

# MASS Design Group

Select Projects  
Health and Housing  
March 2020



Architecture can heal.

# Infectious Disease Mitigation

Over the past ten years, our team has developed an expertise in the planning, design, construction and evaluation of transformative healthcare environments.

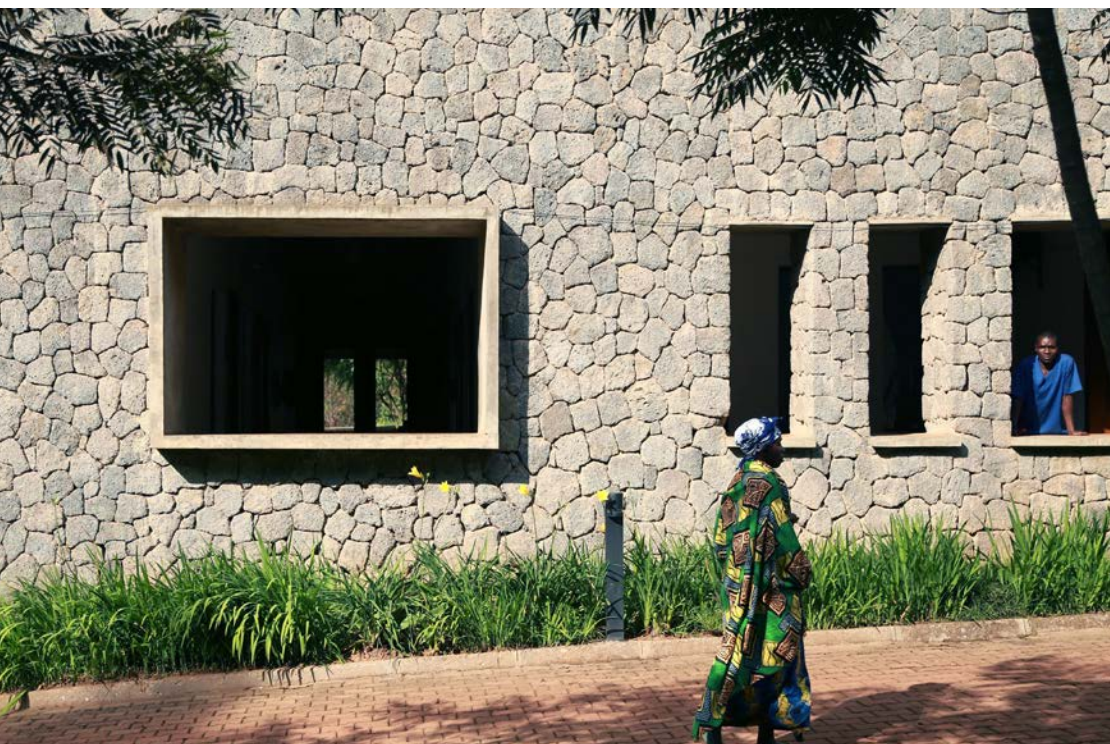
Our history has been defined by partnering with leading organizations at the front lines of the world's major health challenges - from responding to acute epidemics of Ebola and cholera, to addressing the chronic injustices of structural health inequities.

Always prioritizing local capacity building and sustainable development practices, we are uniquely positioned to shape innovative, elegant, and cost-effective health care infrastructure globally.

From our beginning, MASS, or a Model of Architecture Serving Society, has been committed to dignifying design that creates transformative impact. Our work in Butaro directly responded to the needs of the community, and through continued proximate engagement, we worked with Partners In Health and the Government of Rwanda to transform Butaro into a hub for global health excellence.

Our work in Rwanda, Haiti, and Liberia taught us that true impact extended beyond the singular healthcare facility. We have worked directly with the communities and governments of these nations to create new standards of healthcare infrastructure.

MASS is committed to demonstrating that architecture can heal, and that design must become a necessary consideration in infectious disease mitigation and pandemic readiness. Our research and project teams conduct evaluation of our projects along measures of social, economic, environmental, and health impacts. We review our findings to continually refine our designs and find ways to share what we have learned among other industry leaders.



## Select Project Chronology

- |             |  |             |  |
|-------------|--|-------------|--|
| <b>2008</b> | <b>Butaro Medical Campus</b><br>Butaro, Rwanda   | <b>2013</b> | <b>Rwinkwavu Hospital Masterplan</b><br>Rwinkwavu, Kayonza District, Rwanda                        |
| <b>2011</b> | <b>GHESKIO Tuberculosis Hospital</b><br>Port-au-Prince, Haiti                            | <b>2014</b> | <b>Albert Schweitzer Hospital</b><br>Lambarene, Gabon  |
| <b>2011</b> | <b>Rwinkwavu Neonatal Intensive Care Unit</b><br>Rwinkwavu, Kayonza District, Rwanda     | <b>2015</b> | <b>Buhanga Specialty Hospital</b><br>Kigali, Rwanda  |
| <b>2011</b> | <b>Maternity Hospital of Rwanda</b><br>Nyanza, Rwanda                                    | <b>2015</b> | <b>Butaro Sharehousing</b><br>Butaro, Burera District, Rwanda                                      |
| <b>2011</b> | <b>Mamohau Hospital</b><br>Mamohau, Lesotho  | <b>2015</b> | <b>University of Global Health Equity (UGHE)</b><br>Butaro, Rwanda                                 |
| <b>2011</b> | <b>Liberia Health Infrastructure Standards and Guidelines</b><br>Liberia                 | <b>2015</b> | <b>Childbirth Facilities and Maternal Health</b><br>Nationwide, US                                 |
| <b>2011</b> | <b>Hierarchy of Needs: Cincinatti Children's Hospital Design</b><br>Cincinnati, Ohio, US | <b>2016</b> | <b>Rhode Island Neighborhood Health Station</b><br>Central Falls, Rhode Island                     |
| <b>2012</b> | <b>Butaro Doctors' Housing</b><br>Butaro, Burera District, Rwanda                        | <b>2016</b> | <b>Redemption Hospital</b><br>Monrovia, Liberia  |
| <b>2012</b> | <b>Munini District Hospital</b><br>Munini, Nyaruguru, Rwanda                             | <b>2016</b> | <b>Redemption Hospital Campus Masterplan</b><br>Monrovia, Liberia                                  |
| <b>2012</b> | <b>Kayanja Centre for Global Health</b><br>MUST University Campus, Mbarara, Uganda       | <b>2016</b> | <b>Nyarugenge District Hospital</b><br>Kigali, Rwanda  |
| <b>2012</b> | <b>St. Boniface Hospital</b><br>Fond des Blancs, Haiti                                   | <b>2017</b> | <b>African Center of Excellence for Genomics of Infectious Diseases Laboratory</b><br>Ede, Nigeria |
| <b>2012</b> | <b>Bishop Masereka Medical Centre</b><br>Kasese, Uganda                                  | <b>2018</b> | <b>Boston Health Care for the Homeless Program</b><br>Boston, Massachusetts, US                    |
| <b>2013</b> | <b>GHESKIO Cholera Treatment Center</b><br>Port-au-Prince, Haiti                         | <b>2019</b> | <b>Family Health Center at Virginia Parkway</b><br>McKinney, Texas                                 |
| <b>2013</b> | <b>Maternity Waiting Village</b><br>Kasungu, Malawi                                      | <b>2019</b> | <b>Butaro Oncology Support Centre</b><br>Butaro, Burera District, Rwanda                           |

## How We Work

“I haven’t ever seen buildings like this. In the process of making them, MASS has created a different language about what architecture can aspire to be.”

—Chris Anderson, Chief TED Curator

### We immerse ourselves.

Getting proximate is necessary to understand the unique constraints and opportunities, uncover questions we didn’t know need to ask, build relationships, and develop a shared vision for how design can achieve the project mission. This expanded concept of engagement also meaningfully brings a broader group of stakeholders into the process.

MASS was commissioned by The Atlantic Philanthropies and the S.D. Bechtel, Jr. Foundation, which jointly funded over \$1 Billion in projects for non-profits and those serving the public, to evaluate the role of design in achieving impact. Based on these case studies and research we authored the Purpose Built design tool that we use to guide our partners through all phases of the process and to achieve maximum impact over the entire life cycle of their projects.

### Deep research.

We leverage grants from governments and foundations to dig deeper and uncover opportunities to catalyze and amplify the mission of our partners. We have partnered with leading researchers and think tanks, such as the Ariadne Lab, to publish and advocate for this work in peer reviewed journals of medicine and public health, op-eds, and as public policy at the national and international level.

### Making architecture.

We understand that each choice, each detail, each material selection is an opportunity to create value. It will affect the way services are delivered, determine what and how many jobs are created, the technologies we advance, the mark we leave on the planet, and leave a lasting impact on the people who build and use the spaces we create. Our philosophy incorporates the most cutting edge technologies in design and fabrication, while also incorporating the value of craft, the handmade, and the locally fabricated.

### We stay connected.

We measure to understand how well did we do, did this building and landscape achieve our collective goals? We devise post-occupancy evaluations to measure impacts of the project, qualitatively and quantitatively.

### We help tell the story.

MASS began producing films as a tool to uncover the cultures, histories, and everyday experiences that inform design and make projects possible. The process of collecting narratives helps us understand and convey why a building was needed, who it is being built for, and whose hands constructed it.

### We are a collective.

MASS Design Group is governed by a board of directors who oversee and advise on the organization and the maintenance of our mission. The board is comprised of a diverse group of thought leaders from different sectors and perspectives that meet quarterly to review the organization’s strategy and operations.

The full-time senior leadership of MASS Design Group is comprised of design principals and senior directors: Sierra Bainbridge, Christian Benimana, Justin Brown, Kelly Doran, Patricia Gruits, Chris Kroner, Erinn McGurn, Sarah Mohland, Michael Murphy, Alan Ricks, David Saladik, Amie Shao, Matt Smith, Katie Swenson, and Peter Torrebiarte, and Regina Yang who develop and administer the strategy of MASS’s work. The group meets weekly to assess where to direct grants in the form of in-kind services, select what projects to take on, and review general operations and strategy.





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# Butaro District Hospital

## Butaro, Burera District, Rwanda

**Date:** Completed 2011  
**Client:** Rwanda Ministry of Health, Partners in Health  
**Size:** 6,000 sq m / 64,583 sq ft  
**Construction Budget:** \$5.5MM USD

A 150-bed tertiary hospital with in- and outpatient services that employs natural cross-ventilation to mitigate airborne disease transmission.

As part of the Partners In Health mission to bring high-quality healthcare to Rwanda's poorest regions, and developed in partnership with the Rwandan Ministry of Health, MASS Design Group was brought in to plan and design a state-of-the-art district hospital facility in Butaro.

MASS and PIH's partnership created a holistic model of architecture that choreographed the process of construction to employ, educate, and empower the local community. The 150-bed Butaro District Hospital was developed to provide both inpatient and outpatient services, with a particular emphasis on maternal services. A laboratory, neonatal intensive care unit, and operating rooms were core programs to provide referral care and critical care services. Centered around an umuvumu tree, the hospital is a landscaped campus of buildings on the terraced hillside. It is designed to mitigate and reduce the transmission of airborne disease through innovative systems, including overall layout, patient and staff flows, and natural cross-ventilation.

Local materials—such as the volcanic rock from the Virunga mountain chain—and local labor-intensive practices delivered site-appropriate, sustainable design, and stimulated the local economy. The careful coordination of design and construction held the budget of the hospital to two-thirds of comparable projects elsewhere in Rwanda.



- Awards & Press**
- BBC News**  
"Tomorrow's Buildings: Smarter by Design", 2016
  - Metropolis Magazine**  
"The 16 Best Buildings of the Twenty-First Century (So Far)", 2016
  - The New York Times**  
"In Redesigned Room, Hospital Patients May Feel Better Already", 2014
  - The New Times Rwanda**  
"Butaro Hospital: An Icon of Modern Health Service Delivery", 2014
  - Time Magazine**  
"Designs with Dignity: The Architects of a New Kind of Health Care", 2012



# Butaro Cancer Centre for Excellence

## Butaro, Burera District, Rwanda

**Date:** Completed 2013  
**Client:** Partners In Health  
**Size:** 575 sq m / 6,190 sq ft

The first comprehensive cancer center in East Africa, designed to provide a spectrum of diagnostic oncology and cancer treatment services.

Developed for Partners In Health, who are pioneering non-communicable disease care in sub-Saharan Africa, the Butaro Cancer Center of Excellence (BCCE) is the first comprehensive cancer center in East Africa. The facility adjoins the Butaro District Hospital and administers IV chemotherapy in an outpatient setting.

The clinic's chemotherapy hall is designed to be a patient-centric space. Its infusion chairs arranged radially around central pods for ease of physician access. The arrangement allows each patient access to the exterior through an operable pivot door façade, bringing the beautiful landscape and vista of the Virunga mountain range directly into the infusion room. The ventilation system maximizes natural air flow and includes strategically located ultraviolet germicidal irradiation lights, which neutralize 99 percent of harmful pathogens. The facility and many of the furnishings were built with locally sourced materials, custom-assembled on site. The facility's construction created jobs for more than 550 people, 30 percent of them women.





## Butaro Oncology Support Centre

### Butaro, Burera District, Rwanda

**Date:** 2019

**Client:** Partners in Health

**Size:** 750 sqm / 8073 sqft

**Scope:**

Architecture: To support patients at the Butaro Oncology Centre, MASS designed and built a facility where patients traveling long distances can stay with their families and receive psychosocial support as they undergo treatment.

The Butaro Oncology Support Centre is the first inpatient cancer support facility in East Africa, providing both a home and psychosocial support for patients and families traveling long distances for treatment at the adjacent Butaro Cancer Centre of Excellence (BCCE). In 2013, MASS teamed with Partners In Health to open the BCCE, now serving over 3,000 patients from across the region as a hub for medical excellence. The new Butaro Oncology Support Centre will support the increasing number of patients at the BCCE and the growing demand for inpatient care.

To inform the design of the Support Centre, MASS met with patients, attendants, and clinicians, revealing the unique needs of each user group. The design includes outdoor porches and a gallery common area with spaces to sit, to share moments with other patients and families, and to enjoy the view. The Support Centre's exterior walls curve with the steep, terraced hillside, offering beautiful views of the surrounding hills for patients and their families.







## Butaro Doctors' Housing

### Butaro, Burera District, Rwanda

**Date:** Completed 2012

**Client:** Rwanda Ministry of Health, Partners In Health, Brigham and Women's Hospital, The Daniel E. Ponton Fund

**Size:** 440 sq m / 4,736 sq ft

**Budget:** \$500k USD

Four duplex housing units at the Butaro District Hospital to support physicians and staff.

Adjacent to the Butaro District Hospital, the Butaro Doctors' Housing is designed to attract and retain skilled physicians. The project sets a precedent for innovative, earthquake safe, and sustainable building practices that use locally available materials. MASS designed and built four duplexes using compressed stabilized earth blocks (CSEBs)—a brick produced with dirt excavated on-site—manufactured by skilled, local craftsmen that were trained throughout the process.

Butaro Doctors' Housing was completed in collaboration with the Daniel E. Ponton Fund at the Brigham and Women's Hospital, Partners In Health, and the Rwandan Ministry of Health. The construction process provided invaluable opportunities to implement and scale on-site job training in sustainable construction throughout the local community. The project provided 900 jobs for members of the community, alongside training in sustainable building practices, investing \$400,000 into the local and regional economies.





# Butaro Sharehousing

## Butaro, Burera District, Rwanda

**Date:** Completed 2015

**Client:** Rwanda Ministry of Health, Partners In Health, Brigham and Women's Hospital, The Daniel E. Ponton Fund

**Size:** 560 sq m / 6,027 sq ft

Phase II of staff housing to provide three additional four-bedroom units.

The Butaro Doctors' Sharehousing, a second phase of housing for staff at the Butaro Hospital, provides additional living quarters for medical staff while continuing to develop construction craft in this rural region of Rwanda. Rural health facilities are often understaffed by a rotation of doctors across rural East Africa, and the implementation of physician housing at the Butaro Hospital in 2012 proved successful in contributing to the quality of care and retention of physicians for the district.

Butaro Sharehousing supplements the original Butaro Doctors' Housing with spacious, communal-style housing for 15+ medical professionals. While including sufficient private and comfortable space, the Sharehousing fosters community amongst staff, and plays on the architectural identity established in the first four houses, maintaining a sense of place as the community on the hill grows. Most building elements are custom-made on site for the facility by the masons, woodworkers, and other construction staff employed on this and previous projects—an element emphasized by the Sharehouses' distinct, angular shape. The Butaro Doctors' Sharehousing diversifies local housing options for doctors as well as nurses and other medical staff, contributing to the Ministry of Health's goal of developing the Butaro Hospital as an exemplary teaching hospital and a model for holistic rural across the East Africa.





# University of Global Health Equity

## Butaro, Burera District, Rwanda

**Date:** Completed 2019

**Client:** Partners in Health, University of Global Health Equity

**Size:**  
Campus: 8,000 sq m  
Housing: 5,000 sq m

Housing facilities for students, faculty, and administrative staff at the new University of Global Health Equity campus.

The University of Global Health Equity (UGHE) in Butaro, Rwanda will train a new generation of global health leaders from around the world. The vision of Partners In Health, UGHE seeks to advance healthcare delivery and expand health science education by rethinking every aspect of the university—from curriculum and research priorities, to the design and location of the campus. MASS led the design of housing and created a masterplan for the 30 hectare campus.

Following the university’s pedagogy, designs were informed by a “One Health” approach that recognizes the intersection of human, ecological, and animal health. Based on deep research into social interaction, learning spaces, and regional ecological patterns, the design fosters trust and community while encouraging discovery at every scale. Located adjacent to the Butaro District Hospital and Butaro Cancer Centre of Excellence, UGHE contributes to an active system of rural health delivery in a region that struggled to access basic healthcare a decade ago. Balancing health education and ecological restoration, UGHE will advance health delivery and educational leadership in Butaro for years to come.





# Maternity Waiting Village

## Kasungu, Kasungu District, Malawi

**Date:** September 2013–October 2015

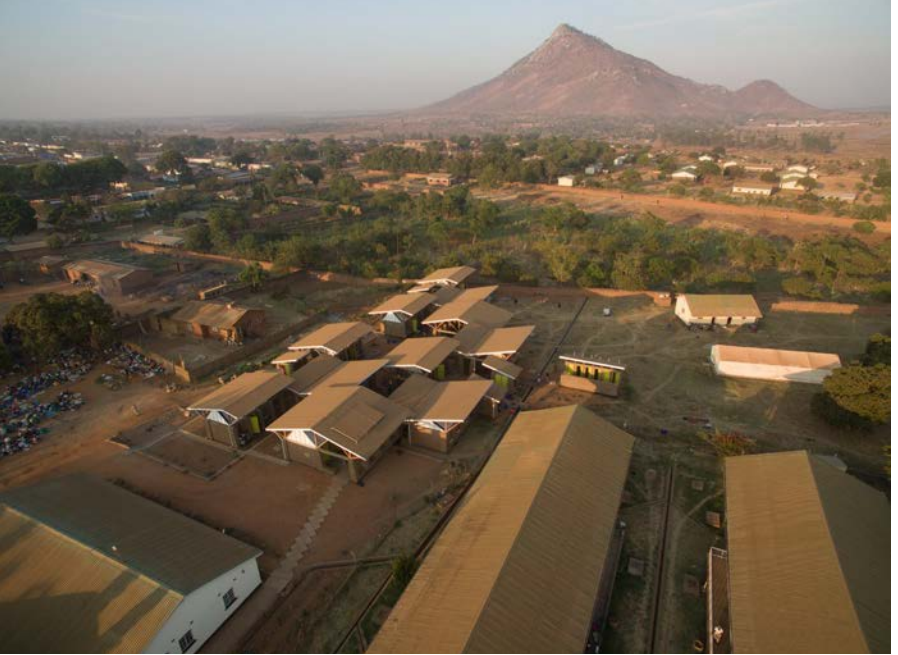
**Client:** Malawi Ministry of Health, The Presidential Initiative for Safe Motherhood, University of North Carolina - Malaw

**Size:** 7,212 sq ft / 670 sq m

Prototype facility where expectant mothers can stay until their delivery to receive expedient care, addressing high rates of maternal mortality in the region.

In Malawi, maternal mortality continues to be a major public health challenge, largely because few deliveries are attended by a skilled professional. Maternity waiting homes (MWH) address this issue by providing a facility within reach of a hospital or health center where expectant mothers, after their 36th week, can stay until their delivery in order to receive care. In collaboration with the University of North Carolina and the Malawi Ministry of Health, MASS developed a new prototype for maternity waiting homes to provide additional areas to sleep, adequate ventilation, and sanitation.

This maternity waiting home reflects the local vernacular, creating a maternal “village” from an aggregation of smaller sleeping units rather than a large, single “home”. This strategy provides necessary privacy while allowing for greater adaptability to the site, optimizing natural ventilation, daylighting, rain-water collection, and solar power. These features work to ensure the health and sustainability of the structure, and creates a safe, comfortable, and dignified place for mothers and their guardians. The design and construction prioritizes local material and local labor ensuring that the prototype can be replicated to other sites in the future. Post-occupancy studies have shown that this new village prototype has improved the overall experience of mothers as compared to a traditional maternity waiting home transforming a negative experience of “waiting” into an empowering one.



- Awards & Press**
- Midwifery**  
“Built spaces and features associated with user satisfaction in maternity waiting homes in Malawi”, 2018
  - Architizer A+ Awards**  
Architecture +Humanitarianism, Winner, 2017
  - The Plan Magazine Awards**  
Health: Health Centres and facilities, Winner, 2016
  - Architectural Record**  
“Labor of Love: A Short-Term Housing Village in Malawi By MDG Provides Safety and Comfort for Expecting Mothers”, 2016
  - Design Indaba 2016 - Building for Social Change**, 2016



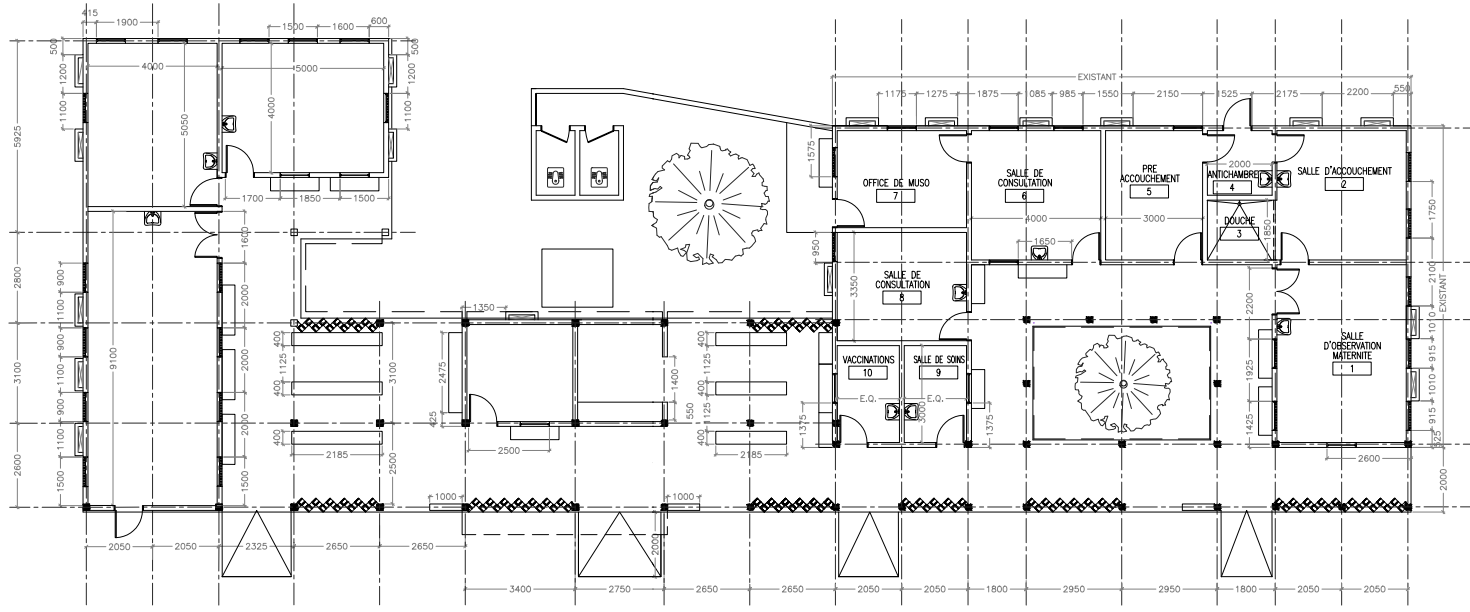
# Muso Health Community Health Centers

## Mopti Region, Mali

**Date:** April 2015 - June 2017  
**Client:** Muso Health  
**Size:** 8 Community Health Centers

Muso Health is a non-profit whose mission is to end preventable deaths rooted in poverty. Their proactive healthcare model employs a three-pronged approach: proactive search, doorstep care, and rapid access clinics. Muso trains community healthcare workers to actively seek patients in the community and treat them at home, with free care provided at rapid access clinics that aim to build trust in the healthcare system. Muso's eight clinics are located in the midst of a current conflict zone and offer immunizations, outpatient and inpatient services, and labor and delivery.

MASS's involvement in this project started with an immersion and assessment of the eight existing centers that Muso proposed renovating. MASS worked with Muso on a replicable clinic design that uses local materials to match the existing buildings and a natural ventilation system that includes dust-mitigation. The surrounding communities and Muso were able to choose the colors as the project was implemented through a local architect.





# Boston Healthcare for the Homeless Program

## Boston, MA

**Date:** November 2015–March 2016

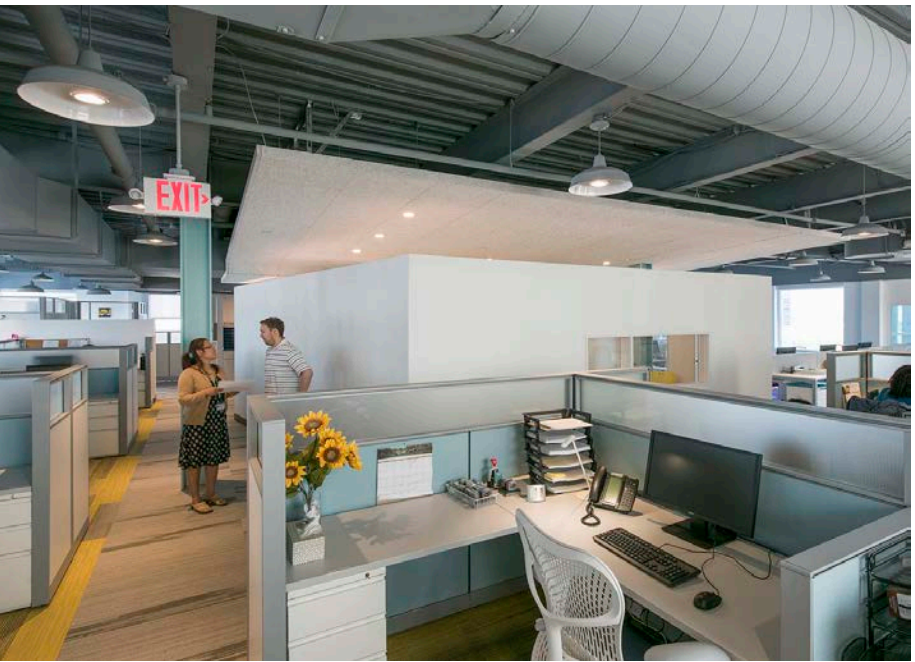
**Client:** Boston Healthcare for the Homeless

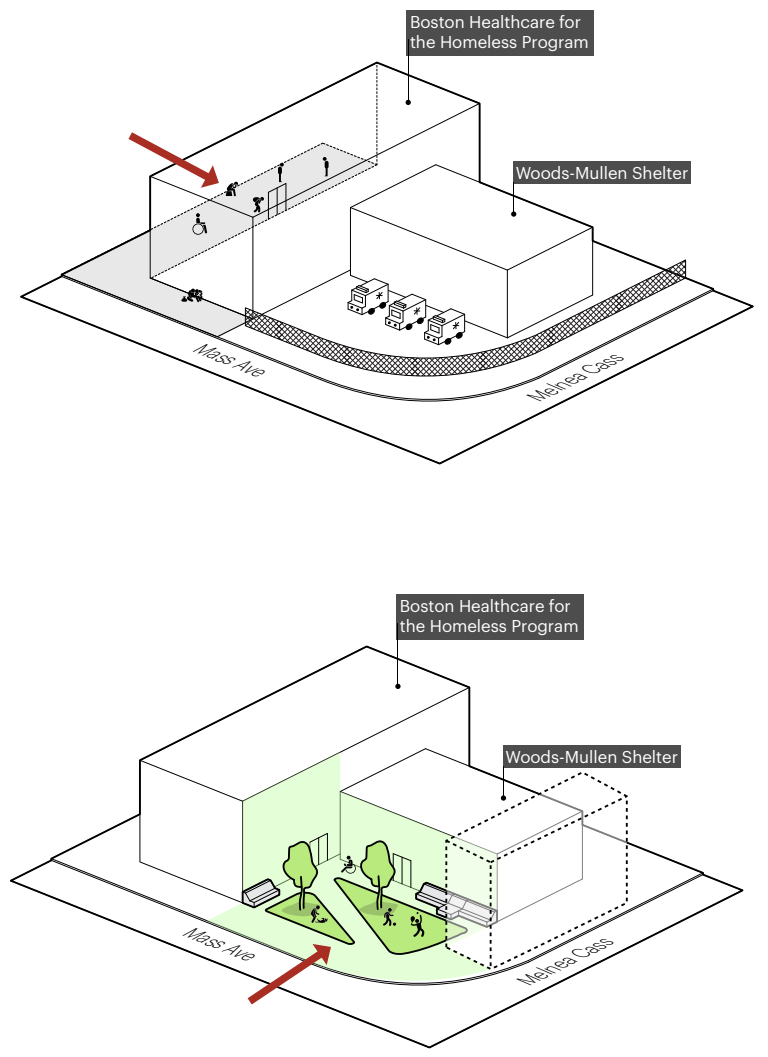
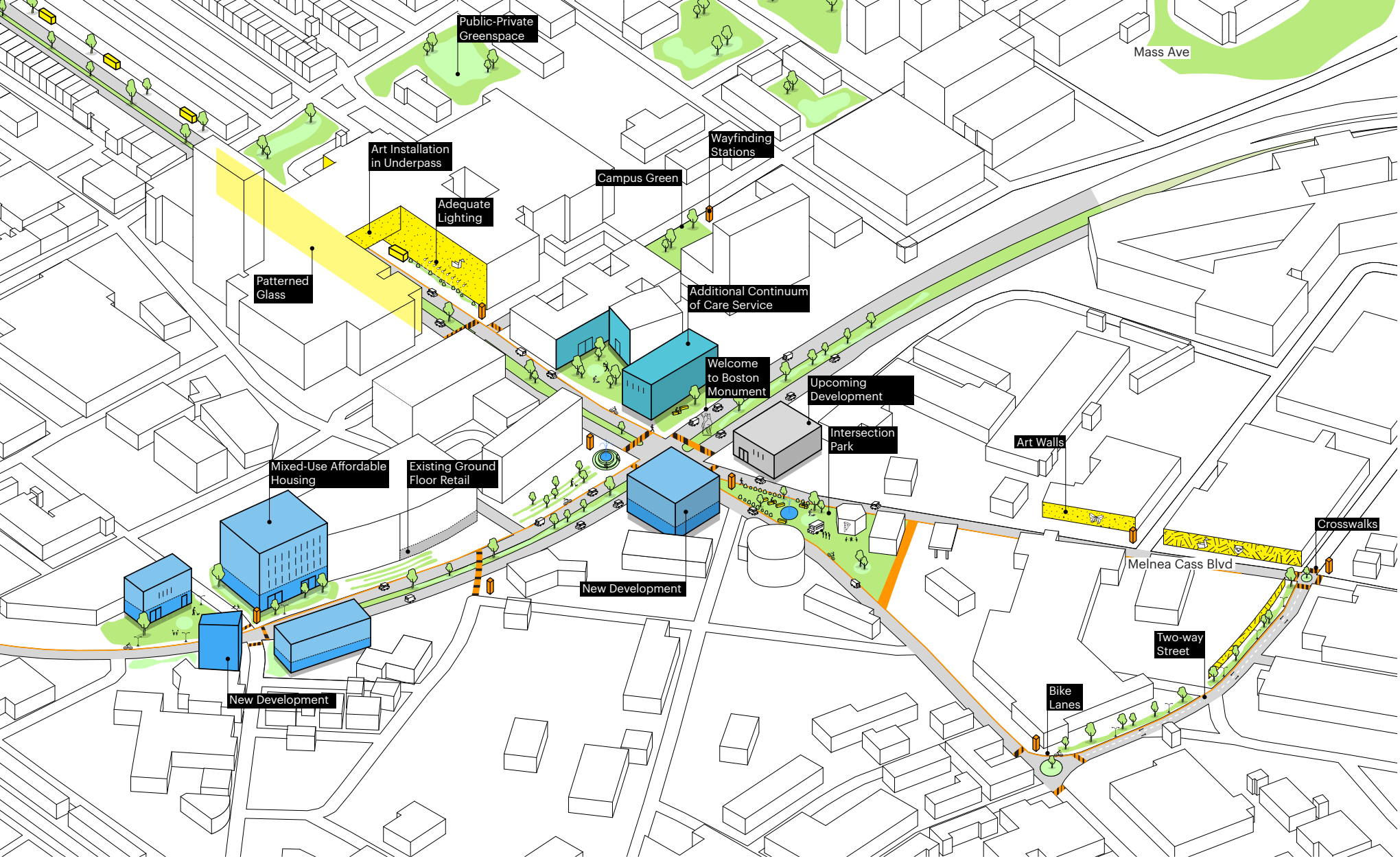
**Size:** 53,820 sq ft / 5,000 sq m

MASS worked with BHCHP to develop an interior design solution to visually reconnect the organizational offices to the organization’s culture and mission, resulting in an open-plan design and central meeting zone to encourage collaboration and take advantage of the office’s expansive views and access to sunlight.

Since 1985, Boston has assured access to the highest quality health care for all homeless men, women and children in the greater Boston area. The integrated care model at BHCHP unites physicians, physician assistants, nurse practitioners, nurses, case managers and behavioral health professionals in close collaboration. They follow patients in a variety of settings - on the streets, at the Barbara McInnis House, in our shelter-based clinics, in the hospitals and in housing - providing regular contact and uninterrupted care.

As a national leader in healthcare delivery, the organization has continued to grow. In response BHCHP purchased a 5,000 SF space to relocate its accounting department, freeing room in the existing facility for its healthcare programs to grow. Recognizing the need for the department to be connected to the mission of the organization in spite of its physical disconnect, MASS worked with BHCHP to develop an interior design solution to reconnect the department to the organization’s culture. This resulted in an open-plan design and innovative half-part central meeting zone to encourage collaboration while taking advantage of the site’s expansive views and access to sunlight.





# Mass & Cass Masterplan

## Boston, MA

**Date:** October 2016 - Ongoing

**Partners:** The Mayor's Working Group on Homelessness and Addiction at the intersection of Massachusetts Ave & Melnea Cass Blvd, The Boston Architectural College, Rhode Island School of Design

**Services Provided:** Research, Design, Masterplanning, Advocacy, Community Engagement

Homelessness and opioid addiction are national challenges faced by many cities in the US. In Massachusetts, the state with the 5th highest rate of homelessness in the nation, deaths from opioid overdose have tripled in the past five years. An increasing number of residents from across the state seek treatment in Boston, the leading city in the provision of recovery services in the region. Historically, a dozen social service organizations have been located along the Massachusetts Avenue Corridor - running between the South End and Roxbury neighborhoods through the industrial Newmarket District. The recent closing of Boston's 'Long Island Shelter' in 2014 placed further demand on services on Massachusetts Ave, contributing to a rise of homeless and opioid use on the streets and causing the area to receive the negative moniker of 'Methadone Mile'.

As the neighborhood intersection develops, inadequate urban planning and rising real estate values are leading to wide spread gentrification, heightening tensions between residents, patients, local businesses, service providers, law enforcement, and local government departments. In response, in fall 2016 Mayor Walsh established a Working Group on the Issues of Homelessness and Addiction at Massachusetts Ave and Melnea

Cass bringing together a range of stakeholders to address these issues.

After attending Working Group meetings, MASS Design Group established a collaboration with the Boston Architectural College and the Rhode Island School of Design to explore how design can contribute to the short and long terms solutions to these public health issues. This collaboration brought together architects, landscape architects, and industrial designers to conduct interdisciplinary research, analysis of the urban conditions, and community engagement, in order to develop holistic and inclusive design solutions to the issues at Massachusetts Ave and Melnea Cass Ave. The project resulted in rich data visualization, film documentation and a masterplan strategy for the corridor that will address gaps in facilities and services for those seeking support for addiction or homelessness as well as create a just and equitable Boston for all. This masterplan was presented to the Working Group for feedback in summer 2017. Next steps are to identify priorities and key partnerships to move forward with implementation.



# Harm Reduction for People Who Use Drugs

## Durban, South Africa

**Date:** December 2018–Present

**Client:** Safer Cities, eThekweni Municipality

In collaboration with Advance Access & Delivery and the Safer Cities Initiative of eThekweni Municipality, MASS is exploring how the built environment can amplify harm reduction activities for people who use drugs.

Issues of opioid addiction and homelessness are intimately tied to conditions in our built environment. Trends in housing, real estate development, urban planning, and social service provision intersect with individual and community well-being across the world.

Early research and visioning work with Advance Access and Delivery (AA&D) is working to answer: How can a building prevent drug overdose? In collaboration with AA&D, our team in South Africa has developed guidelines for the renovation of existing facilities and the creation of a new “Africa Centre for Hope.” Building upon research from international models, we aim to create an exemplary program for opioid treatment and HIV/TB care. Service provision is envisioned to include safe needle exchange, methadone therapy, TB/HIV care, linkages to primary care, and sexual and reproductive health resources, tailored to the different vulnerable and street communities the Centre will serve.







## JJ Carroll Redevelopment Brighton, Massachusetts

**Date:** In Progress, CDs complete 2020.

**Client:** 2Life Communities

**Size:** 142 units / 180,000 sqft

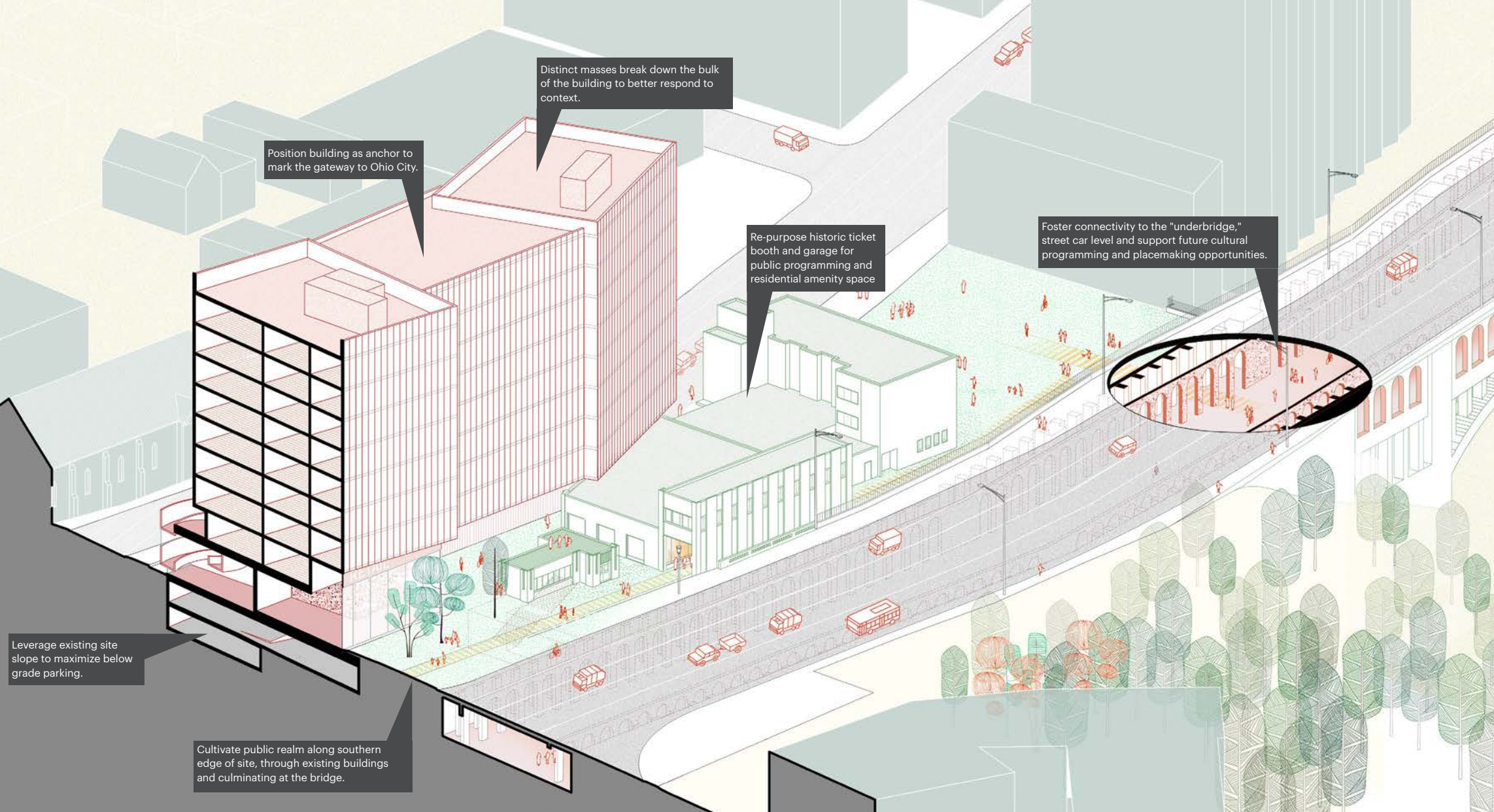
142-unit age-restricted affordable housing development featuring a health center, commercial ad openspace all positioned for help residents age in community.

The JJ Carroll Redevelopment advances the vision of aging in community. The 142-unit age-restricted affordable housing community is thoughtfully considered to help residents live better, longer.

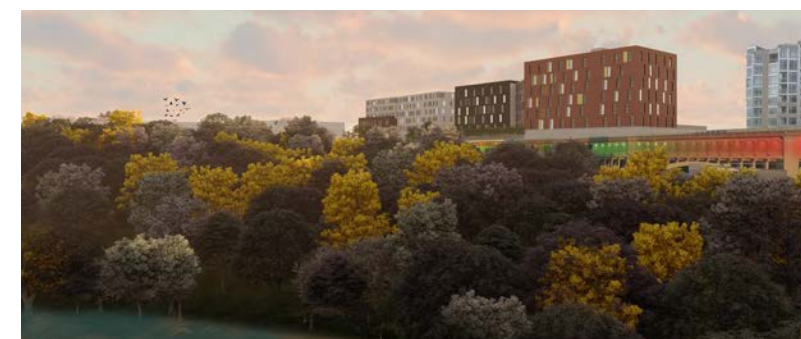
MASS worked with 2Life Communities - a leader in providing age-restricted affordable housing - to develop a model for high density housing that prioritizes connecting residents to each other and the communal activities linked to aging well. The conventional double-loaded corridor apartment block was reconsidered to create clusters of unit "neighborhoods" that plug into a central zone of community program space. This framework creates opportunities for meaningful communal programming at a variety of scales throughout the project. From an urban design perspective, the perceived scale and bulk of the project is greatly reduced and the various parts of the project are deliberately positioned to best respond to the surrounding urban fabric.

In addition to providing much-needed affordable housing, the project features commercial space, a community health center, and over 15,000 SF of publicly accessible open space. Prioritizing open space, the JJ Carroll project welcomes the community at large through intergenerational programming and play space, epitomizing the organization's commitment to better connecting those increasingly susceptible to isolation to the benefits of community.





Initial RFP Response



## Project Bridgeworks Cleveland, Ohio

**Date:** In Progress, CDs complete 2020.

**Client:** Project Bridgeworks

**Size:** 200,000 sq ft

Mixed-income housing development in the Ohio City neighborhood of Cleveland.

Project Bridgeworks is an inclusive, mixed-income development in Cleveland, Ohio. With 200 units of housing split across market rate and affordable units, the project looks to leverage the holistic social benefits of housing mixed income populations in close proximity.

The massing breaks down the scale of the project into sub-neighborhood blocks to respect the scale of the surrounding built context. In the Ohio City neighborhood at the entry to the historic Detroit Superior Bridge and near the emerging Irishtown Bend park, the project looks to meaningfully plug into and enhance the impact of its neighboring assets. The project will provide much needed housing across various income levels, while establishing itself as a civic anchor for the neighborhood and region.



Initial RFP Response



# Mattapan Mixed Income Housing

## Boston, Massachusetts

**Date:** February 2016–Present

**Client:** MBTA and the City of Boston

**Size:** 150,000 sq ft / 106,838 sq m  
135 Units

Mixed-use development to transform a parking lot into commercial space, community facilities, and 135 units of mixed-income housing.

MASS partnered with local Community Development Corporations, Nuestra Comunidad, and Preservation of Affordable Housing (POAH) to design a transit-oriented, mixed-income housing development in Mattapan. In the context of Boston’s exploding housing market, affordability has limited housing and economic options for residents of Mattapan. As the neighborhood welcomes new investment, the community must harness interest to strengthen opportunities for existing residents.

MASS conducted a series of workshops with the community, revealing a diverse history and range of physical and cultural assets. Mattapan Mixed Income Housing is designed to accommodate the full spectrum of family structures and socio-economic realities in Mattapan with 135 units of housing, paired with ground floor retail and public spaces to connect to the Neponset River Greenway. The project seeks to tackle gentrification by transforming an underutilized site into a dense, mixed-use development that prioritizes community services and affordable housing opportunities for local residents.





# Masaka Affordable Housing

## Kigali, Kicukiro District, Rwanda

**Date:** 2017 - Ongoing

**Client:** Remote Group

**Size:** 281 Units

**Gross Floor Area:** 26,750 sq m

**Site:** 5 ha

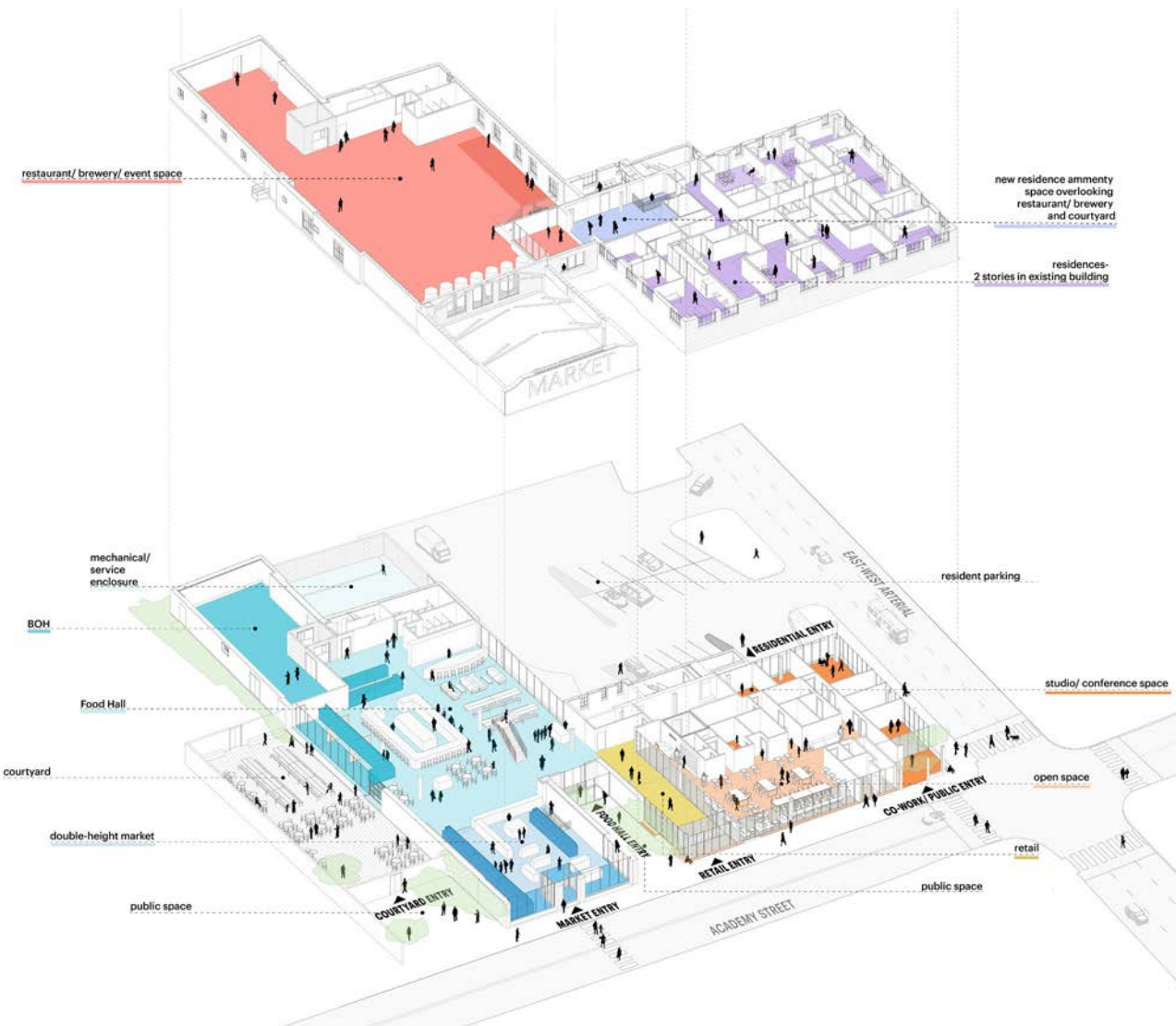
**Construction Budget:** \$10MM

High-density, sustainable model for affordable housing that is environmentally, culturally, and socially responsive to the Rwandan context.

Masaka Affordable Housing provides an eco-urbanist model for neighborhood design solutions to the housing needs of Rwanda's expanding urban population. Counteracting trends of overcrowding, informality, and sprawl, Masaka responds to the spatial needs of Rwandan urban dwellers by increasing density in a culturally responsive and climate adapted manner with low-cost and locally fabricated building technologies.

The development integrates green spaces and infrastructure, providing public pedestrian corridors, public transit extensions, and permeable paving to increase climate resilience. A mix of housing typologies ensure that dwellings are both affordable and culturally sensitive. Storage for market produce, laundry areas, gardens, akarima k'igikoni, and community spaces for monthly community meetings provide socially responsive amenities to the neighborhood. The project pioneers the use of aerated autoclaved concrete construction as a cost-effective, Made-in-Rwanda building technology. Masaka is the first private sector, profitable affordable housing project in Rwanda, hoping to catalyze broader engagement by developers and policymakers in the provision of affordable housing in Rwanda.





## Poughkeepsie Public Market

### Poughkeepsie, New York

**Date:** July 2018–Present

**Partners:** Baxter Built & Opportunity Poughkeepsie 1

**Size:** 70,000 sq ft

Adaptive reuse of two multi-level structures into a vibrant hub for collective food preparation, education, entrepreneurship, and consumption.

The Poughkeepsie Public Market will be a vibrant and inclusive hub of food activity for the City of Poughkeepsie and mid-Hudson region. By providing a highly-visible attractor along the city's east-bound arterial, the Public Market will support culinary entrepreneurship and a sustainable network of local farms and vendors. Partnering with local builders and developers at Baxter Built, MASS is participating directly in the development and programming at the Public Market to ensure its long term community activation.

The Public Market is an adaptive reuse project designed to celebrate the rich history of two historic buildings, and proposes to attract community-minded, local, and artisanal businesses, including a fresh food market, food hall vendors, commissary and teaching kitchen, shared co-working spaces, a craft brewery, and a coffee shop. The Poughkeepsie Public Market highlights a commitment at MASS to increase access to healthy food in the downtown area by connecting the rich agricultural assets of the Hudson Valley region to the diverse culinary entrepreneurship of Poughkeepsie.





# Maple Street Housing Poughkeepsie, NY

**Date:** 2017–Present

**Client:** Baxter Built

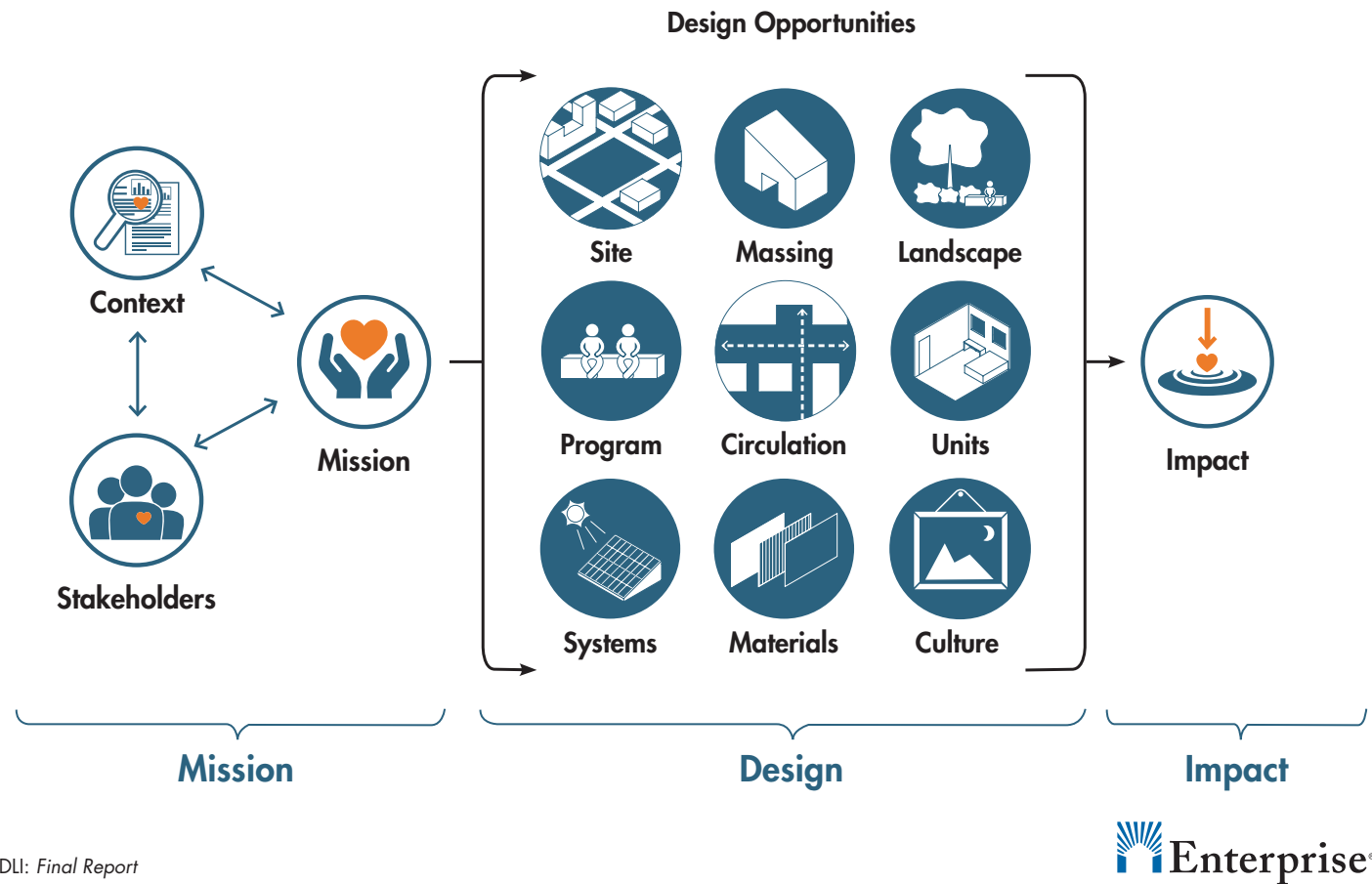
**Size:** 40 Units / 62,500 sqft (123456 sqm)

A development to create workforce housing and public space that helps bridge the divide reinforced by the East-West arterial.

Poughkeepsie’s downtown has been in decline for several decades. A contributing factor are two high-speed arterial roads created during Urban Renewal which isolate Main Street and the city’s downtown from the rest of the city. The site straddles Main Street at one end and the east-west arterial on the other, creating a natural bridge to reconnect downtown to the surrounding neighborhoods.

Our goal is a design which builds social capital: encouraging community connections and neighborliness. By re-creating a connection to Main Street across the arterial, we provide a community backyard which increases foot traffic and safety. The new pedestrian street, Maple Street, is formed of pocket parks and permeable surfaces which, while still providing 67 parking spaces, creates a green and welcoming thoroughfare and manages drainage. The form of the buildings also references the Glebe House’s saltbox roofline and flemish and English bond brick, a contemporary approach to a vernacular form which aims to present a new approach to rebuild Poughkeepsie’s aging building stock.





AHDL: Final Report



## Affordable Housing Design Leadership Institute Boston, Massachusetts, US

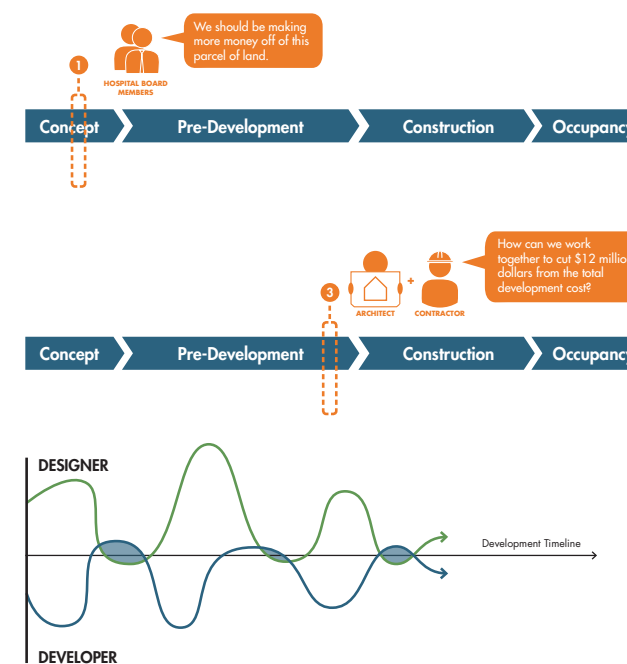
**Date:** Completed 2018

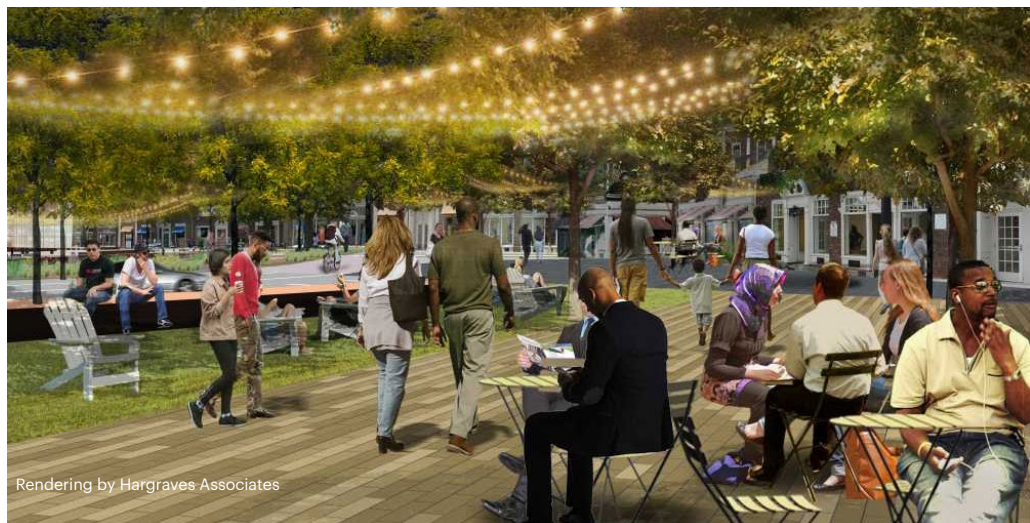
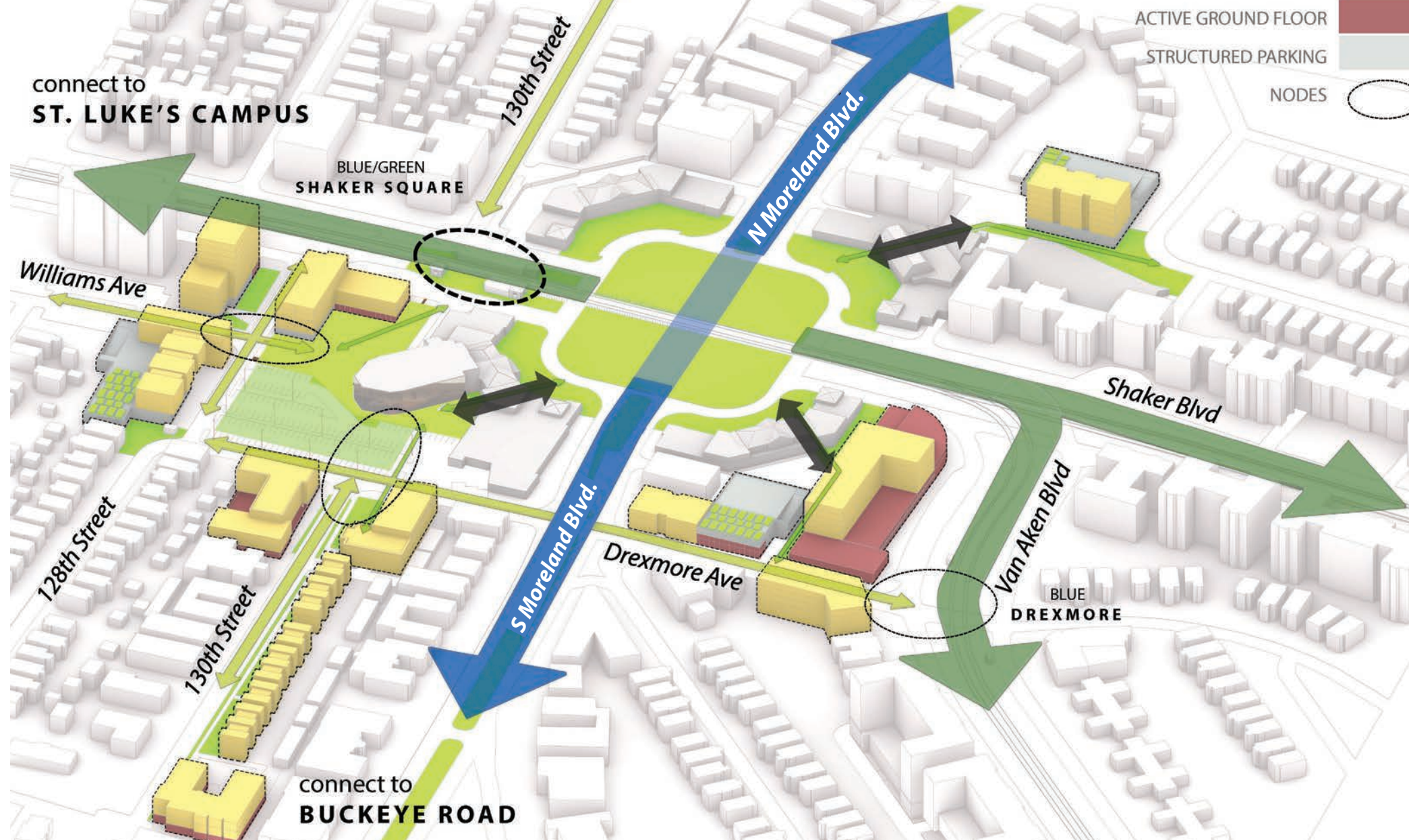
**Client:** Enterprise Community Partners

A framework to empower developers and improve design in affordable housing.

In 2017, driven by the growing recognition that the design of affordable housing projects could help developers respond to complex challenges, control costs, and improve resident outcomes, Enterprise Community Partners has invested in a variety of programs and resources to increase the design leadership of community developers. These included research, toolkits, case studies, and an annual three day in-person workshop where developers and designers can come together to present real projects in the pre-development phase. In advance of the 2017 Institute, Enterprise consulted with MASS Design Group to explore how to scale its impacts.

The project used a research process to define “good design,” identify key barriers to its implementation in affordable housing, and create tools to help a developer respond. A framework and accompanying curriculum was built to be applicable to a variety of different contexts and communities, helping development teams create a strong linkage between design and user-oriented impacts. Initial feedback showed the framework and curriculum successfully empowered developers to own their design processes and demand contextually appropriate and mission-driven design.





## Shaker Square Public Realm Enhancement Cleveland, Ohio

**Date:** October 2018 - June 2019

**Clients:**  
Cleveland Neighborhood Progress,  
LAND Studio

**Partners:** Hargreaves Associates, HR&A,  
Nelson\Nygaard, Osborne Engineering

Urban design, architecture, and civic  
engagement for a historic public space  
at the nexus of three, distinct Cleveland  
neighborhoods.

The Shaker Square project was a plan for a historic and transit oriented development at the intersection of the affluent Shaker Heights suburbs and the underserved Buckeye neighborhood of Cleveland. Among others, one goal was to activate underutilized public space in a manner that fostered greater equity and connectivity throughout the public realm.

MASS focused on reaching out to the Buckeye community that feels unwelcome in the square. Engagement strategies included setting up stalls at farmers markets, community drawing and collaging exercises, shop talks with community members at local barber shops and nail salons, and partnering with area youth on design, fabrication and installation of prototypical street furniture for Shaker Square. In response to community feedback, MASS considered how the edges of Shaker Square could be transformed to be more welcoming and connected to the Buckeye neighborhood. Speculative development scenarios for key parcels looked to leverage the public realm to create a welcoming, active public realm and foster connections and across the neighborhoods the surround the square.







# Akwesasne Ecovillage

## Akwesasne Mohawk Reserve, New York, US

**Date:** 2017 - Present

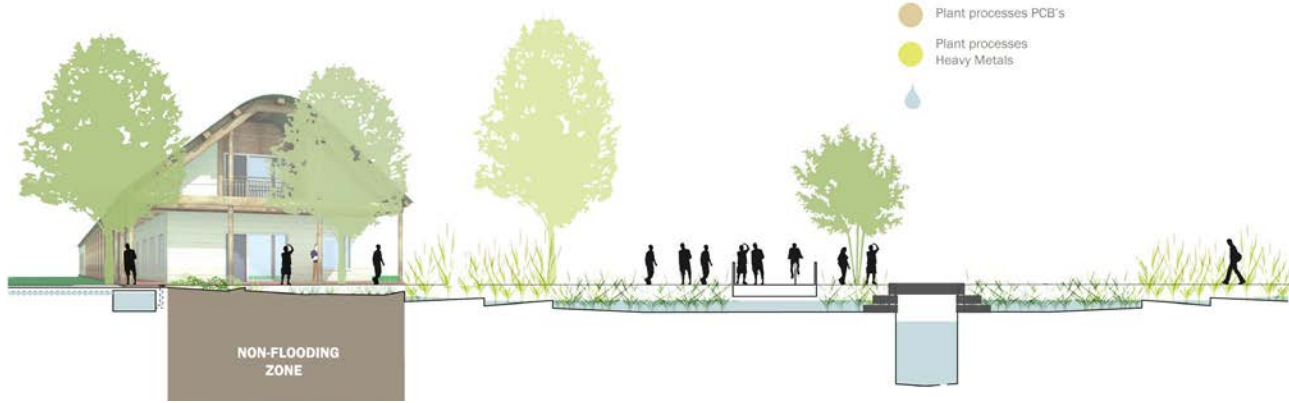
**Clients:**  
 Saint Regis Mohawk Tribe,  
 Akwesasne Tribal Council Members,  
 Akwesasne Cultural Center

**Size:** 70 Acres

Conceptual masterplan, featuring multi-family dwellings inspired by the traditional Iroquois longhouse forms, alongside an historic agricultural canal system and adjacent wetlands.

The Akwesasne Ecovillage project is a phased, 99-unit housing project with integrated community amenities on 70-acres of tribal trust land. An approach to culturally-responsive rural density, the project aims to revitalize a former agricultural site that was compromised by nearby industrial uses and a rising water table related to the damming of the Saint Lawrence River.

The two-year engagement process, comprised of meetings and community-wide design workshops with the St. Regis Mohawk Tribe, resulted in a schematic masterplan, economic development elements, and community facilities alongside a broad range of detached and multi-family home designs inspired by traditional Iroquois longhouse forms. Celebrating a challenging wetland site with significant habitat for threatened wildlife, the masterplan integrates access, utilities, recreation, cultural and ecological infrastructure with architecture and planning approaches that build upon Akwesasne traditions, cultural protocols, and community member preferences. Diverse programming supports a culturally and environmentally sustainable neighborhood while addressing the critical housing and job shortages faced by the Akwesasne community.



# “The single greatest work of 21st century American architecture”

—Mark Lamster, Dallas Morning News on the National Memorial for Peace and Justice

## Recent Press and Awards

### Architect's Newspaper

“Six big-name teams shortlisted for National Pulse Memorial and Museum”, 2019

### J. Irwin and Xenia S. Miller Prize

Exhibit Columbus, 2019

### 2019 International Fellowship

Royal Institute of British Architects

### Architectural Record

“Vera Institute for Justice and MASS Design Group Reimagine Prisons”, 2019

### The Boston Globe

“Walsh announces master plan effort to improve Franklin Park”, 2019

### Architect's Newspaper

“Theaster Gates, MASS Design Group among list of Chicago Architecture Biennial contributors”, 2019

### The Boston Globe

“Winning Design Announced for Monument to Martin Luther King Jr., Coretta Scott King”, 2019

### 2019 Top 100 List

The Architectural Digest

### 2019 Top 100 Architecture Firms

Domus Magazine

### CNN

“The Rwandan design school re-shaping Africa's future”, 2019

### The World's Most Innovative Companies

Fast Company, 2018

### Architectural Digest

“These Rising-Star Designers Are Making the World a Better Place”, 2018

### Dallas Morning News

“The single greatest work of 21st century American architecture will break your heart”, 2018

### TIME Magazine

“The National Memorial for Peace and Justice: The World's 100 Greatest Places of 2018”, 2018

### The Republic

“Miller Prize winners chosen; Exhibit Columbus attracts designers ‘at the top of their game.’”, 2018

### National Design Award Winner: Architecture

Cooper Hewitt, 2018

### 2018 Award for Architecture

American Academy of Arts and Letters

### The New York Times

“A Lynching Memorial Is Opening. The Country Has Never Seen Anything Like It”, 2018

### Washington Post

“A powerful memorial in Montgomery remembers the victims of lynching”, 2018

### Top 10 Design Firms

ARCHITECT Magazine, 2017

### The New York Times

“In Haiti, a Building Fights Cholera”, 2017

### ARCHITECT Magazine

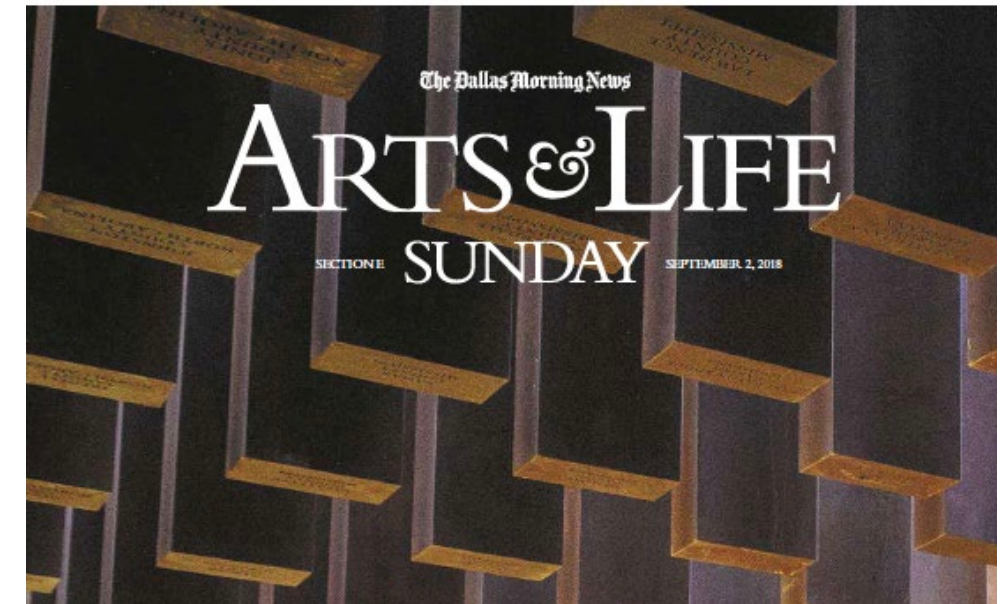
“Editorial: MASS at Scale”, portfolio issue of the magazine dedicated to MASS Design Group, 2017

### A+ Awards: Architecture + Humanitarianism

Architizer, 2017

### The New Yorker

“The Legacy of Lynching, on Death Row”, 2016





## GOOD

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We believe everyone deserves good design. Good design is beautiful and just. It is essential to delivering human rights, essential services, and the spaces that will build a better world.

## CLEAN

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Being climate positive is an imperative. Our projects strive for not only efficient operation, but the design of the entire supply chain to be sustainable, resilient, and regenerative.

## & FAIR

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Looking at the design and construction process holistically—from material extraction to assembly and operation—ensures we have safe and equitable labor practices.

“Since MASS began in 2008, what has been central to their ethos and approach is that architecture must be both beautiful and centered on the dignity of the people that it serves.”

—Chelsea Clinton, introducing MASS for the 2017 National Design Award for Architecture



We are 120+ architects,  
 landscape architects,  
 engineers, writers, film  
 makers, and researchers  
 representing 20 countries  
 across the globe.



**MASS Team Member's Professional Registrations**

- LEED Leadership in Energy and Environmental Design
- RAIC Royal Architectural Institute of Canada
- RIA Rwanda Institute of Architects
- AIA American Institute of Architects
- RIBA Royal Institute of British Architects
- RAIC Royal Architectural Institute of Canada
- IER Institute of Engineers Rwanda
- ASLA American Society of Landscape Architects
- C, Eng Chartered Engineer with Engineering Council, UK
- ICE Institution of Civil Engineers, UK
- IStructE Instituion of Structural Engineers, UK
- MCIWEM Member of Chartered Institution of Water and Env. Mgmt.
- MIStructE Member of Institution of Structural Engineers
- FIStructE Fellow of Instituion of Structural Engineers
- MICE Member of Institution of Civil Engineers
- REng Fellow of the Royal Academy of Engineering (UK)
- OAQ Ordre des Architectes de Quebec
- RICS Royal Instituion of Chartered Surveyors

17 DIFFERENT PROFESSIONAL REGISTRATIONS  
 IN ARCHITECTURE AND ENGINEERING

54% OF OUR BOARD OF DIRECTORS ARE  
 WOMEN AND/OR PEOPLE OF COLOR

51% OF OUR TEAM ARE PEOPLE OF COLOR

# Organizational Qualifications

As a mission-driven 501(c)(3) organization, MASS Design Group was founded to support other nonprofits deliver capital projects that fundamentally improve lives. Our mission is to research, build, and advocate for architecture that promotes justice and human dignity. As such, the vast majority of MASS's clients are themselves nonprofits, government organizations, and NGOs. Current and past clients include Partners in Health, the Equal Justice Initiative, Colorado College, Conservatory Lab Charter School, Ariadne Labs, Boston Healthcare for the Homeless, and local nonprofit developers Historic Boston Inc., Nuestra Comunidad, and Preservation of Affordable Housing, among many others.

#### **Federal Employer Identification Number**

61-1659704

#### **Age of Firm**

10 Years

#### **Current Number of Employees**

2019: 114

#### **Firm Location**

334 Boylston Street, Suite 400  
Boston, MA 02116

#### **Law and Jurisdiction**

MASS Design Group Ltd is a 501(c)(3) not for profit corporation incorporated in Washington D.C.

#### **Insurance**

MASS Design Group has coverage for :

1. General Liability up to \$1,000,000 per occurrence, \$2,000,000 per aggregate
2. Automobile Liability up to \$1,000,000
3. Umbrella Liability up to \$1,000,000

MASS intends to secure additional coverage if necessary to meet the requirements out lined in the Search Statement.

#### **Litigations and Claims History**

MASS Design has no history of litigation or claims.



# MASS.

**massdesigngroup.org**

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MASS Design Group is an architecture and design collective with offices in Boston, MA; Poughkeepsie, NY; and Kigali, Rwanda. Our mission is to research, build, and advocate for architecture that promotes justice and human dignity. We support partners to advance their impact through the built environment, including architectural design, master planning, landscape architecture, engineering, and strategic planning, as well as research, evaluation, education, and policy development.