

Climate Corps and East Boston

Climate, Environment & Community

Spring 2022 4.163 Urbanism Studio and 11.304J Site and Environmental Systems Planning

Land Acknowledgement Statement

We acknowledge Indigenous Peoples as the traditional stewards of the land, and the enduring relationship that exists between them and their traditional territories. The lands which MIT occupies are the traditional unceded territories of the Wampanoag Nation and the Massachusetts Peoples. We acknowledge the painful history of genocide and forced occupation of these territories, as well as the ongoing processes of colonialism and dispossession in which we and our institution are implicated. Beyond the stolen territory which we physically occupy, MIT has long profited from the sale of federal lands granted by the Morrill Act, territories stolen from 82 Tribes including the Greater and Little Osage, Chippewa, and Omaha Peoples.

As we honor and respect the many diverse Indigenous people connected to this land from time immemorial, we seek to Indigenize our institution and the field of planning, offer Space, and leave Indigenous peoples in more empowered positions.

Anti-Racist Statement

Urban design has long served as a tool of white supremacy, where oppressive policies, practices, and attitudes are manifested into the physical environment. This course is committed to identifying how systems of oppression have been instrumentalized through urban design, and seeking out examples of spatial practice that support liberation and environmental and economic justice.

Instructors:

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Core Partner/Clients:

Kannan Thiruvengadam, Eastie Farm, East Boston Climate Coalition, The Friends Group of the Belle Isle Marsh (FBIM)

Phil Giffey, Executive Director of NOAH (Neighborhood of Affordable Housing)

Schedule:

Tuesdays 1:00 pm – 5:00 pm (MArch/SMArchS Urb)

Fridays 9:00 am – 12:00 pm (Joint DUSP/MArch/SMArchS Urb)

Credits: 21 units

Spring Joint Studio and Practicum

The joint Urban Design Studio and Site and Environmental Systems Planning practicum investigates an equity-driven approach to planning and designing for East Boston, focused on Condor Street and Border Street waterfronts. The goal is to create a framework that responds to community needs, builds off and complements current planning studies, and integrates planning and design to envision climate resilient strategies and affordable housing for the neighborhood. In addition, the joint studio will explore connections between the idea of “climate corps” in cities, and physical and social resilience at the community level. It will build on existing and new partnerships between MIT’s School of Architecture and Planning, the City of Boston, and East Boston organizations.

This studio will bring in voices of practitioners from a variety of perspectives, through the robust involvement of speakers. Background readings will be assigned on a weekly basis, and will offer, where available, a choice between articles, podcasts and video.

The structure of the studio is conceived as an interplay between community partner engagement in East Boston, the potential role of design/planning projects, and an exploration of the idea of an expansive vision of a Climate Corps for Boston and nationally, as it could apply to the context of the neighborhood.

East Boston

East Boston was originally an archipelago, slowly connected over the years through several marshland infill projects. That infill has created a number of low-lying areas, making East Boston at risk of coastal flooding from current storm surges, as well as a predicted extra 9 inches of sea level rise (by the 2030s) and plus a predicted 36 inches in the 2070s.¹ The urban development in these low-lying areas now ranges from residential, commercial and industrial uses, as well a lot of critical infrastructure connections. One example is the Sumner tunnel, which is one of the few connections East Boston residents have to other parts of Boston.

East Boston, in colonial settler history, was administratively founded in the 1830s and the culturally vibrant neighborhoods have been growing ever since. Residential and commercial areas have followed patterns of growth that were laid out in the original plan for the neighborhood. Another major challenge facing East Boston’s future is a rapidly growing and potentially gentrifying population. According to the BPDA’s PLAN East Boston report, there has been a 22% population growth in East Boston since 2000 and there has been a 42% increase in rents—further jeopardizing the affordability of the area and stability of the communities. Despite facing these challenges, the incredibly diverse neighborhoods, where people of color comprise 63% of residents and more than 50% are Hispanic or Latinx, support numerous community groups and tremendous social capacity.

¹ BPDA, PLAN East Boston Report 2020 p74-77.

Social Justice

The pedagogy of the practicum workshop will focus on the residents of East Boston and understanding how their neighborhood is currently being planned by the City. Our pedagogical emphasis will center on social justice by:

1. Understanding the potential disproportionate impacts of climate change on East Boston's residents.
2. Understanding the socioeconomic realities of residents in East Boston.
3. Convening East Boston collaborators and residents in a practicum process that facilitates active listening and discussion.
4. Actively and continuously reflecting on our planning and design strategies and who they impact.

The studio will develop thematic frameworks for the whole waterfront to inform specific programmatic requirements leading to detailed designs. Although everyone is expected to join all the discussions, students will have the opportunity to select themes that most closely fit their own personal interests to develop more detailed design.

The themes may include:

- A. ecology, environmental systems, and natural infrastructure
- B. reuse of former contaminated industrial sites
- C. cultural narratives, neighborhood identity, and activation
- D. adaptive infrastructure of a 'working' waterfront
- E. access, circulation and neighborhood connections
- F. affordable housing
- G. risk reduction and disaster preparedness and
- H. flooding, sea level rise and climate change
- I. economic opportunities - especially through envisioning the applications of a Climate Corps

The Climate Corps Project

A national Civilian Climate Corps is a once-in-a-generation opportunity to meet the dual imperatives of climate and racial justice in the United States at scale. Students in this studio will take part in pioneering a multi-year research project exploring the potential of "climate corps" to build equitable and resilient cities. Students will learn about the federal and local context for climate corps, including the Biden Administration's proposed Civilian Climate Corps and the Boston Conservation Corps. We will use the lens of climate corps to explore how the built environment, institutional and community-driven resiliency planning, green jobs, and service-learning intersect. The Climate Corps thread will include a speaker series exposing students to

a range of multi-sector practitioners, from social entrepreneurs to policymakers, at the cutting edge of this topic.

The project seeks to contribute to effective, large-scale implementation of the “climate corps” idea, for impact on racial, economic and environmental justice in cities, through coursework, research and convenings. How can a federal program centered on civilian service and green jobs accelerate existing efforts and local visions for building an inclusive green economy and resilient communities in cities? What tools and research are needed that can help impact and collaboration? How might we design for climate, community, social, and economic impact simultaneously? Students will take part in the launch of this research effort which will continue beyond the course.

A galvanizing national vision

The idea of a Civilian Climate Corps has captured interest across the country since President Biden issued an executive order, in January 2021, on tackling the climate crisis that creates a Civilian Climate Corps “*to mobilize the next generation of conservation and resilience workers and maximize the creation of accessible training opportunities and good jobs. The initiative shall aim to conserve and restore public lands and waters, bolster community resilience, increase reforestation, increase carbon sequestration in the agricultural sector, protect biodiversity, improve access to recreation, and address the changing climate.*”

A 2021 national survey reflected bipartisan support for the idea of a Civilian Climate Corps². Evergreen Action and The Corps Network outlined how the idea could work to reach millions, while legislative proposals proliferated throughout 2020 and the issue became a central ask of the youth-driven Sunrise Movement. The Build Back Better bill’s climate provisions include the creation of a new multi-billion dollar national program. While the timeline and degree of federal funding for a CCC are under debate, climate corps are the future; the national network of existing conservation corps - which engages 20,000 young adults annually across the country - is gearing up for growth, while cities and entrepreneurs are launching new programs, from Austin to Boston.

An urban climate corps for Boston

In Boston, the Boston Conservation Corps is under development as part of Mayor Michelle Wu’s vision for a Boston Green New Deal. The need for green workforce development, laid out in the Green New Deal for Boston in 2020, is framed as a racial and economic justice issue³. The proposed urban climate corps connects to environmental justice at the community level:

² Deiseroth, Danielle. *Voters support the creation of a new climate conservation corps*: <https://www.dataforprogress.org/blog/2021/4/20/new-civilian-conservation-corps>. Data for Progress, April 20, 2021.

³ *Planning for a Green New Deal for Boston and a Just Recovery*, Office of Boston City Councilor Michelle Wu, August 2020, p. 26

“The COVID-19 pandemic has exacerbated unemployment and under-employment in the City of Boston, especially for people of color and youth. The Coronavirus pandemic has also underlined the absolute necessity of access to clean air and water...historically redlined neighborhoods such as East Boston and Dorchester continue to have less greenspace and tree cover. This increases the urban heat island effect and health risks in frontline communities, including acute asthma attacks, heat exhaustion, and stroke. In addition, thousands of Boston residents— disproportionately families of color—are threatened with water shutoffs each year because they cannot afford their water. An Urban Climate Corps would help residents create their own on-site water harvesting solutions, releasing them from the menace of high water bills. We need a workforce training opportunity that seizes on our potential to solve these challenges with effective nature-based solutions and infrastructure.”

The City of Boston convened an advisory committee and held a hearing in November 2021, at which Boston Chief Sustainability Officer Reverend Mariama White-Hammond and City Councilor Kenzie Bok shared plans for the launch of a Boston corps modeled after Philadelphia’s PowerCorps PHL, with a goal to launch a first cohort in 2022. DUSP graduate, Winn Costantini, delved into the context and potential of a Boston climate corps in a 2021 master’s thesis, mapping existing actors and enabling environments at the citywide level, and proposing indicators for the design of a racially equitable Boston corps. The process revealed the lack of research relative to climate corps, and specifically anti-racist research centering BIPOC young adults and communities, and the potential for MIT students to contribute to this field.

Climate Corps and East Boston

Green jobs, training and youth empowerment are an integral part of East Boston climate, environmental and community development organizations. How can design and planning for a resilient and just East Boston incorporate climate corps? How do or would community-based organizations and residents envision applications for a climate corps in East Boston? How could corps help implement green affordable housing, community-driven resilience planning, build careers as well as equitable and just systems and infrastructure for ecology and economy rooted in community (food, water, waste, housing, energy, education...)? What would a climate corps, or network of corps, that is widely accessible to young residents in East Boston, connected to career paths in the green economy, make possible? If there is a federal Civilian Climate Corps, how could it relate to the local level and the needs and desires of young adults in East Boston?

Climate corps centering residents: the example of Green City Force and NYC public housing

Green City Force is a climate corps employing young residents to build and power “eco-hubs” in NYC public housing communities, currently in 5 neighborhoods, with the potential, if scaled, to help provide healthy food, zero waste and green infrastructure and economic opportunity

systematically across the 302 New York City Housing developments in New York City. Green City Force works exclusively with public housing residents and in public housing communities. The example of Green City Force, which connects graduates to career path employment in green economy sectors, including large-scale energy efficiency retrofits and solar panel installations in public housing, points to the potential for a climate corps to center residents in transforming social, built and natural environments in public and affordable housing communities.

Advancing racially just research at the intersection of climate, community and resiliency

The Climate Corps Project will:

- center experiences, leadership, voices and scholarship of Black, Indigenous People of Color (BIPOC)
- explore how CCC projects, models, approaches can help close the racial wealth gap and accelerate environmental justice in cities and communities
- work with practitioners to create tools helpful for accelerating impact and collaboration, through modeling, mapping, prototyping, storytelling etc.
- explore how CCC scaling relates to verticals within built and natural environment equitable systems (energy democracy, zero waste, green infrastructure, etc.); participatory planning; mapping climate corps onto the continuum of service, jobs and career paths related to sectors within the green economy; entrepreneurship, ownership, and cooperative economics; how to sustain and grow climate corps through innovative financing; the role of the university in building equitable cities...
- acknowledge history, interrogate gaps and seek varied perspectives.

Inclusive Classroom and Reflective Practice

MIT values an inclusive environment. We hope to foster a sense of community in this classroom and consider this classroom to be a place where you will be treated with respect. We welcome individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, sexual orientations, religious and political affiliations – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class. If this standard is not being upheld, please feel free to speak with one of us.

Reflection will be a significant aspect of the studio, with students examining how they think and learn in the course of action and deepen their understanding of some of the core issues of design and planning practices today. The course offers an opportunity for students to engage with local leaders, city officials, and professionals to develop planning and design strategies for neighborhoods. In this context, the course schedule will include sessions where students will collectively reflect on their roles as planners and designers and how they can serve their client and the local communities. In addition, we will have readings and discussion that will allow our class to engage with ideas and practices around anti-racist research.

The Continuing Pandemic

Although MIT is operating as a regular semester, please be extra generous with yourself and others around you, recognizing that we are all worn down. If you need time, space, support, never hesitate to reach out (mmaz@mit or 857-389-3502). If you are on a Medical Hold due to attesting to potential symptoms, or have tested positive and must isolate, then please contact Miho (mmaz@mit.edu) so we can make sure you have access to course materials and we can discuss how we address the missed work. The last two years have brought many new online tools and so once you are feeling better, we can find ways to connect with you so that you do not have to worry about falling behind. Beyond us, you can always contact [GradSupport](#) for additional assistance.

Special Accommodations

MIT is committed to the principle of equal access. Students who need disability accommodations are encouraged to speak with Disability and Access Services (DAS), prior to or early in the semester so that accommodation requests can be evaluated and addressed in a timely fashion. If you have a disability and are not planning to use accommodations, it is still recommended that you meet with DAS staff to familiarize yourself with their services and resources. Please visit the [DAS website](#) for contact information.

If you have already been approved for accommodations, class staff are ready to assist with implementation. Please inform Miho (mmaz@mit.edu) who will oversee accommodation implementation for this course.

Academic Integrity

In this course, we will hold you to the high standard of academic integrity expected of all students at the Institute. We do this for two reasons. First, it is essential to the learning process that you are the one doing the work. We have structured the assignments in this course to enable you to gain a mastery of the course material. Failing to do the work yourself will result in a lesser understanding of the content, and therefore a less meaningful education for you. Second, it is important that there be a level playing field for all students in this course and at the Institute so that the rigor and integrity of the Institute's educational program are maintained.

Violating the Academic Integrity policy in any way (e.g., plagiarism, unauthorized collaboration, cheating, etc.) will result in official Institute sanction. Possible sanctions include receiving a failing grade on the assignment, being assigned a failing grade in the course, having a formal notation of disciplinary action placed on your MIT record, suspension from the Institute, and expulsion from the Institute for very serious cases.

Please review MIT's [Academic Integrity](#) policy and related resources (e.g., working under pressure; how to paraphrase, summarize, and quote; etc.) and contact me if you have any

questions about appropriate citation methods, the degree of collaboration that is permitted, or anything else related to the Academic Integrity of this course.

Schedule

On the next page you will find the current schedule, but please keep in mind that some dates are subject to change.

Phase 1: Discovery and Analysis				
WK 1	Tues	2-Feb	No Class	
	Fri	4-Feb	First Day of Class: Introduction	Intro
WK 2	Tues	8-Feb	Studio : Cooperative Housing, Class Norms, Logic Model/Theory of Change, Site Research	Tone Set
	Fri	11-Feb	Engagement 1: Site Visit, 9-10 Eastie Farm, 10:30-12 NOAH	Engagement
WK 3	Tues	15-Feb	Studio: Reflection, Presentation: Flood modeling	Site Analysis
	Fri	18-Feb	Studio: Presentation: Environmental and Economic Justice	Discussion
WK 4	Tues	22-Feb	MIT - Monday Schedule - No Studio	
	Fri	25-Feb	Studio: Presentation: Boston Conservation Corps and examples of climate corps models	Discussion
Phase 2: Principles and Framework Strategies				
WK 5	Tues	1-Mar	Studio: Desk Crits	Strategies
	Fri	4-Mar	Engagement 2: Analysis Presentation with Client	Engagement
WK 6	Tues	8-Mar	Studio: Reflection	Strategies
	Fri	11-Mar	Studio: Presentation: City of Boston + BPDA	Strategies
WK 7	Tues	15-Mar	Studio: Prepare for Midterm	Strategies
	Fri	18-Mar	Engagement 3: Midterm Presentation with Client	Engagement
WK 8	Tues	22-Mar	Spring Break	
	Fri	25-Mar	Spring Break	

Phase 3: Design Development				
WK 9	Tues	29-Mar	Studio: Reflection	Design Development
	Fri	1-Apr	Studio: Feedback with additional critics	
WK 10	Tues	5-Apr	Studio: Desk Crits	Design Development
	Fri	8-Apr	Studio: Mini-Pinup	
WK 11	Tues	12-Apr	Studio: Desk Crits	Design Development
	Fri	15-Apr	Engagement 4: Preliminary Framework Presentation with Client	
WK 12	Tues	19-Apr	Studio: Reflection	Design Development
	Fri	22-Apr	Studio: Desk Crits	
WK 13	Tues	26-Apr	Studio: Prepare for Penultimate Presentation	Design Development
	Fri	29-Apr	Studio: Feedback with additional critics	Pen-ultimate Review
WK 14	Tues	3-May	Studio: Prepare for Final Presentation	Design Development
	Fri	6-May	Engagement 5: Final Presentation with Eastie Farm	Engagement
WK 15	Tues	10-May	Engagement 5: Final Presentation with NOAH	Engagement