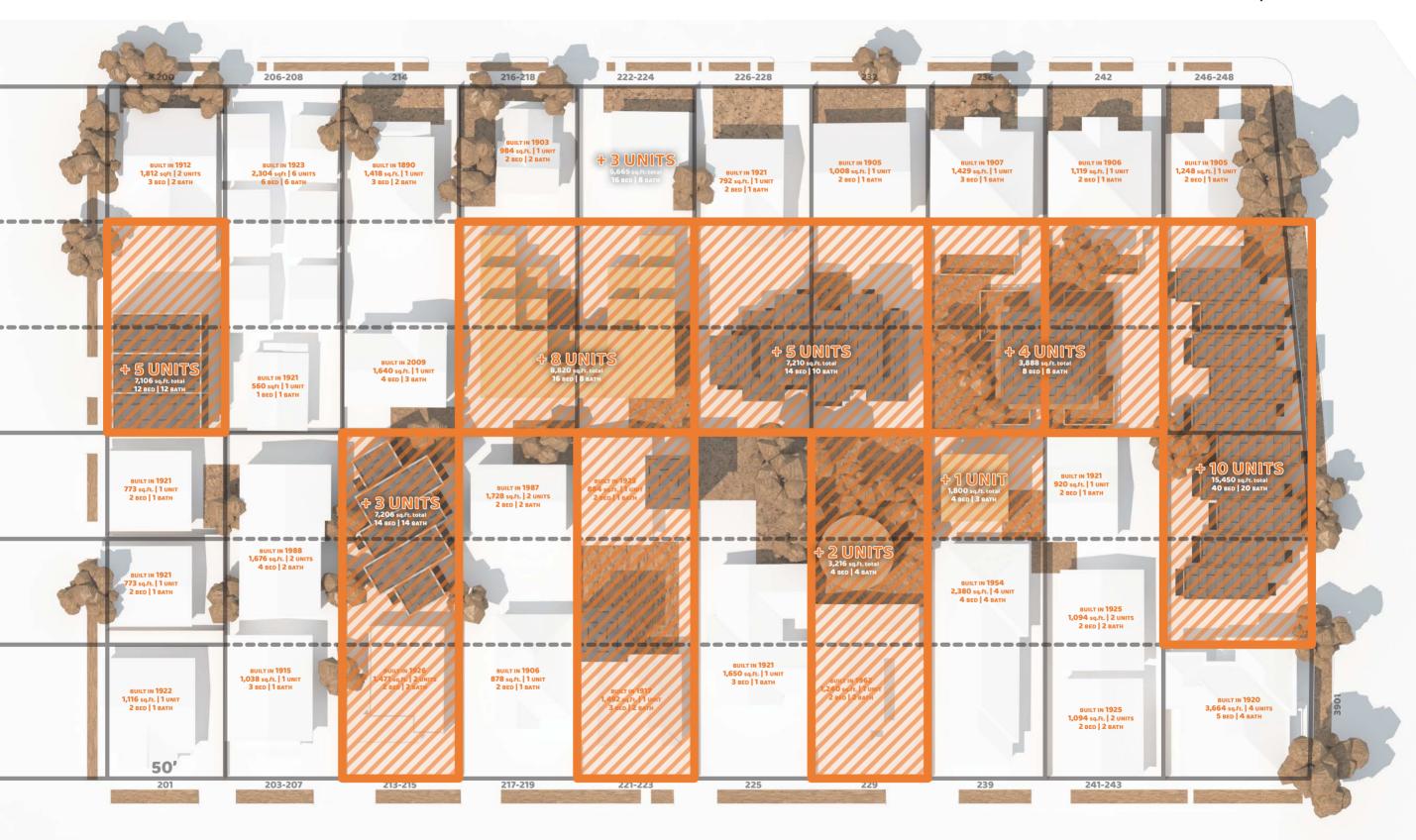


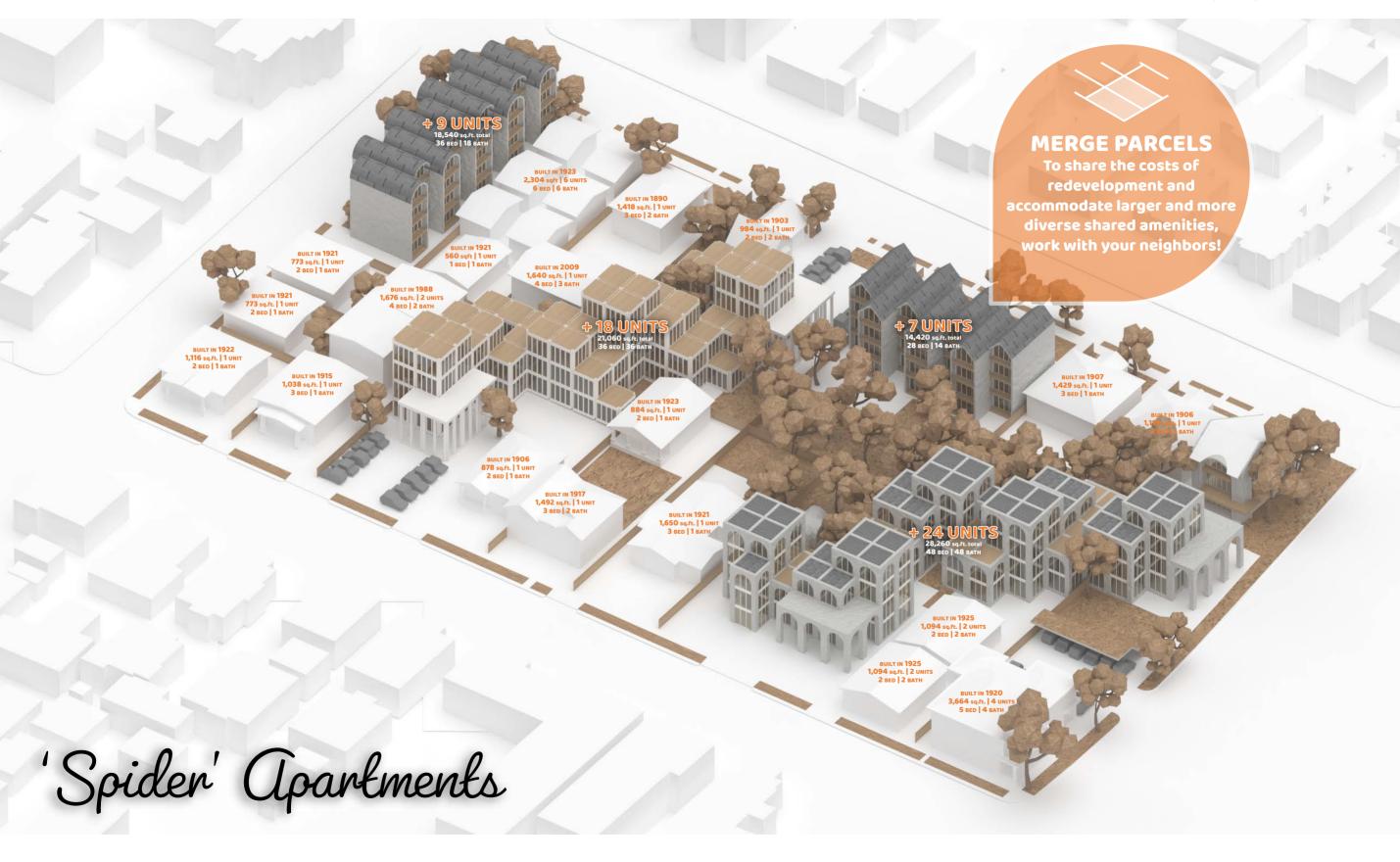


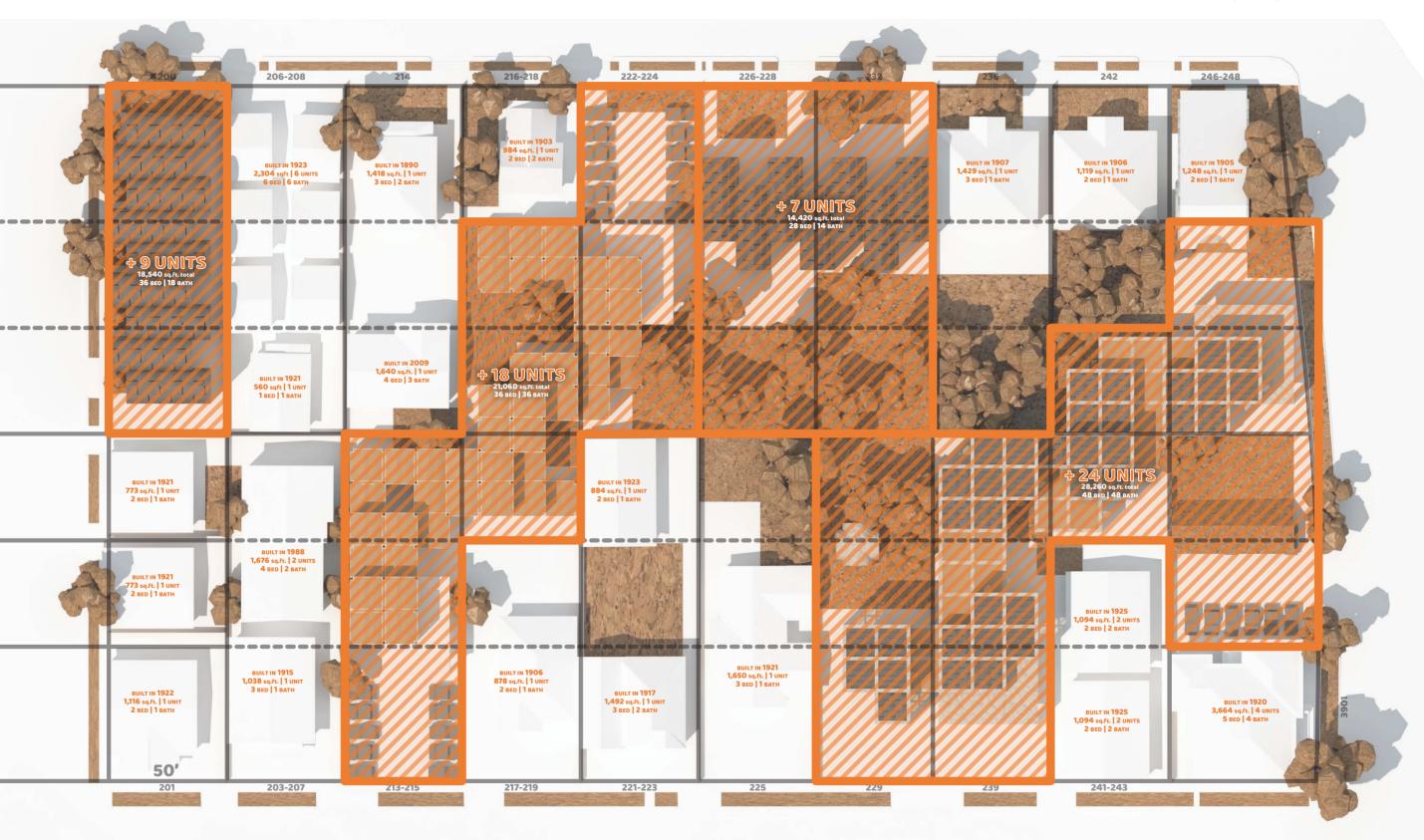


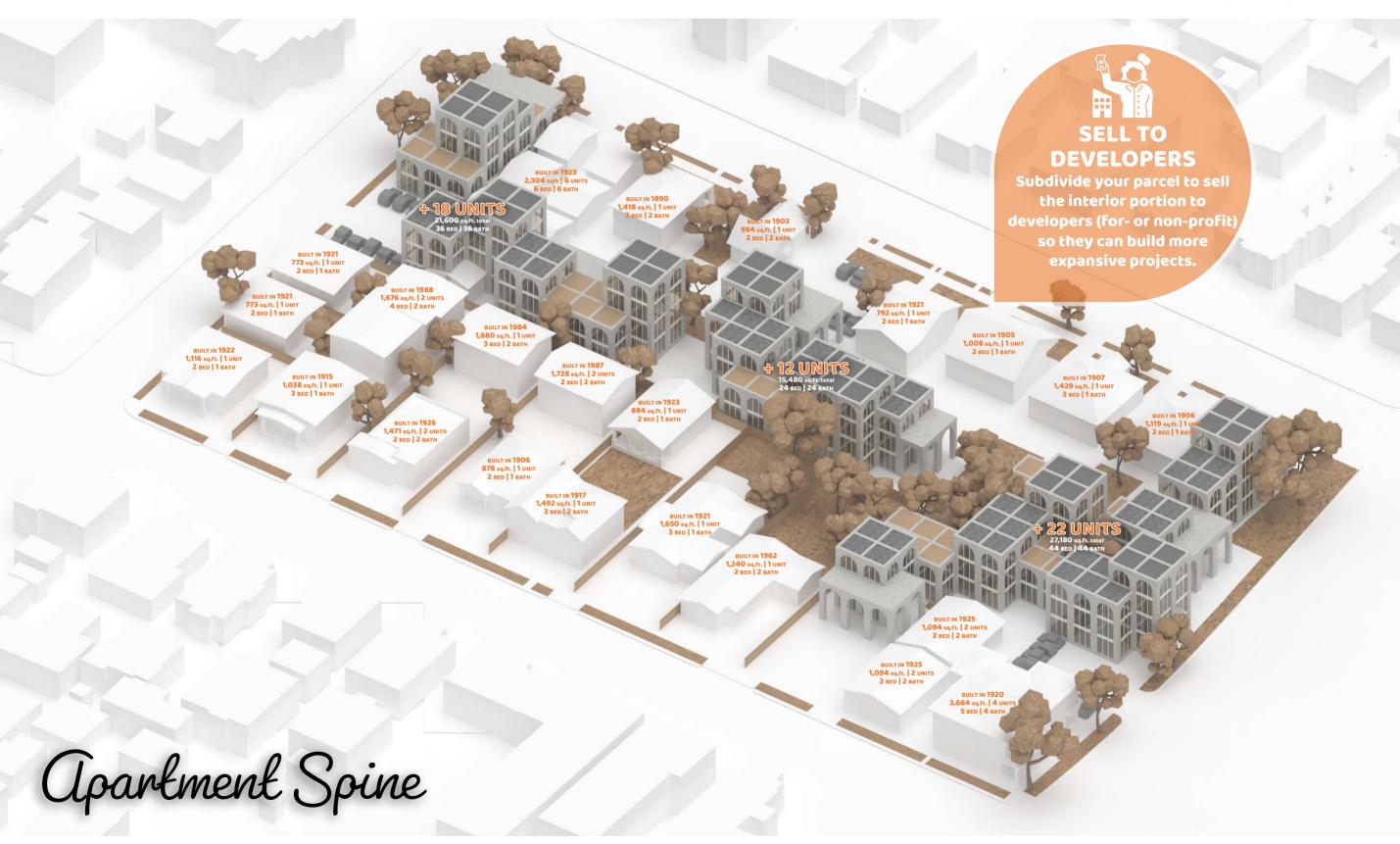


OTHER POTENTIAL OUTCOMES These renderings and plans illustrate other potential outcomes include standard backyard homes only, or apartments that reach across blocks or run along their central spine. 1,812 sqft | 2 UNITS 3 BED | 2 BATH **BACKYARD HOMES** Built around older buildings 2,304 sqft | 6 UNITS 6 BED | 6 BATH to avoid historic preservation BUILT IN 1890 1,418 sq.ft. | 1 UNIT limitations, maintain naighborhood 'character,' and limit redevelopment costs; 773 sq.ft. | 1 UNIT 2 BED | 1 BATH 722 sq.ft. | 1 UNIT Supported by local programs like 1,640 sq.ft. | 1 UNIT BUILT IN 1988 1,676 sq.ft. | 2 UNITS Los Angeles pre-approved 773 sq.ft. | 1 UNIT 2 BED | 1 BATH Standard Plan Program.* BUILT IN 1922 1,116 sq.ft. | 1 UNIT 1,728 sq.ft. | 2 UNITS 2 BED | 2 BATH **BUILT IN 1915** BUILT IN 1907 1,429 sq.ft. | 1 UNIT 3 BED | 1 BATH **BUILT IN 1926** ,119 sq.ft. | 1 UNIT 1,471 sq.ft. | 2 UNITS 4 UNITS 3,888 sq.ft. total 8 bed | 8 bath BUILT IN 1906 878 sq.ft. | 1 UNIT 2 BED | 1 BATH BUILT IN 1917 1,492 sq.ft. | 1 UNIT 3 BED | 2 BATH **BUILT IN 1921** 1,650 sq.ft. | 1 UNIT 1,800 sq.ft. tota 4 BED | 3 BATH BUILT IN 1921 920 sq.ft. | 1 UNIT ,240 sq.ft. | 1 UNIT 2 BED | 2 BATH **BUILT IN 1954** 2,380 sq.ft. | 4 UNIT **BUILT IN 1925 BUILT IN 1925** 2 BED | 2 BATH **BUILT IN 1920** 3,664 sq.ft. | 4 UN Backyard Homes

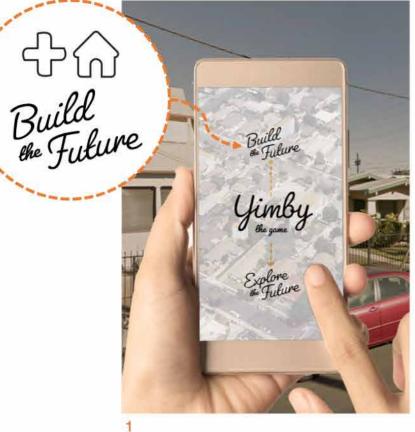








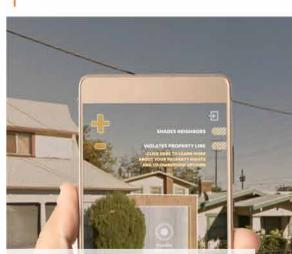














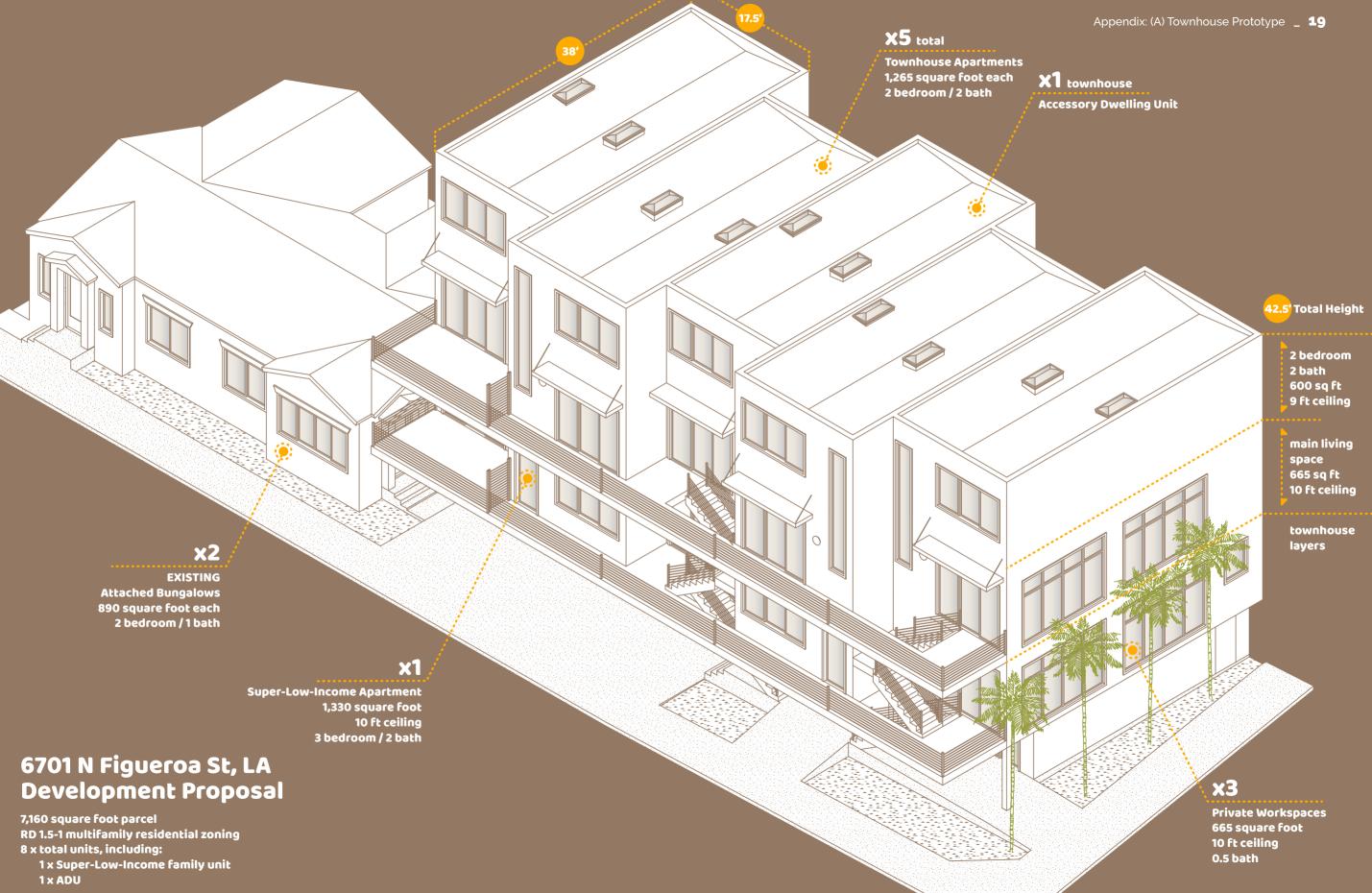




COMPANION AR INTERFACE & SOCIAL NETWORK

The ambition is to pair this game-like interface with an augmented reality capability, in which users can get a more immersive sense of their proposals and those of their neighbors. All are invited to comment and support these visions, and Community Points are awarded to popular projects that provide public and shared amenities.







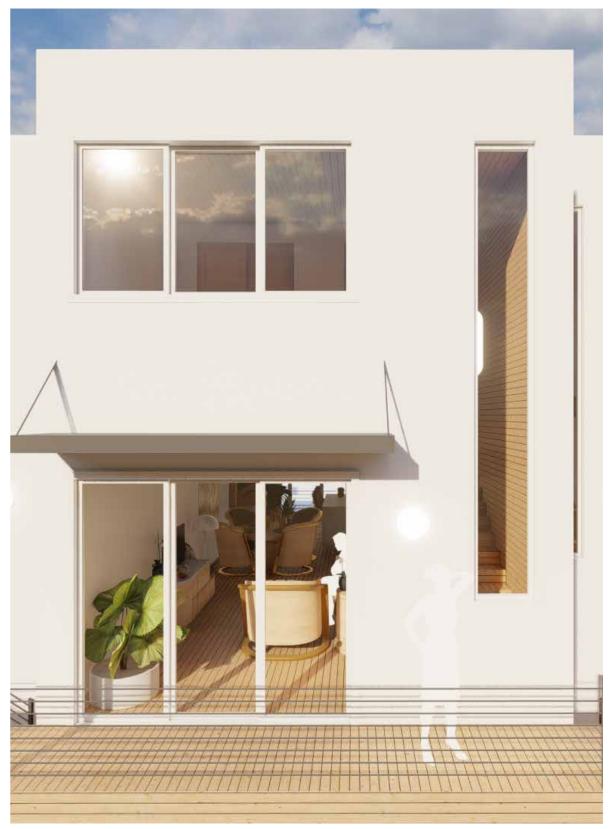




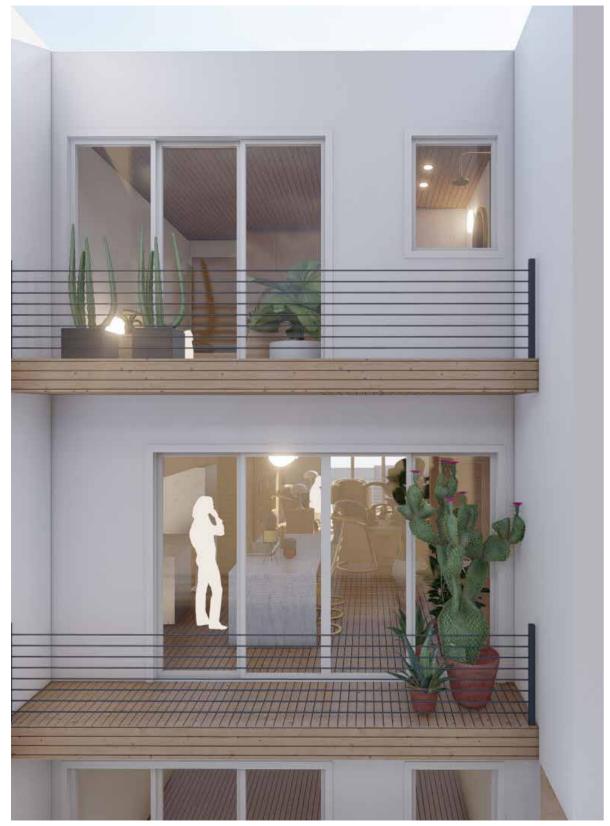




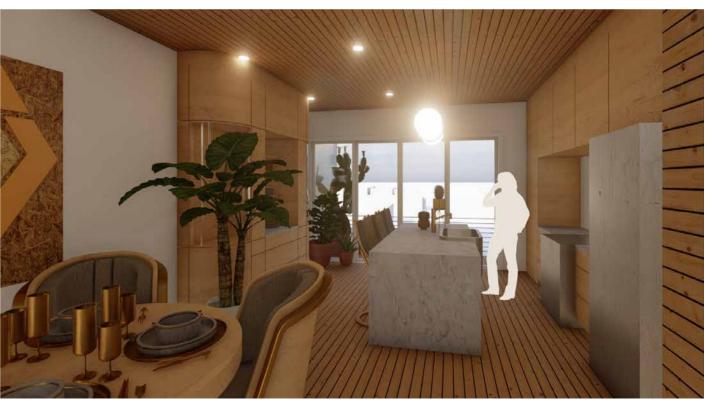




FRONT VIEW







BACK VIEW

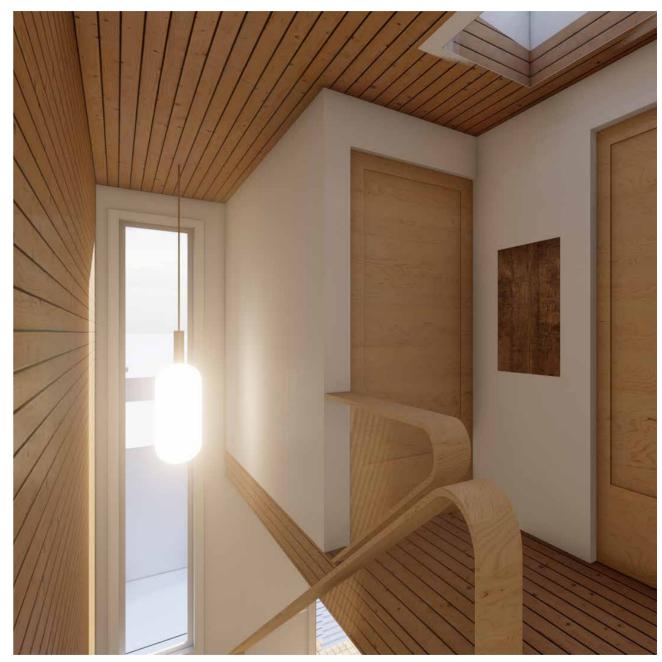
MAIN LIVING SPACE



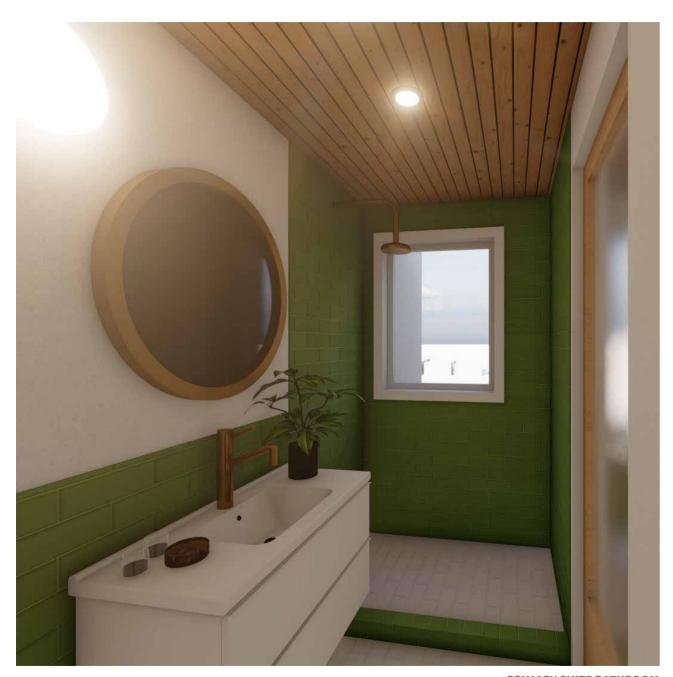
SHARED BATHROOM



SECONDARY BEDROOM



STAIRWELL



PRIMARY SUITE BATHROOM





PRIMARY BEDROOM



- (1) This is an over-simplification of the complexities behind the different 'parts of the problem.' This proposal addresses a *selection* of pertinent issues at the intersection of design and 'community-based' activism. To be clear, NIMBY-ism is most directly grounded in a history of racist housing policy and discrimination.
- (2) "San Francisco resident Sonja Trauss, 35, a former maths teacher, says the housing shortages facing many big western cities are not financial, technical or due to any kind of material shortfalls. 'The cause of our current shortage is 100% political,' wrote Trauss in 2015, in an internet post that helped her build an army of followers to speak at public hearings, send letters and drum up support for housing on the internet."
- (3) In the early 1960's, N. John Habrakan theorized An Alternative to Mass Housing, in which he criticized the mass housing projects built across postwar Europe and North America. I assert that his critiques have held into the current housing crisis. Habrakan claimed that this type of project "reduced the dwelling to a consumer article and the dweller to consumer," negating the value of the process by which the dweller makes their own dwelling. The process of housing, as he proposes, is the result of the interdependency established by the dweller and their dwelling, which is inherently stifled by any one-size-fits-all technocratic solution imposed by governmental or corporate fiat. He argued that one size could never fit all, as the act of dwelling is an inherently human process that is as idiosyncratic and complex as we are. Although we may be reduced into demographic categories for marketing and product design research, that reduction sets aside the nuances of complex human interrelations that actively shape the environment that we inhabit.
- (4) The industries dominating architecture and development have become distanced from consumers (and occupants of these spaces) as a result of the commodification of space-making and the growth of anti-professional biases, which are arguably grounded in some truth.
- 5) From the song
 "Little Boxes"
 by Bay Areanative Malvina
 Reynolds,
 copyright 1962
 Schroder Music
 Company:

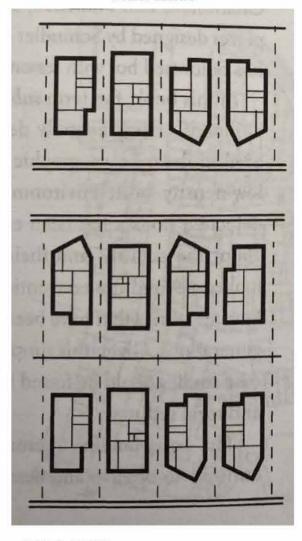
Little boxes on the hillside, Little boxes made of ticky tacky,1 Little boxes on the hillside, Little boxes all the same. There's a green one and a pink one And a blue one and a yellow one, And they're all made out of ticky tacky And they all look just the same.

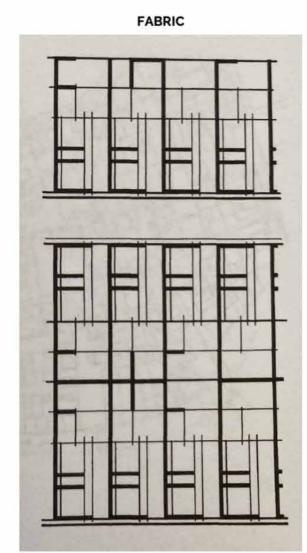
And the people in the houses
All went to the university,
Where they were put in boxes
And they came out all the same,
And there's doctors and lawyers,
And business executives,
And they're all made out of ticky tacky
And they all look just the same.

And they all play on the golf course And drink their martinis dry, And they all have pretty children And the children go to school, And the children go to summer camp And then to the university, Where they are put in boxes And they come out all the same.

And the boys go into business
And marry and raise a family
In boxes made of ticky tacky
And they all look just the same.
There's a green one and a pink one
And a blue one and a yellow one,
And they're all made out of ticky tacky
And they all look just the same.

VOLUMETRIC





RENEE CHOW

"Two paradigms of detached housing"

SELECTED RESEARCH PRECEDENT

Suburban Space: The Fabric of Dwelling _ Renee Chow

"With suburban design subsumed by marketing and with a culture of architects increasingly uninterested in the mundane everyday, the architectural profession either has been thwarted or has withdrawn from the suburban housing debate" (1)

"In the division of work into manageable design tasks, suburban design focuses on house, street, and lot subdivision. This promotes dwelling in insular, self-contained, bounded spaces with minimal connection, permeability, and openness." (13)

She identifies the strength of one of FLW early proposals for interconnected suburban development, "changing the form of dwelling, from dwellings characterized by spaces defined at their perimeter by four walls and a ceiling to dwellings characterized by spatial overlap and connection." (17)

In stating the intentions behind her book, Chow commits to avoiding "prescribing ways to design suburbs, since there is no universal method that is particular enough to encompass the diversity of people, places, and practices...it sees dwelling as both connected and secluded - so that public and private are seen not as oppositional but as reciprocal." (8)

She proposes "an alternative view of single-family detached housing that supports diverse choices of ways to live, that provides desired private outdoor space but does not waste it, and that allows opportunities for individuals and households to build their own sense of community, one that can change over time." (9)

Chow, R. Y. (2002). Suburban space: The fabric of dwelling. Berkeley: University of California Press.

Appendix: (D) Selected Vernacular Precedents _ 28

SELECTED VERNACULAR PRECEDENT: Bungalow Courts













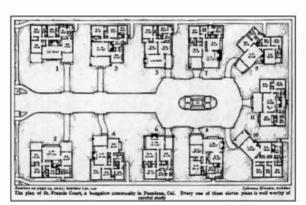




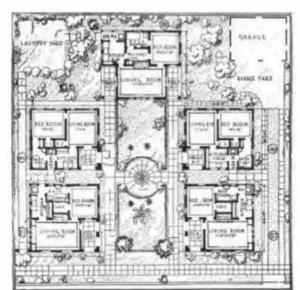








St. Francis Court site plan by architect Sylvanus Marston, 1908 (Department of Geography, UCSB)



Detailed bungalow court plan, 1915 (Ideal Homes in Garden Communities, 76)

SELECTED VERNACULAR PRECEDENT: Courtyard Apartments



Spanish Colonial Revival Corunna and Barcelona Apartments, 1932, 4615-4627 Los Feliz Blvd., (SurveyLA)







Aerial Diagram of U-Shaped, Double-L, and O-Shaped Courtyard Apartment Plans. (City of Los Angeles Office of Historic Resources)



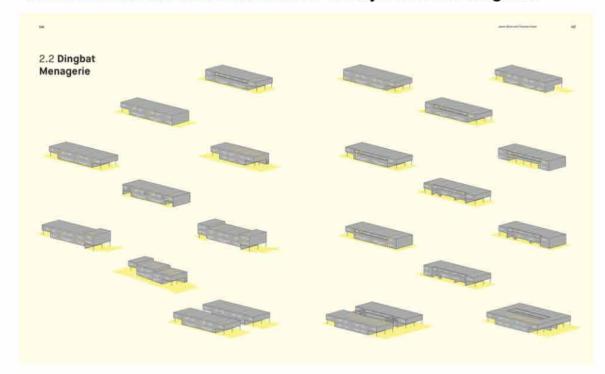
Spanish Colonial Revival Casa Laguna, 1928, 5200 Franklin Avenue, Los Feliz, City Historic-Cultural Monument No. 832 (www.casalagunaapts.com)



Spanish Colonial Revival Courtyard Apartment at 2135 W Fair Park Avenue, Eagle Rock, 1939 (SurveyLA)

Los Angeles Citywide Historic Context Statement: Residential Development and Suburbanization/Multi-Family Residential Development, 1895-1970. City of Los Angeles Department of City Planning, Office of Historic Resources DECEMBER 2018

SELECTED VERNACULAR PRECEDENT: Courtyard Double Dingbats































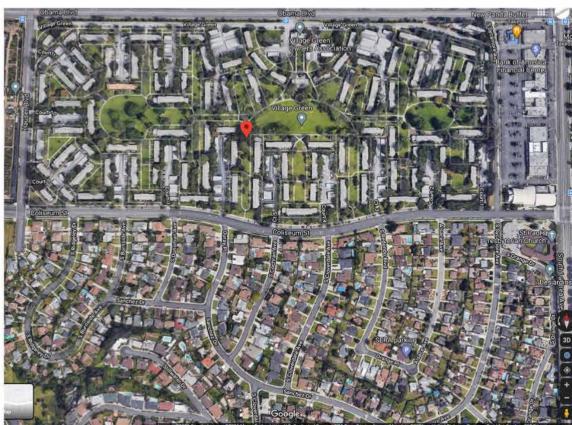


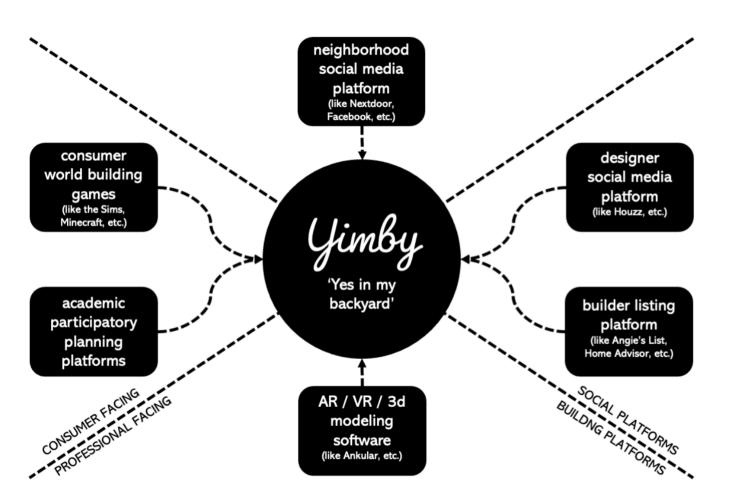


Grant, T., & Stein, J. G. (2016). Dingbat 2.0: the iconic Los Angeles apartment as projection of a metropolis. DoppelHouse Press.

SELECTED VERNACULAR PRECEDENT: Culver City Village Green Apartments







INDUSTRY BACKGROUND & COMPETITIVE ANALYSIS

Yimby proposes to bridge across industrial segments to connect the public directly to stakeholders across the the building industry, in an effort to lower barriers to entry, both practical and political.

Although many professional design software are developed out of innovations pioneered (and payed for) by the video game industry, there are few, if any, examples of public-facing platforms that use the creative possibilities of video games in real world applications at the architectural scale.

In response to the emergence of augmented and virtual reality, software is advancing rapidly for the design industry. Applications that invite novice participation, however, are largely limited to the gaming industry or academic work, both of which do not address our actual built environment; they invite users to build within imaginary environments, removed from the constraints and possibilities of real life.

Pioneering projects from consumer goods companies have enabled users to arrange furnishings in their own homes, and clothing companies invite users to try on their clothing virtually. Designers advertise online (like on Houzz.com) while neighbors communicate amongst themselves (and advertisers) on the likes of Nextdoor.com. But seldom are all these threads gathered to re-envision the design and delivery of architectural services.

Do Not Disturb Occupants _ Marc Maxey and Ellen Donnelly

"Do Not Disturb Occupants proposes an alternative approach to land ownership through the manipulation of property ownership, policy loopholes, tax dodges, political coups, and collective development strategies, mobilizing the agency of architectural research as the basis for housing advocacy.

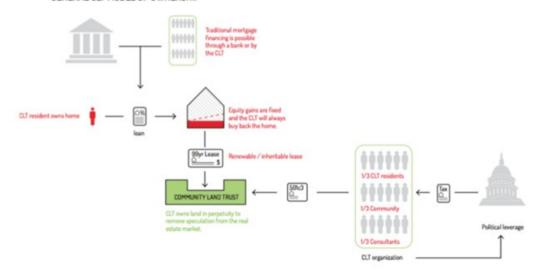
Los Angeles, a region with one of the highest-value real estate markets in the country, will serve as a case study and be the focus of this paper. Many Los Angeles municipalities and their neighborhoods have historically high ratios of rental property to owner-occupied houses. The financial protocols of the past century, specifically the 30-year mortgage, enabled Los Angeles's sprawl through widespread homeownership. This financial instrument is responsible for many of the objects and materials of our built environment as mortgage underwriters adhered to Federal Housing Administration standards and specifications without considering lifecycle or environmental impact beyond the term of the loan. By proposing alternative methodologies for financing and owning architecture, this project re-imagines single neighborhoods, block by block, as repeatable micro-cities that redefine the role of citizenship, community, domesticity, and the economics of housing through material and performance in urban space.

The financial ecology of the neighborhood is transformed using a Community Land Trust (CLT) hybridized with a low-profit limited liability company (L3c) to combine lots, assemble land, erase property lines, and operate outside of the traditional real estate market. Decoupling ownership of buildings from land creates permanent affordability by removing real estate from the speculative market. The previous ideology of homeownership—a burden only justified by rising real estate prices—is replaced with a sustainable approach to building wealth through a community-led, design-driven lifestyle where best-use rather than highest-use governs development.





GENERAL CLT MODEL OF OWNERSHIP



Using this alternative model of residential development, streets are reconsidered as shared community assets and their use redefined. As cities become less reliant on the automobile through increased mass transit, cycling, car sharing, and driverless technologies, many residential streets function as mere parking lots. With municipal support from the city, the street grid can be reimagined as building sites encouraging incremental development at different scales to enhance the qualities of urban experience. Cities are sites of constant change and policy must be revisited and reconsidered as economic, cultural and social situations shift. Architectural development, now reinstated under the logic of sharing, defies formerly defensive structures of NIMBY-ism and builds consensus through risk and reward. Do Not Disturb Occupants offers a radical new chapter in the city's history where economic necessity meets the uncanny, and all the neighbors are on board."

https://brkt.org/issue/contents/all/491/do-not-disturb-occupants/46/bracket-on-sharing



SELECTED ARCHITECTURE PRECEDENT

Open Building Institute

"AT THE HEART OF THE PROJECT IS A LIBRARY OF BUILDING MODULES—walls, windows, doors, roof, utility and functional modules, etc.—that can be combined to create a variety of structures: studios, homes, multi-family houses, greenhouses, barns, workshops, schools, offices, etc.

Our approach focuses on state of the art and ecological housing. This means that the system pays special attention to water-catchment, passive heating and cooling, photovoltaics, thermal mass, insulation, off-grid sanitation, and hydronic heat.

Designs and build instructions are contributed by designers around the world and are reviewed by experienced builders. A shared pool of designs means that each one of us does not have to reinvent the wheel. A greater number of designers means faster development. And the larger the number of contributions, the greater the diversity of approaches and solutions we can choose from.

All modules and procedures are OPEN SOURCE—forever and with no exceptions. This means that everyone is free to use, modify and redistribute them. Our OSHWA-compatible license also ensures that you are free to profit from these designs—by using them, for example, in design and/or build contractor work.

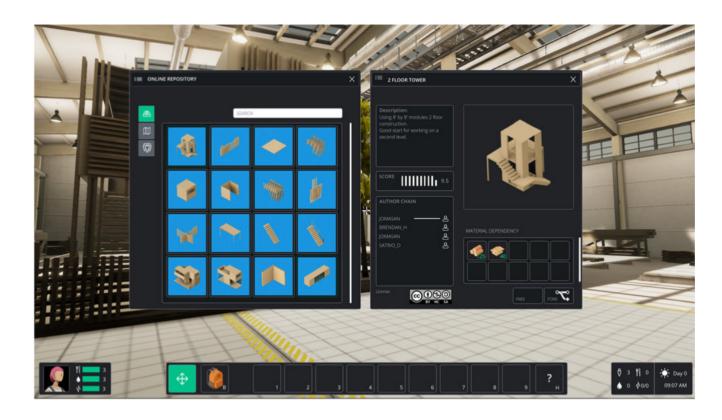
The library is made available online in standard CAD formats compatible with open source software applications such as FreeCAD and Blender. The library can be directly imported into Sweet Home 3D—an open source interior design application. Once imported into the application, modules can be simply dragged and dropped to create a building design.

The modules on the library are designed specifically to be easily and quickly built by non-professional builders. A 4×8 ft insulated wall module, for example, takes a team of two people 1 hour to build."

https://www.openbuildinginstitute.org







SELECTED APPLICATION PRECEDENTS

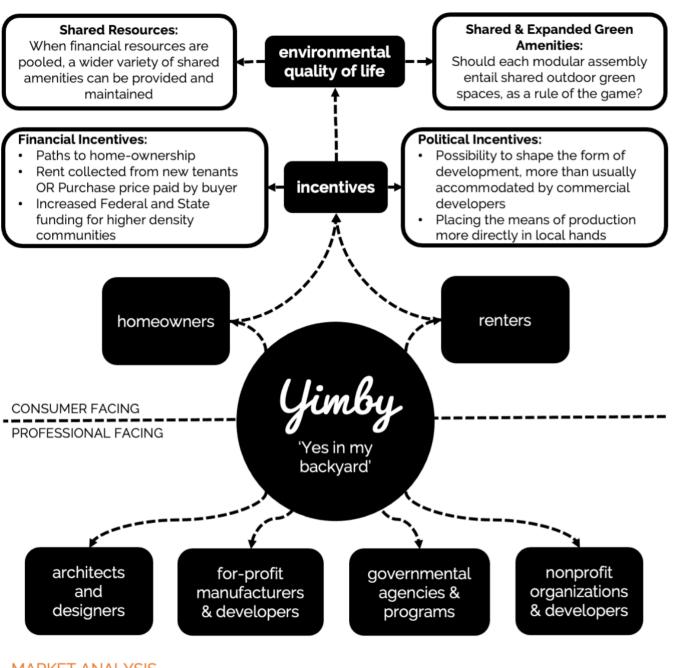
Plethora Project _ Jose Sanchez

https://www.plethora-project.com

"Block'hood is a city building simulator video game that focuses on ideas of ecology. interdependence and decay. The game invites players to envision a neighborhood, by building structures out of a catalog of 200+ blocks. The player is challenged to maintain an ecological balance as each block placed will consume and produce resources of different kinds. Blocks that are not provided of their required input, will slowly decay and deteriorate to a point of collapse.

Player creations will attract inhabitants, both humans and animals, that will populate your neighborhood. It is the hands of the player to provide a positive environment for inhabitants to prosper. The game is both an educational and research initiative exploring the connection between games and architecture, contributing to a form of digital infrastructure for the ecological and systems thinking that is necessary in contemporary urbanism."

"Common'hood is a game about building a new habitat for you and your community. After an economic crash, many members of your neighborhood have been left behind without a place to live. Occupy the old abandoned factory and decide how do you want to live. The core Common'hood experience is a survival simulation where you grow your economy and your community. New characters will attempt to join your crew, and it will be in your hands to provide shelter, water, and food in exchange for their skills. Each character that joins your crew will have their own unique story, helping you understand what led them to end up without a home. By working together, you will be able to provide shelter and facilities to improve the life of your community. This will involve farming and researching technologies to improve the way you generate food and resources. Common'hood has been inspired by the Maker Movement and all DIY initiatives that attempt to take re-claim production with a hands-on approach. In Common'hood you will be able to design furniture, Tiny Homes, Architecture, farming rigs and all sorts of structures to improve your way of living. Nothing will be standard, all can be customized to your needs."



MARKET ANALYSIS

In bridging adjacent industries, Yimby proposes to gather a wide swathe of stakeholders in the building process, both consumer and service-providers. These connections are core to Yimby's goal of building political will and democratizing the design process; it is through these connections that a new spatial collectivity can emerge.

By gathering these different audiences, Yimby also diversifies the possible sources of revenue, to support this online community. Design consumers will be invited to use the application for free, while professionals and service-providers will pay for ads and commissions on services delivered through the application.

