



**2021  
DESIGN IDEAS  
COLLECTIVE**



# Introduction

The Architectural Foundation of San Francisco welcomes you to participate in its 2021 Design Ideas Collective. This exciting opportunity challenges high school students to reflect critically about the world around us and enables participants to put their creativity, spatial and analytical thinking and design sensitivity to the test. Students are asked to conceptualize a design and communicate their solutions through a variety of drawings, models, and writing. Open to all high school students across the world, young thinkers are provided the chance to engage in what is a very unique learning project. Entries into the Collective will be reviewed as a judged competition.

For this challenge, you are provided design context from which to better understand current issues we're facing as a point of reference for your design intervention. This brief includes live links highlighted in [red](#) for you to glean more information.

How can we use architecture and design to analyze current issues we face and create solutions that better our collective standing moving forward?



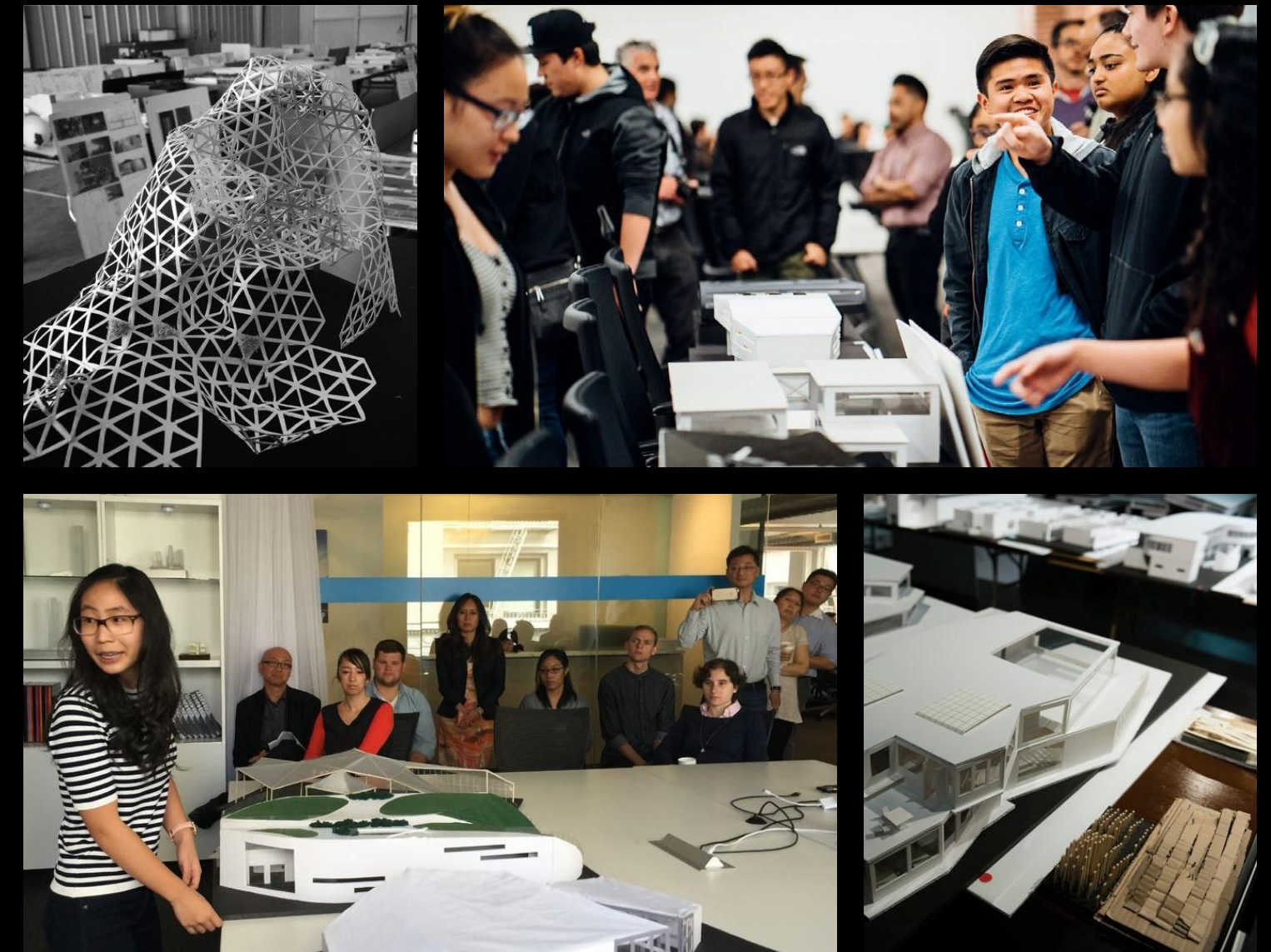


# AFSF History

The Architectural Foundation of San Francisco is an educational nonprofit organization that involves students in a mentored appreciation of the built environment. Students engage with professionals in the architecture, engineering, and construction industry while honing their design and critical thinking skills across multiple project typologies at various scales.

For 52 years, there has been an architectural design competition for Bay Area high school students and beyond. Established in 1969 by the American Institute of Architects San Francisco Chapter, sponsorship of the Annual High School Design Competition was transferred to AFSF in 2000.

Spurred by future-altering events we collectively experienced in 2020, AFSF launched its first-ever Design Ideas Collective challenging students to consider how design thinking could address current issues at hand and create a path forward for a better future. This is the 2nd Annual Design Ideas Collective.



# DESIGN CONTEXT



# California Housing Crisis

Over the past decade, California has constructed less than 100,000 new homes per year on average, which on a per capita basis (3 homes per 1,000 residents<sup>1</sup>) is significantly less than most other states. In a 2020 PPIC statewide survey, California voters listed homelessness and housing affordability atop their priority list.<sup>2</sup> While campaigning for State Governor and after taking office 2019, Gavin Newsom set a goal of adding 3.5 million housing units to the states inventory by 2025 – a rate of 500,000 new homes per year. The state's housing crisis can be broken down into three distinct buckets:

- Homelessness

On any given night, over 150,000 Californians experience homelessness due to skyrocketing rents, declining incomes, and public funding cuts. A disproportionate percentage of the unhoused affects Black and Indigenous people.<sup>3</sup>

- Poverty

7.1 million Californians (1 in 6 residents) live in poverty. 56% of this demographic spend more than half of their paycheck on housing costs. Skewing Black and brown, these are the renters who face intense displacement and gentrification pressures, live in overcrowded and unsafe housing conditions, and have fled urban cores for cheaper exurbs over the past two decades.<sup>4</sup>

- Affordability

Affecting a younger generation of middle-class to higher-income earning Californians, the average California home costs 7.37 times the national median income for 25 to 34-year-olds. In 1970, it was 3 times.<sup>5</sup>

<sup>1</sup> [Looking at Homebuilding Across the States with Totals Vs. Per Capita Rates](#)

<sup>2</sup> [PPIC Statewide Survey: Californians and Their Government](#)

<sup>3</sup> [Facing History, Uprooting Inequality: A Path to Housing Justice in California](#)

<sup>4</sup> [Commentary: Five things I've learned covering California's housing crisis that you should know](#)

<sup>5</sup> [What Ever Happened to the California Dream?](#)



Photo credit: Illustration by Anne Wernikoff for Cal Matters.



Photo credit: Homeless 'war zone': Oakland officials under fire to solve crisis



# Wildfire Season

The 8 largest California wildfires have all occurred in the last 4 years.<sup>1</sup> A combination of 100 years of fire suppression plus the effects from climate change: drought and record high temperatures have exacerbated already existing problems to the point where our new normal throughout California and the western United States now includes an annual wildfire season.

In a Mediterranean climate designed to burn, academics believe that between 4.4 million and 11.8 million acres burned each year in prehistoric California. Between 1982 and 1998, California's agency land managers burned, on average, about 30,000 acres a year. Between 1999 and 2017, that number dropped to an annual 13,000 acres. In February 2020, Nature Sustainability published this terrifying conclusion: California would need to burn 20 million acres – an area about the size of Maine – to restabilize in terms of fire.<sup>2</sup>

Fall fire weather days – days with high temperatures, low humidity and high wind speeds – will double in parts of the state by the end of the century and will increase by 40% by 2065 due to climate change. The biggest increases in the number of these fall fire weather days will come along the coast and in the Sierra Nevada, places such as Yosemite National Park and in the Los Angeles-Orange County megalopolis. Researchers warn that by mid-century, parts of Northern California could see as many as 14 fire weather days each fall in the high emissions scenario, a worst case for climate change in which we keep emitting greenhouse gases at high levels.<sup>3</sup> A change in weather patterns has already resulted in longer growing fire seasons with the potential for larger and more frequent megafires on the horizon.

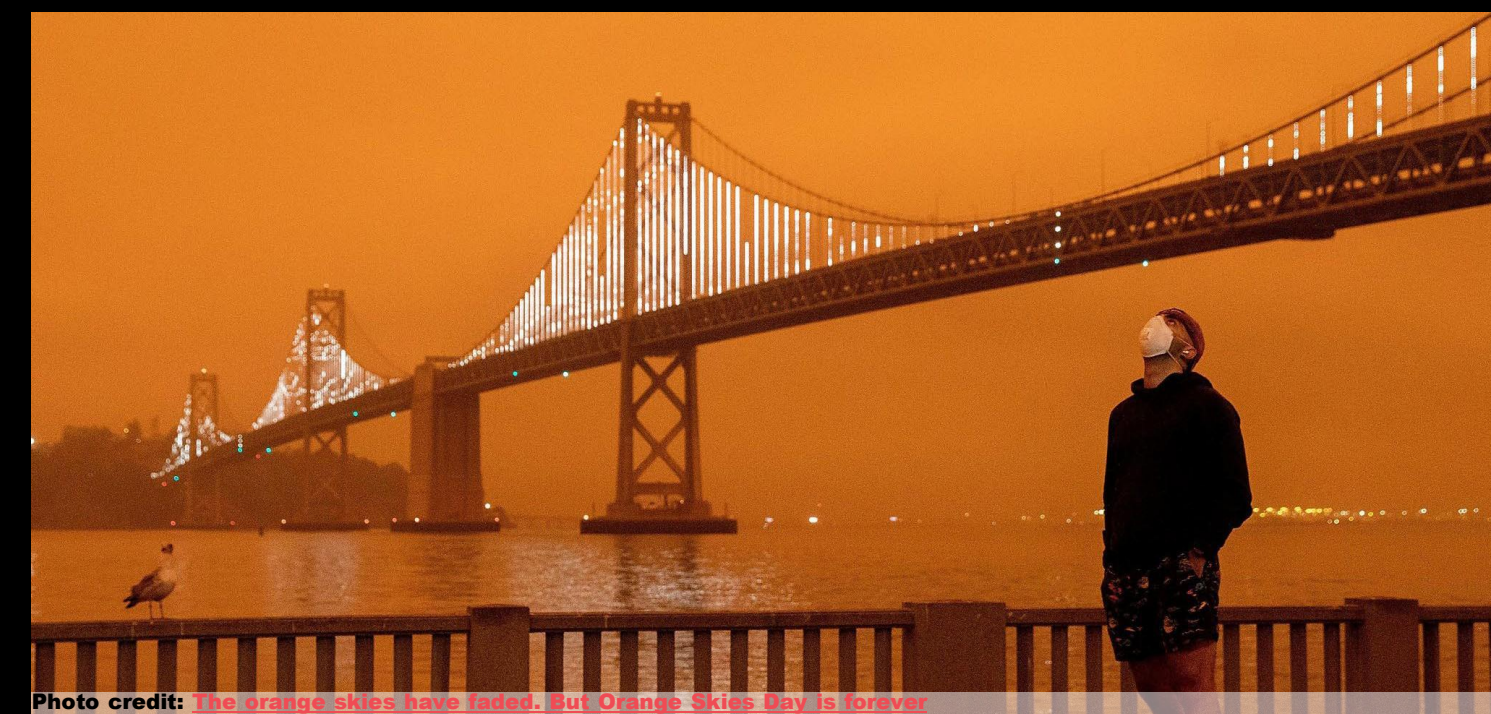


Photo credit: [The orange skies have faded. But Orange Skies Day is forever](#)

<sup>1</sup> [Cal Fire – Top 20 Largest California Wildfires](#)

<sup>2</sup> [They Know How to Prevent Megafires. Why Won't Anybody Listen?](#)

<sup>3</sup> [Climate change is increasing the likelihood of extreme autumn wildfire conditions across California](#)



# Housing & Wildfires

Given California's housing crisis – the lack of overall supply and the high cost of living – coupled with local planning throughout the state prioritizing single-family zoning, more residents are being pushed further out into remote communities in what's often referred to as the wildland urban interface (WUI) where humans intersect with nature. As wildfires become increasingly prevalent, constructing homes in the WUI creates a series of challenges to overcome. Houses are essentially big piles of fuel. Houses in the WUI also mean people in the WUI, and people ignite over 95% of California wildfires. Houses further increase risk to lives and structures by making it difficult for land managers to do prescribed burns. Once wildfires grow large, houses increase risks for firefighters. Houses in the WUI cost a fortune to defend.<sup>1</sup>

Currently, 11 million Californians (over one quarter of all residents) live in the WUI so it is not reasonable to assume a majority of these people can/should be displaced. With that in mind, preventative fire risk measures are implemented in these areas, which include using fire-resistant building materials, constructing wide access roads, implementing fire breaks, and identifying emergency water sources. However, these measures alone won't deter the full range of catastrophic effects from wildfires and can't be considered long-term solutions for future community creation. "Municipal planning that inhibits sprawl in 'near-nature' areas where wildlife and civilization intersect is also crucial," says Anthony Brower, director of sustainable design and senior design associate in Gensler's Los Angeles office. How do we build—and rebuild—houses, neighborhoods, and cities for resiliency?<sup>2</sup>

<sup>1</sup> [California Will Keep Burning. But Housing Policy Is Making It Worse.](#)

<sup>2</sup> [How Designers Are Trying to Solve for Wildfire Resiliency](#)



Photo credit: [California Will Keep Burning. But Housing Policy Is Making It Worse.](#)



Photo credit: [How Designers Are Trying to Solve for Wildfire Resiliency](#)



# Single-Family Zoning

A study conducted by UC Berkeley's Othering & Belonging Institute found that single-family zoning, which permits one dwelling unit per land parcel, is the main form of home building in the Bay Area (83%). Only 17% of residential land is therefore left to construct apartment buildings, condos, duplexes, and triplexes<sup>1</sup>. A New York Times analysis found that about 75% of the residential land in major cities across the country is also devoted exclusively to single-family homes.<sup>2</sup>

Single-family zoning origins date back to 1916 in Berkeley, CA where the planning rule was first implemented in the city's Elmwood neighborhood. Duncan McDuffie, a prominent real estate developer in Berkeley who built the Claremont Court and Uplands neighborhoods in the early 1900s, was a big champion of single-family zoning. His developments all came with racial covenants, which barred homeowners from selling or renting their homes to people of color. McDuffie also wanted to make sure that neighborhoods next to Claremont, including Elmwood, wouldn't allow families of color to move in, because he thought it would lower property values. When a Black-owned dance hall sought to move into the neighborhood next to McDuffie's subdivision, the single-family zoning designation prevented the move and exclusionary policy began to take root.<sup>3</sup>

According to the Othering & Belonging study, with an increase in the amount of single-family zoning throughout a city, there's also an increase the percentage of white residents. The US Census Bureau estimates American homeowners' median net worth is 80 times larger than that of renters<sup>4</sup>, which is a contributing factor as it relates to the massive wealth gap disparity between white and black families (\$188,200 to \$24,100 respectively) that we see today.

<sup>1</sup> [Racial Segregation in the San Francisco Bay Area, Part 5](#)

<sup>2</sup> [Cities Across America Question Single-Family Zoning](#)

<sup>3</sup> [The Racist History of Single-Family Home Zoning](#)

<sup>4</sup> [Many U.S. Households Do Not Have Biggest Contributors to Wealth: Home Equity and Retirement Accounts](#)



Photo credit: [The Racist History of Single-Family Home Zoning](#)

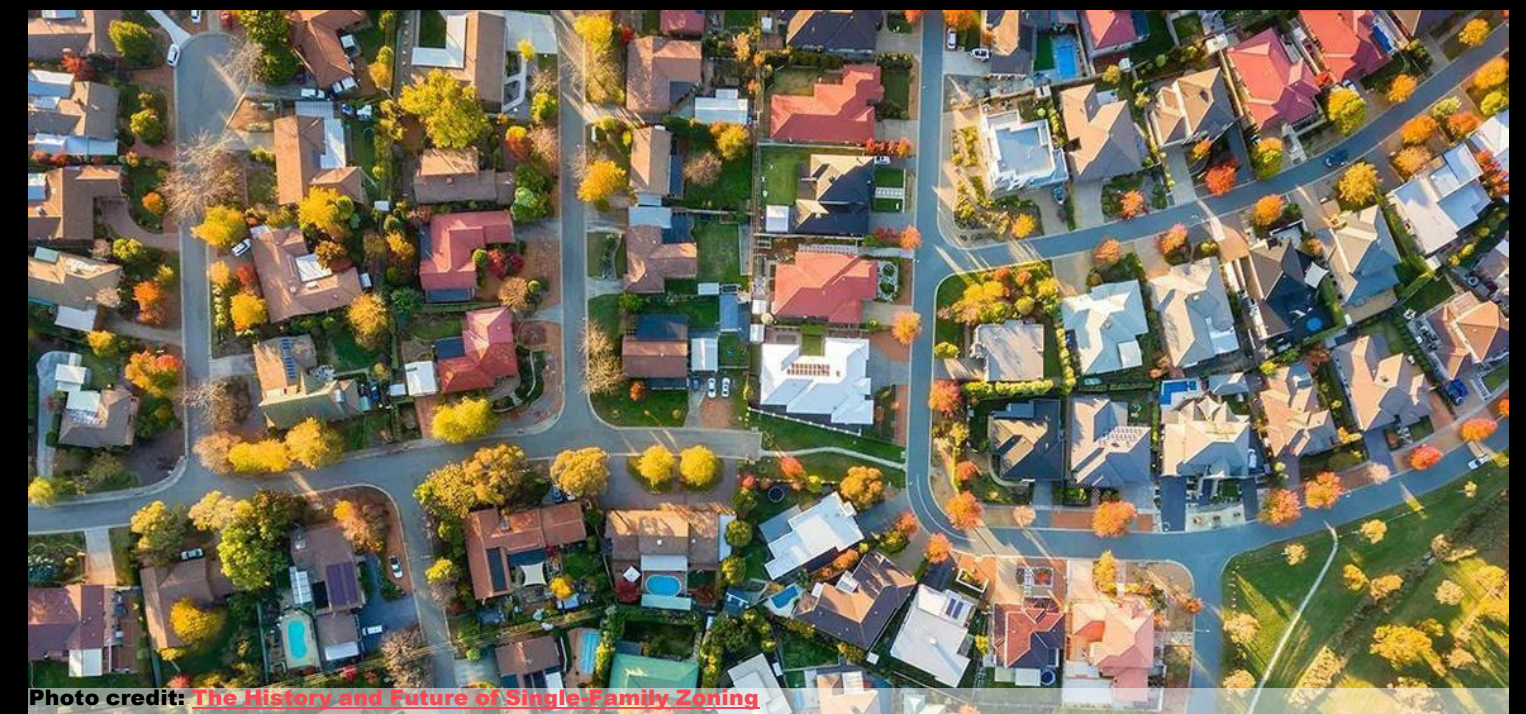


Photo credit: [The History and Future of Single Family Zoning](#)



# SB 9 & SB 10

As of August 30, 2021, two California State Senate bills aimed at increasing housing upzone potential throughout California – SB 9 and SB 10 – have passed through the legislature and are pending a signature from the Governor.

SB 9 would allow homeowners in most areas around the state to divide their property into two lots, thereby increasing opportunities for homeownership in their neighborhood. It would also allow two homes to be built on each of those lots, with the effect of legalizing fourplexes in (single-family zoned) areas that previously only allowed one home. This would not eliminate single-family homes but would make it legal to increase the amount of dwelling units per site up to 4 total units.<sup>1</sup>

SB 10 would create a pathway for streamlined upzoning in transit-rich areas or urban infill sites, allowing for up to ten homes per parcel. The bill maintains local control, as a local legislative body must pass a resolution to adopt the plan before it is implemented.<sup>2</sup>

Both proposed bills aim to create lower-cost housing developments for low- and moderate-income families while providing local government with the flexibility to increase density in neighborhoods and lessen the impact of urban sprawl.

<sup>1</sup> [California Legislative Information – SB 9](#)  
<sup>2</sup> [California Legislative Information – SB 10](#)





# Future Cities

Throughout the world, more people already live in urban centers than rural areas. The United Nations projects 68% of the world's population will inhabit urban centers by 2050, an increase of 2.5 billion people. As of 2018, North America was the most urbanized region with 82% of its population living in urban areas. Megacities – more than 10 million inhabitants – currently total 28 and are projected to number 43 by 2030.<sup>1</sup> In dealing with an increased influx of people, cities will need to address density with an emphasis of providing inhabitants easy access to a localized array of amenities and services.

The Housing and Climate Change policy statement listed on the California Department of House and Community Development website states that the further people live from their jobs, schools, and services, the longer they spend commuting in cars, which creates more greenhouse gas emissions. When people have affordable options for housing close to where they work, they can spend less time commuting and reduce their greenhouse gas emissions. Another effective way to reduce greenhouse gas emissions is to build affordable places to live close to public transit options.<sup>2</sup>

With an emphasis on designing for both people and the environment in mind, future cities must also be capable of sustaining transformation and addressing larger issues, including public health, climate change, and energy generation.<sup>3</sup> Advances in transportation and energy generation along with resilient strategies and integrated green space implementation are key to a sustainable path forward.

<sup>1</sup> [68% of the world population projected to live in urban areas by 2050, says UN](#)  
<sup>2</sup> [Housing and Climate Change – California Department of Housing and Community Development](#)  
<sup>3</sup> [The Design of Cities in the Year 2039](#)



Photo credit: [Partisans to turn Canadian town into "city of the future" The Orbit](#)



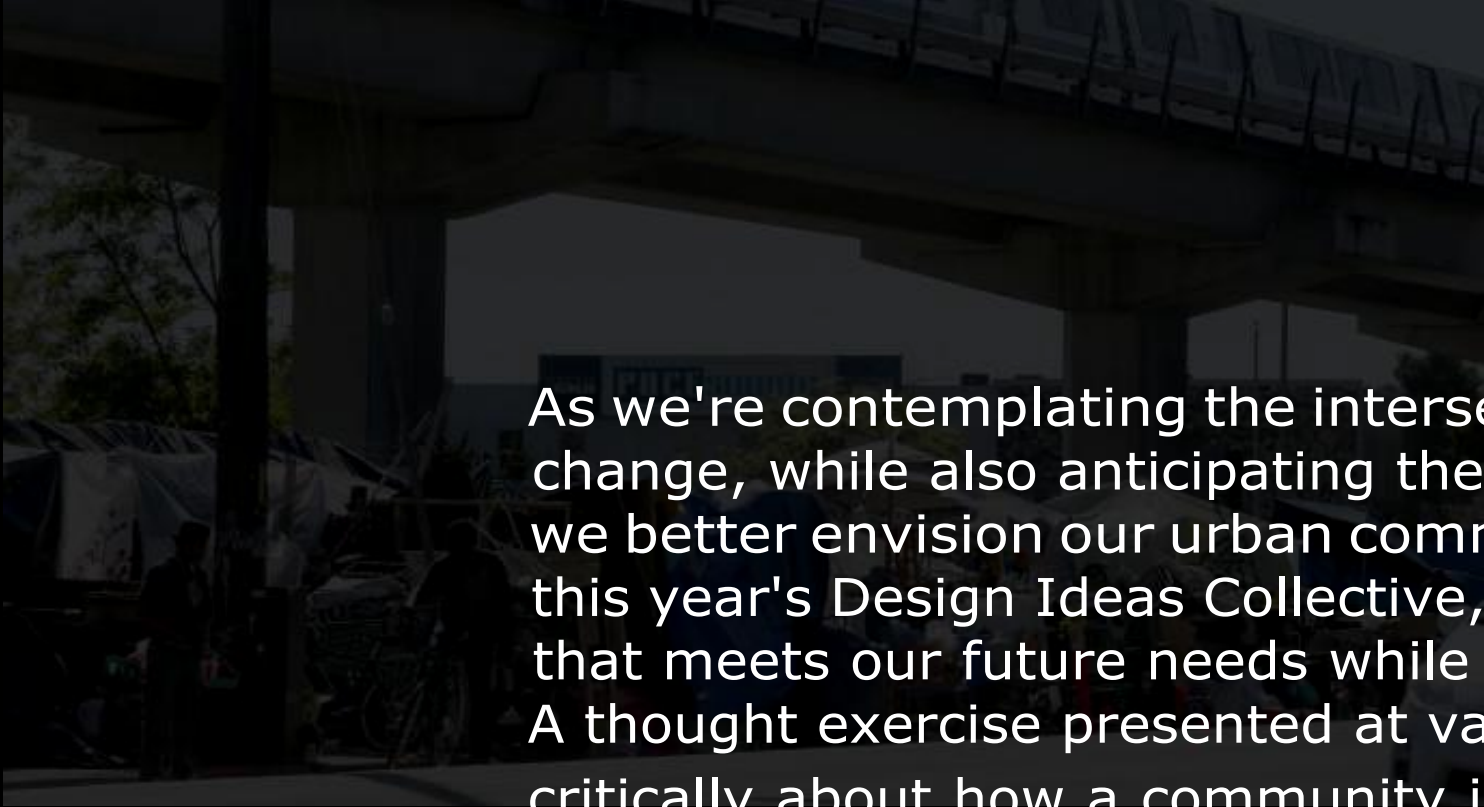
Photo credit: [Sidewalk Labs reveals masterplan for Sidewalk Toronto neighbourhood](#)



# DESIGN CHALLENGE



# Design Challenge



As we're contemplating the intersection of California's housing crisis and climate change, while also anticipating the growth need of increasingly dense cities, how can we better envision our urban communities for a sustainable future? For participation in this year's Design Ideas Collective, you are challenged to design a housing community that meets our future needs while also creating an inviting and vibrant public realm. A thought exercise presented at various scales to consider, you are asked to think critically about how a community is connected and what factors contribute to a livable environment.



To start, you will be given typical parcels to work with that combine to form a single city block. You have 4 total blocks to consider in your design. Your community should consider housing density and how these homes are laid out while also integrating areas for transportation, energy-generation, green space and street safety strategies. Be sure to tell a story and narrate your vision – your design should have a big idea attached to it as the basis for your concept. There are no limits to your creativity.

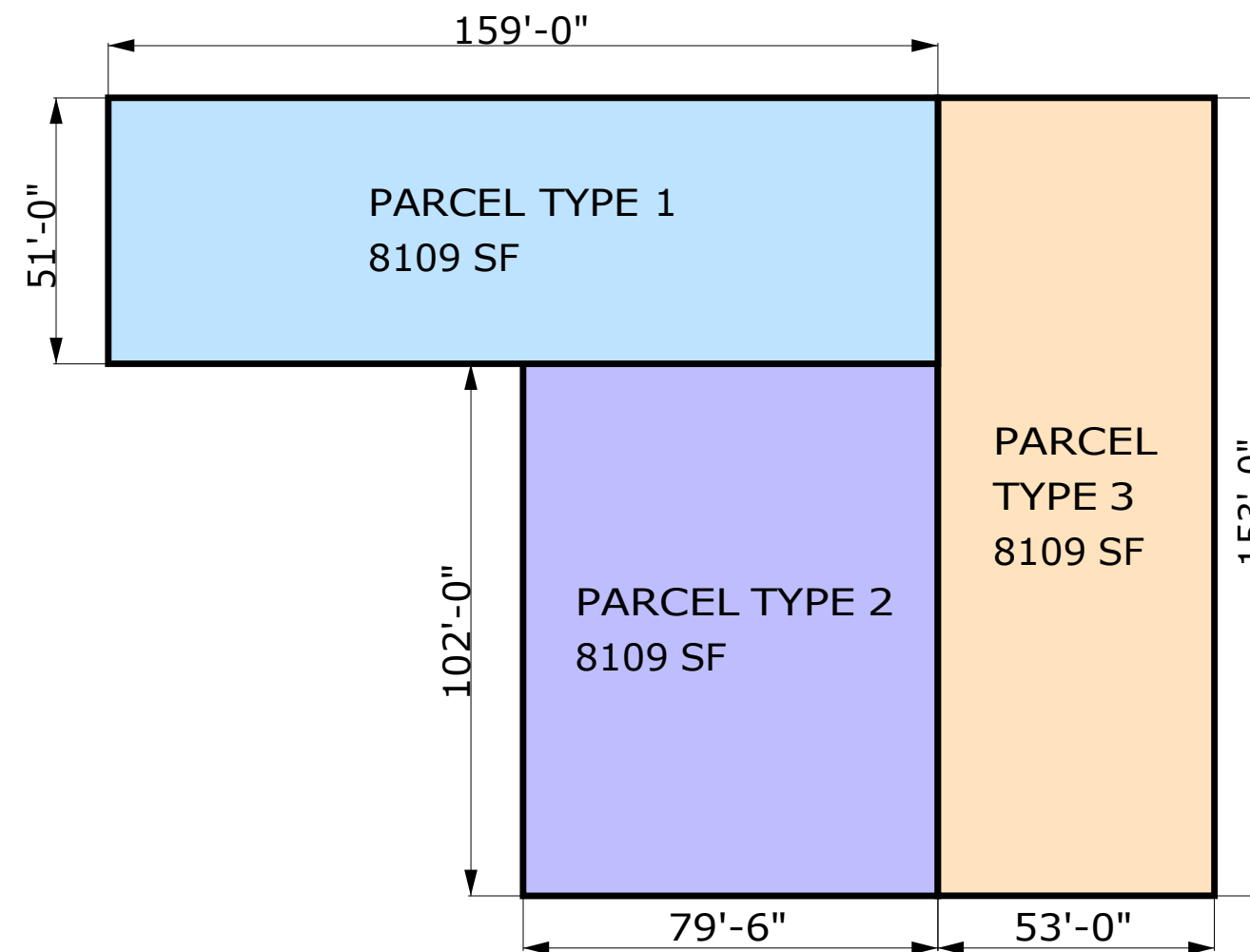


# Design Challenge

## Parcel Types

The average residential parcel size in the United States is 12,632 SF. In California, the average is 7,200 SF.<sup>1</sup> For this exercise, you are provided with three parcel types that when combined, create a typical urban block. While these parcels vary in length and width, they're all equally 8,109 SF.

SB 478 proposes to establish a 1.5 floor area ratio (FAR) to ensure multifamily housing can be built in areas that are zoned for it.<sup>2</sup> In this case, a 8,109 SF parcel would allow for 12,163 SF of total built area. Divided across up to 4 dwelling units per parcel equals 3,040 SF per dwelling unit on average.



<sup>1</sup> [The United States, Ranked by Yard Size](#)

<sup>2</sup> [Cal Yimby SB 478](#)

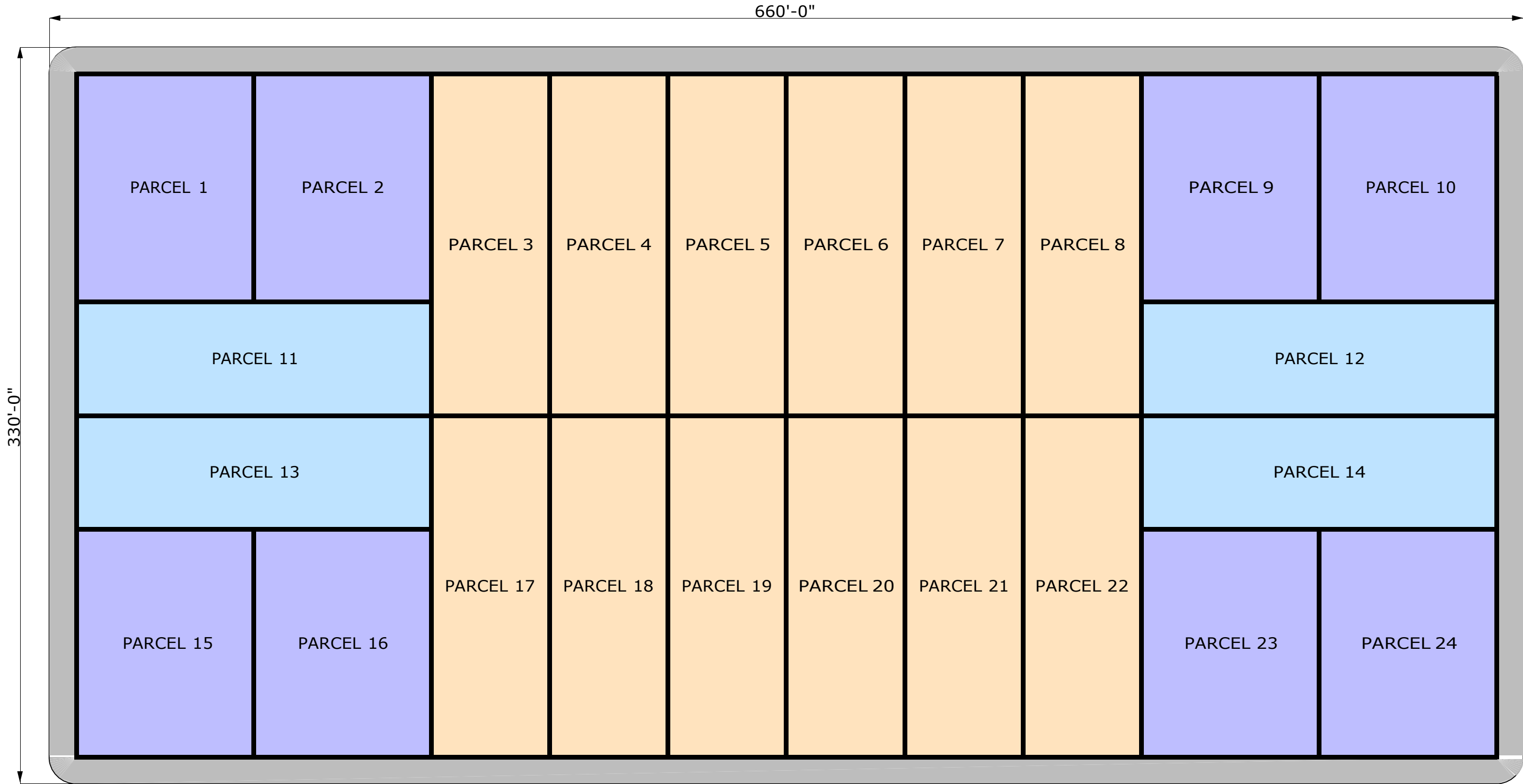




# Design Challenge

## Typical Block

Here you can see how the three parcel types you're provided with combine to form a typical block. Overall, this typical block measures 330' x 660' and matches the dimensions of typical city blocks found in Chicago, IL. These three parcel types combine to total 24 parcels for this typical block. The surrounding sidewalk measures 12' wide.

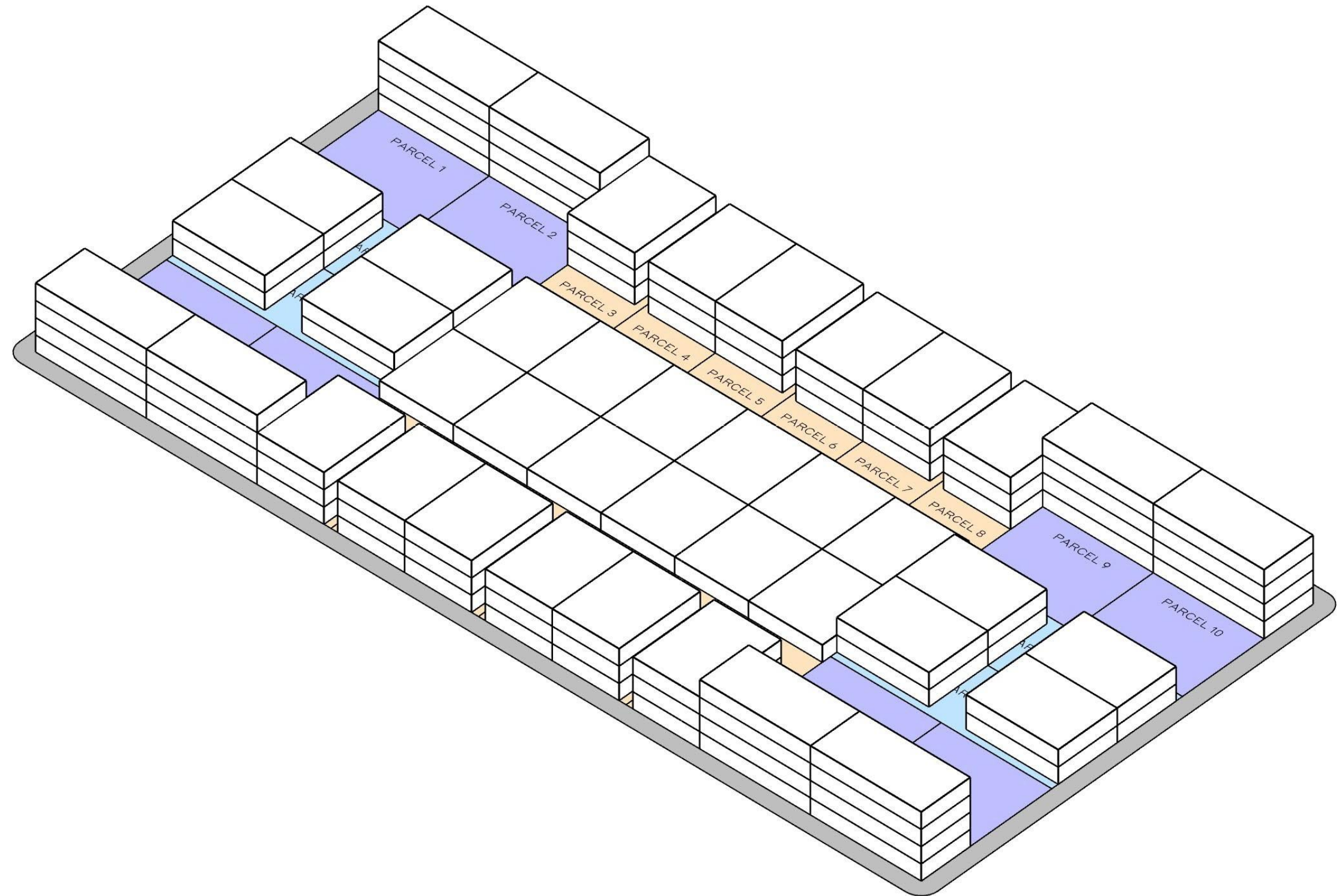




# Design Challenge

## Consider

Knowing how the parcels come together to form the typical block, consider how you might arrange up to four dwelling units on each parcel dedicated to housing. Would you stack the units vertically all on top of each other? Create split lot footprints? Stack three units on top of each other and leave a separate Accessory Dwelling Unit (ADU) in the yard? You may even propose to lessen the density and mix and match multi-family unit parcels with single-family homes to diversify your residential options.





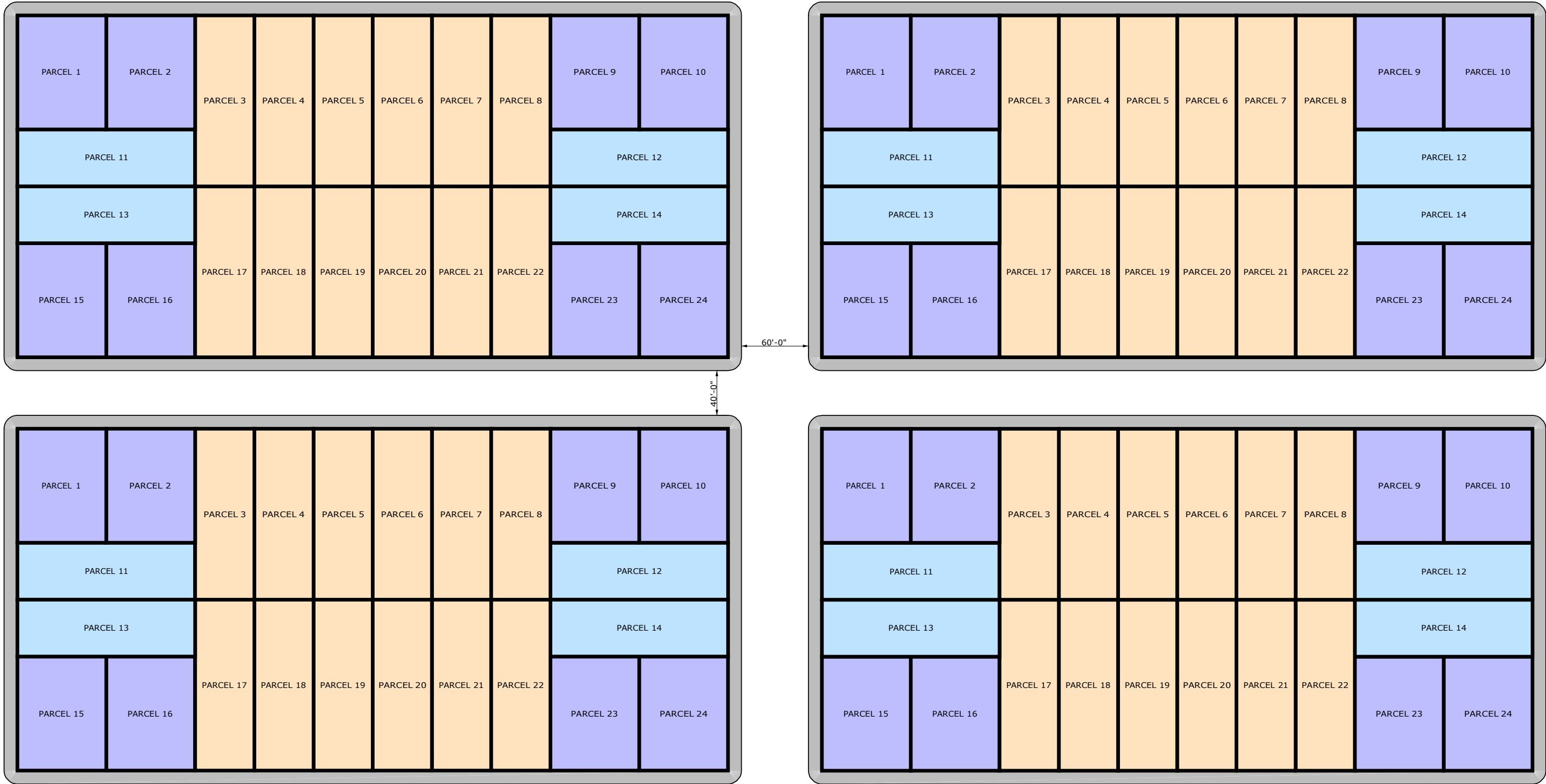
# Design Challenge

## Block Aggregate

Expanding further out in scale, here's the layout of the 4 typical blocks. The north/south street measures 60' wide while the east/west street measures 40' wide.

In total, you have 96 parcels to consider. You should not total less than 96 dwelling units in your design. Each parcel can contain up to 4 dwelling units per site, totaling a maximum of 384 units.

However, your goal is to design a connected and vibrant public realm among this housing community. A community that includes transportation nodes, possible areas for energy generation, green space, and safe street strategies.

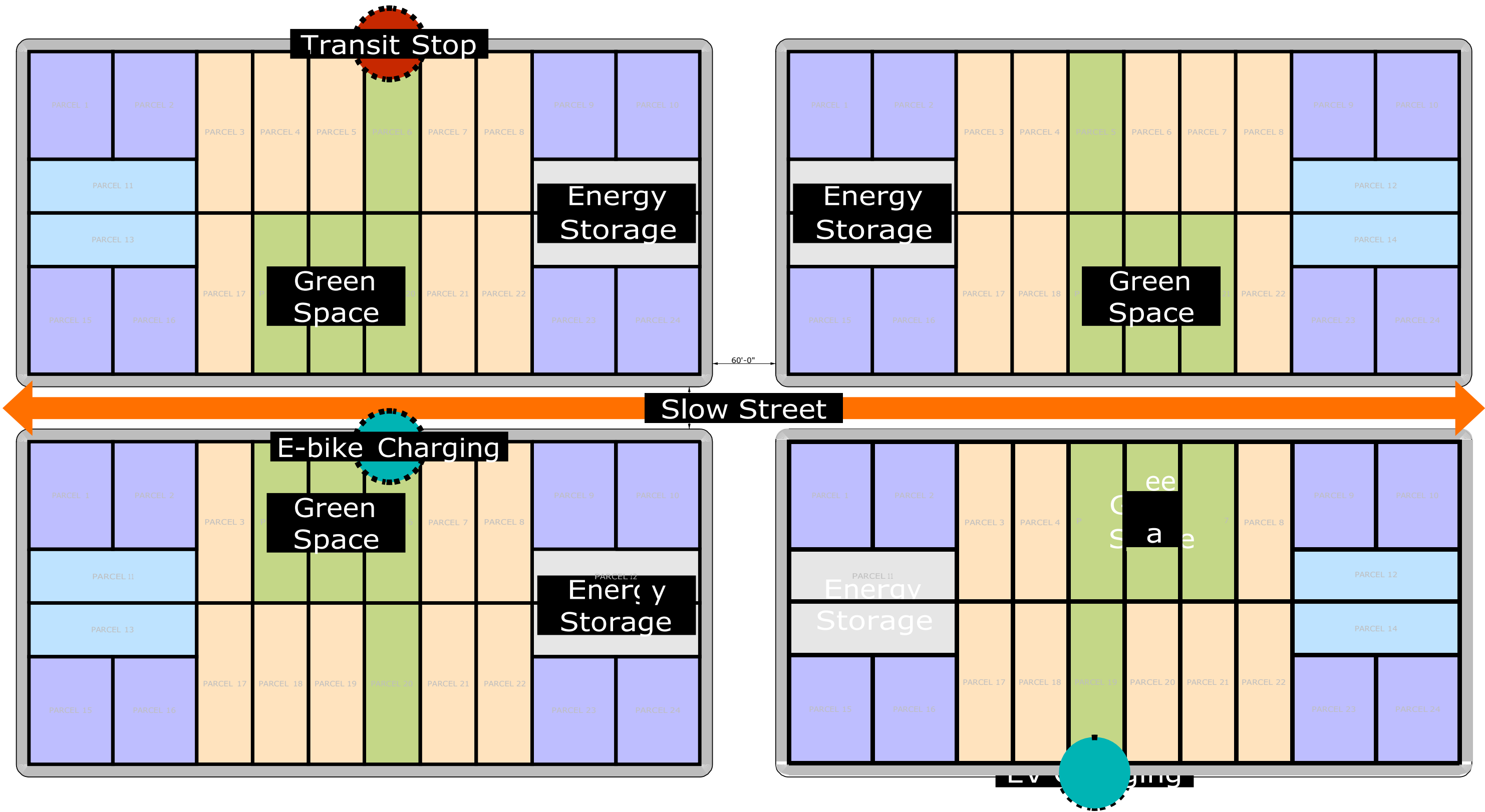




# Design Challenge

## Consider

You may allocate different uses for your parcels as you best see fit. This is an example of how you might conceive of area allocation for various program.





# Design Challenge

## Consider

### Transportation

Multimodal transportation options in a dense urban setting, with an emphasis on clean autonomous vehicles and micromobility – which refers to a range of small, lightweight vehicles such as bicycles, e-bikes, electric scooters, etc. – are key to unlocking safer and sustainable communities. An emphasis on public transportation through automation and higher frequencies will improve connectivity between local nodes and major hubs. Prioritizing alternate modes of transportation will help alleviate car congestion on roadways and create safer streets catered to pedestrians. Consider the best places in your community to locate public transportation stops, bike/scooter share stations and electric vehicle charging opportunities.



Photo credit: [Zoov's electric share bicycles lock together like shopping trolleys](#)



Photo credit: [Woods Bagot imagines our mobility future in Pump to Plug Symposium](#)



# Design Challenge

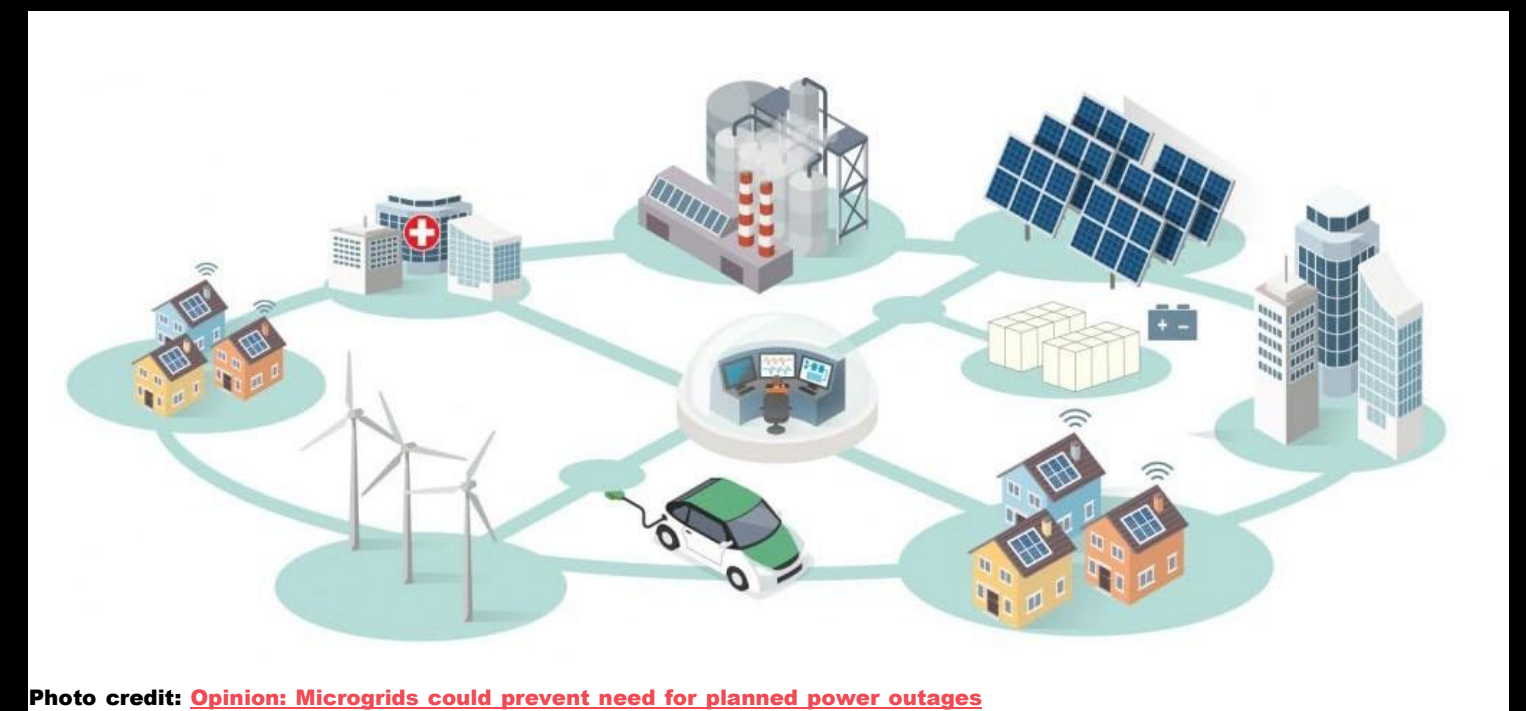
## Consider

### Energy

Because buildings are one of the biggest consumers of energy worldwide, they will become their own decentralized, renewably generated power plants. Using high-performance façades, photovoltaic panels, and geothermal and wind energy, buildings will generate their own energy, while smart technology and the smart grid will help them share it hyper-efficiently. But new ways of collecting power won't stop there. "Energy harvesting will be a part of every surface or surface material we use," says David Gianotten, managing partner-architect of OMA. "Sun and movement—wind, water, and humans—will be used to generate electricity that will be used to charge the whole city and the mobility within."<sup>1</sup> **Microgrids** – self-sufficient energy systems that serve a discrete geographic footprint – are increasingly being used in urban centers. Within microgrids are one or more kinds of distributed energy (solar panels, wind turbines, combined heat & power, generators) that produce its power. In addition, many newer microgrids contain energy storage, typically from batteries.<sup>2</sup> Consider how energy can be captured in your community, either via dedicated parcels and/or the homes themselves.

<sup>1</sup> [The Design of Cities in the Year 2039](#)

<sup>2</sup> [What is a Microgrid?](#)





# Design Challenge

## Consider

### Green Space

With increased density in an urban environment comes the need for moments of reprieve and recreation, a time to disengage from our digital realm interact with our natural world. In combating the effects of climate change, strategic green space will need to provide more than just moments of rest and relaxation by incorporating green roofs, wetlands, and bioswales (landscape elements designed to concentrate or remove debris and pollution out of surface runoff water).<sup>1</sup> Consider what percentage of your parcels across the 4-block community to dedicate to green space. Also consider what type of green space you would design – a small park, sidewalk parklets, an energy-harvesting green swath, street edge buffers to slow down traffic, etc.

<sup>1</sup> [The Design of Cities in the Year 2039](#)





# Design Challenge

## Consider

### Walkable Communities

When cities prioritize humans over cars, the ease of walking to nearby amenities – restaurants, entertainment, shopping, offices, and schools – becomes a key driver to sustaining thriving communities. Consider safety measures to implement along your street edges. How can you utilize landscape elements to create a buffer along streets? Can you program this space between the street, sidewalk and parcel boundary to create areas of rest and/or recreation? Throughout the pandemic, cities began to prioritize slow streets that gave residents safer stretches of roadway for recreation while also enabling pedestrians and cyclists to safely distance as an additional safety measure. San Francisco's Slow Streets initiative is now considering permanent implementation even as the city comes out of the pandemic. Would you consider implementing a slow street and if so, how would you program it? Spaces for art, communal gardens, exercise, etc. could all be viable options for introducing additional activity options to your community.





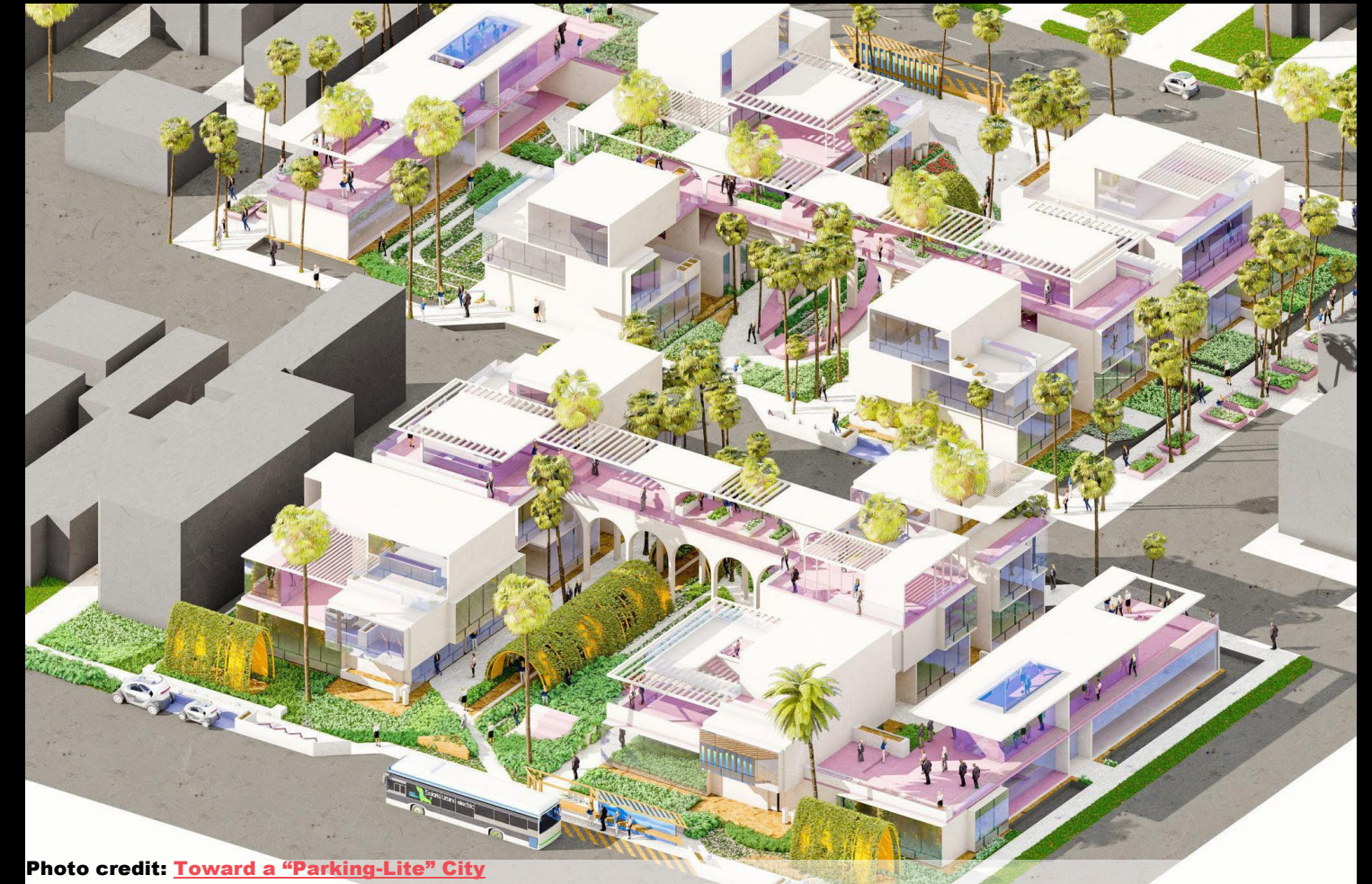
# Design Challenge

## Case Study

### Toward a "Parking-Lite" City<sup>1</sup>

Woods Bagot undertook a study to consider the future of Los Angeles – a city known above all others for its love affair with the private automobile – in the event that smarter, cleaner and more efficient transportation options rendered cars less desirable. Specifically tied to the number of surface parking lots that currently exist in Los Angeles, what if the need for future parking declines and we could reimagine the leftover space previously used to house parked cars to permanently house people instead? How would we then re-program the space for housing while also providing green space and nodes for micromobility? Woods Bagot looked at potential sites in Los Angeles' Downtown, Inglewood and East LA neighborhoods and designed housing typologies specific to each area.

<sup>1</sup> [Woods Bagot – Toward a "Parking-Lite" City](#)





# **PARTICIPATION GUIDELINES**



---

# Summary

## Program:

This is an architectural design ideas collective and competition sponsored by the Architectural Foundation of San Francisco.

## Design Challenge:

You are challenged to design a housing community that meets our future needs while also creating an inviting and vibrant public realm.

## Eligibility:

The program is distributed to all high school students throughout the greater San Francisco Bay Area but participation is both encouraged and welcomed from all high school-level students interested worldwide.

## Educational Objectives:

- Identify current issues in the community and brainstorm creative solutions.
- Increase your awareness of the relationships between space, human scale and function.
- Develop design skills and gain experience in communicating your planning and designing ideas through sketching, hand drawing, computer-aided design platforms, physical model making, and writing.

## Costs:

No entry fee and no preregistration is required.

## Awards:

This is a judged competition. Submissions will be reviewed by a select jury panel and monetary awards will be distributed in recognition accordingly.

## Schedule:

September 13, 2021		Distribution
November 19, 2021		Submission entries due
November 21, 2021		Virtual Awards Ceremony (participants will be notified of ceremony details prior to the event)



# Deliverables

As a participant in the 2021 Design Ideas Collective, you may choose to enter as an Individual or as a Group participant. As a Group Entry participant, you may work in teams ranging between 2-3 people. The final deliverable for entry into the collective is a Google Slides Presentation along with a brief video (no more than 2 minutes maximum) to better explain your thinking to the judges. Please use the AFSF template provided via the link below and make a copy to save out a new file:

[AFSF Google Slides Template](#)

Only label your slides with a project title. Do not list your name or school – you will fill this information out on the Google Entry Form when you submit. In this slide deck, you may present your design ideas by incorporating any of the following items to best describe your design solution:

- Drawings — sketches, diagrams, scaled drawings (hand drawn or computer-aided drawings) in plan, elevation, section, axon, and/or perspective. Scaled drawings must indicate a scale bar and north arrow for reference.
- Models — images of physical models and/or digital models. This can be a single final model, a series of studies, or both.
- Renderings and collages — hand drawn illustrations and/or digitally rendered models.
- Collages and Image References — digital and/or scanned or photographed collages, image references to convey design intent.
- Writing — written description of your work and thought process. Give your project a title that best describes your design. Compose a thoughtful and concise description of your design solution and strategy. This should include your inspiration and what you are trying to achieve with your proposal. This is your opportunity to articulate any other ideas you may have that aren't as easy to read from your drawings and models alone such as material choices or site ideas relative to the larger context.



# Submission & Resources

Submissions are due by Friday November 19, 2021 at 6pm PST.

You are required to submit your entry via the Google Form link below:

[Entry Form](#)

All of your files must be labeled with your project title. You are only to upload Google Slide Presentations and videos describing your project. Please do not exceed 1GB or 8 files in total (4 Google Slide Presentations and 4 videos maximum). Please direct your inquiries to Ryan Lee ([ryan@afsf.org](mailto:ryan@afsf.org)).

## Project Resources

[Google Drive Project Folder](#)

- Entry Form
- Google Slide Template
- Parcel drawing .dwg file

## Software Resources

[Autodesk Education](#)

[SketchUp](#)



---

# Judging Rubric

Below is a list and breakdown of judging criteria that will be used to evaluate your submission.

## Big Idea

What is the narrative for your design? Each project should be grounded in a big picture idea that may be inspired by your interest such as the site, the program, the users, design composition, history, view corridors, etc. Develop a concept for what you're trying to achieve and make that evident in your drawings, models and written description.

## Design Function

How does your design function and is it conducive to a realistic working solution? Consider programmatic adjacencies (what things are next to what?), circulation routes to and from spaces and access to light, air and views. User experience should be carefully considered – think about the different type of people who may be visiting aspects of your design and how their interactions might differ.

## Design Aesthetics

Do you have a compelling solution that visually carries forth your big idea? Consider spatial composition. How does your design read from multiple vantage points on site?

## Technical Execution & Clarity

Is your design thinking clearly presented through well-executed drawings and/or models? Use your presentation skills to curate a well-thought-out and compelling project.

## Process

Did you include images of your thought process leading up to your design solution? From conception to execution, the journey is just as important as the final product and we would like to see some of your process work. Document study models, include diagrams, sketches, whatever it may be that helped lead you to your conclusion and helps you narrate your thinking.





# Awards



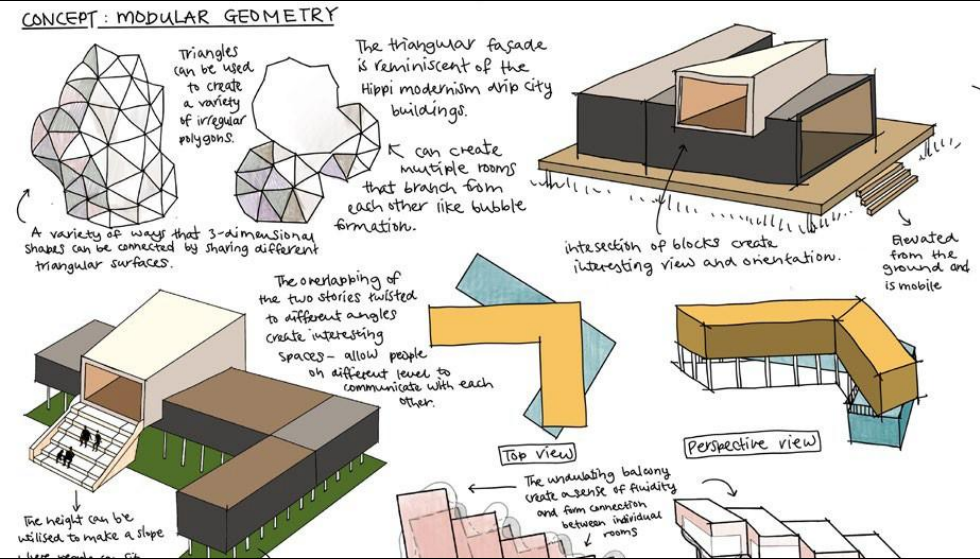
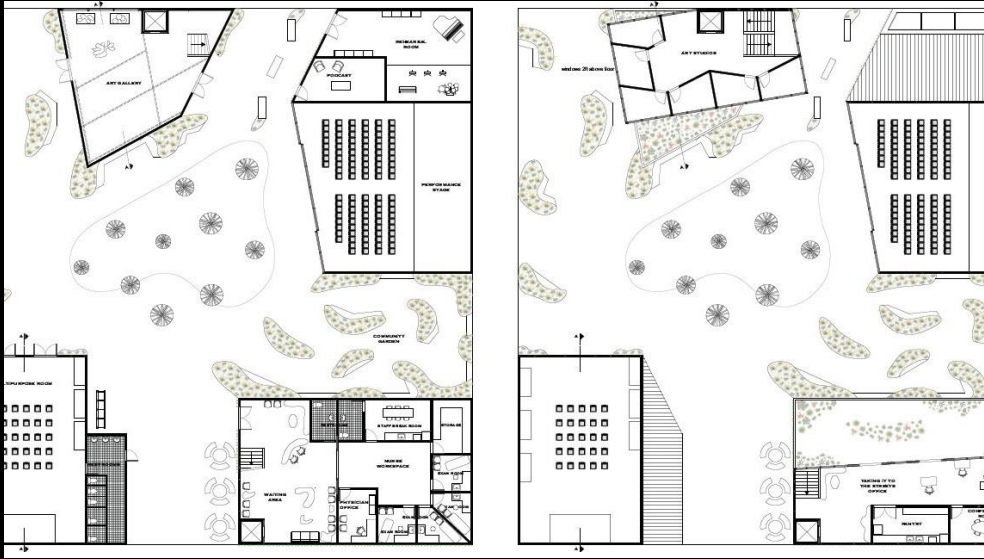
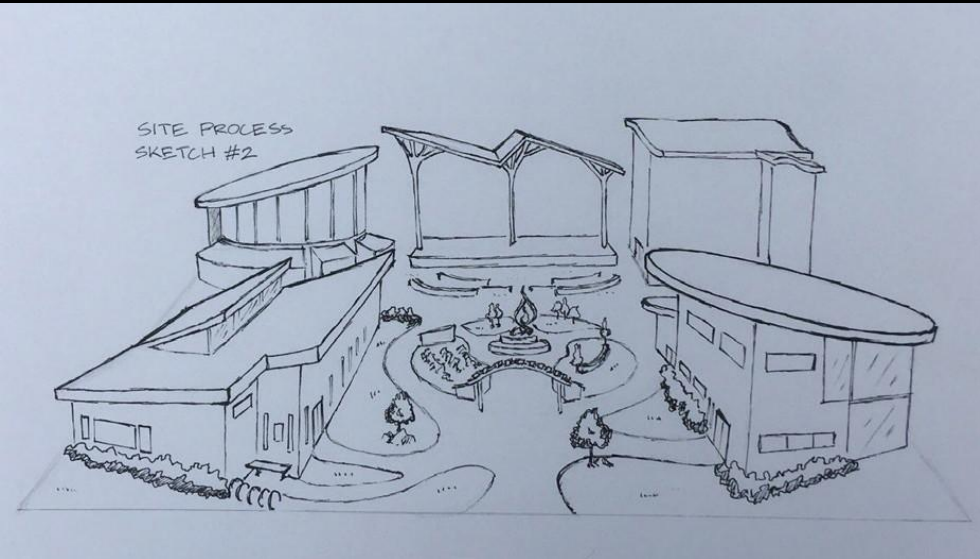
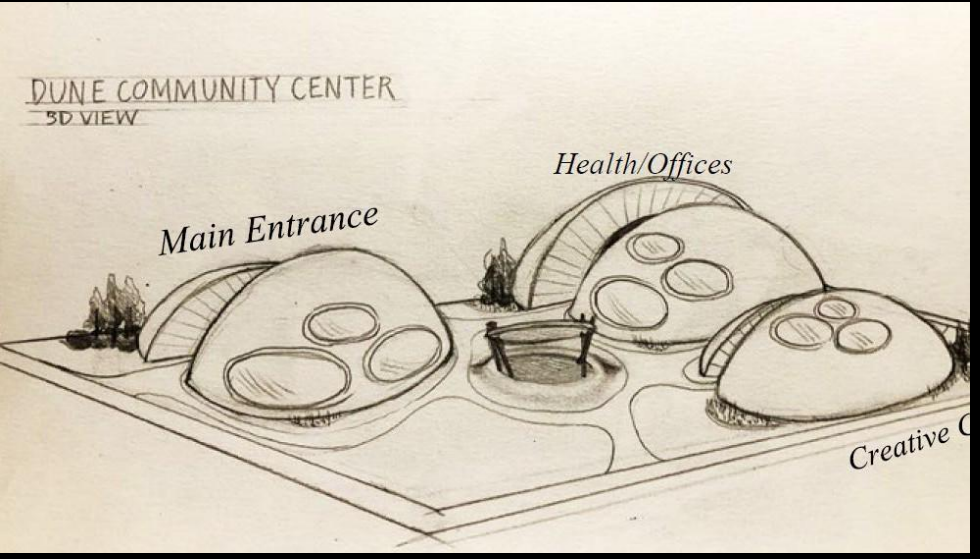
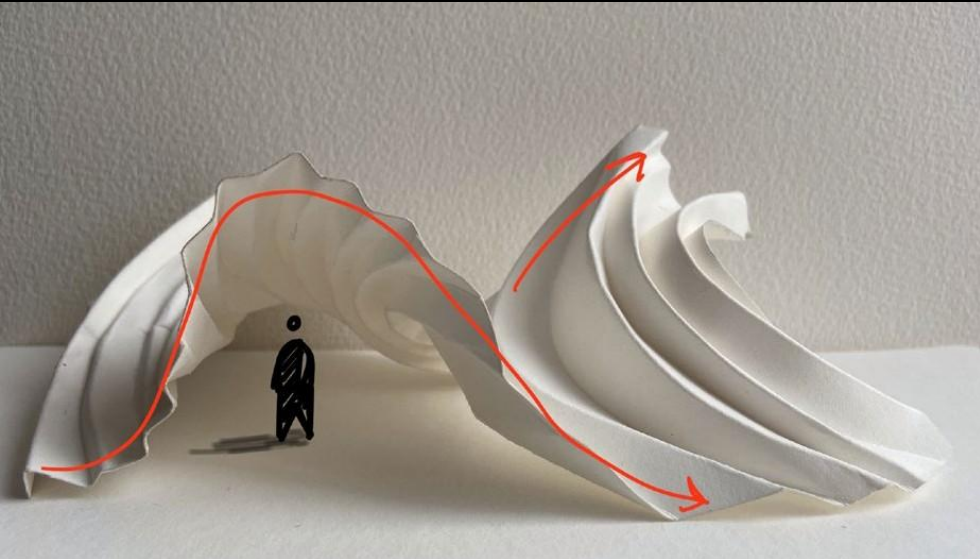
Award categories for Distinction, Exceptional Submission and Best of Class will be given for the best proposals put forth. Please note that Judges reserve the right to adjust awards and categories as they best see fit to provide recognition for projects entered into the competition.

## Best of Class

- 1st Place | \$200
- 2nd Place | \$150
- 3rd Place | \$100



# Student Work Examples





# AFSF Staff & Board of Directors



## Design Ideas Collective Competition Committee

Ryan Lee  
[ryan@afsf.org](mailto:ryan@afsf.org)  
DIC Chair & Author  
Vice President - Board of Directors, AFSF  
Senior Associate, Woods Bagot

Alan Sandler  
[alan@afsf.org](mailto:alan@afsf.org)  
Executive Director, AFSF

For questions regarding the 2021 Design Ideas Collective Competition, please feel free to contact Ryan and Alan at the email addresses listed above.

## Executive Committee

Aaron Hyland, FAIA	President
Mark English, AIA	Vice President
Ryan Lee	Vice President
Bill Bondy, AIA	Secretary
Rich Galliani	Treasurer

## Directors

Steve Curry, S.E.  
Felicia Cleper-Borkovi, AIA  
Samuel Fajner  
Stacy Grubbs  
Richard Hannum, AIA  
Elizabeth Jackson  
Randy McCracken  
Ruth Todd, FAIA  
David Meckel, FAIA  
Sakari Morrison  
Jon S. O'Donnell  
Clayton Peck  
Christopher Ridley P.E., G.E.  
Kevin Russell  
Mike Tzortzis  
Zach Waters  
Carol Welch

## Emeritus Directors

Tom Gerfen, FAIA  
Doug Tom, FAIA

## Advisory Board

M. Arthur Gensler, FAIA | Chairman  
Richard M. Brayton, FAIA  
Shirl Buss, Ph.D.  
James Chappell  
Craig W. Hartman, FAIA  
William Mandel, Esq.  
Steve Oliver  
John A. Ruffo, FAIA  
Kevin Schaeffer, AIA  
Michael Vanderbyl





**Thank you for  
participating in the AFSF**

**2021 Design  
Ideas Collective.  
Best of luck to you all!**