CAL POLY POMONA PROJECT HIGHLIGHTS

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PROPOSAL

The work shown here represents a summary of the expertise that students are expected to develop across urban design and environmental studies. Each group of student typically collaborates with a community organization in Los Angeles to provide research for that specific community in relation to placemaking and climate change, addressing social and enviornmental vulnerabilities and opportunities through design and planning.

For the Fall of 2019 (late August through early December) and the Spring of 2020 (January through June) we are actively seeking community partners for the following courses:

+ **Urban Design Studio**
(Aug - June)

+ **Placemaking: Theories, Methods, and Practices**
(Aug - Dec)

+ **Urban Systems: Climate Change and Environment**
(Jan - June)

+ **Planning for Climate Change**
(Aug - Dec)

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PLANNING FOR CLIMATE CHANGE & URBAN SYSTEMS [COURSE OVERVIEW]

Course Information

This course will explore the scien1fic, economic, cultural, and ecological aspects of global climate change. It will assess greenhouse gas mi1ga1on methods and adapta1on strategies for ci1es and regions, and will further consider the development of climate ac1on plans using resiliency planning methods. The course will culminate in a climate ac1on plan that accounts for implementa1on obstacles as well as climate equity.

Course Learning Objectives

By successfully completing the course students will be able to:

• Understand the technical basis for climate change analysis;

• Understand and be able to critique municipal greenhouse gas inventories;

• Develop and evaluate proposals for municipal greenhouse gas mitigation using GHG models;

• Develop and evaluate strategies for climate change adaptation; and

• Organize and implement resiliency planning models.

Course Topics

The Science Basis

• Review of IPCC assessments of greenhouse gas (GHG) emissions from a physical science basis.
• Emphasis on mastering climate change science for a policy maker audience. Critical evaluation of assumptions in models.

Global, National, and State Responses

• Review of IPCC mitigation assessments, as well as global impacts, adaptation, and vulnerability.
• Models for national, state, and local action.
• Evaluation of California's AB 32, SB 32, and other implementing legislation.

Mitigation Planning

• Development of effective strategies for reducing GHG.
• Contributions of sectors activity and emissions scopes.
• Developing mitigation proposals for particular contexts.

Adaptation Planning

• Role of individual, institutional and technological factors in adaptation.
• Review of California adaptation strategy and planning process, with particular emphasis on water supply, sea level rise, extreme heat events, and wildfires.

Resiliency Planning

• Planning under multiple scenarios and development of contingent strategies for ongoing planning.
• Review of California resiliency strategy and planning process, with particular emphasis on water supply, sea level rise, extreme heat events, and wildfires.

Equity

• Consideration of climate change impacts on developing countries and on low-income communities.
• Critical analysis of adaptation, mitigation, and resiliency strategies in relation to questions of equity and human rights.

TIMELINE

PLANNING FOR CLIMATE CHANGE: August 2019 - December 2019

URBAN SYSTEMS: CLIMATE CHANGE & ENVIRONMENT: January 2020 - June 2020

Term Project

A final project is due at the end of the semester. Each team will present their proposal on the last day of classes and a final report is due during finals week.

Part I: Week 1 through week 7

You will begin by studying an assigned climate change vulnerability: water supply, sea level rise, extreme heat, and wildfires. For the first part of the semester you will document the various ways in which your topic is exacerbated by climate change and will document the effect this vulnerability has had historically on the Los Angeles region. You will document the various ways in which Los Angeles County is attempting to address this issue, as well as the shortcomings of that assessment. To make these assessments you will draw from the readings presented in class and will look at California's climate action plans and legislation documents as well as municipal and other local regulations. You will pay particularly close attention to the manner in which equity is addressed by asking who is represented in the plans you are studying, who is left out, and what the equity implications are of future scenario-planning.

Part II: Week 9 through week 14

In the second part of the semester you will develop a proposal to address mitigation and adaptation strategies related to your topic. You will be assigned a neighborhood/community in which to implement the plan.

To enrich your proposal you are required to conduct interviews with local community members in the neighborhood you choose as well as at least one individual from the local planning department. The final plan will include the following:

• a summary and detailed explanation of the mitigation and adaptation strategies that address your topic in relation to climate change;

• a corresponding proposed design at various scales, addressing regional, local, and individual household levels, through which those strategies can be met;

• environmental and demographic information on your selected area;

• economic considerations;

• recognition of legislative obstacles and proposed solutions;

• explicit incorporation of strategies that address inequalities.

PLACEMAKING: THEORIES, METHODS, & PRACTICES [COURSE OVERVIEW]

Course Information

This course introduces students to mainstream and critical placemaking theories and methods through conversations with placemaking practitioners, interactive exercises, and case study research.

It investigates the physical, social, cultural, and environmental factors that contribute to the development of great urban places.

Course Learning Objectives

By successfully completing the course students will be able to:

• Demonstrate content and critical knowledge in the subfields of placemaking, public space, and the relationships between economic and social development, the arts, and cultural planning in 21st century cities.

• Analyze spatial characteristics involving use, circulation, programming, servicing, landscape and use conceptual diagrams, mapping, and architectural drawings to communicate findings.

• Gain practice conducting place-based research in a project team-based collaborative setting.

• Utilize qualitative methods to more deeply understand how practitioners respond to critical placemaking challenges.

Course Topics

• Understanding 'place' as a source of identity and belonging.

• Planning and management of public space, and implementation challenges.

• Racial geographis of place, contested public space, and narratives of loss.

• Art and culture in public streets, gentrification through art, and cultural tourism and heritage.

TIMELINE

PLACEMAKING: THEORIES, METHODS, & PRACTICES: August 2019 - December 2019

Term Projects

Public Space Ethnography

Students complete ethnographic research on a public space in an assigned neighborhood/community, and use analytical readings (discussed in class) to help them assess the extent to which the space is truly 'public.' The final report should be 4-5 pages, double-spaced, plus graphics.

Potential sites include parks, plazas, sidewalks, town or city "commons," markets, beaches, or another 'public' space of your choice. Students may focus on a nontraditiona space (e.g. a mall or transit station), but must use the readings covered in class to argue why the place should be considered a "public" space.

Final Group Placemaking Reports

Early in the course, students will be organized into several project teams. Each team will be responsible for using methods explored in the course to analyze and make recommendations for the improvement of a local site that faces placemaking challenges. The final team report will be presented in class, and a written report, plus graphics, should be submitted (4-5 pages, doublespaced, plus graphic elements and appendices.)

Teams will analyze site conditions, assets, and constraints; assess the local social, economic, and cultural contexts of their project site; engage users and neighbors in visioning; and apply placemaking principles to make recommendations about future development on the sites.

INTRODUCTION TO URBAN DESIGN THEORY FOR PLANNING
[COURSE OVERVIEW]

Course Information

URP 2010 and 2020 serve as an introduction to project-based learning for students who wish to enter the planning profession.

The goal is for students to engage with and assess planning opportunities and challenges in partnership with community organizations. Through ongoing discussions with a community organization, careful analysis of site conditions, and analyses of analogous case studies, the students will develop a vision for the neighborhood as well as a design proposal that expresses that vision.

The students are also expected to develop social programs in the form of a set of activities that aim to better the community and address its needs. The course culminates in a final proposal to project partners, peers, and instructors.

What we Offer

We are specifically interested in how communities can come together through local art and culture –or what's been increasingly called creative placemaking. We also prioritize the sustainable approach to creating vibrant and resilient communities.

Through the year, students will work under our supervision on a series of analyses we carefully outlined to help identify each community's strengths and potentials. During roundtable sessions, the students and the community members will discuss strategies for intervention, and make an outreach and implementation plan. They will conduct surveys and interviews of key stakeholders, including property-owners, businesses, neighbors, and relevant city agencies. They will conduct a site analysis by surveying the site itself to better understand its unique physical, historical, and environmental aspects.

Through these two strands, the physical/environmental on the one hand and the social/communal on the other, students will generate specific design and planning proposals. We expect 2 to 3 student groups to participate on this project, with each group comprised of 5-6 students.

TIMELINE

INTRODUCTION TO URBAN DESIGN THEORY FOR PLANNING: August 2019 - June 2020

What we Request

In order to achieve the above goals, we request the following:

Fall 2019

• A virtual introduction (e.g., email, conference call, skype) to the key stakeholders involved in the project, both in your organization and in planning offices, as you deem relevant (September). We will assign a single point of contact for each of the student groups.

• An initial meeting between the student groups and a member of the community partner to discuss the scope of the project and our partner's organization goals (September or October).

• A presentation and feedback session between our students and our community partner (December, at the Cal Poly Pomona campus).

Spring 2020

• A final presentation to our community partner, and if interested, planners, and community representatives (June, at the Cal Poly Pomona campus).

Structure

Following is an overview of course expectations and overall structure which you may find useful:

Phase I (Fall 2019):

Each group of students will be assigned a specific neighborhood and will begin by conducting an in-depth field study, which encompasses the visual (i.e. pattern, scale, etc.), cultural (i.e. historical context, ethnicities, etc.), environmental (i.e. average temperatures, vegetation, etc.), demographic (i.e. race, education, income, etc.), and physical (i.e. lands use, infrastructure, etc.) characteristics of their assigned district.

Students will build on their observations by analyzing the perceived strengths and weaknesses of their assigned neighborhood, and proceed by drawing out corresponding opportunities and threats. This report will be presented to the community organization with which we partner, in order to receive feedback that can then inform a vision for the future of the community that addresses their expressed needs.

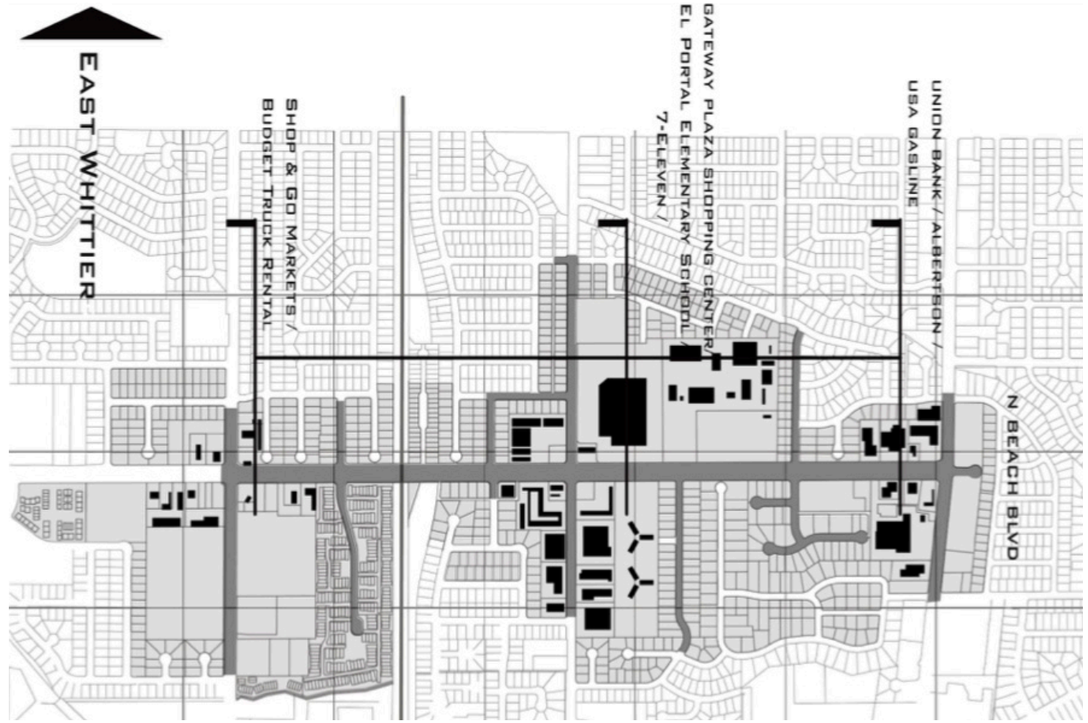
Phase II (Spring 2020)

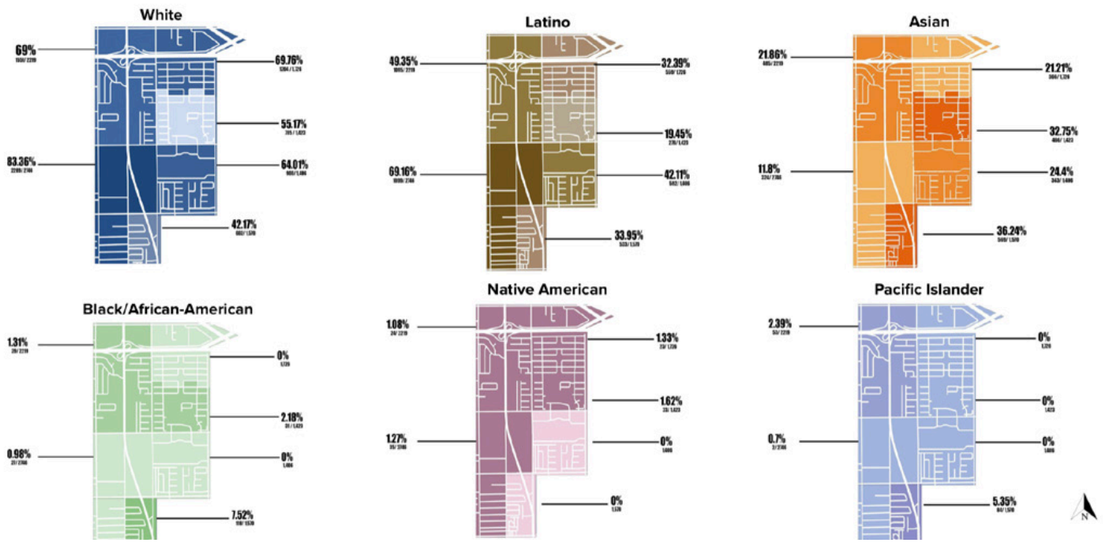
Student groups will generate a proposal that expresses this shared vision. The proposal can be at a specific site, such as a vacant or underutilized lot, or can be dispersed across several sites. Policy and funding opportunities will be identified in order to address the challenging question of implementation. The emphasis will be on designing places that support the communal fabric envisioned in the proposal.

BEACH BOULEVARD:

SITE & DEMOGRAPHIC ANALYSIS

Prior to solidifying a vision for a community, one that encompasses both cultural and social considerations as well as environmental ones, students work closely on generating specific and concrete data for and from their assigned communities. Sociodemographic data is analyzed and presented in a graphically consistent and clear manner, and this data is augmented through on-site observations, interviews, and surveys.

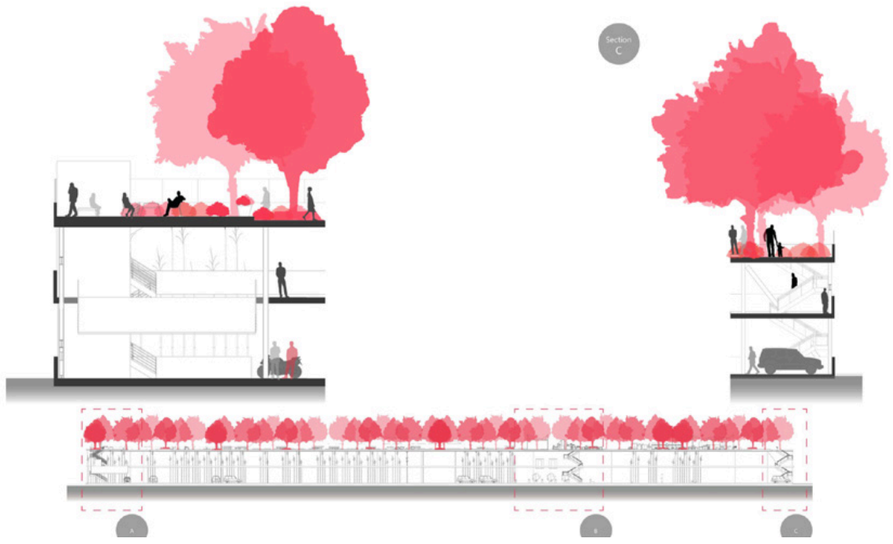


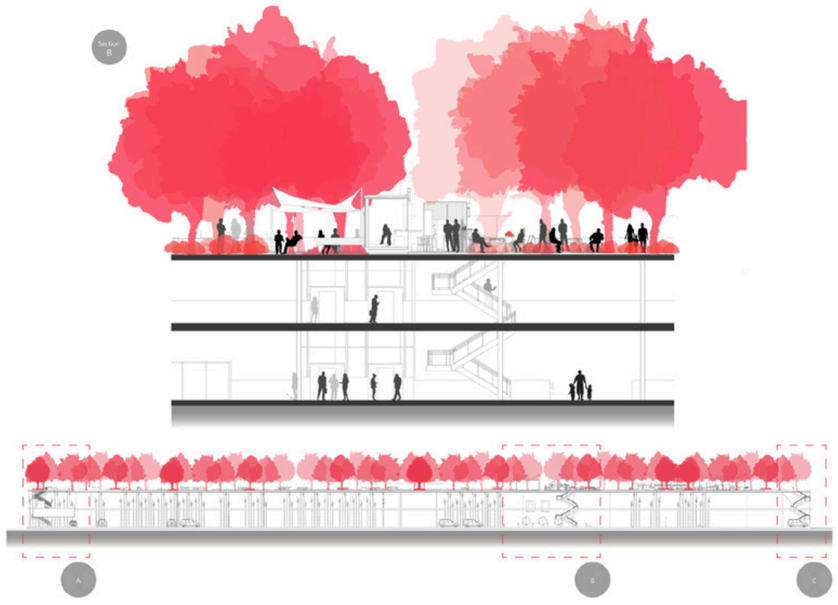


BEACH BOULEVARD:

PLACEMAKING FOR FOOD EQUITY

Placemaking is understood not only as a singular intervention or set of discrete design proposals. Each placemaking opportunity, one that enhances social ties and cultural identity, can explicitly address issues of social equity. In this project, students identified a lack of access to fresh and healthy produce, and sought to mitigate this condition through placemaking exercises along Beach Boulevard.



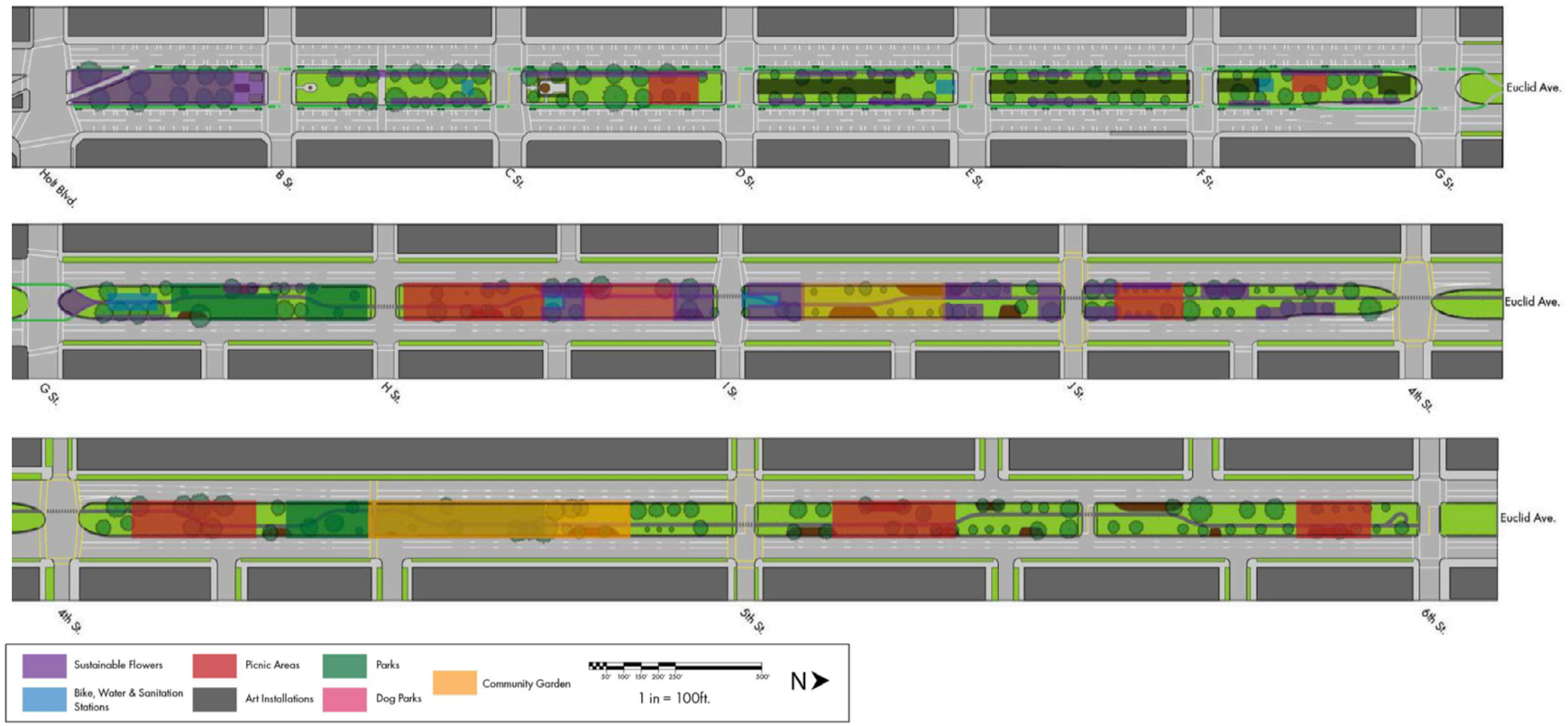


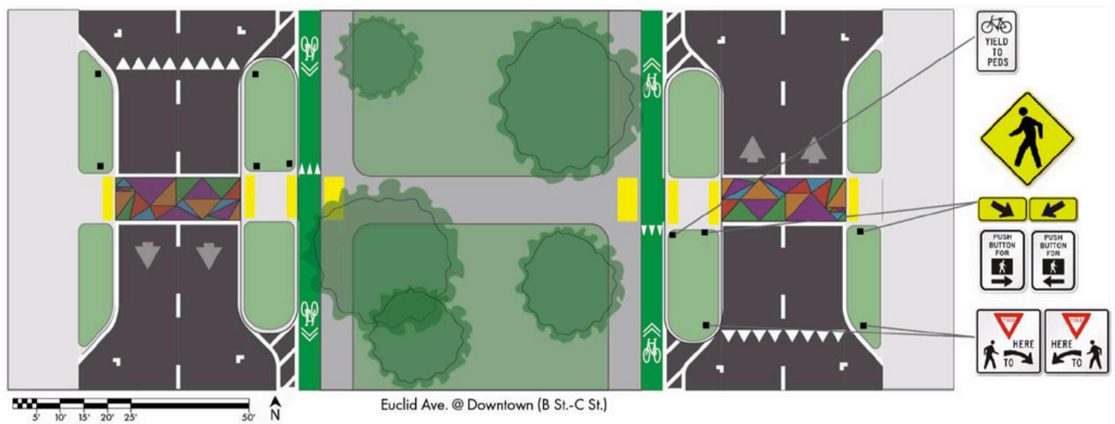
THE TERRACE
PROMOTING AN ACTIVE AND WALKABLE COMMUNITY

ENHANCING COMMUNITY AMENITIES THROUGH PLACEMAKING

In this proposal, surface parking lots that often accompany big box retailers serve as an opportunity to promote the local economy through small-business retail that complements, rather than competes with, the larger franchise on the site (in this case Costco). At the same time the proposal provides otherwise lacking communal spaces for urban dwellers to use year-round.

ACTIVATING MEDIAN STRIPS IN ONTARIO, CA, TO PROMOTE SOCIAL AND ENVIRONMENTAL EQUITY



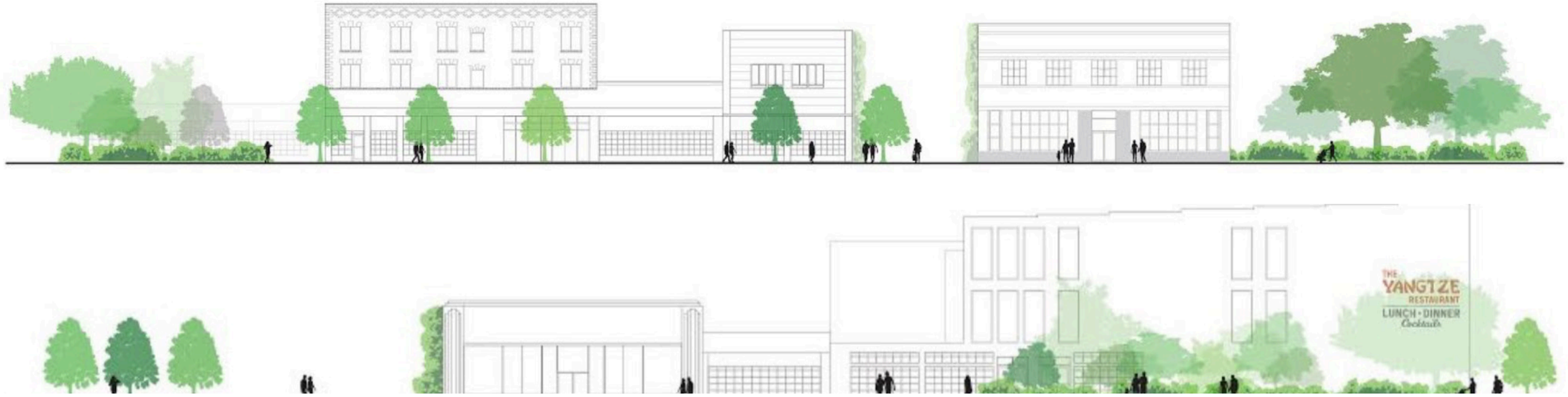


Euclid Ave. @ Downtown (B St.-C St.)

After thorough research and interviews with local residents of Ontario, students noted a need for public space that could accomodate a wide variety of uses that promoted active lifestyles. Research analyzed by the students indicated a separation of communities based on income, which called for a design proposal that sought to be as inclusive a possible.

ONTARIO, CA:

LOCAL ECONOMIC & SOCIAL GAINS



Three aspects in this proposal aim to revitalize downtown Ontario, CA: food incubator, farmer's market, and a co-working office space.

Food Incubator: An incubator would allow up-and-coming startup businesses have a starting point by giving them necessities such as space and/or management training.

Farmer's Market: A market where local farmers and producers come together and directly sell their products to people.

Co-Working Office Space: Provides shared workspaces for entrepreneurs, freelancers, startups, small businesses and large enterprises.

CYPRESS PARK

MAPPING COMMUNITY CONDITIONS & OPPORTUNITIES

Cypress Park in Los Angeles is a quickly-gentrifying neighborhood, though environmental harzards continue to exacerbate the health of community members.

A careful proposal assumes a sensitive and thorough analysis of the environmental conditions of the site as well as the cultural opportunities that can help entrench the identity of this predominantly Latinx community in Los Angeles.

A series of mapping exercises that identify cultural amenities as well as environmental conditions that exacerbate vulnerabilities are shown here.

Accessory Dwelling Units
Land Use

Many Cypress Park properties have accessory dwelling units (ADU) as a response to the housing crisis and because it supplies the homeowner with an additional source of income. Size requirements for an ADU are a minimum of 150 sq.ft and a maximum of 1200 sq.ft Average rent for an ADU is $1500 in comparison to the average rent of a 3 bedroom, 2 bath house is $2600 (within Cypress Park).

*Trulia.com

Bus Routes
System

This portion of Cypress Park shows a 17% ridership of the bus to work in comparison to L.A. county which only 5% of citizens use the bus to get to work. In this diagram we show the bus routes that service the cypress park district. The routes go to DTLA as well as other local neighborhoods. The "number of passengers" were counted as passengers boarded the bus to determine how many people use the transportation system.

*Social Explorer

Walkability
Land Use

After walking throughout this entire mapped portion of Cypress Park, we created a map from our subjective observations using the listed factors to determine whether the street had high, medium, or low walkability.

Gas Distribution
System

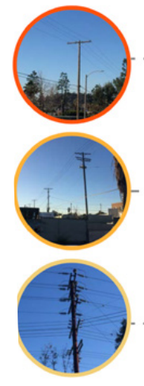
There is a gas transmission line which cuts into Cypress Park which is a vital line for all of California.

*SoCal Gas Company

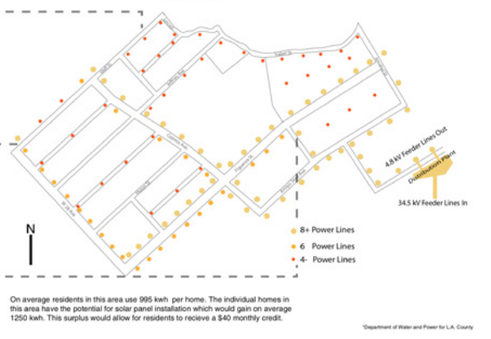
Historical District
Land Use

The majority of the homes in this historic district are Arts and Crafts style homes with little alterations to their original floor plan. A Craftsman style home can be indicated by exposed rafters, decorative brackets under eaves, large front porches (or a front porch beneath the extension of a main roof), and the use of natural materials.

*Historicplacesla.org & zimas.org



Electrical Distribution
System

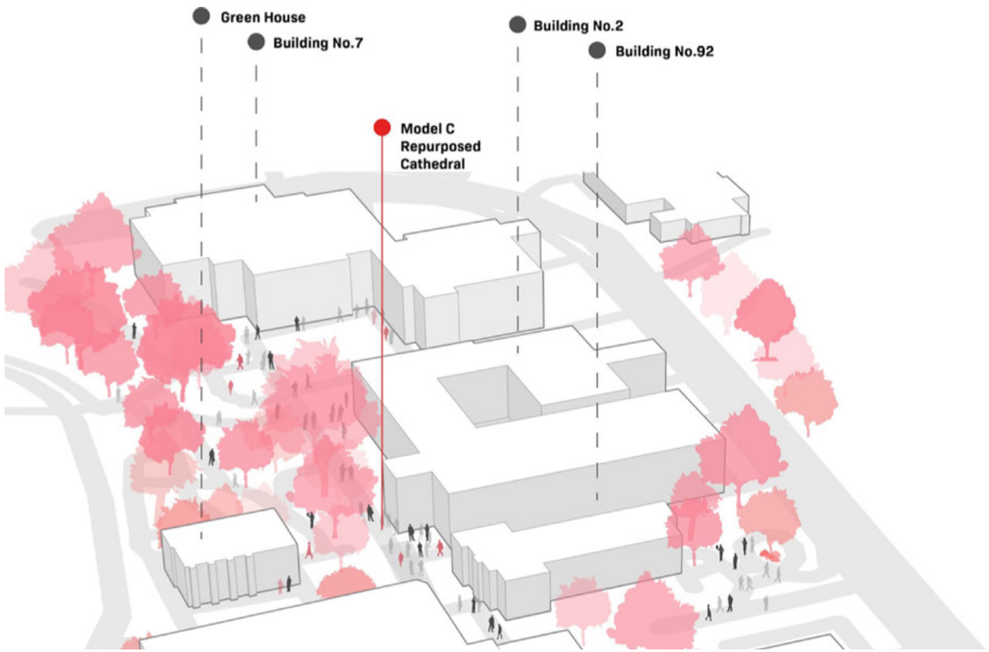


On average residents in this area use 995 kwh per home. The individual homes in this area have the potential for solar panel installation which would gain on average 1250 kwh. This surplus would allow for residents to recieve a $40 monthly credit.

*Department of Water and Power for L.A. County

PLACEMAKING FOR PUBLIC SPACES

A SERIES OF DESIGN INTERVENTIONS IN KEY PUBLIC SPACES THROUGHOUT POMONA, CA, ACCOMPANIED BY ANALYSIS OF LANDSCAPE, PATHWAYS, AND BEHAVIOR.



THE CATHEDRAL: CREATIVE PLACEMAKING THAT DIRECTLY ADDRESSES LA'S HOUSING INEQUALITY AND AFFORDABILITY CRISIS

A SERIES OF DESIGN INTERVENTIONS THROUGHOUT PUBLIC SPACES IN POMONA, CA

Victorian Structure

PLACEMAKING FOR PUBLIC SPACE

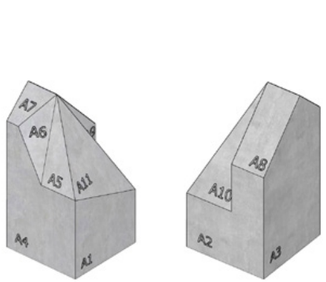
This work is comprised of wooden structures that aim to negotiate the complex notion of home, its politic and aesthetics and its relationship to identity and citizenship.

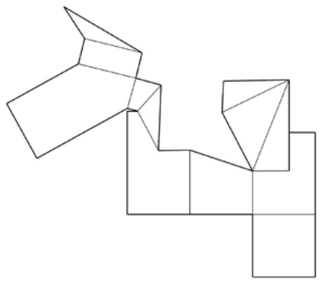
The structures reference suburban homes, a symbol of an American lifestyle that continues to be associated with the American dream. Each structure takes on its own character in order to emphasize the intimate relationship between home and its surrounding public space.

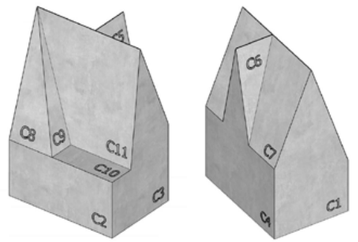
FABRICATION,
SITE ANALYSIS,
AND PRE- & POST-
OCCUPANCY
ANALYSIS

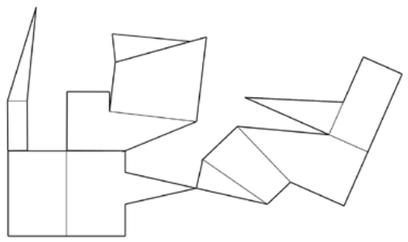
PUBLIC ART

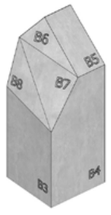
DESIGN & CREATIVE PLACEMAKING

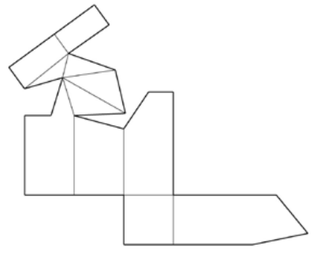


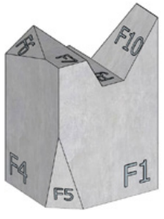


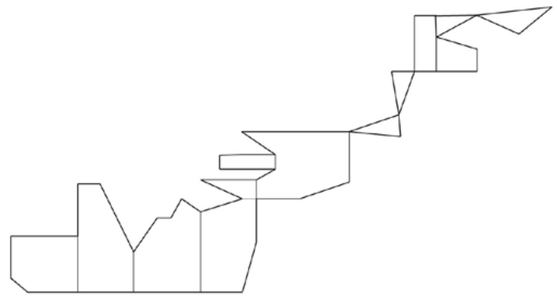












Blueprint for Historic Preservation Structure

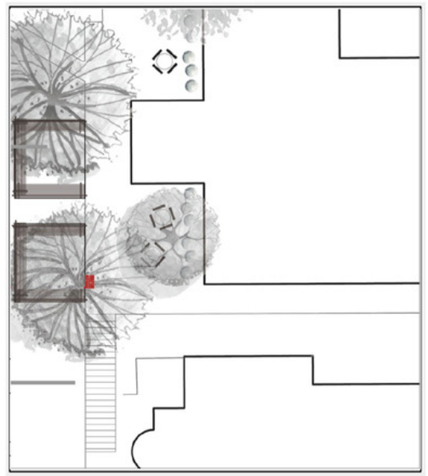
This constitute the building and completion of the wooden structures. All structures are then to be covered in materials that represent an era and/or an architectural style.

Each group of students conducted pre- and post-occupancy evaluation (min. 2 hours each) of the site where the structure would be located. The analysis needs to provide a strong understanding of the location's assets and dynamics. The analysis has to also demonstrate how the placement of the structure ties with its character.

FABRICATION,
SITE ANALYSIS,
AND PRE- & POST-
OCCUPANCY
ANALYSIS

PUBLIC ART

DESIGN & CREATIVE PLACEMAKING



"Through our placemaking exercise we can see how a place can be constantly reimagined that best meets the needs of the community. Urban planner and theorist Friedmann formally defined "place" as a small, 3D urban space that is cherished by the people who inhabit it. The church sculpture is a statement on adaptation, change, and reuse. This change is an organic undertaking by the whole community precisely as Friedmann stated, 'making places and neighborhoods is a collective undertaking.'" - Student Report

PLACEMAKING FOR PUBLIC SPACES

MOLUPTA ES SEQUAM VOLLECT AUR IHIT UTEUNE QUAPIET

"Placemaking often occurs in the most banal of place such as alleyways and vacant lots. The people and their needs drive the space to become a "place." The planner, when attempting to create place, needs to make the project a collective undertaking. While planning a space the planner needs to involve the community in decision making, spend time in the community, dig deep in the community's history, and involve as many people as possible. This type of planning can help ensure a space that the community will be drawn to and use."
- Student Report

"Urban design is in fact a mongrel discipline that draws its legitimizing theories from diverse intellectual roots: sociology, anthropology, psychology, political science, economics, ecological, physical and health sciences, urban geography, and the arts; as well as from the 'professional' theories and practices of: architecture, landscape, planning, law, property, engineering and management."
- Matthew Carmona

CLIMATE ACTION PLANNING

SEA LEVEL RISE IMPERIAL BEACH, CALIFORNIA

Imperial Beach is a coastal community located in San Diego County in Southern California. Due to an increase in global temperatures, sea level rise has been a particularly challenging issue to address in this low-lying city. It is projected that rising sea levels and coastal flooding will affect millions by the year 2100 (IPCC). San Diego and Imperial Beach are not exceptions. High ocean levels facilitate king tides to sweep past the coast and into the boulevards of the city.

Water quantity is not the only issuein 2019, Imperial Beach has continuously failed to meet ocean water quality standards outlined by the State of California. (San Diego County Department of Environmental Health). Imperial Beach is a community with a predominantly Latinx population and is the last stop before the southern national border of the United States next to Mexico. In addition, educational attainment levels are lower among the majority-minority population. Most importantly, there is no comprehensive climate action plan set in place for the community.

POLICY TIMELINE

Acknowledge Climate Change

Educate public and youth.

2019

2026

Reduce Carbon Footprint

Transition to "eco-lifestyles" and employ good habits.

Maintain (E) Armoring

Property owners can erect sea walls at will.

2033

2040

Encourage (N) Armoring

Incentivize additional armoring such as seawalls.

Established SLR Planning

Limit coastal development. Cease to develop infrastructure along coast.

2046

2019: PROTECT & EDUCATE

Increase public awareness of environmental challenges and enhance the communities skills to adapt long-term to SLR

Reinforce existing SLR defence mechanisms +

Protect infrastructure that is currently vulnerable to flooding including: Cortez Ave, Palm Ave, Seacoast Dr

Environmental program at Bayside ELementary +

Organize programs hosted by Bayside Elementary School and SD Bay Wildlife National Refuge that integrate education of the benefit of natural and regenerative systems into the school curriculum.

SCRIPPS APP + Emergency Services

Provide accessible information of SCRIPPS monitoring services via smartphone app to update residents on tide levels and water quality

Update flood evacuation emergency service response

CLIMATE ACTION PLANNING

SEA LEVEL RISE IMPERIAL BEACH, CALIFORNIA

The threats of climate change are not isolated, major impacts include: injury, death, displacement, economic disruption, infrastructure destruction and environmental degradation.

This policy will reflect and respond with appropriate measures that rely on the IPCC projections of businessasusual (BAU) rates as they continue to rise. Imperial Beach currently sits at 6 meters above current sea levels: coastal cities have a relatively short time to adapt and mitigate.

Given the uncertainty of climate change, it is crucial that California policymakers seek out mitigation and adaptation solutions that can set the stage for future GHG reduction standards within the United States. However, to enhance resiliency, it is necessary to develop strategies for multiple scenarios.

2026: REDUCE CARBON FOOTPRINT

GHG mitigation measures

Sustainable Workshop Services

Provide workshops that teach sustainable processes that can be realized by households that reduce GHG emissions

Electricity Generation

Refrigerant and cooler management, recycling materials at end-life

Transition Imperial Beach from dirty energy sources to RE to allow for grid flexibility

Food Waste

Improve infrastructure for storage, processing, and transportation of food

Utilize food that does not meet aesthetic standards by collecting and redistributing unbought items

2026: PROTECT & ACCOMMODATE

Measures to protect infrastructure and property.

Replace RipRap w/ Seawall

RipRap used to control erosion should be removed and replaced with seawalls.

Retrofit Stormwater Pumps

Stormwater pumps prevent flooding by pumping large volumes back to source.

Fortified Communities

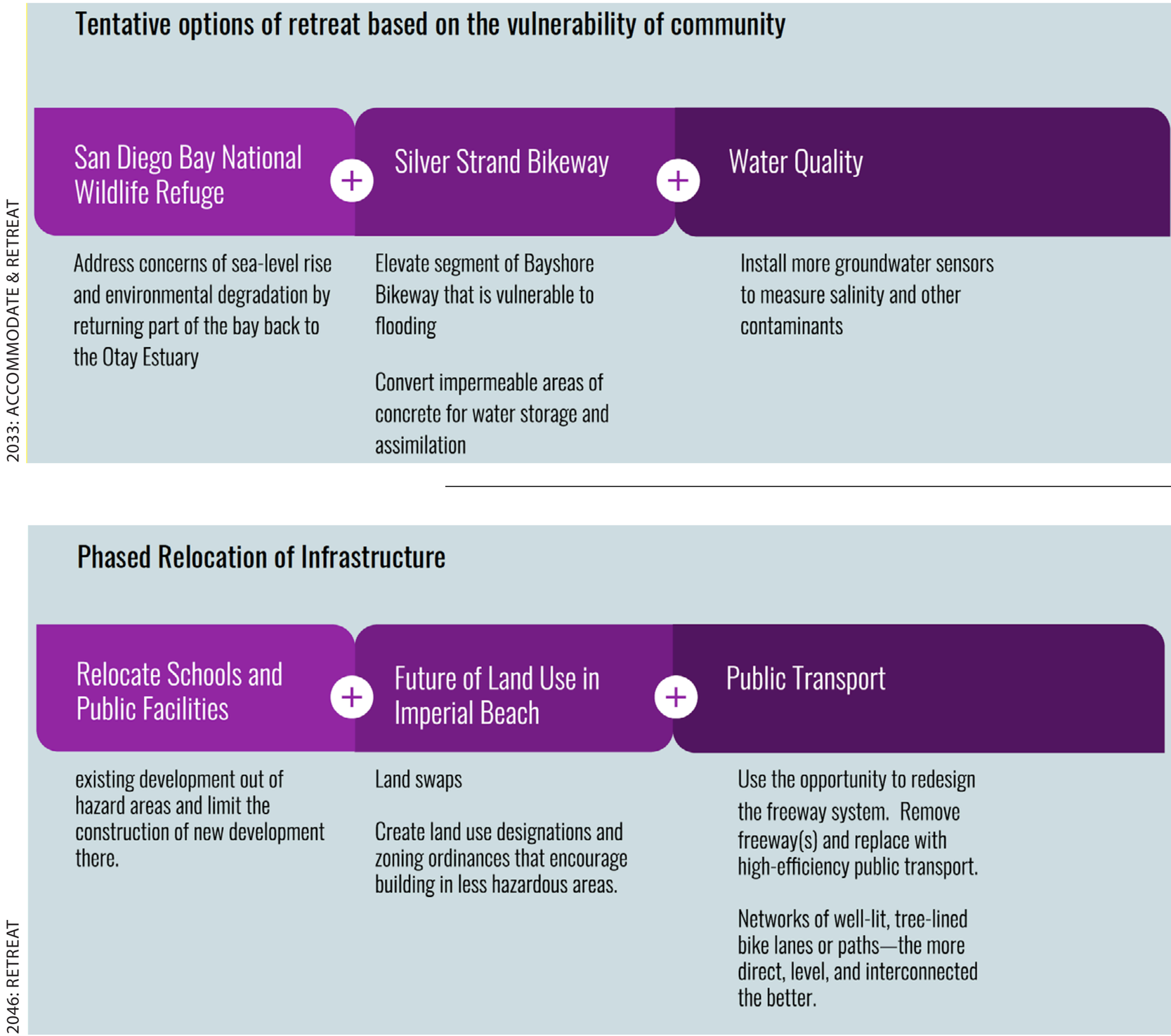
The combination of seawalls and efficient stormwater pumps would ideally limit flooding. Such infrastructure would set the foundation for the next step of adaptation which is more rigorous.

CLIMATE ACTION PLANNING

SEA LEVEL RISE IMPERIAL BEACH, CALIFORNIA

Adaptation and mitigation measures can vary widely from community to community, and every plan requires a consolidation of geographic, demographic, and environmental data that map out different scenarios of sealevel rise.

Additionally, this policy will rely on scientific data put forth by the most recent IPCC reports in order to prescribe the best mechanisms to adapt resiliently. Crossc-ollaboration is critical in the success of implementing a strategy that meets the needs of community members, stakeholders, property owners, as well as state, local and tribal governments.

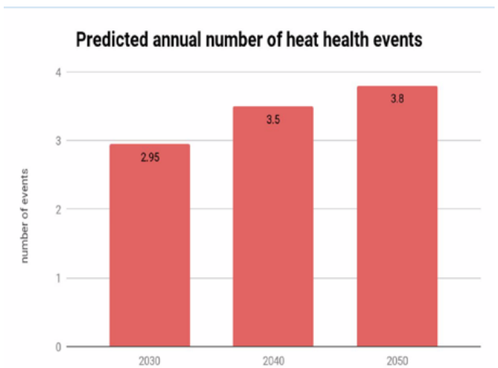


CLIMATE ACTION PLANNING

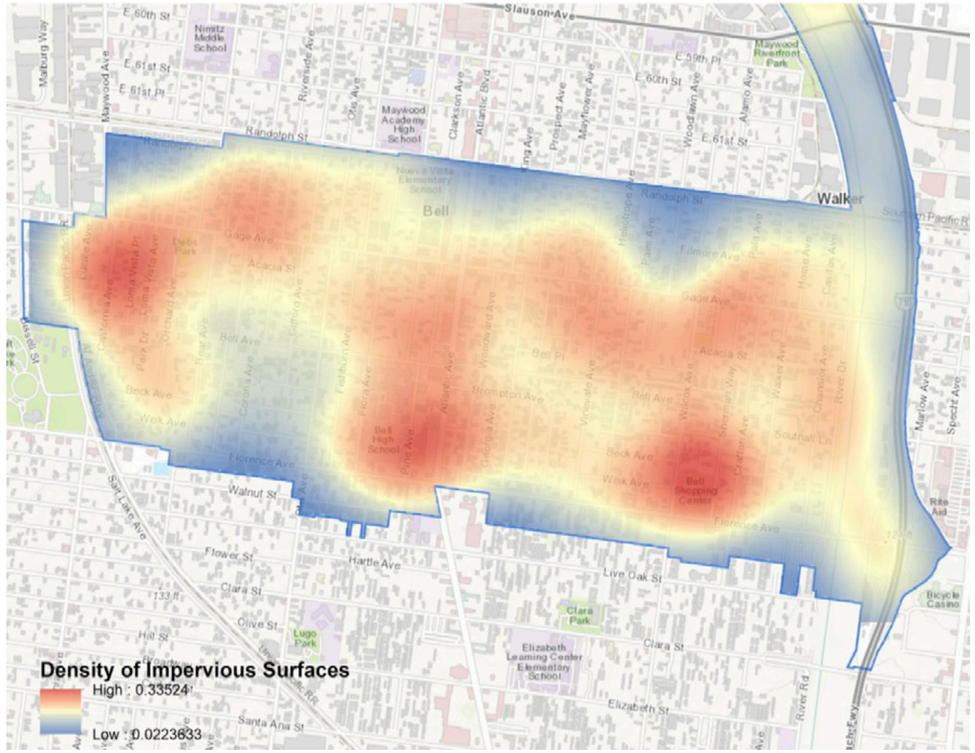
EXTREME HEAT
BELL, LA
CALIFORNIA

Extreme heat events are becoming more common in conjunction with the climate changing. It is imperative for any city, state or country experiencing extreme heat events to have an operational plan in place that will serve to protect its residents from the effects of extreme heat. We feel the effects of extreme heat; the days feel longer, the heat is overwhelming and we are often left feeling exhausted when we have been out in the extremely hot weather.

The Center for Disease control defines extreme heat events (EHEs) simply as a series of unusually hot days, often with weather being hotter than average for a particular time and place. What is extreme in one place may not be considered extreme in another, which is why when defining extreme heat, location and time have to factor into the equation.



IMPERVIOUS SURFACES

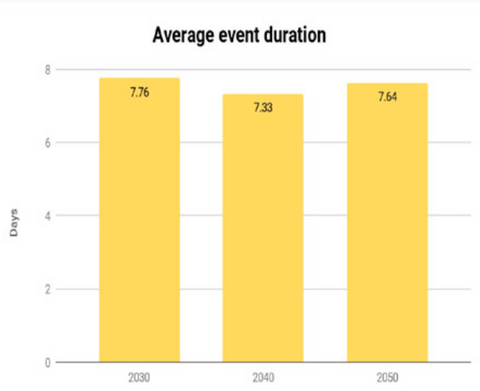


HOUSING STOCK AGE

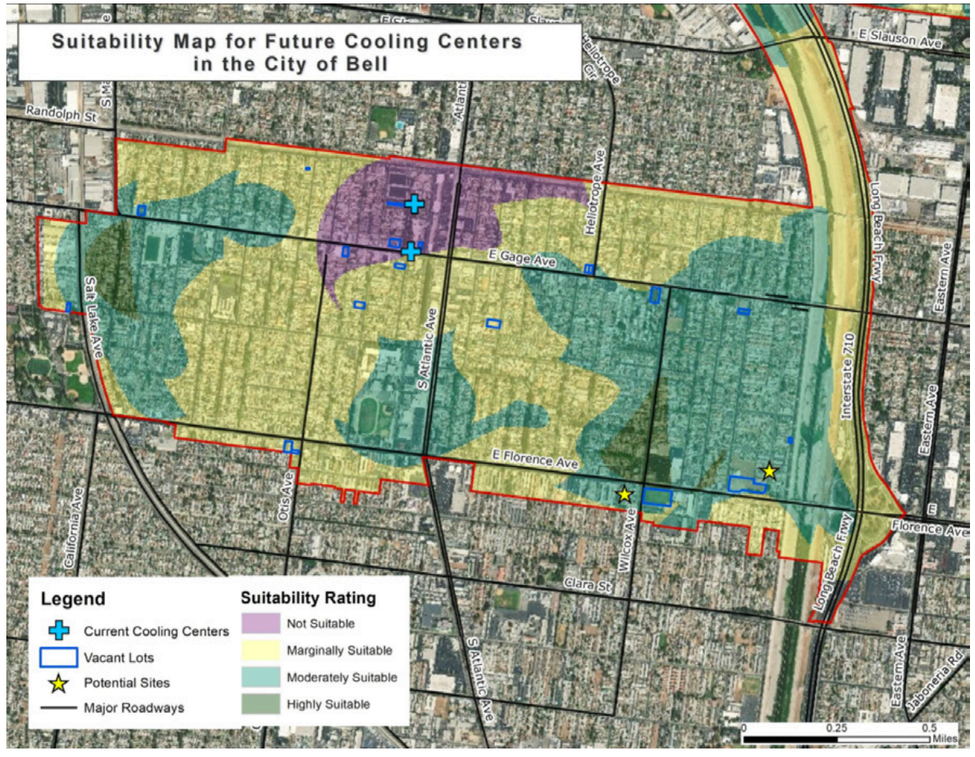
CLIMATE ACTION PLANNING

EXTREME HEAT
BELL, LA
CALIFORNIA

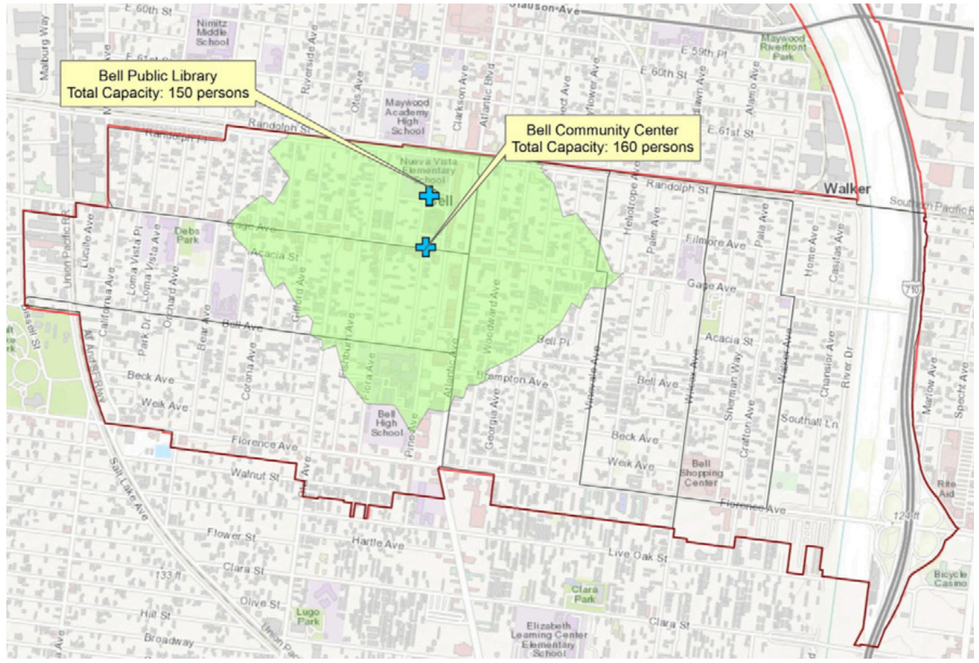
Los Angeles County, like the rest of the United States, is experiencing a yearly increase in overall regional temperature. Since 2012, each year up to the present has continually been the warmest on record in the LA region (Hall et al.2018). Like much of the rest of the US, warming in the LA region will continue to increase over the next decade and beyond according to climate projections. Earth's temperature will continue to increase over the next several decades as an effect of climate change and extreme heat events will be a consequence. EHE will become more intense and frequent, occurring earlier in the year and lasting longer. The Los Angeles County of Public Health on their website states "coastal areas and central LA will experience three times more days of temperatures over 95 degrees Fahrenheit. The San Fernando and San Gabriel Valles will have even more extremely hot weather".



SUITABILITY MAP FOR COOLING CENTER



EXISTING COOLING CENTERS



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