

# **Sustainable Cities**

Stanford University  
Stanford, California, U.S.A.

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## **Biography**

Deland Chan is an educator, researcher, and urban planner. Her work aims to bridge the fields of urban studies, sustainability transitions, and human-centered design to understand urbanization pathways and cities as the future home to over two-thirds of humanity. As Director of Community Engaged Learning, Deland teaches project-based classes where students collaborate with NGOs and government agencies on sustainability projects. In 2014, she co-founded the Stanford Human Cities Initiative to create an interdisciplinary community of urban scholars and practitioners. Deland previously worked as a Senior Planner at a community development corporation in San Francisco with a focus on transportation and land use planning. She holds a B.A with honors in Urban Studies, an M.A. in Sociology from Stanford University, and a Master in City Planning from UC Berkeley. Deland is pursuing a DPhil in Sustainable Urban Development at the University of Oxford funded by the Clarendon Scholarship.

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## Course website:

<http://urbanst164.stanford.edu>

## Topics

Urban sustainability, urban planning, land use, human and environmental systems

## Subtopics

Affordable housing, economic development, energy and waste, food systems, human and youth development, sustainability policy, sustainable transportation

## **Learning Goals**

Students who successfully complete all course requirements will:

- Describe concepts of sustainability, land use, transportation, air quality, public health, and food systems as these issues relate to spatial outcomes in urban communities;
- Analyze impacts of historical and current policies of sustainability in the Bay Area;
- Articulate challenges that low-income and communities of color face in achieving sustainability goals and ways in which those obstacles could be mitigated;
- Contribute to achieving sustainability goals by engaging in a service-learning project and working collaboratively with a local community partner; and
- Strengthen technical skills and propose sustainability recommendations through collecting, describing, and critically analyzing qualitative and quantitative data.

Students will be expected to meet the following service-learning objectives:

- Engage in a respectful, collaborative relationship with a local community partner;
- Place service learning experience within the broader context of sustainable cities;
- Deliver a final deliverable to the community partner that demonstrates accumulated knowledge and practical application between classroom and the service learning site;
- Develop soft skills to navigate social differences, including cultural awareness, ability to listen, and relationship-building with various stakeholders;
- Engage in self-reflection on individual and group agency to diverse communities in the Bay Area as it relates to class, race, gender, and Stanford University affiliation.

## **Primary Audience**

Advanced undergraduate students from Urban Studies and Environmental Studies, but the course is open to undergraduate and graduate students at all levels and disciplines

## **Prerequisite knowledge**

None

## **Brief summary of learning objectives, materials, instructional methods, and assessments**

In the Sustainable Cities seminar, students collaborate with San Francisco Bay Area government agencies and community organizations to support their sustainability goals.

The course assumes no prior background in Urban Studies. It aims to nurture a “T” shaped student where the first half of the course is wide and broad in establishing a foundation, then deep and narrow in connecting specific topics. This structure enables students to gain knowledge about sustainability and develop skills for real-life projects.

Unlike courses where students could spend a quarter studying one aspect of sustainability in depth, Sustainable Cities provides students with an overview of sustainability topics, frameworks that explain how they fit together, and tangible examples of how these issues overlap and unfold in a real-world project. This approach allows students to connect the dots and see how sustainability issues are interrelated.

This course uses a framework for assessing sustainable communities through the following lenses: environmental quality, economic vitality, social equity, and cultural continuity. The Four Pillars of sustainability provide a scaffold for students to ask critical questions beyond “what is sustainability” and instead “sustainable for whom and how.”

As students come from disciplines outside of Urban Studies, the first learning objective is to establish common ground for defining a city and sustainability. Week 1 introduces students to sustainability, as defined by policy and scholarly frameworks, and examines two case studies of a citywide and neighborhood effort to implement sustainability. As one student wrote in the mid-quarter course evaluation, “I appreciate spending the first few weeks learning about the basics. I don't have a background in urban studies or sustainability and understanding the foundations of this class was helpful to me.”

Weeks 2 through 4 prepare students for their projects. At the project kick-off in Week 2, students meet the community partners in class and learn more about the organization's histories. Students also discuss the principles of ethical and effective service. Students use a “learning by doing” approach to examine best practices for working with their community partners, where they grapple with “what would you do” prompts. Instead of presenting students with a single correct answer, this approach allows students to envision scenarios and decide how they would react based on their assessment.

Week 3 tackles the intersection of equity and sustainability through the “just sustainabilities” and “critical sustainabilities” literature, followed by case studies of Sustainable Chinatown Plan in San Francisco and the Little Tokyo Cultural Eco-District Plan in Los Angeles. Students learn how sustainability is related to distributive and procedural justice regarding who gets to define sustainability and who can participate.



Week 4 discusses public participation; students are first presented with a framework for measuring citizen engagement using Sherry Arnstein's Ladder of Citizen Participation, followed by examples of how planners have engaged the public on urban infrastructure projects to achieve higher levels of participation.

In Week 5, students learn about policies that influence sustainability, including Plan Bay Area, the regional blueprint for sustainable development and the California Environmental Quality Act. To see how these policies manifest in contestations of sustainability, students engage in a roleplay of a mock Transportation Commission Meeting, and they consider these policies in a streetscape plan for a fictional City of Fragrant Harbor. In response to these activities, one student wrote in the course evaluation, "My favorite class was when we had the mock stakeholder meeting and proposed the Main Street design renovations. It was fun to act in our roles and try to visualize what an actual planning meeting might be like." Another student wrote, "I like the mock meeting sort of events, especially when they apply to real-world policies, as they are very engaging and more hands-on in terms of learning."

In Weeks 6 through 9, students see how these policies influence all areas of sustainability in more detailed discussion about specific topics, such as housing, transportation, resilience, food systems, and smart cities. The class culminates in Week 10 with students presenting their work at the Human Cities Expo to the community partners and the public.

The course is offered for 4-5 units with an expected 15 hours of work per week, which includes in-class time, off-site fieldwork, reading, written assignments, and the final project. Improvement is an essential part of the assessment, as student teams are encouraged to reflect each week on what they learned, why it matters, and how they will apply what they learned to improve their progress for the following week.

## Statement of how course fits into a broader program of study

Offered every Fall quarter, the Sustainable Cities course draws students from across the university as it meets general education requirements for all undergraduates and can be counted as an elective for several undergraduate and graduate programs.

At the university level, Sustainable Cities is certified as a **Cardinal Course** by the Stanford Haas Center for Public Service for meeting high standards for ethical and effective service. Students who take twelve Cardinal Courses throughout their undergraduate career can apply for an optional “Cardinal Service Notation” for a public service distinction on their academic transcript to demonstrate their commitment to service. Sustainable Cities also qualifies as meeting two Undergraduate General Education requirements for Social Inquiry and Engaging Diversity.

Sustainable Cities originates from the Program on Urban Studies, an interdisciplinary program (IDP) within the School of Humanities and Sciences at Stanford and one of the seven schools at Stanford. Urban Studies is an undergraduate degree program that has awarded Bachelor of Arts degrees in Urban Studies since 1985. The class is also cross-listed with the Earth Systems Program, an IDP in the School of Earth.

At the departmental level, Sustainable Cities meets the Program on Urban Studies community-engaged learning requirements for the major, in which students are required to take at least one course in order to graduate. The class is also an elective in both the Land Systems and Human Environmental Systems tracks in the Earth Systems Program, the Nature and Environmental Studies Concentration of the Science and Technology Studies Interdisciplinary Program, as well as an elective for the Master of Science/Master of Arts Degree in Sustainability Science and Practice.

The Sustainable Cities class has been taught annually for the past decade. However, the Fall 2018 community partners became the first cohort to participate **Sustainability Visiting Community Experts Program**, a new three-year initiative between the Program on Urban Studies and the Haas Center for Public Service. This initiative was created to signal a long-term commitment to working with and supporting the community partners. Partners enter the partnership with a specific project that they will spearhead during the three-year period, receive a modest stipend, and work with the Sustainable Cities instructor to shape the course throughout the year such that the incoming class can contribute to the previous year’s efforts. At the end of the program, each project culminates in a deliverable with a public benefit, such as a permanent museum exhibit or a publication. This initiative aims to ensure that both students and community partners have a mutually beneficial experience by developing a structure for building momentum and continuity for the projects.

## Summary of student feedback on the course in prior offerings and evidence (quantitative and/or qualitative) that it has been taught with measurable success

Deland Chan has taught the class from Spring 2013 to Fall 2018. The following table summarizes quantitative course feedback on a scale of 0 to 5, with 5 as the highest possible score.

	Spring 2013	Winter 2014	Winter 2015	Winter 2016	Winter 2017	Fall 2017	Fall 2018
Number of students enrolled	13	11	15	13	18	18	25
How much did you learn from this course?	3.4	4.5	4.5	4.4	4.3	4.0	4.7
How would you describe the quality of the instruction in this course?	3.1	4.3	4.5	4.6	4.5	4.3	4.7
How organized was the course?	3.6	4.1	4.4	4.3	4.3	4.1	4.4
Response Rate	76.9%	36.4%	73%	61%	88%	66%	92%

Based on feedback over the years, the current instructor has made significant changes to the course to increase student satisfaction. These include: 1) preparing lectures that specifically offer content and skills that students need to use for their projects; 2) giving students more autonomy in shaping their projects while still providing the tools and support when necessary for students to manage relationships to the community partner, and 3) making the assessment process more transparent by sharing grading rubrics.

### Selected comments from Fall 2018 Course Evaluations:

- This is a phenomenal course. Absolutely take it. It is a fractal, with so much to explore: as such, the more time you put into it, the more you will get out of it and the more you will learn. Give yourself the opportunity to do justice to this class and to this work by making it your central course during the quarter in which you take it. The experiences you build in this class will stay with you and will inform all of your future work, no matter your home discipline or department.
- This course provides you an amazing opportunity to reexamine your values with regards to what matters to you about cities. Do you just care about economic development and modern buildings or also about affordable housing, about equitable allocation of green space, about gentrification and community change as well as food access? If you think along these lines TAKE THIS COURSE. It has been an amazing intellectual and personal experience for me.
- Definitely take it! Whatever major you are! It's amazing to go out in the community and help out! The bubble is so small, it's important for us to remember the larger community we are a part of!

- This class really helped me expand my definition of sustainability and gain crucial skills through the community-based component. Assign roles of team management and empathize with your project to be most successful.
- Definitely take it! Super important material, very well taught, and the community aspect makes it feel worthwhile.
- Definitely take this class if you are interested in sustainable urban planning! This class has an intersectional definition of sustainability and does not follow mainstream environmentalism. Deland is a great lecturer and all projects are interesting!

## **Explanation of your innovative approach and how it removes barriers to learning and how the goals and topics of the course are aligned with the Institute's key issues**

Rapid urbanization and climate change are among the most pressing issues of the 21st century. Cities account for 2% of the world's surface area but generate up to three-quarters of greenhouse gas emissions. Despite this link between cities and sustainability, there has been slow uptake in adopting sustainability solutions. The obstacles to addressing climate change are not just technical but political and social.

We need to prepare the next generation of future leaders to address climate change effectively. These efforts should 1) be interdisciplinary and encourage students who are generally outside the built environment fields to have a critical stake in solving these problems, 2) attract students from underrepresented demographics in these professions — particularly low-income students of color and women— whose perspectives can bring creative solutions and approaches to the table, and 3) encourage a growth mindset so that students are motivated and equipped to work collaboratively in diverse teams to address “wicked” problems that lack a linear and straightforward solution.

The Sustainable Cities class aims to achieve these goals. The class is open to students from all disciplines and years, as there are no prerequisites. Past students have ranged from first-year to graduate students, with a heavier weight towards upperclassmen as this course meets several undergraduate requirements. Students come from Urban Studies to Public Policy, to Computer Science, Mechanical Engineering, Civil Engineering, to English and Law. Students, including first-year students and those who have not taken any Urban Studies courses have done well in the class with strong motivation and hard work. Some of the best project teams have incorporated first-year undergraduate to graduate students working together from different fields, as differences in working across disciplines resulted in the students making more efforts to develop an intentional and inclusive process than if they were to work in the same disciplinary teams. Having everyone start from scratch without advantages to any demographic sets a clear expectation for the class and levels the playing field.

The class is also structured to be welcoming and inclusive to first-generation and/or low-income college students, and as such, class demographics tend to weigh more heavily towards a higher percentage of women and minorities than the overall university student population. These efforts are structural and logistical. For example, each project team is provided a modest project budget for travel expenses to the site, printing of survey materials, and other materials to enhance the final deliverable. This allows many students to select a project based on their interests without concern about financial ability. All course materials are posted online, eliminating the need to purchase expensive textbooks. In addition, case studies and readings were selected carefully to ensure gender and racial diversity in terms of the communities discussed and examples of scholarly writing. All of this combined with a statement in the syllabus about



welcoming all perspectives is critical to ensure that students who may already feel marginalized in an elite university setting have a safe space to bring their experiences to class discussion and projects.

Finally, the project-based component of the class teaches students to work in diverse teams to tackle difficult and challenging problems. Unlike other courses where students are assessed for individual contributions and ability to suss out a correct answer, this class teaches students how to collaborate in diverse teams, be resilient, and learn how to learn. For example, students are given project briefs with clear deliverables along with case studies and examples of what others have done in similar situations; however, they are not told the “right” path to achieve these goals. While the instructor provides tools for assessing and managing their relationship to their community partners, the student maintains independence and agency in driving the project forward.

Many students who take the class thrive under these challenges. First, they are motivated to deliver a high-quality project deliverable as they want to give back to an urban community adjacent to the university that is located in their backyards. Second, they are eager to learn these skills, which they believe will help them in their future endeavors. Former students have gone on to take leadership roles in their hometowns such as becoming an appointed housing commissioner, undertaking honors thesis research, or teaching an alternative spring break trip. Regardless of whether students





continue to address sustainable cities in their work—although many do—they learn first and foremost what it means to have a growth mindset. In this way, they are equipped to tackle wicked problems by knowing what questions to ask and possible approaches to take, and to shape the world with and for communities impacted by climate change.

### **Academic year(s) in which it was offered**

The course has been offered annually for the past ten years from 2009 – 2019 by three different instructors. Deland Chan has taught the class from Spring 2013 to Fall 2018.

## Testimonials from student alumni:

"Sustainable Cities pushes students to specialize their skills and streamline their approach to gathering and presenting data. Since many of us worked on projects requiring skills we didn't necessarily have going in, each member of a team was responsible for acquiring the expertise needed for their role. I was responsible for creating the maps within my team's parking survey of downtown Belmont, and this required that I teach myself how to use Adobe Illustrator and constantly edit the way our data was presented to make it clear. Completing this sizable project was definitely a proud moment and I gained the confidence to tackle new projects outside of my comfort zone."

- Patrick Colson ('13), BA in Urban Studies

"This class gives people a real sense of what it is like to drive change in a vital area of study for the future of our community. Working on real-life issues plaguing organizations in our community allowed the learning to be more than just an academic exercise. As someone who is focused on impact and output, I loved to have an experience that was going to have real impact on people in the near future. Other benefits included the ability to work with students from different disciplines, connection to the broader community of organizations working to improve the sustainability of the Bay Area, and combination of academic research and on the ground experiences."

- Douglas Weiss ('13), MBA/MS in Sustainable Design, Emmett Interdisciplinary Program in Environment and Resources

## Testimonials from community partners:

"We enjoyed the students' enthusiasm and commitment to the project and also having a new set of eyes looking at our problem. The biggest benefits of working with Stanford's Sustainable Cities were the useful information the GIS maps offered the clinic leadership. The biggest benefits of working with Sustainable Cities were the useful information the GIS maps offered the clinic leadership. They helped us see what the spread of the patients was by highlighting the walking and driving routes. The focus groups with the various clinic employees and literature reviews helped guide the solutions for the unsafe street concerns and the parking lot suggestions. I absolutely would recommend the partnership to other organizations. The program can be very beneficial!

- Priscilla Padilla Romero, MPH, MPP, San Mateo Medical Center

"This is our 4th or 5th year working with the students and every year has produced great results. Recommendations from students on how to implement safe routes to schools were amazing. Stanford students did fact-finding, research, and involved some of the [school] students, empowering them to feel like they could be part of an answer. Stanford students provided very specific recommendations to improve the situation, and if implemented, the school would have made significant inroads. The most beneficial facet of the project was the regular check in point, which allowed me to know where the Stanford students were at in their project, and answer questions. Stanford students used analytical tools that we would not have otherwise used. We asked the students at their presentation what they didn't expect: the students were surprised that adults (parents) did not use social media. It was a maturing aha moment for the students. Everybody learned."

- Nadine Levin, Redwood City

**SUSTAINABLE CITIES  
URBANST 164 / EARTHSYS 160  
COURSE SYLLABUS**

**Stanford University  
Autumn Quarter 2018**

Professor Deland Chan  
(deland@stanford.edu)  
Building 120, Room 160  
Office hours: Monday 1-2pm

Lathrop 190  
Monday & Wednesday  
10:30am-12pm

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." – *Brundtland Report*, United Nations World Commission on Environment and Development

"Cities are responsible for the vast majority of the creation of the economy. They're also places into which we pour the vast majority of resources, the vast majority of energy and the places where a huge percentage of the decisions about how systems are built and how products designed, etc., happen." – Alex Steffen, Author of *Carbon Zero: Imagining Cities That Can Save the Planet*

"Sustainability isn't just about numbers, and it isn't always explicitly about 'the environment' by which most of us mean issues related to pollution and resource consumption. If our urban solutions don't work for people – if we don't make cities wonderful places to live, work, and play – they will never sustain enough favor to work for the planet." – Kaid Benfield, founder and former director of the Natural Resources Defense Council Sustainable Communities Program

"Just sustainability is the need to ensure a better quality of life for all, now and into the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems." – Julian Agyeman, Professor of Urban and Environmental Policy and Planning at Tufts University

## **COURSE DESCRIPTION**

One in two people in the world currently live in cities, and the population of urban dwellers is expected to grow to over 6 billion people (70% of the world) by 2050. Cities are fast becoming the dominant spatial feature of the twentieth-first century; the reality of the "urban planet" threatens to erode our natural environment and human capital assets. Cities account for three percent of the world's land area, yet they are responsible for up to 70% of global greenhouse gas emissions and between 60-80% of energy consumption. This course takes a holistic approach to sustainability and aims to assess sustainable

communities through the following lenses: environmental quality, economic vitality, social equity, and cultural continuity. Sustainable cities make it possible for all communities to share environmental benefits without overburdening certain populations with harmful environmental impacts. The four pillars of sustainability are:

- **Environmental Quality**, as it relates to the biophysical world such as air and water quality, wildlife protection and conservation, resource management, greenhouse gas emissions, and energy usage.
- **Economic Vitality**, referring to monetary growth as measured by gross domestic product (GDP), import and export production, and employment levels.
- **Social Equity** as equal opportunity for all members of society to have equal access to the same quality of life regardless of their place in society. An equitable society ensures that people can satisfy all of their needs— from access to safe and affordable housing, food security, and health outcomes— to the ability to achieve higher-order needs such as belonging, esteem, and self-actualization.
- **Cultural Continuity** recognizes that we all come from cultural histories and heritage, and this informs how we interact with the physical environment. The manifestations of cultural continuity include spoken and written language, types of building materials and construction, norms of social behavior and activity, dietary preferences and practices of food consumption, oral traditions and folklore passed down from past generations, and a sense of identity and social cohesion.

**In this community-based learning course, you will collaborate with government agencies and NGOs in the Bay Area to support their efforts towards sustainable and equitable cities.** You will work in teams in a real-world context to ground your theoretical understanding of sustainable cities and interact with community partners by leveraging their sustainability projects through hands-on fieldwork and research. At the end of the quarter, each team will present their final deliverable at a public symposium.

You will have the opportunity to reflect upon your position as a Stanford University student to develop your professional and personal capacity for serving the public interest. Course grades will depend on your team's ability to demonstrate a sophisticated level of collaboration and respectful engagement with community partners outside the classroom.

## WHAT IS SERVICE LEARNING?

Service learning is defined in *Service Learning in Design and Planning* (edited by Tom Angotti, Cheryl Doble, Paula Horrigan, 2012) as a structured learning experience that combines community service with academic coursework and reflection. When applied to urban planning and design courses, service learning aims to provide a transformational experience for the instructor, student, and community partners while leaving a positive impact on the community, its people, and the built environment.

In this class, service learning serves as a pedagogical tool to deepen and solidify your understanding of the course content (e.g., urban sustainability) beyond the traditional lecture and classroom format. The partnership with our community partners, based on reciprocity and active engagement, is one of the key texts and ever-evolving classroom in which you will draw upon throughout the quarter to achieve your learning outcomes.

The class will involve engaging with local experts outside the traditional classroom through fieldwork and collaborating with community organizations on a final project. Our community partners will be dedicating significant time and resources to guide your learning experience. Remember to respect their time, but more importantly, make it your explicit goal to create a deliverable that is of value and use to our partners.

My role as the instructor is to support these partnerships and provide guidance as you navigate these real-life projects. I will encourage you to develop critical thinking skills as you integrate direct experience with usable knowledge. As students, you are responsible for managing relationships with our partners and taking initiative to guide your learning.

## COURSE OBJECTIVES

URBANST164 is a 5-unit course with an expected workload of 15 hours per week. Students who sign up for 4 units are expected to meet the same course requirements. This course is open to undergraduates from all majors and disciplinary backgrounds. Graduate students may enroll with prior consent of the instructor. There will be classroom seminar discussions, readings, written reflections, and off-site project fieldwork. This course fulfills the capstone service-learning requirement for Urban Studies majors and undergraduate core requirements in the Ways of Engaging Diversity and Social Inquiry. This syllabus is subject to change at any time at the instructor's discretion.

This course has been designated as a [Cardinal Course](#) by the Haas Center for Public Service. Cardinal Courses apply classroom knowledge to pressing social and environmental problems through reciprocal community partnerships. The units received through this course can be used towards the 12-unit requirement for the [Cardinal Service transcript notation](#).

Students who successfully complete all course requirements will:

- Describe concepts of sustainability, land use, transportation, air quality, public health, and food systems as these issues relate to spatial outcomes in urban communities;
- Analyze impacts of historical and current policies of sustainability in the Bay Area;
- Articulate challenges that low-income and communities of color face in achieving sustainability goals and ways in which those obstacles could be mitigated;
- Contribute to achieving sustainability goals by engaging in a service-learning project and working collaboratively with a local community partner; and
- Strengthen technical skills and propose sustainability recommendations through collecting, describing, and critically analyzing qualitative and quantitative data.

Students will be expected to meet the following service-learning objectives:

- Engage in a respectful, collaborative relationship with a local community partner;
- Place service learning experience within the broader context of sustainable cities;
- Deliver a final deliverable to the community partner that demonstrates accumulated knowledge and practical application between classroom and the service learning site;
- Develop soft skills to navigate social differences, including cultural awareness, ability to listen, and relationship-building with various stakeholders;
- Engage in self-reflection on individual and group agency to diverse communities in the Bay Area as it relates to class, race, gender, and Stanford University affiliation.

## COURSE MATERIALS

Required readings for this course are available on Piazza:  
[piazza.com/stanford/fall2018/urbanst164](https://piazza.com/stanford/fall2018/urbanst164)

You should be prepared to seek and verify additional resources (i.e., government reports, policy documents, etc.) independently. These real-life projects impact real communities and people; therefore, the issues are constantly evolving according to social and political realities. It is imperative that you keep an informed pulse on all real-time factors that may affect the final project deliverables.

## COURSE REQUIREMENTS

By enrolling in this course, you are entering into a professional partnership with your colleagues and community partners. Your grade will be based on individual class attendance, blog reflections, community fieldwork, and a group project and presentation.

10%	Class Citizenship
30%	Weekly Progress Report and Reflection
20%	Site Visits and Fieldwork
40%	Final Project and Presentation

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### Class Citizenship (10% of final grade)

#### **Citizenship consists of your class attendance, in-class participation, and teamwork.**

The purpose of in-class discussion is to engage in critical thinking with your peers on course content and to provide space for dialogue and problem-solving. Everyone has a place at the table. It is my hope that you will fully contribute your own views while demonstrating respect for the perspectives of others in the classroom. Class sessions will aim to introduce structured activities that enable you to critically reflect upon the similarities and differences between your own experience with urban sustainability issues, those of your peers, and the community stakeholders at your service-learning site.



You should complete all the readings by the date indicated on the course schedule. Class attendance is mandatory. Failure to notify the instructor of an absence by e-mail 24 hours prior to class will result in an unexcused absence.

If you miss a class, you will need to submit a 5-page memo summarizing and analyzing the readings within 48 hours of missing class. **If you have more two unexcused absences, your final grade will be automatically reduced by one letter grade.**

#### Weekly Progress Report and Written Reflection (30% of final grade)

Throughout the quarter, your team will submit a weekly progress report and reflection, which will be made public on the class blog. **Written reflections are due Friday at 11:59PM on the Piazza course website as indicated on the schedule.** Each post should provide: 1) an update of your project activities, 2) what you observed and learned from your project site, and 3) a critical analysis connecting your fieldwork with class readings or classroom discussion. Use of photos, videos, and multimedia is highly encouraged. Please remember that reflections are timely. Unless you have prior permission from the instructor, you will not receive credit for late work, or after 24 hours of the deadline.

Each reflection will be evaluated on the basis of critical thinking, thoughtfulness, and effort. To see examples of previous class blog posts, visit <http://urbanst164.stanford.edu>.

#### Site Visits and Fieldwork (20% of final grade)

As a service-learning course, your direct involvement in the community will serve as the primary text to situate your learning. The instructor will present several projects on the first day of class, and students will rank their project preference based on interest and relevant experiences. Projects have been pre-screened for their relevancy to sustainable cities, potential to provide a tangible benefit for the community partner, and the willingness of the community partner to engage with students throughout the quarter such that the collaboration will support your learning goals and result in a successful project.

Students will be divided into teams and assigned to a community partner based on interest, project preference, and relevant skills. This course requires that you spend significant time *outside* of the classroom and at your community site starting the week of October 8 and ending the week of December 3 on course-related activities, such as attending meetings with community partners and conducting fieldwork. You are encouraged to carpool/commute together. **Your grade is not determined by the *number* of service hours, but the *quality* of the project that emerges from your efforts.**

Groups are required to check in with the community partner in an agreed-upon format four times in the quarter. **You should schedule meetings at least two weeks in advance for the weeks of October 8, October 22, November 5, and November 26.** It is strongly encouraged to assign one team member to communicate directly with the partner.

The community partner will be responsible for providing feedback to the instructor on group preparation and professionalism during these meetings. This evaluation will inform course grades. You are expected to act in a respectful manner in all interactions with community representatives, including staff on site, the clients that they serve, and other stakeholders. This means using appropriate dress, language, and professional behavior.

### Final Project (30% of final grade)

Students will be divided into teams and assigned to a community partner based on interest and relevant skills. By Week 4, you will finalize a scope of work that defines the final deliverable that you will provide to your community partner at the end of the quarter.

**Teamwork is critical.** Your grade will depend heavily on your team's overall ability to deliver a quality deliverable that satisfies your community partners' organizational goals. While you can influence your individual grade via class attendance and participation, your final grade will ultimately depend on how well you are able to work with your team members and engage your community partner to deliver a successful final project.

### Final Project Deliverables Deadlines:

- (1) In-Class Midterm Presentation on scope of work — Wednesday, October 17
- (2) Send scope of work to community partner and instructor — Friday, October 19
- (3) Final Project Deliverables — Wednesday, December 12

**No incompletes and extensions will be granted except in documented emergencies.**

### Final Presentation and Exhibition (10% of final grade)

At the conclusion of the course, students will participate in a public event where they will create a public exhibition and present their final deliverables to the community partner. Individual team members will receive credit only if they participate in the final expo.

## UNIVERSITY POLICIES

### Students with Documented Disabilities

Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Student Disability Resource Center (SDRC) located within the Office of Accessible Education (OAE). Staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact the SDRC as soon as possible since timely notice is

needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 650-723-1066).

#### Stanford University Honor Code

Violating the Honor Code is a serious offense, even when the violation is unintentional. Examples of conduct that have been regarded in violation of the Honor Code include:

- Copying from another's examination paper or allowing another to copy from one's own paper
- Unpermitted collaboration
- Plagiarism
- Revising and resubmitting a quiz or exam for re-grading, without the instructor's knowledge and consent
- Giving or receiving unpermitted aid on a take-home examination
- Representing as one's own work the work of another
- Giving or receiving aid on an academic assignment under circumstances in which a reasonable person should have known that such aid was not permitted

Please familiarize yourself with the Honor Code and speak with me if you have any questions: <http://www.stanford.edu/dept/vpsa/judicialaffairs/policy/honor-code>.

## **WEEK 1:** **Building a Foundation: Defining Sustainable Cities**

### **Monday, September 24: Syllabus & Project Overview**

Introduction to class and projects

### **Wednesday, September 26: Defining Sustainable Cities**

Learning Objectives:

- Introduce frameworks in the literature for defining cities and sustainability
- Understand how and why the definition of “sustainable cities” is contested
- Explore the range of indicators of sustainable cities

Case Study: How are cities engaging in sustainability efforts? A closer look at two efforts: an ambitious plan at the citywide scale (PlaNYC in New York City) in contrast to a community-led plan at the neighborhood scale (Sustainable Chinatown, San Francisco)

Complete **project preference form** by Thursday, September 27 at 11:59pm PST. You will be assigned to project team based on your responses by Friday, September 28.

#### Readings Due Today:

- Syllabus & Project Descriptions
- Nguyen, Vu-Bang and Stivers, Evelyn. *Moving Silicon Valley Forward*. 1st ed. Oakland and San Francisco: Urban Habitat and Non-Profit Housing Association of Northern California, 2012.
- Samara, Tony R. *Race, Inequality, and the Resegregation of the Bay*. 1st ed. Oakland: Urban Habitat, 2016.
- *OneNYC 2016 Progress Report*. The City of New York, 2016.

## **WEEK 2:** **Setting the Context: Establishing Partnerships**

### **Monday, October 1: Meet Community Partners in Class (Official Project Kick-Off)**

Learning Objectives:

- Community partner history, assets, and challenges
- Who are the community partner’s constituents and stakeholders?
- How can we establish basic protocols for working with community partners?

#### Readings Due Today:

- Readings provided by your community partner

### **Wednesday, October 3: Sustainability and Equity**

#### Learning Objectives:

- What is the importance of asking what is sustainable, for whom, and how?
- How might we understand the terms “just sustainability”, “eco-gentrification”, “ecological gentrification” in reference to frameworks of social sustainability?
- What are the Four Pillars of Sustainability, and how do we identify and measure environmental protection, economic vitality, social equity, cultural continuity?

#### Readings Due Today:

- Checker, Melissa. "Wiped out by the “greenwave”: Environmental gentrification and the paradoxical politics of urban sustainability." *City & Society* 23, no. 2 (2011): 210-229.
- Greenberg, Miriam. "What on Earth Is Sustainable?: Toward Critical Sustainability Studies." *Boom: A Journal of California* 3, no. 4 (2013): 54-66.

**Group Project: Email group project update and reflection by 11:59PM Friday, October 5. Contact community partner to schedule on-site orientation for the week of October 8.**

### **WEEK 3:**

#### **Building Skills: Community-Based Learning and Research**

#### Check-In Meeting #1 with community partner:

Highly recommended: on-site orientation to project site

Confirm meeting schedule with community partner for rest of the quarter

Schedule dates for on-site interviews, focus groups, and other events

### **Monday, October 8: Community-Based Learning and Research**

#### Learning Objectives:

- What is community-based research, and how do we engage in a reciprocal partnership as students affiliated with an academic institution?
- How should we, as a class, collaborate effectively with our community partners?
- How do we build trust and encourage mutual collaboration?

#### Readings Due Today:

- Haas Center for Public Service. *Principles of Ethical and Effective Service*, 2014. Retrieved from <https://haas.stanford.edu/sites/default/files/principles.pdf>
- Illich, Ivan. "To hell with good intentions." In *Conference on Inter-American Student Projects*, 1968. Retrieved from [http://www.swaraj.org/illich\\_hell.htm](http://www.swaraj.org/illich_hell.htm)

### **Wednesday, October 10: Overview of Mapping and Geospatial Analysis**

#### Learning Objectives:

- Overview of geospatial analysis, tools, and examples in urban studies
- How might you apply geospatial analysis to your projects?
- Learn resources for further learning and training throughout the quarter

Class will meet directly at the Stanford Geospatial Center inside Branner Library

#### **Group Project:**

**Email group project update and reflection by 11:59PM Friday, October 12.**

## **WEEK 4: Community Engagement Strategies**

### **Monday, October 15: Community Planning Tools**

#### Learning Objectives:

- How to develop survey instruments and scope community engagement strategies
- Methods of collecting and validating community knowledge
- Methods for facilitating workshops/focus groups and conducting surveys
- Describe the impacts of community engagement in diverse communities

Case Study: Chinatown Broadway Street Design, a community-based streetscape plan

#### **Readings Due Today:**

- Arnstein, Sherry R. "A ladder of citizen participation." *Journal of the American Institute of Planners* 35, no. 4 (1969): 216-224.
- Sandercock, Leonie. In *Toward Cosmopolis: Planning for Multicultural Cities*, 76-83. Chichester, England; New York: John Wiley & Sons, 1998.
- Fieldwork Resources (Observation tools, interviewing, facilitating focus groups)

### **Wednesday, October 17**

In-Class Midterm Presentation on project scope of work

#### **Group Project:**

Submit final scope of work to instructor and community partner by Friday, October 19.



## **WEEK 5: Sustainability Policies**

### Check-In Meeting #2 with community partner:

Discuss scope of work and solidify timeline for moving forward

Begin intensive work on executing fieldwork plan

### **Monday, October 22: Plan Bay Area**

Learning Objectives:

- Understand Plan Bay Area covers as a regional blueprint for sustainable growth
- Why did we need a Plan Bay Area? What is in the actual plan? Why it should matter to your project? Why should it matter for sustainability in the Bay Area?
- Draw connections between land use, transportation investment, and sustainability
- Understand responses to Plan Bay Area and impacts on politics of sustainability

### Reading Due Today:

- *Plan Bay Area 2040*. San Francisco: Association of Bay Area Governments and Metropolitan Transportation Commission, 2017.

### **Wednesday, October 24: Organizing for Sustainability**

Learning Objectives:

- Why did the National Environmental Quality Act (NEPA) and California Environmental Quality Act (CEQA) pass, and what do they aim to achieve?
- What projects fall under NEPA and CEQA? What is the process for review?
- Key Terms: Significant Effect, Environmental Impact Report, Level of Service

Case Study: Life before NEPA/CEQA, examples of CEQA challenges in the Bay Area

### **In Class: CEQA Roleplay: Transportation Commission Meeting**

### Readings Due Today:

- *California Planning Guide: An Introduction to Planning in California*. Sacramento: California Governor's Office of Planning and Research, 2005.
- Krasny, Michael. "Plan Bay Area is Approved." Produced by KQED. *Forum*. July 22, 2013. Retrieved from <https://www.kqed.org/forum/201307220900/plan-bay-area-is-approved>

### **Group Project:**

**Email group project update and reflection by 11:59PM Friday, October 26.**

## **WEEK 6:**

### **Urban Resilience and Sustainable Food Systems**

#### **Monday, October 29: Creating Resilient Cities**

Learning Objectives:

- Defining resilience in the urban context
- How is resilience measured, and what are examples of community resilience?

Reading Due Today:

- Naderpajouh, Nader, J. Yu David, Daniel P. Aldrich, Igor Linkov, and Juri Matinheikki. "Engineering meets institutions: an interdisciplinary approach to the management of resilience." *Environment Systems and Decisions* 38, no. 3 (2018): 306-317.

#### **Wednesday, October 31: Sustainable Food Systems and Urban Agriculture**

Learning Objectives:

- What are some examples of urban agriculture?
- Who potentially benefits from urban agriculture? What are some challenges of urban agriculture, and what are some potential ways to mitigate them?
- How can issues of urban agriculture connect to other areas of sustainability
- How can we understand local sustainability issues in relation to more global ones?

Meet at O'Donohue Family Stanford Educational Farm

Reading Due Today:

- Golden, Sheila. *Urban agriculture impacts: Social, health, and economic: A literature review*. Davis: University of California, 2013.

#### **Group Project:**

Email group project update and reflection by 11:59PM Friday, November 3.

## **WEEK 7: Housing the Bay Area Population**

Check-In Meeting #3 with community partner:

Project progress

Continue intensive fieldwork

### **Monday, November 5: History and Present State of Housing in the Bay Area**

Learning Objectives:

- How did we get to the current housing situation?
- What counts as “public housing”?
- What are different types of housing that we have in the Bay Area?
- How can we define and understand affordable housing in the Bay Area?

Case Study: 990 Pacific as an example of U.S. Housing and Urban Development policy shift from building public housing to Rental Housing Assistance Demonstration Project

Reading Due Today:

- Von Hoffman, Alexander. "High ambitions: The past and future of American low-income housing policy." *Housing Policy Debate* 7, no. 3 (1996): 423-446.

### **Wednesday, November 7: Future Pathways of Housing in the Bay Area**

Learning Objectives:

- Who are the actors involved in building, developing, and maintaining housing?
- What are pathways to housing current and future Bay Area residents?

Readings Due Today:

- McElroy, Erin, and Szeto, Andrew. “The Racial Contours of YIMBY/NIMBY Bay Area Gentrification.” *Berkeley Planning Journal* 29, no. 1 (2017): 7-44.
- Epstein, Ethan. 2017. “How San Francisco Saved Its Public Housing By Getting Rid of It.” *Politico Magazine*, July 20, 2017.  
<https://www.politico.com/magazine/story/2017/07/20/how-san-francisco-turned-its-tenements-into-treasures-215391>

### **Group Project:**

**Email group project update and reflection by 11:59PM Friday, November 9.**

## **WEEK 8: Sustainable Transportation**

### **Monday, November 12: The State of Transportation in the Bay Area**

#### Learning Objectives:

- What are the characteristics of the Bay Area transportation network?
- Who is most affected and how?
- How did our transportation system get this way? What are the mechanisms for funding capital and maintenance improvements?
- What are some potential solutions and pathways to addressing current challenges?

#### Readings Due Today:

- Amin, Ratna, and Sara K. Barz. *Seamless Transit: How to Make the Bay Area Public Transit Function Like One Rational, Easy-to-Use System*. San Francisco: SPUR, 2015.
- Schafran, Alex. "Silicon San Francisco and the West Bay Wall." In *The Road to Resegregation: Northern California and the Failure of Politics*, 150-185. 1st ed., Oakland: University of California Press, 2018.

### **Wednesday, November 14: Transportation Demand Management**

#### Learning Objectives:

- Stanford as a city: examples of sustainable transportation in practice
- Bike Tour led by Stanford Parking & Transportation: bring bike to class

#### **Group Project:**

**Email group project update and reflection by 11:59PM Friday, November 16.**

## **WEEK 9: Future of Sustainable Cities**

#### Check-In Meeting #4 with community partner:

Discuss progress on final report and project deliverables

Create and share draft of final presentation slides

### **Monday, November 26: Technology and the Future Sustainable Smart City**

#### Learning Objectives:

- Technology promises to create a smarter and more sustainable city. How should we evaluate that statement? What are the societal and spatial impacts?

- Prescriptive closed smart city and coordinating open smart city (Sennett, 2018)
- Digital inclusion, transparency, and new possibilities of community engagement
- Applications of technology in the delivery and provision of urban services
- Who benefits from smart cities? Who participants in smart cities?

Case Study: How smart cities are being implemented in existing cities, but also in new cities built from scratch: Masdar, Songdo, participatory budgeting, scenario planning

Reading Due Today:

- Sennett, Richard. "Tocqueville in Technopolis." In *Building and Dwelling: Ethics for the City*, 144-167. 1<sup>st</sup> ed., City: Farrar, Straus and Giroux, 2018.

**Wednesday, November 28: Project Development**

Preparation for the Human Cities Expo

Class will meet at the d.school Concept Car studio on ground floor in front of the red car

**Group Project:**

**Email group project update and reflection by 11:59PM Friday, November 30.**

**Week 10:**

**Final Presentation & Exhibition**

**Monday, December 3: Reflection**

Learning Objectives:

- Looking to the future: Your Role in the Sustainable City
- Reflections on course concepts and projects

**Wednesday, December 5**

Final Presentation and Exhibition at the Human Cities Expo 10am-6pm – d.school

**Wednesday, December 12 by 11:59PM**

Final Project Deliverables due via e-mail to instructor and community partner

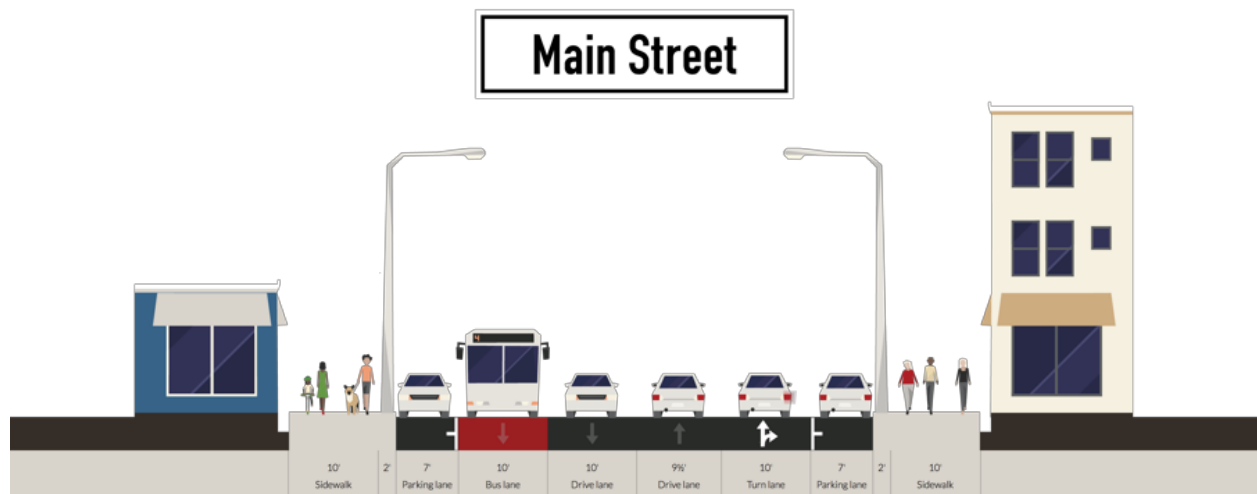
# Sustainable Cities CEQA Role Play Activity

In Week 5, our class will host the City of Fragrant Harbour Transportation Commission meeting featuring... **you!** Please see below for the simulation teams. I will distribute team strategy documents in class today, which includes confidential information that you should not share with other stakeholders, unless you think working together might strengthen your position. In addition, please review the California Environmental Quality Act readings under Week 5 Resources to understand the leverage that you might have.

## Background

The federal government recently awarded the City of Fragrant Harbour a \$5.5M planning grant to design a new and improved Main Street. For the past few decades, the City has retained much of its quiet village and residential feel. Five years ago the successful technology company “AnotherAppX” moved in, which has attracted businesses, new residents, and daytime clientele to the city.

Main Street is the oldest street in the City and serves as its major arterial road. It is a mixed-use street with older structures that consist of one-story commercial buildings, with some newer condominium developments with street-level retail. Main Street is a busy vehicular thoroughfare, and there is a major bus route that runs along Main Street that connects the city to other transportation hubs throughout the region. The current width of the street is 80 feet. See the street selection below for existing conditions.



The Main Street Streetscape Design is currently undergoing a public hearing process. At the next public hearing of the Transportation Commission, we will first hear a presentation from the **Department of Transportation (DOT) planners** explaining the project rationale and their proposal for the project. **Members of the Board of Supervisors** may also appear during the meeting to provide a few remarks. **Members of the general public, including merchants, community members, and advocacy groups** will also be invited to give up to 3 minutes of public comment per person.



Speaker Order:

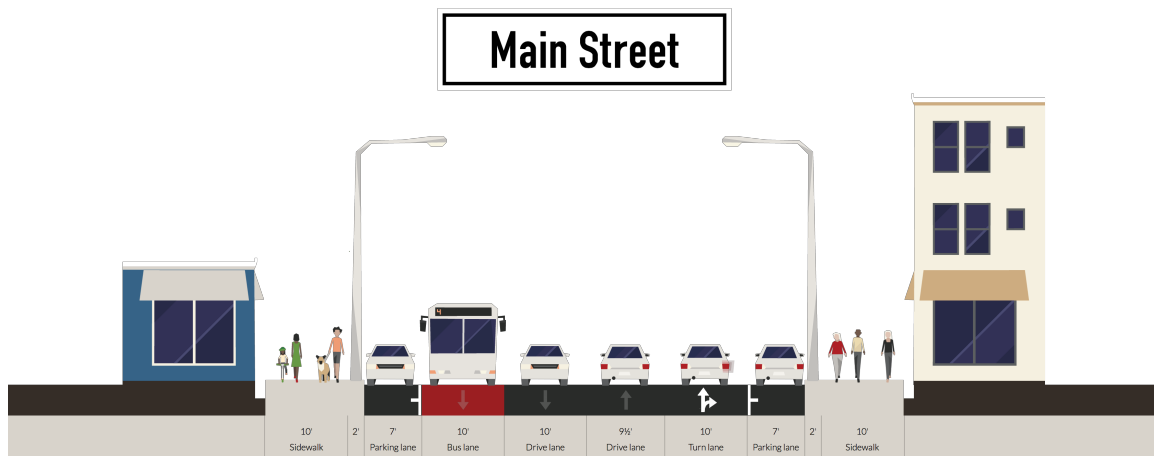
1. Transportation Commission Directors - call the meeting to order, request that Department of Transportation staff present the plan
2. Department of Transportation staff - present the plan: existing conditions and proposed designs
3. Board of Supervisors - offer comments on the plan
4. Members of the public: provide public comment for 3 minutes - Furniture Store Owner, Coffee Shop Owner, Pedestrian/Bicycle Advocacy Organization. Think about how you may shape your argument using the scope of CEQA.
5. Transportation Commission Directors - may invite DOT staff to respond to public comment or provide more details. Call for a vote and provide final assessment on whether to pass the plan, decline, or postpone for future action.

## Background

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## **Pedestrian/Bicycle Advocacy Group**

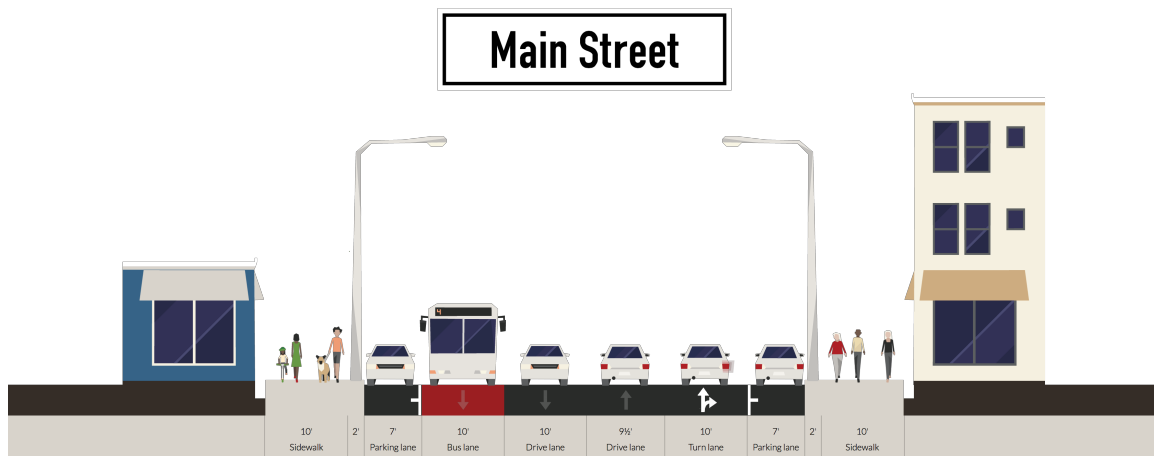
As a pedestrian/bicycle advocacy organization, your mission is to improve sustainable transportation options in the City through infrastructure advocacy, education programming, and public policy changes. You are primarily member-based, and in the last few years, your membership has skyrocketed due to the influx of young residents who mostly bike and walk to work. Many of your newest members work at the new technology company that moved into the City five years ago. Your organization would like to see more generous sidewalks and bicycle infrastructure as part of the Main Street Streetscape Design. You have already gotten some pushback from planners and engineers at the Department of Transportation, who tell you that adding more bike lanes means less space for cars, which will result in intersections “failing” and triggering environmental review. You have also met with several merchants, some of whom are very angry about potentially losing their parking spaces if the City were to widen the sidewalk or add a bicycle lane. To support your cause, your organization painstakingly surveyed 200 people on Main Street and found that 40% of people arrived at Main Street by bicycle, walking, and/or public transportation. These people were also more likely to spend more money per visit on dining, shopping, and entertainment. At this public hearing, you will be providing public comment to the Transportation Commission, who can either vote to approve the project, disapprove the project, or delay the vote for further analysis.

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## **Board of Supervisors**

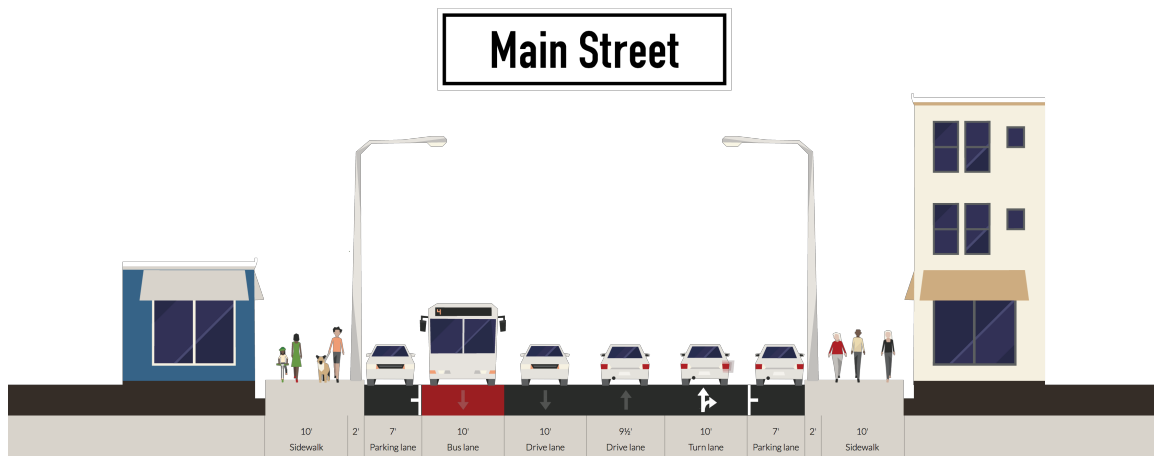
As any given Board of Supervisors meeting, you may vote on 100+ legislative items that affect your district ranging from land use to policing issues to payroll taxes. You are voted into office by your constituents for a 4-year term. Some of you are nearing the end of your 4-year term and will be seeking re-election. Others of you have ambitions for higher political offices and have been thinking about how to appeal to the wider range of voters that live beyond your current district and city boundaries. As a Supervisor, you are most likely a lawyer by training, and you do not have professional expertise as a planner or transportation engineer. You often rely on your legislative aides to speak directly with constituents and to prepare background briefs to inform your position at a board meeting. At this public hearing, you will have the opportunity to make comments to the Transportation Commission to show your support or opposition to the project. The Commission can either vote to approve the project, disapprove the project, or delay the vote for further analysis. Ultimately, you have the final say on approving the environmental review document for the Main Street Streetscape Design, after the project has been approved by the Transportation Commission.

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## Coffee Shop Owner

You are the owner of an artisanal coffee shop on Main Street. You started your business 2 years ago when you heard about this upcoming neighborhood and thought it would be a good business opportunity to open a cafe that appeals to the younger demographic moving in. You are proud of your local business. You artisanally roast small batches of world-class beans in the back of your shop. Your cafe features a grand wooden countertop that you created yourself (with the help of local woodworker). Your business is doing extremely well selling \$4.00 cappuccinos and \$7 Kyoto single drip coffees and often every single seat is filled, both inside and at the tables outside on the sidewalk. You've seen other businesses in the city install "parklets"—public spaces in former parking spots—to add additional seating, but you are just starting to learn about the process of applying or building one. You heard about the public hearing from your neighbor, the furniture store owner, who has been trying to organize other merchants to oppose street designs that eliminate parking. At this public hearing, you will be providing public comment to the Transportation Commission, who can either vote to approve the project, disapprove the project, or delay the vote for further analysis.

Example of Parklet:

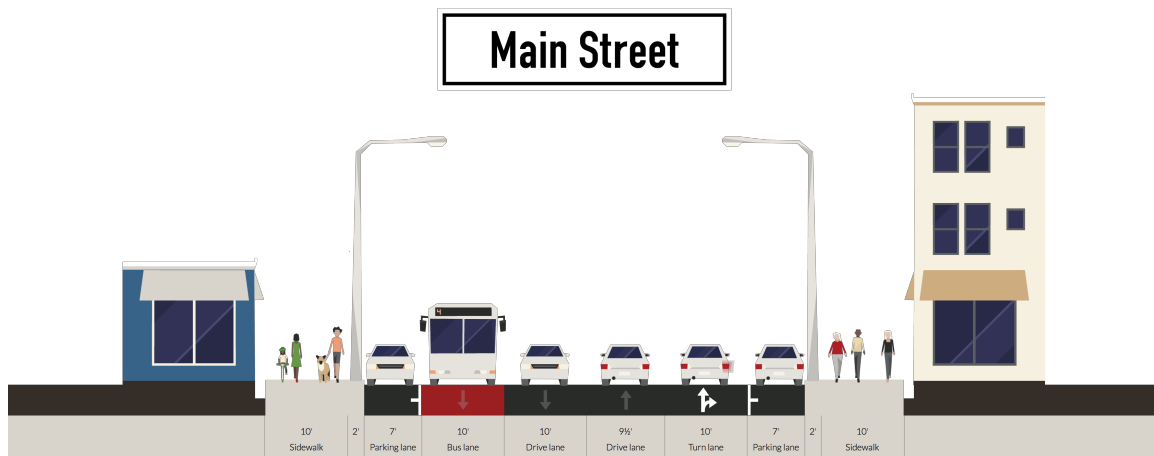


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## **Transportation Commission**

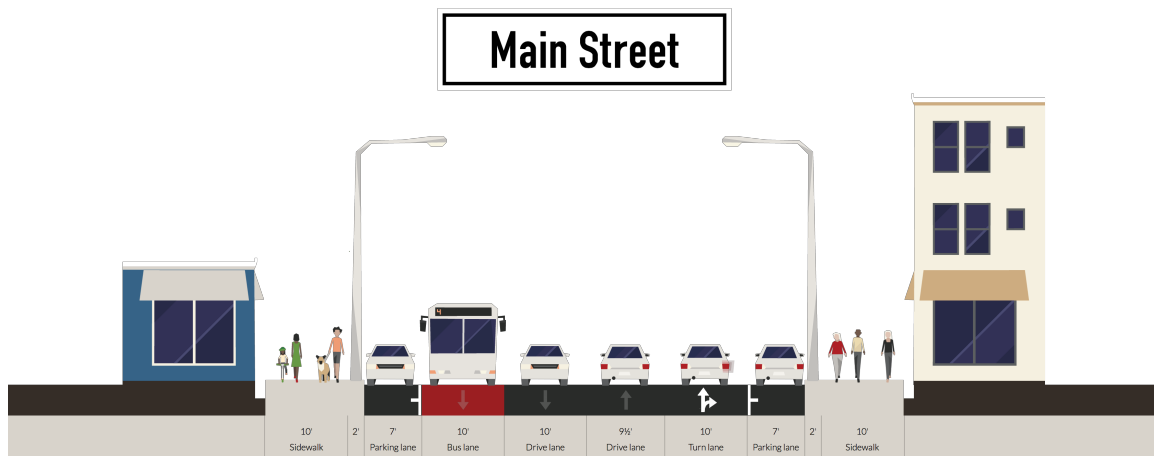
You are a seven-member voluntary commission that oversees the work of the Department of Transportation and head Chief. Some of you are retired, but most of you have full-time jobs outside of your Commission role. You are not paid anything for serving on the commission. You are not a trained planner or transportation engineer, but you have enough experience working with Department of Transportation staff to be fairly knowledgeable in this subject area. You are all appointed to serve at the discretion of the Mayor, who has expressed concerns about the Main Street Streetscape Design. Mainly, the Mayor has expressed that 50% of transportation trips in the city take place in cars, and he believes that the majority of his constituents rely on cars to get around the city. On the other hand, he is also eager to present the city as a leader in transportation innovation and sustainability. At this public hearing, you can either vote to approve the project, disapprove the project, or delay the vote for further analysis. Your vote can allow the project to move forward, but the Board of Supervisors will still have to certify the environmental review process.

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## **Department of Transportation**

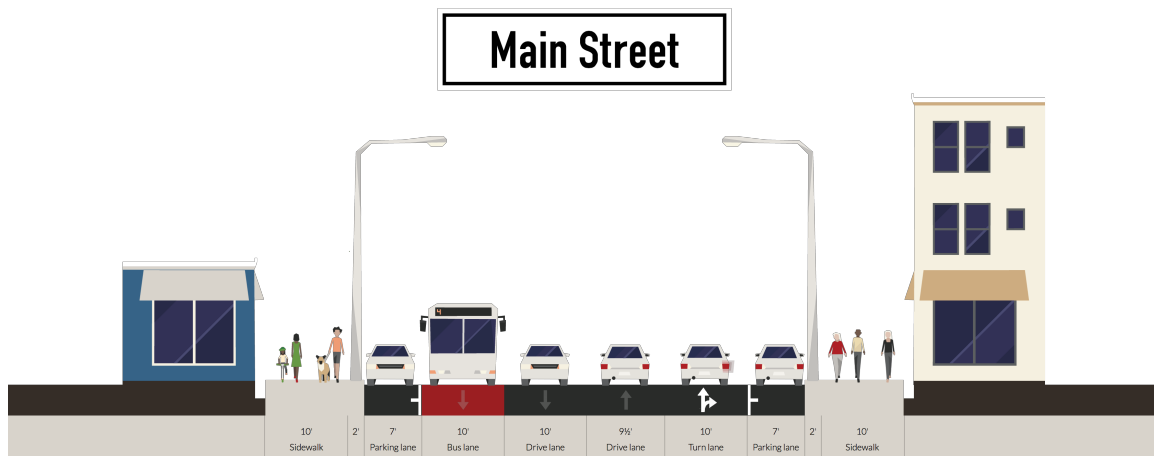
As the DOT, your department consists of planners and transportation engineers. You are responsible for project management and technical analysis of public infrastructure works such as street repaving, traffic calming, and streetscape projects—in other words, the Main Street Streetscape Design falls squarely in your camp! Your department consists of a mix of long-time employees who have worked for the City for over 20 years with a great deal of institutional experience, as well as younger employees—often with more advanced levels of education—who are more likely to get around the city using public transportation, bicycling, and walking. A few long-time employees have expressed technical concerns with the Main Street Streetscape Design. Due to how CEQA measures of transportation impacts, removing traffic lanes to widen the sidewalk or to add bike lanes will cause delays for cars at certain intersections, thereby causing the intersection to “fail” according to CEQA definitions. Then the project would have to undergo a time-consuming and expensive review process. Overall, as the project manager, you believe that the DOT’s goal is to generate a project that will serve the greater public interest. You report directly to the DOT Chief, who reports to the Transportation Commission. At this public hearing, you will be presenting your analysis and recommendation to the Transportation Commission, who can either vote to approve the project, disapprove the project, or delay the vote for further analysis.

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## **Furniture Store Owner**

You have operated your furniture business for the past 20 years and have a large showroom on Main Street. You have slowly seen the neighborhood demographics shift from single-family, older households to young people who live with roommates. In recent years, business revenues have steadily declined, and you have been thinking of ways to maintain your bottom line. Because you are a commercial tenant, you do not benefit from rent stabilization. Housing prices have become very expensive and you can no longer afford to live in the city, so you have to drive to work everyday. You have a wide loading zone in front of your shop that you need for receiving your many deliveries and to allow easy customer pick-ups. You are concerned that the Main Street Streetscape Design will eliminate parking spots that are critical for your business survival, and you have been organizing other long-term merchants to attend the public hearing and oppose any street designs that might harm your businesses. At this public hearing, you will be providing public comment to the Transportation Commission, who can either vote to approve the project, disapprove the project, or delay the vote for further analysis.



# URBANST164 | EARTHSYS160: SUSTAINABLE CITIES

FALL 2018 - Project Descriptions  
Stanford University

[URBANST164.STANFORD.EDU](http://URBANST164.STANFORD.EDU)

<b>Project Title:</b>	<b>Community Voices - an Interactive Exhibit at the Tech Museum of Innovation</b>
<b>Project Contact:</b>	Danny Haeg, Interactive Exhibit Developer The Tech Museum of Innovation (408) 795-6135 danny@thetech.org

### Organization Mission

The Tech Museum of Innovation is a family-friendly interactive science and technology center located in the heart of downtown San Jose, California. Our exhibits and programs are interactive, hands-on opportunities for visitors to apply their own creative thinking towards today's problems.

The Tech welcomes half a million visitors each year. Through our exhibitions and our programs such as The Tech Challenge, our annual team design competition for youth, and internationally renowned programs such as The Tech for Global Good, which honors people doing work to benefit humanity, The Tech celebrates the present and encourages the development of innovative technology for a more promising future.

### Project Background

The accelerating impacts of climate change represent humanity's greatest challenge now and likely for many decades in the future. The Tech's next permanent exhibition opening in February, 2020 will be dedicated to the extraordinary technologies being developed to combat climate change and its effects on humanity. The 8,000 square feet exhibition – our largest ever – will seek to inspire hope that leads to action.

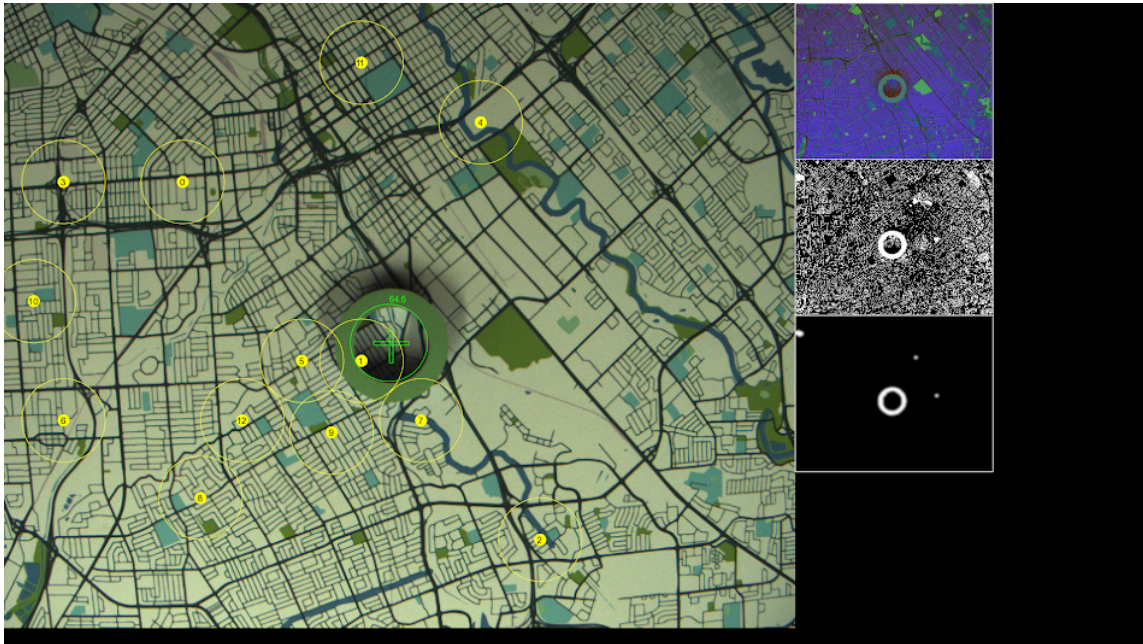
One of the interactive exhibits in this space will be Community Voices. This exhibit was inspired by the findings from the Yale Program on Climate Change Communication (YPCCC). In their research, they learned that while most Americans think climate change is real, they don't think that it will impact them. Research conducted by the YPCCC also showed that best practices for messaging climate change to the general public "will require highlighting relevant personal experiences through recall, scenarios and powerful narratives and metaphors".

### Sustainable Cities Project Description

The Tech Museum of Innovation is interested in gathering stories of local climate change impact and local adaptations/mitigation. The stories of impact could include larger incidents, like the Coyote Creek flood, or smaller and more personal stories. Local adaptations/mitigation could include large-scale projects, like the green roof on Levi's Stadium or smaller projects like neighborhood gardens or bike-to-work initiatives.



Visitors will interact with these stories by moving a small puck around a large map of the Bay Area. As the puck is moved over a map location they will be able to “tune in” to audio stories at that location. The monitor will also display associated photos from the story along with English and Spanish captioning.



*The interface will be driven by a mobile puck (shown here in our prototype as a green circle). Our computer vision system will track the movement of the green circle with respect to the story locations (show here as yellow circles).*

We will showcase hopeful, action-oriented responses that our community is pursuing to mitigate climate change and adapt our cities and behavior to its impacts.

Students from Sustainable Cities will locate relevant stories, interview the relevant persons, document the project through photo and audio, and edit the photo and audio for inclusion in the Community Voices exhibit.

Together, these stories will convince our visitors that climate change is impacting our community but they will also become aware of how others are responding and how they might join in the effort. These stories will continually be updated and augmented and, in the future, we will increase their accessibility by making them available online.

### Project Tasks

- Reach out to key figures to help identify potential stories. (Note: The Tech Museum has an extensive network of key individuals in the private and public sector who can help initiate this networking.)



- Conduct on-site documentation gathering audio and photos.  
We will work together to identify exactly which stories to pursue, but they must be within the geographic boundaries of the exhibit which will extend to, approximately, the lower-half of the Bay Area (San Mateo and Hayward as a northern limit, South San Jose as a southern limit).
- Curate and edit photos and audio for stories.
- Compile all data from stories into spreadsheet.

#### Fieldwork Component

- Network with experts to help locate potential stories.
- Conduct interviews to gather documentation of climate change stories. It is best if this documentation occurs on-site, to better understand the story, but it is not required.
- Visit the museum to interact with the prototype hardware for Community Voices and to learn more about the overall exhibition that it will be embedded in.

#### Project Deliverables

- Final Presentation on Wednesday, December 5
- At least six (6) audio + photo stories of climate change impact. Each story will include at least four (4) photos and 20 seconds to 3 minutes of edited audio.
- At least eight (8) audio + photo stories of climate change adaptation or mitigation. Each story will include at least four (4) photos and 20 seconds to 3 minutes of edited audio.
- The audio content needs to be high-quality, but not studio quality. It can be good to capture the person speaking in situ, so that we can capture the environmental sounds.
- The photos should be relatively high-quality: a phone camera in bright daylight is often good enough, but a DSLR could be needed for darker environments. Photos should be landscape orientation, at least 4MP resolution. They can be taken by the partner or a third party. All photo subjects will need to sign and return a photo release granting us permission to use their photos.
- A final spreadsheet containing the names, contact information, audio files, photos, and the precise location for each story

#### Desired Skills

- Strong interpersonal and interview skills
- Some technical experience with photo and audio software

#### Student Learning Outcomes and Skills

- Learn and apply best practices of climate change messaging to youth and adults.
- Cultivate a network of relevant experts and knowledgeable community members.

- Develop soft skills for working with story subjects in order to gather compelling audio and visual documentation.
- Develop curatorial skills for editing photo and audio stories into engaging content.
- Strengthen technical skills for audio and photo editing.

#### Readings and Resources

- How Americans Think About Climate Change, in Six Maps  
<https://www.nytimes.com/interactive/2017/03/21/climate/how-americans-think-about-climate-change-in-six-maps.html>
- Yale Climate Opinion Maps – U.S. 2016  
<http://climatecommunication.yale.edu/visualizations-data/ycom-us-2016/?est=happening&type=value&geo=county&id=06085>
- Climate Change Psychology: Five Insights  
<http://climatecommunication.yale.edu/publications/five-psychology-insights-to-engage-the-public/>
- Listening to the City: Community Research and Action through Sound and Story  
<https://www.colab.mit.edu/resources-1/2018/4/2/listening-to-the-city-handbook>
- Radio Garden  
<http://radio.garden/>

<b>Project Title:</b>	<b>Counterpoints: Bay Area Data and Stories for Resisting Displacement</b>
Project Contact:	Erin McElroy, Mary Shi, Adrienne Hall, Magie Ramirez, Anti Eviction Mapping Project (209) 914-5093 - Mary emmcetro@ucsc.edu, mary.shi@berkeley.edu adriennehall8@gmail.com, mmrez@stanford.edu

### Organization Mission

The mission of the Anti-Eviction Mapping Project (AEMP) is to educate the public and to support the activities of other agencies working on behalf of housing equity in the region. The foundational underpinning of the AEMP is to inform, empower and activate individuals who are negatively impacted by housing inequity and displacement and to support the work of organizations working in this space. By excavating pertinent data and producing accessible, powerful visualizations of this abstract information connected with individual stories-of-struggle, the AEMP re-oriens and repositions power in the community and in the hands of those who are working to restore housing equity in low-income communities and communities of color. Co-founded in 2013, the project began by producing data visualizations and digital cartographies useful to organizations and researchers working on anti-displacement eviction organizing, beginning with an interactive map of San Francisco Ellis Act evictions from 1994 to the present day ([www.antievictionmappingproject.net/ellis.html](http://www.antievictionmappingproject.net/ellis.html)). Embedded oral histories and videos were added soon after ([www.antievictionmappingproject.net/narratives.html](http://www.antievictionmappingproject.net/narratives.html)).

### Project Background

In Spring 2017, the Anti-Eviction Mapping Project launched a regional atlas project to visualize and explore the causes, dynamics, and consequences of displacement in the Bay Area. The Atlas, tentatively titled “Counterpoints: Data and Stories for Resisting Displacement in the San Francisco Bay Area,” draws critical attention to the racialized and classed dimensions of displacement while insisting on engaging the Bay Area as an interrelated, regional system. Having signed a publishing contract with PM Press, AEMP anticipates a Spring 2020 release.

The atlas is divided into several chapters: migration/relocation; indigenous/colonial histories; evictions; public health, public housing, and environmental racism; land speculation; the gentrification-to-prison pipeline; and transportation infrastructure and economy. Within each chapter are three subcategories, which include: oral history; resistance; and policy. In addition to the book, AEMP will create online interactive content and downloadable educational material, available on the PM Press and AEMP website. AEMP will also hold a series of workshops and public events to correlated with the Atlas's publication.

### Sustainable Cities Project Description

The Sustainable Cities team will support the Anti-Eviction Mapping Project through a multi-pronged approach from editing and creating content for the Atlas to engaging in ethical research practices, to learning the nuts and bolts of effective grantwriting to ensure financial sustainability. See below for the approximate timeline for the quarter:

#### *Part 1: Introduction to AEMP and Apply Knowledge via Grant Writing*

1.5 week for reviewing Atlas and working with chapter editors to provide feedback

1.5 week for writing and editing NEA grant narrative

#### *Part 2: Applied Practice in Community Engaged Research*

1 week for training on ethics, practice, and epistemological critique embedded in doing community engaged research with the AEMP model + lay groundwork for writing reflection on community engaged learning and producing educational materials

2 weeks for fieldwork (Community asset mapping, interviews and/or oral histories to take place on Stanford campus dependent on student interest and AEMP advising resources)

#### *Part 3: Wrap Up*

1 week write up reflection, finalize educational materials, prepare final presentation

### Project Tasks

- Attend Atlas calls (every other week)
- Meet with chapter editor(s) to review draft of Atlas and provide written feedback
- Grant writing and fundraising support: Work with AEMP members to write grant and fundraising materials for the Atlas project
- Produce templates for Atlas educational materials for the PM Press website in collaboration with Atlas editors
- Written essay on community-engaged learning from a student perspective describing how a student can prepare for engagement and why this is important. This piece has the potential to be directly published in the Atlas.

### Fieldwork Component

- Community asset mapping, interviews and/or oral histories to take place on Stanford campus dependent on student interest, successful completion of ethical research training, and AEMP advising resources

### Project Deliverables

- Final Presentation on Wednesday, December 5
- Compiled feedback for Atlas draft based on focus group with each chapter editor
- Completed National Endowment for the Arts grant (Due December 5)
- Educational templates and materials, consisting of text and visuals, for each chapter in an editable format (InDesign, Illustrator, Word, etc.) and PDF format
- Written essay on community-engaged learning

Desired Skills

- Experience in community organizing from the perspective of the university
- Ability to use Illustrator, Photoshop, and other graphic design software
- Strong research and writing skills

Student Learning Outcomes and Skills

- Understand broader issues of displacement and gentrification in the Bay Area
- Learn effective grant writing
- Reflect on community-engaged learning
- Create instructional design materials and templates
- Learn how horizontally-structured, consensus-based volunteer collectives are run
- Be involved in the creation and editing process of a book publication
- Reflect on power and politics of data from historically devalued sources

Readings and Resources

Manissa M. Maharawal & Erin McElroy (2017): The Anti-Eviction Mapping Project: Counter Mapping and Oral History toward Bay Area Housing Justice, Annals of the American Association of Geographers, DOI: 10.1080/24694452.2017.1365583

Anti-Eviction Mapping Project (2018) AEMP Handbook by The Anti-Eviction Mapping Project (AEMP). In: Capous-Desyllas M., Morgaine K. (eds) Creating Social Change Through Creativity. Palgrave Macmillan, Cham, [https://doi.org/10.1007/978-3-319-52129-9\\_16](https://doi.org/10.1007/978-3-319-52129-9_16)

MIT Community Innovations Lab (2018). Listening to the City: Community Research and Action through Sound and Story. <https://www.colab.mit.edu/resources-1/2018/4/2/listening-to-the-city-handbook>

<b>Project Title:</b>	<b>Menlo Park Equitable Downtown Transportation and Housing</b>
<b>Project Contact:</b>	<p>Adina Levin, Executive Director  Friends of Caltrain  3921 E. Bayshore Road, Palo Alto, CA 94303  (650) 646-4344  adina.levin@friendsofcaltrain.com</p> <p>Chris Lepe, Senior Community Planner  TransForm  48 S 7th St, Suite 203, San Jose, CA 95112  (408) 406-8074  clepe@transformca.org</p> <p>Leora T. Ross, Organizing Director  Housing Leadership Council of San Mateo County  2905 S El Camino Real, San Mateo, CA 94403  leora@hlcsmc.org</p>

### Organization Mission

Friends of Caltrain is a 501(c)(3) nonprofit organization with a participant base of over 7,000 residents on the Peninsula Corridor from San Francisco through San Jose. Our goals include stable transit funding, a modern, connected transit network, and transit-supportive policies on the corridor to increase social and environmental sustainability in our region. We have successfully organized to prevent drastic service cuts to Caltrain service and advocated for transit-supportive policies, improve capacity, and improve affordability of Caltrain and public transit for low-income users.

Executive Director Adina Levin serves on the MTC Policy Advisory Council and Menlo Park's Complete Streets Commission where she has been involved in recommending such policies in the Transportation Master Plan implementing the city's General Plan goals. She served on the advisory committee to Palo Alto's Transportation Management Association in its startup phase.

TransForm is a Bay Area nonprofit organization that promotes walkable communities with excellent transportation choices to connect people of all incomes to opportunity, keep California affordable and help solve our climate crisis. As TransForm's Silicon Valley Senior Community Planner, Chris Lepe works with diverse partners to engage communities in transportation and land use planning processes to advance policies that promote social and environmental justice. Past campaigns include working with Friends of Caltrain to avoid drastic Caltrain service cuts, collaborating with local community groups in East San Jose to plan for the future Alum Rock BART station and Bus Rapid Transit (BRT) line, and working with the Transportation Justice Alliance to secure half a billion dollars in funding for improved bus service and low income passes as part of the 2016 Measure B sales tax.

Housing Leadership Council of San Mateo County advocates for and educates the citizens and community organizations of San Mateo County on the long-term benefits of preserving and expanding the supply of accessible and affordable workforce housing in the county.

### Project Background

Menlo Park City Council is engaged in an update of its Downtown Specific Plan and a set of related decisions regarding transportation and housing. The Bay Area as a whole and San Mateo County and Menlo Park in particular have deep shortages of housing especially affordable housing. Low-income workers are housing-insecure, paying half or more of their income on rent. There are very few affordable homes nearby. Many low-income workers face long commutes and work in small businesses that do not provide transportation benefits available to higher-income workers at larger companies.

Menlo Park's current policies allow very limited additional housing in the downtown area. The city has several publicly owned parcels of land in and near downtown that would be superb locations for affordable housing. The city also has transportation demand management policies that have not yet been implemented.

With the set of upcoming decisions, there are the following opportunities:

- To increase the amount of housing and affordable housing that could be added downtown in a transit and service-rich location, providing options for people who work in/near downtown
- To build affordable housing on publicly owned land, reducing the land costs and increasing the amount of housing that can be provided with scarce affordable housing funds
- To provide transportation benefits to low-income workers, along the lines of similar programs that have been adopted in nearby Palo Alto

### Sustainable Cities Project Description

Friends of Caltrain is partnering with TransForm and HLC to advance the above policies and decisions through community outreach, education, and research. In order to advance these decisions, the Sustainable Cities team will assist in these efforts to understand the housing and transportation needs in the area by interviewing, documenting, analyzing, and amplifying the voices of low-income workers in the downtown area.

As part of this project, students will expand on previous work by HLC to conduct a survey of low-income workers (and possibly low-income residents), asking about their housing and transportation needs, and about options that would help them with housing security, and commutes that are shorter, lower cost, and lower stress.

### Project Tasks

- Literature review of material regarding affordable housing needs in San Mateo County and Menlo Park, the city's current downtown housing and transportation policies, and the transportation management association in Palo Alto that may provide a replicable model for Menlo Park
- Refine short survey with housing and transportation questions
- Conduct surveys and focus group meetings
- Analyze survey results and develop conclusions and recommendations
- Create visuals and informational handouts using survey results
- Create visuals or videos with stories of people interviewed with prior permission

### Fieldwork Component

- Multiple visits to locations throughout Menlo Park to conduct intercept surveys and focus groups

### Project Deliverables

- Final Presentation on Wednesday, December 5
- Written Report summarizing literature review, survey methods, and results
- Visualization for the survey results to highlight major insights and recommendations for project options (e.g. infographic or 1-page summary brief)
- Narrative visuals or videos with stories of people interviewed

### Desired Skills

- Strong oral and visual communication skills
- Analytical skills, including data analysis
- Experience with in-field data collection
- Graphic design/visualization skills
- Experience with Word, Excel, graphic design, basic video capture and editing

### Student Learning Outcomes and Skills

- Understand the connections between housing and transportation challenges for low-income workers in the Bay Area
- Transform raw data into a compelling narrative to support public policy
- Design and implement effective surveys to gather feedback from stakeholders
- Develop effective oral, written and visual communication skills

### Readings and Resources

- Legislative Affairs Office and UC Berkeley housing overviews
- Menlo Park Downtown Specific Plan sections on housing and transportation
- Palo Alto Transportation Management Association survey and plan documents



<b>Project Title:</b>	<b>Digital Inclusion in Mountain View</b>
Project Contact:	<p>Alex Andrade, Economic Development Manager  City of Mountain View  (650) 903-6549  Alex.Andrade@mountainview.gov</p> <p>Christina Gilmore, Assistant to the City Manager  City of Mountain View  (650) 903-6215  Christina.Gilmore@mountainview.gov</p>

### Organization Mission

Incorporated in 1902 and chartered on January 15, 1952, the City of Mountain View operates under a Council-Manager form of government. Today, the city covers 12 square miles and is home to over 81,000 residents, and has attractive residential communities served by neighborhood parks and playgrounds, recreational facilities, quality education, and convenient shopping. Housing includes a wide range of styles and sizes to suit all preferences. While leading the region in innovation and ideas through global technology companies, the City remains committed to the traditional values of strong neighborhoods and citizen involvement. Mountain View boasts strong safety and public education records and is considered one of the best places to live in the Bay Area.

### Project Background

Silicon Valley continues to lead the nation in technology and innovation; technology is a key economic driver in Silicon Valley. The region has experienced sustained growth for almost ten years, and technology businesses appear to be insatiable in their desire to expand and hire more employees. According to the 2018 Silicon Valley Index, “the total number of jobs in Silicon Valley has far surpassed pre-recession levels (19%) and has continued to grow” (Joint Venture Silicon Valley; Institute for Regional Studies, pg. 17). However, the flipside of this story is that of a digital divide, which continues to create an economic and social disadvantage regarding access to information and communication technologies. The ability to connect online offers individuals the opportunity to learn new skills and obtain access to information that can improve their lives. This, in turn, can affect income inequality across the city and region.

### *Digital Divide*

The digital divide is the gulf between those who have access to computers and the Internet, especially broadband access, and those who do not. According to the 2018 Silicon Valley Index, “Silicon Valley has a greater share of households with computers and broadband internet access than San Francisco, California or the United States overall” (Joint Venture Silicon Valley; Institute for Regional Studies, pg. 45).

In 2016, Silicon Valley households with computers equaled 96% of households and 91% of households had broadband internet access. While that means that 9% of households in the region did not have broadband internet access, it changes dramatically when low-income households are included. For households earning less than \$35,000 per year in Silicon Valley, 30% of those households do not have access to broadband internet (Joint Venture Silicon Valley; Institute for Regional Studies, pg. 45). These statistics show that even in a technologically advanced and connected Silicon Valley, there are significant portions of the community for whom the digital divide is a very real issue.

### *Digital Inclusion*

According to a [report](#) issued by the Institute of Museum and Library Services, digital inclusion is the ability of individuals and groups to access and use information and communication technologies. Digital inclusion encompasses not only access to the internet, but also the availability of hardware and software, content and services, and training for digital literacy skills required for effective use of information and communication technologies.

Some people assert that internet access is a service and a convenience, and therefore not a fundamental right. However, many international organizations, municipalities, and companies are doing their part to address equitable access to information and communication technologies, which are essential to an individual's quality of life, social and economic mobility, and civic engagement.

In 2018, the United Nations Human Rights Council passed a [resolution](#) declaring access to the internet a basic human right, with an emphasis on eradicating digital divides amongst gender lines, and increasing internet access. The City of Kansas City has launched the [Kansas City Coalition for Digital Inclusion](#), a collaborative group of nonprofits, individuals, government, and business entities focused on fostering internet access and digital readiness in greater Kansas City. The City of Baltimore's [Mayor's Office of Information Technology](#) is working on increasing access to broadband internet for 100% of Baltimoreans, regardless of neighborhood.

Comcast and AT&T provide internet subscriptions for low-income households known as [Internet Essentials](#) and [AT&T Access](#). The Comcast program costs about \$10 a month; eligible customers include families with at least one child on free or reduced lunch programs, those receiving HUD housing assistance, seniors, and community college students. AT&T offers discounted service to households where at least one resident is enrolled in the federal nutrition assistance program or receives Supplemental Security Income (SSI) benefits.

Mountain View, California is known around the globe as the home of technology companies such as Google, LinkedIn, Intuit, Microsoft, Apple, Symantec, Synopsys, Pure Storage, 23&Me, and Facebook. Mountain View is also known as an affluent Silicon Valley community, but like most cities, it also has a low-income population, youth and some seniors who lack access to digital tools that can be utilized for educational, employment opportunities and retirement services.

Developing digital literacy is a key driver of educational, social, and economic mobility. Providing access to information and communication technologies for youth and students is essential for conducting research, completing homework assignments, and expanding educational opportunities. Not having access to information and communication technologies can result in students falling behind in school. Additionally, adults who lack access to information and communication technologies miss out on essential economic and workforce development, education, healthcare, civic engagement, and social connection opportunities.

Supporting and developing programs and policies that promote digital inclusion are essential to the City of Mountain View's economic and social development, and importantly, civic engagement. Bridging the digital divide by improving access to information and communication technologies and increasing digital literacy are critical to retaining and attracting new businesses, workforce development, improving educational and social mobility opportunities, and encouraging civic engagement.

### *2020 Census*

The City of Mountain View is preparing for the 2020 Census. The Census counts every resident in the United States and is conducted every ten years. The Census research will result in the number of local residents that will be tied to federal funding. The Census Bureau is responsible for the 2020 Census and is expected to use mobile technology, geospatial innovations, and internet self-responses. This is a significant shift from the previous decennial Census, which included volunteers physically walking door-to-door and conducting surveys.

For municipalities like the City of Mountain View, it is important to connect digital inclusion programs and policies with civic engagement to the 2020 Census work effort. Gathering the most accurate population data will reflect an accurate community profile that will be associated with federal funding. It will also reveal information about citizenship and undocumented populations. The City of Mountain View is a Human Rights City and Sanctuary City, which demonstrates the progressive nature of the community. The work of connecting people online for the 2020 Census will also affect individuals with disabilities such as the visually impaired, thus requiring a different format. The digital inclusion work plan will commence with answering the following.

### Sustainable Cities Project Description

Urban Studies students enrolled in the Sustainable Cities course will develop a report for the City of Mountain View that addresses inquiries and information outlined below:

- Who in Mountain View is connected and who is not?
- How are people accessing the internet - phone or computer?
- Do Mountain View residents believe that internet access is a human right?
- How does a lack of digital literacy affect the Mountain View community?

- Do Mountain View residents know about Comcast and AT&T's subscriptions for low-income households? If so, are the programs being utilized and successful in Mountain View?
- How does lack of access, availability, or affordability of broadband internet services impact Mountain View resident's civic engagement opportunities (e.g. Accessing information from local government agencies, participating in the upcoming U.S. 2020 Census)?
- How might the City of Mountain View go about developing a digital literacy program for the Library, Senior Center and Teen Center? It may consist of basic computer and technology classes (i.e., computer skills, Word basics, email basics, cloud storage, internet basics), Digital life skills and literacy for employment opportunities and access to government services, financial skills and knowledge.
- How can the City of Mountain View raise awareness of the societal impacts to the digital divide, and engage the business community in solutions aimed at inclusion and economic resources/services? (e.g., Digital Inclusion Summit)

The report will be an initial assessment of the current state of public access to the internet in Mountain View. The report will summarize observations, and students will have the opportunity to provide recommendations to stakeholders. Stakeholders may include Council Advisory Bodies such as the Human Relations Commission, Youth Advisory Committee, Senior Advisory Committee, or the Stanford Trancos Dorm Equity and Social Justice theme in partnership with Resident Fellows. This project is part of a three-year partnership between Sustainable Cities and the City of Mountain View on the theme of Social Inequality and Income Disparity.

#### Project Tasks

- Create a stakeholder engagement plan to identify potential survey respondents and best outreach methods
- Create a survey instrument to assess resident awareness and use of Comcast and AT&T low-income household subscription programs
- Interview Mountain View Library, Senior Center and Teen Center staff and patrons to identify potential needs for a digital literacy program
- Develop a heat map illustrating where internet connection exists in Mountain View and where it does not by neighborhood association geographic area
- Develop an infographic of the City of Mountain View's digital divide statistics
- Compile interview notes and analyze findings
- Compile research report that summarizes findings and policy recommendations

#### Fieldwork Component

- Participate in meetings with elected officials, public agencies, residents, and community-based organizations. Mountain View's Economic Development team will assist in coordinating meeting(s)

- Conduct an in-person and electronic survey with elected officials, public agencies, residents, and community-based organizations.
- Present findings to the Mountain View Human Relations Commission, Youth Advisory Committee, Senior Advisory Committee, or the Stanford Trancos Dorm

#### Project Deliverables

- Final Presentation on Wednesday, December 5
- Compile notes and findings from interviews/survey(s) with elected officials, public agencies, residents, and community-based organizations.
- Final research paper with literature review, interview analysis, and practical application for policy recommendations

#### Desired Skills

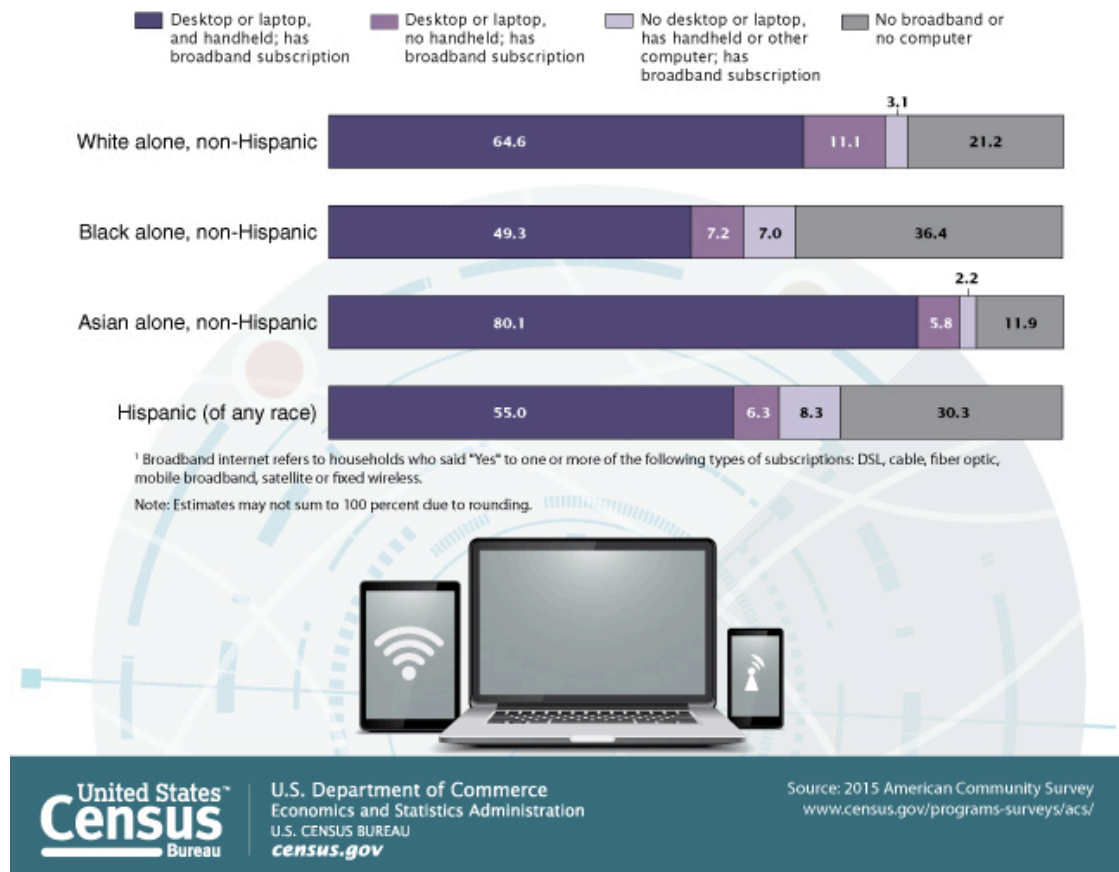
- Strong written and verbal communication skills
- Survey and interview methods
- Data analysis and organization

#### Student Learning Outcomes and Skills

- Analyze the causes, impacts and effects of the City of Mountain View population who are currently not connected to the internet
- Assess information related to the digital divide in Mountain View and propose policy tools and solutions for a digital inclusion work program or pilot program
- Strengthen technical skills and knowledge through collecting and critically analyzing qualitative and quantitative data
- Develop soft skills and better understanding of socioeconomic differences and cultural awareness in order to learn more about the digital divide and digital inclusion programs

# The Digital Divide

Percentage of Households by Broadband Internet<sup>1</sup> Subscription, Computer Type, Race and Hispanic Origin



Source: 2015 American Community Survey

## Readings and Resources

- Computer and Internet Use in the United States  
<https://www.census.gov/prod/2013pubs/p20-569.pdf>
- How the 'digital divide' is holding the U.S. economy back  
<https://venturebeat.com/2018/02/10/how-the-digital-divide-is-holding-the-u-s-economy-back/>
- City of Baltimore Inclusive Digital Transformation Strategic Plan  
<https://technology.baltimorecity.gov/sites/default/files/BCIT%20Strategic%20Plan%20Final%207.10.18.pdf>

<b>Project Title:</b>	<b>Neighborhood Settlement Patterns in Salinas, California</b>
<b>Project Contact:</b>	<p>Sam Pacheco, History Faculty Member  Fine Arts, Social &amp; Behavioral Sciences, Hartnell College  411 Central Avenue, Salinas, CA 93901  (831) 759-6002  spacheco@hartnell.edu</p> <p>Carol Lynn McKibben, Director  Salinas History Project  (831) 596-9523  mckibben@stanford.edu</p> <p>Krista Hanni, Planning, Evaluation, and Policy Manager  Monterey County Health Department  1270 Natividad Road, Salinas, CA 93906  (831) 755-4586  hannikd@co.monterey.ca.us</p> <p>Eric Sandoval, GIS Administrator  Innovation Team, City of Salinas  200 Lincoln Avenue, Salinas, CA 93901  Phone: 831-758-7379  erics@ci.salinas.ca.us</p>

### Organization Mission

This project is a collaboration between multiple partners, including Hartnell College, the Salinas History Project, the Monterey County Health Department, and the City of Salinas. Stanford students will have the chance to engage with students and faculty from Hartnell College, as well as work with government officials at various levels (city and county).

### *Hartnell College*

Founded in 1920 as Salinas Junior College, the school was renamed Hartnell College in 1948. Hartnell College serves the Salinas Valley and draws most of its students from Salinas and the surrounding communities of Bradley, Castroville, Chualar, Gonzales, Greenfield, Jolon, King City, Lockwood, Moss Landing, San Ardo, San Lucas, Soledad, and adjacent rural areas. Hartnell serves nearly 10,000 students (7,100 FTES) with an ethnic profile that includes 56% Latino/a, 19% White, 4% Asian, 3% Filipino, 2% Black, 1% Native American students, and 1% multi-ethnic. (16% of students did not report ethnicity). Hartnell earned the federal designation as an Hispanic Serving Institution, and this year was awarded two major Title V grants to improve student access and success for underrepresented groups in the STEM disciplines.

*Salinas History Project*

The Salinas History Project aims to present a narrative of urban history that brings the multiple and separate communities in Salinas together to showcase the complex story of this municipality from its nineteenth century founding to the present, with special emphasis on the period after World War II when population growth exploded and urban renewal and redevelopment were in full swing. Director Dr. Carol Lynn McKibben is an Organization of American Historians Distinguished Lecturer and has worked as lecturer in the Department of History and Urban Studies at Stanford University since 2006.

*Monterey County Health Department*

The Monterey County Health Department has roots in prior centuries, but its modern history began in the 1920s with its establishment as a separate County department. Today the department serves over 435,000 Monterey County residents with a broad range of health care and promotion services through its nearly 1100 employees organized in 7 Bureaus. Its mission is to enhance, protect and improve the health of the people in Monterey County. To accomplish this, the Department provides a wide variety of health-related services in the areas of public health, environmental health, behavioral health and clinic services.

Project Background

Salinas is an agricultural town in transition. Founded in 1866 and incorporated in 1874, the city is the seat of Monterey County and the economic center for the Salinas Valley. Its population, majority white in the early 1900s and now predominantly ethnically Mexican, is economically divided so that most people with lower incomes tend to live in the Alisal or the east side of town, an area that was annexed by the city in 1963. The city of Salinas is also well-known for its intense battles over labor issues, particularly in the Filipino led lettuce strikes of 1936 and again in the Chavez led UFW efforts of the 1960s-1980s. The combination of poverty, immigration challenges, labor conflicts, and crime has given Salinas a tough reputation, regionally and nationally, even as its economy thrived on the development and expansion of agriculture.

Sustainable Cities Project Description

In this project, we will identify research methods and construct a narrative for understanding neighborhood development and settlement patterns in Salinas from the 1930s to the present. We aim to make sense of these apparent contradictions through: (1) finding and verifying data sources, (2) learning to design and apply a research methodology to make sense of the data, and (3) creating a cohesive narrative through a written report, data visualization and mapping.

Settlement patterns may be impacted by a variety of factors, including; the physical environment, transportation systems, economic drivers, and government policies. This team will be responsible for collecting and verifying evidence of these major factors, seeking additional factors that may have played an influential role, and presenting this narrative in a digital format.



Half of the team will be based at Stanford University and the other half will be based at Hartnell College. Salinas-based students will have access to primary sources from the City and County archives, while Stanford-based students will have access to digital data resources at the Stanford Libraries and Geospatial Center. The joint Hartnell-Stanford team will need a strong degree of communication and coordination in order to create a successful project deliverable.

Specifically, this project seeks to answer the following questions:

1. Where did (which) newcomers settle in Salinas? Which parts of the city expanded the most and when? Is there evidence of major turning points that we might correlate with events such as the Bracero Program, war, or innovations in agriculture?
2. How and when did new transportation systems affect settlement patterns over time? Currently, Highway 101 demarcates the lower socioeconomic area of East Salinas from the rest of the city. Do we see other evidence (past and present) of infrastructure projects that have divided neighborhoods? Conversely, is there evidence that transportation systems connected parts of the city to create a more cohesive community?
3. Is there a correlation between wealth and settlement? Does socioeconomic class trump ethnicity and race, or does ethnicity/race preclude settlement in particular neighborhoods? Do we see a transitional moment during the civil rights era or during periods of increased immigration?
4. How did government policies, such as urban renewal and redevelopment impact settlement patterns? For example, how did large shopping centers outside the city center or new condos/apartment buildings impact town life, negatively and positively? How do we map out those developments beginning in the 1960s?

#### Project Tasks

- Devise a rigorous research methodology that appropriately answers the research questions and document this process for future researchers
- Identify data sources for understanding neighborhood settlement patterns, including but not limited to the U.S. Census, general plans, zoning maps, tax receipts, and business data
- Depending on the data source, team may need to digitize and “clean up” the source
- Summarize data sources and research methodology in a written final report
- Create visualizations and maps in the form of a PowerPoint slide deck and an interactive website (e.g., ESRI Story Maps)

Fieldwork Component

- Monday, October 1 (Stanford): Hartnell faculty and students will be coming to Stanford to attend the Meet and Greet in class. Recommended: schedule group meeting after class.
- At least two site visits to Salinas to meet with government officials and Hartnell College students

Project Deliverables

- Final Presentation on Wednesday, December 5
- Written report summarizing research methodology, data sources, warrants/assumptions
- A series of static visual depictions of neighborhood settlement patterns
- Interactive website with dynamic display of data (e.g., ESRI Story Maps)

Desired Skills

- Familiarity with Census data and Geographic Information Systems (GIS)
- Interest in demographic data, historical maps, and government documents
- Strong commitment to working in teams with people from diverse backgrounds

Student Learning Outcomes and Skills

- Gain experience in collecting, verifying, and cleaning data sources
- Increased proficiency with primary research, data collection, and visualization skills
- Conduct research in a majority-minority community facing regional challenges
- Improve communication skills through interaction with government staff

Readings and Resources

- Carol McKibben. Chapter 3: Struggle
- Lori Flores. "The Racial and Labor Landscapes of the Salinas Valley Before World War II." in *Grounds for Dreaming*. New Haven: Yale University Press, 2016.

# **URBANST164 | EARTHSYS160: SUSTAINABLE CITIES**

## **Tips for Written Reflections**

Deland Chan  
Autumn 2018

Throughout the quarter, your group will submit weekly reflections that will serve as the basis of critical reflection for meeting a critical service-learning aspect of the seminar.

### Why Reflection?

Part of building knowledge is a cycle of having an experience, taking the time to analyze the root causes of the experience, developing a conceptual framework for understanding the experience, and then applying that knowledge to your next experience in the field.

Reflection allows you to:

- Develop critical thinking skills and
- Examine attitudes, assumptions, and stereotypes
- Prevent reinforcement of existing prejudices and learning inaccurate concepts
- Foster an appreciation of diversity
- Formulate theories based on concrete learning experiences
- Test theories in “real world” settings
- Use classroom knowledge to provide more effective service
- Arrive at a new understanding of community needs and assets
- Explore broader social, political, economic issues impacting communities

### Reflection Guidelines

In your group blog reflections, you should connect your fieldwork experience to the intellectual concepts of the course material. You should analyze your on-the-ground observations in relation to the broader systemic issues related to the class theme of sustainable cities and refer to the readings and lectures as applicable.

You may organize your reflection using the following headings:

- 1) Update on Project Activities
- 2) What We Observed and Learned
- 3) Critical Analysis/Moving Forward

You can also refer to the following prompts:

- What did you do? What did you see or hear? What did you think and feel?
- Reflect on what stood out to you. What was the best or most challenging thing that happened? What did you learn from this? About yourself? About the issue? About your placement site? What could you do differently to improve your experience?

- Discuss an issue or topic that you encountered in your organization. What was the issue? What did you find conceptually interesting or challenging about this issue?
- If you encountered a particular issue at your organization this week, how did you go about employing strategies to solve the issue? What was the resolution or outcome? What changes will you make because of what you learned or experienced?
- How will you apply what you learned this week at your site organization to the specific readings and lectures in class? What about the broader social and political issues that you care about?

### How Will I Be Assessed?

There are 7 group reflections, each worth 30 points. Late papers will not be accepted after 24 hours. There are no “wrong” reflections and therefore you will not be assessed by whether your answers are “correct” but rather your *approach* to analyzing a situation, *ability* to demonstrate your thinking process, and an appropriate *level* of sophistication in your reflection. There are different **levels** of reflection that I will use to assess reflections:

#### **Level 1 (10 points)**

- Gives examples of observed behaviors or characteristics of client or setting, but provides no insight into reasons behind the observation; observations tend to be one dimensional or unassimilated repetitions of what has been heard in class or from peers
- Tends to focus on just one aspect of the situation
- Uses unsupported personal beliefs as frequently as “hard evidence”
- May acknowledge differences of perspective but does not discriminately effectively among them

#### **Level 2 (20 points)**

- Observations are fairly thorough and nuanced although they tend not to be placed in a broader context
- Provides a cogent critique from one perspective, but does not acknowledge the broader system in which the aspect is embedded and other factors that may make change difficult
- Uses both unsupported personal belief and evidence but is beginning to be able to differentiate between them
- Perceives legitimate differences of viewpoint

#### **Level 3 (30 points)**

- Views things from multiple perspectives; able to observe multiple aspects of the situation and place them in context
- Perceives conflicting goals within and among the individuals involved in a situation and recognizes that the differences can be evaluated
- Recognizes that actions must be situationally dependent and understands many of the factors that affect individual choice
- Makes appropriate judgments based on reasoning and evidence

*Adopted from Connecting Cognition and Action: Evaluation of Student Performance in Service Learning Courses (edited by Marie Troppe, Campus Compact, 1995)*

### Reflection Examples

#### **Level One Reflections – Descriptive Summary**

- Paper describes a single scenario in detail and reads like a stream of consciousness journal or day-to-day journal entry with little critical reflection.

Example: “Today I went to my site and observed kids walking down the street. I noticed that some of the kids were walking alone and at times, had to jump out of the way to avoid being hit by the line of impatient parents in cars looking to drop off their kids to school.”

#### **Level Two Reflections – Analytical Perspective**

- Paper mentions the descriptive details above and makes an attempt to tie the experience of the site in general to the course concepts gained from the quarter.
- The main difference between a descriptive and analytical paper is the effort to start looking into the deeper systemic issues that inform a single experience, perhaps by drawing from a series of prior experiences or the readings.

Example: “Today, I noticed that the kids had a hard time crossing the street due to the way that the drivers were forced to turn right onto a single lane in order to drop off the kids. From what we heard when we surveyed parents last week, parents have expressed interest in having a more sustainable lifestyle and perhaps having their kids walk to school, but that is not a feasible option due to the poor infrastructure surrounding the school. As we learned in class, successful programs for sustainability have a strong education and equity component, so we’re going to propose that the City reduce barriers for this low-income community by having an education program in addition to proposing new infrastructure changes.”

#### **Level Three Reflections – Transformative/Applicable Experience**

- Paper mentions all of the above, but also makes an attempt to examine one’s own assumptions and ways of thinking. In addition to stating what you saw and your analysis, you should try to answer the question: “How do I know?” and “What do I mean by that statement?”
- The main difference between an analytical and transformative reflection is that the latter looks constructively at your own source of assumptions and perspectives, with the explicit goal to apply that knowledge to the next experience in the community moving forward.

Example: “Even though we conducted the survey and parents said they would prefer their kids to walk if they had a chance, I also want to reflect on the process of getting

the survey results and not focus on the results exclusively. After all, we don't live in the community and we are only here for certain hours of the day. We also had limited Spanish-speaking skills, and most parents did not speak English as their first language. The way we asked the question may reflect our own personal notions of sustainability—to us, getting out of the car means sustainability, and so we may have led with this bias as we approached the survey questions. For future survey methods, we may try to get around this by getting a sense of how people live and their values and see if we could understand how the community defines sustainability first.

The ambiguity in defining sustainability is also present in other sites in the class and leads me to consider whether sustainability practitioners could further their mission more effectively if they changed the way they approach and analyze a community.”

### Peer Feedback/Class Discussion

Weekly reflections are posted on the class website at: [sustainablecities.weebly.com/blog](http://sustainablecities.weebly.com/blog)

Please note that your reflections will be public. You should be aware of how your words may affect people who come from different backgrounds and perspectives, as well as how your reflection will contribute to a respectful, thoughtful discussion.

### Reflection Deadlines

	<b>Please submit ONE written reflection per team on the Piazza course site before 11:59 PM on the following dates:</b>
Reflection #1	Friday, October 5
Reflection #2	Friday, October 12
Reflection #3	Friday, October 26
Reflection #4	Friday, November 2
Reflection #5	Friday, November 9
Reflection #6	Friday, November 16
Reflection #7	Friday, November 30

URBANST164 | EARTHSYS160: SUSTAINABLE CITIES  
PROJECT SCOPE OF WORK  
Autumn 2018

Stanford University  
Deland Chan

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**Please complete the scope of work as a team. Parts 1-3 are warm up exercises that you should complete together, but you would not need to submit a written group response. Submit Part 4 as your written project scope of work via posting on the Piazza discussion thread and via e-mail to your community partner by 11:59 PM on October 19, 2018.**

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Learning to work effectively in teams will be crucial to completing the class successfully, and so you can have the best possible experience together. Balancing a variety of factors (busy schedules, interdisciplinary backgrounds, etc.) is a challenge, but we know you're up to the challenge!

The purpose of this assignment is to give you some tools and ideas for working together effectively as a team. Before you start, there are a few reference files you should read to get oriented. Please **also read the prompts below** and **prepare what you need to before your team time begins**. You will need to schedule a time to meet as a group and complete the assignment together.

Think about the project scope of work as an opportunity to set the tone for collaborating as a team, and building a foundation for the amazing work you will accomplish together! You're going to spend a lot of time with your team throughout the quarter, so make this experience count!

## WARM UP EXERCISES

Note: You do not need to submit written responses to Parts 1-3 with your project scope of work.

### Part 1: Getting to know your teammates as people and colleagues

- 1) Go around and introduce yourselves to each other. Exchange contact information.
- 2) What are your collective strengths as a team? For example: language skills, interviewing skills, graphic design skills, etc.?
- 3) As a team, read the short excerpt from Tom Kelley's Ten Faces of Innovation (Piazza Resources). Go around and discuss what role(s) that each team member could play. For example, who amongst your team is an Anthropologist? A Caregiver? Hurdler? Director? Storyteller? Are there ways to combine these roles for the greatest possible effect? It's okay to have more than one in each role.
- 4) Just for fun: What does each team member like to do, outside of class? Do you have any common hobbies, favorite movies, TV shows, artists, musicians, etc.?

### Part 2: Team Schedule – Getting in Sync and Hashing out the Game Plan

- 1) How often will your team meet? (Hint: setting a weekly meeting schedule in advance is really helpful, just to make sure you have it on everyone's calendar!)
- 2) Make sure that everyone has the project deadlines on their calendar. Please refer to the **Project Team Deliverables** sheet for more information.

Each team will be responsible for producing the final deliverables: 1) digital project archive - compilation of raw data from fieldwork, photos, videos, and summary of observations, analysis of fieldwork; 2) the final deliverable as agreed upon with your community partner; 3) written report summarizing your methods, findings, and lessons learned; and 4) a final presentation and exhibition on **Wednesday, December 5 from 10:30am-12pm**.

### Key Project Dates

- In-Class Midterm Presentation on scope of work – October 17
- Scope of Work Due to Community Partner and Instructor – October 19
- Final Presentation and Exhibition on **Wednesday, December 5 from 10:30am-12pm**
- Digital project archive, Final Deliverable and Written Report – December 12

### Weekly Written Reflections

Written reflection allows your team to synthesize your learning, create a game plan for moving forward, update the teaching team on your project, and take the time to document lessons learned, best practices, and new questions that might emerge as a result of your collaboration.

In your group blog reflections, you should connect your fieldwork experience to the intellectual concepts of the course material. You should analyze your on-the-ground observations in relation to the broader systemic issues related to the class theme of sustainable cities and refer to the readings and lectures as applicable.



Suggested headings for written reflection:

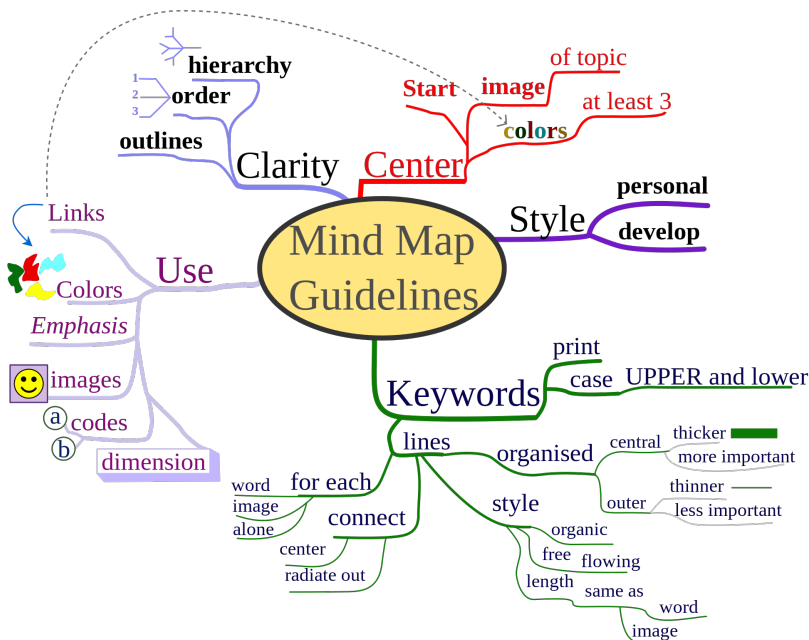
- 1) Update on Project Activities
- 2) What We Observed and Learned
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- 4) What collaboration tools will you use to collaborate remotely? Discuss and find common tools that everyone can access, e.g., Google Hangout, Dropbox, Evernote, etc.

### Part 3: Defining Your Project

As a group, please create a **mind map** around your topic. Here are some examples; yours can reflect your own personal approach. Keep the illustrations simple for now, because you will be building another mind map as a group.



Source: Wikimedia



#### **Part 4: Project Scope of Work**

**Note: Please submit Part 4 as your written project scope of work. Format: Typed written document, single-spaced, 12-point font. Please use the section headings below.**

The scope of work is a negotiated contract that students will complete in collaboration with the community partner. Students will outline the project that they will complete this quarter, their methodology, and the learning outcomes that they wish to achieve through the project. It is also an opportunity for the community partner to give input and ensure that the projects are useful to their organizations, to understand student learning goals, and to see specific ways that they can support students as they complete the projects. Your written scope of work should include the following section headings. These questions serve as prompts that you should address in the document.

- 1) Executive Summary
  - Project title, summary of goals and deliverables
  - Contact information for community partners and students
  - What are the main research questions that your project will seek to address?
- 2) Project Definition
  - Background information about the project—site location, population demographics, description of community partner, organization mission, and past achievements
  - What are prior studies that can inform this project?
  - Why is this project important? What are the sustainability implications?
- 3) Methodology
  - How will you answer the research questions?
  - What existing data can you use?
  - What type of data do you need?
  - How will you collect the data? Surveys? Focus groups?
- 4) Project Tasks and Timeline
  - Create a project timeline for the quarter based on your team deliverables.
  - What is your team's plan of action for meeting specific milestones?
  - How often will your team meet with each other and your community partner?
  - How often will you go out to conduct fieldwork at the project site?
  - How often will you communicate with your community partner?
- 5) Team Roles
  - What are your collective strengths as a team?
  - How will you divide roles for each person on the team based on strengths and interests? (E.g., Community partner liaison? Mapping and data specialist? Programming and language skills?)
- 6) Seeing the Big Picture
  - What are your project deliverables to the community partner?
  - What are the policy, research, or advocacy implications?
  - How is your project important to sustainable cities? You may refer to the 4 Pillars of Sustainability as an example or other readings in the syllabus.
  - As a team, what do you hope to learn from the class and the final project?
  - What concerns or questions do you have about the project or project site?