THE POWER OF PLACE AND SOCIAL PRODUCTION

building a sustainable community through design and technology in Westside Neighborhood - English Avenue

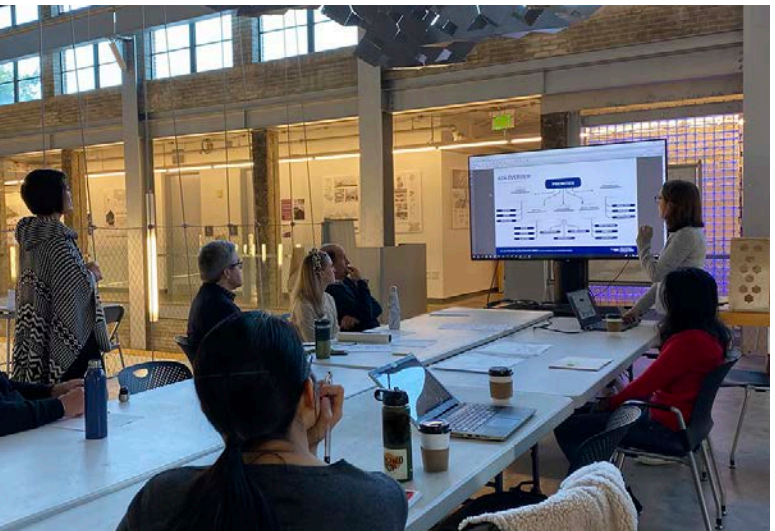
2023 ACSA Collaborative Practice Submission

Can we imagine a role for the architect where the act of design is an entrepreneurial and innovative endeavor – for those who are underserved and lack access to resources?

Since Summer 2021, our work has been focused on the Westside in the English Avenue Neighborhood in Atlanta, Georgia.

Today, approximately 44% of homes in the surrounding English Avenue Neighborhood are vacant and two-thirds of the residents live below the federal poverty line. Urgent neighborhood concerns include the existing service desert, hydrology challenges exacerbated by climate change, and mounting, external development pressures. However, the neighborhood is poised for positive change through the Westside Land Use Framework Plan (2017), already approved by the community and city.

In a historically vibrant, but rapidly shrinking neighborhood, our work will set positive steps forwards to bolster retention and help in stabilizing the community.



Working collaboratively, our applied research and design lab explores and implements initiatives centered on increasing access and promoting equity. The very backbone and foundation of our work seeks to empower communities through **acts of design which we see as acts of optimism**.

Over just the past three years, *over 140 students have collaborated with four global practices and ten community groups impacting more than three thousand people*. We inspire and educate current and future citizen architects who will create more equitable built environments.

Our work in the English Avenue neighborhood achieved national impact in 2021 with a National Public Interest Technology-University Network (PIT-UN) Challenge Grant award ($180,000). Especially noteworthy is that this level of award is only offered to a single project per university. In 2022, we were again invited via competitive selection to submit and were awarded a second PIT-UN Challenge grant ($180,000).

We heard from the English Avenue community in our listening sessions:

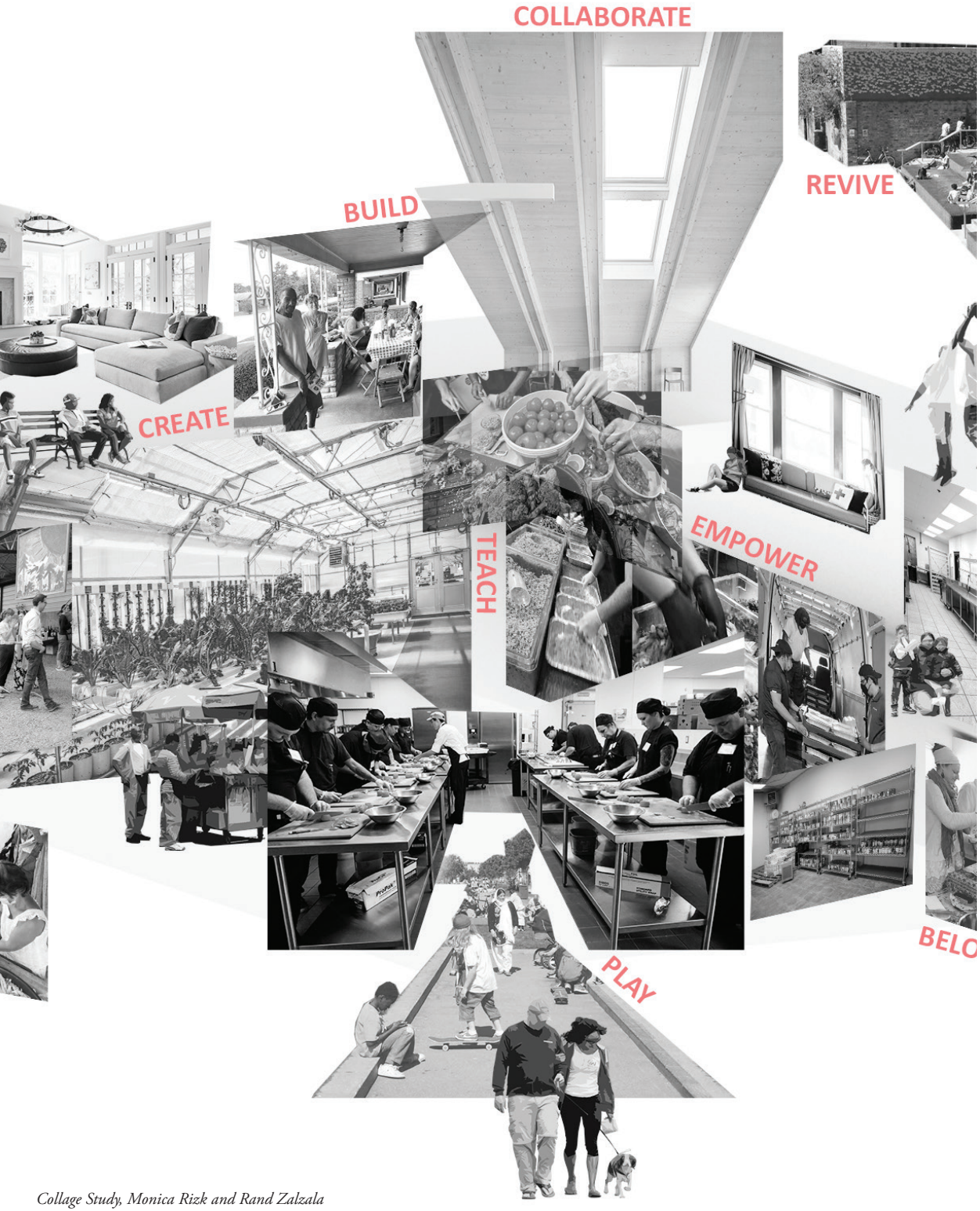
"Kids are at risk in this community. They see fancy cars and think they want that. The community needs to have safe places where young people can go and learn about other opportunities that build them up."

A young girl runs a lemonade stand on a street corner.
"I am not allowed to walk more than one block because it isn't safe. I wish there was a a safe place I could go to be with my friends."

We asked a woman sitting at the bus stop for her thoughts about the community.

When we indicated we understood she was waiting for the bus, she replied, **"no, I'm not waiting for the bus. I am waiting for my friend who is getting a hair cut in the barber shop and there is no place else to sit**."

Site Section Study, Katie Reilly

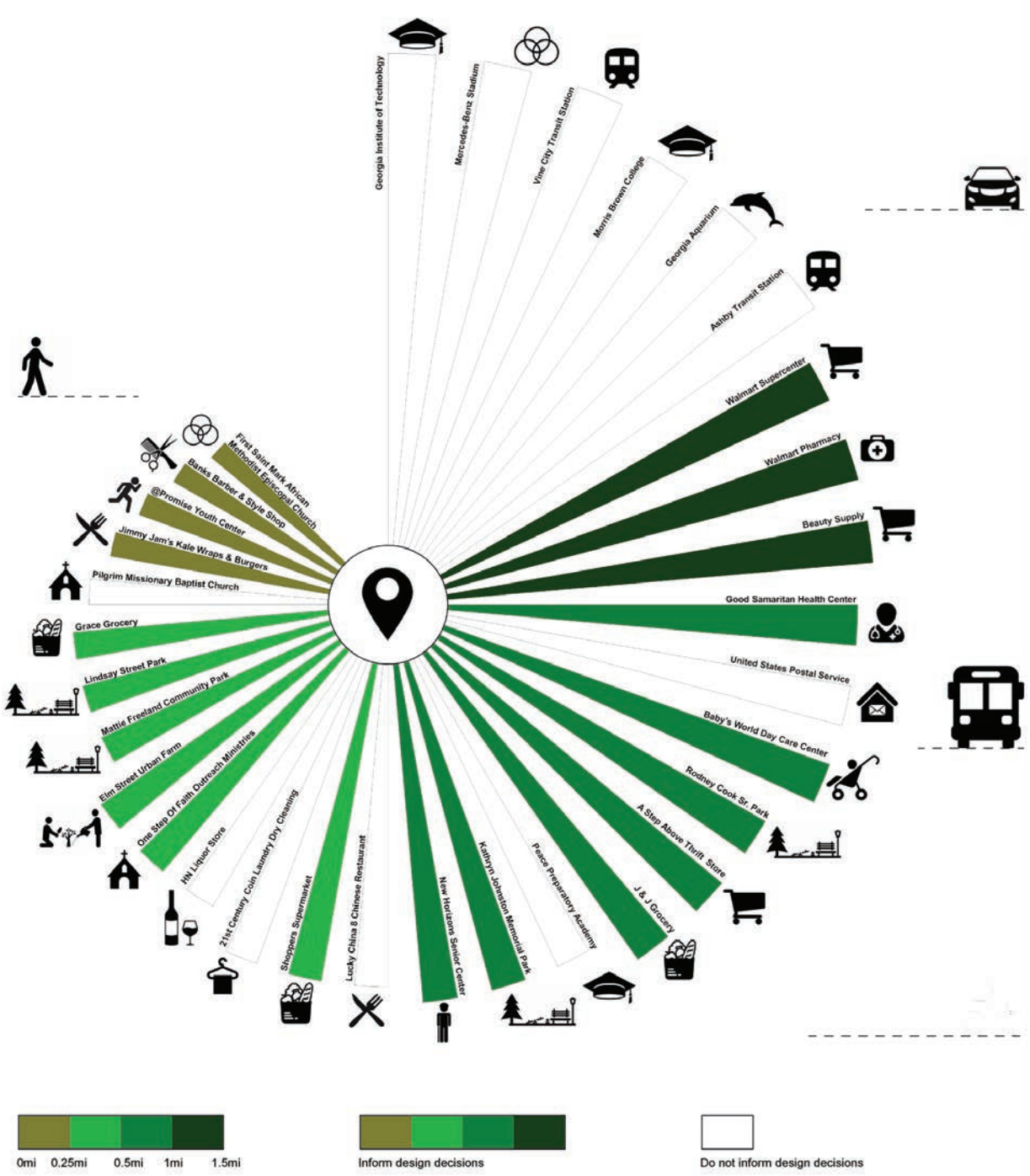


Collage Study, Monica Rizk and Rand Zalzala

James runs a neighborhood vegan restaurant.

"The community needs places like fresh food stands and ice cream shops. We need healthy food options.

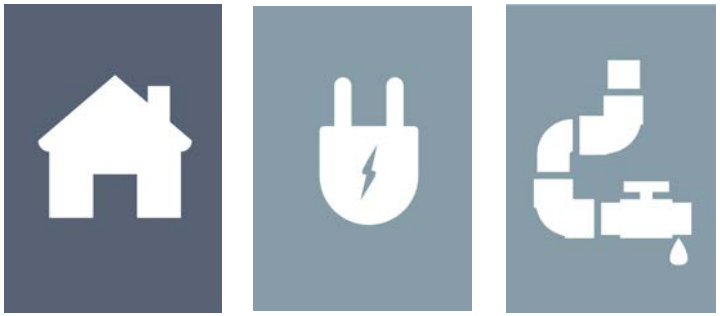
It also needs safe places like a library or a community center for young people to go."



Will shared the history of this neighborhood getting sub-standard public facilities or no facilities at all.

"I would love to see locally owned stores with employees from the neighborhood. These stores can be centers where people can come in - not just from the neighborhood but also from the outside so that money from outside can flow in the community."

Infographic showing relative distances to services from the center of the English Avenue Neighborhood, Lauriane Donang and Palav Patel



In Atlanta, close to **150,000** residents pay more than **16%** of their income on energy bills.

Homes built prior to **1980**, before any enforceable residential **energy codes** were in place

Low-income residents face **4th** highest **energy cost burden** who pay **10%** of their income on energy bills.

Nick shared this about one of his neighbors.

"I went to visit my friend and was shocked to see the thermostat set at 90 degrees - it was the middle of winter, but that was unreal. What was even more shocking was that her house was not overly hot. It actually felt comfortable.

This is clearly not right."

Site Collage (bottom), Monica Rizk and Rand Zalzala

Joann desires a better living situation.

"I am just getting by - I cannot save money because I am spending so much on my utilities, but I don't know how to fix that.

Also, if my house layout were more flexible, I might be able to rent space and this would help me a little bit every month."

Since Summer 2021, based on what we learned from the community, our work has developed into these inter-related projects - all for Westside Neighborhood - English Avenue:

Summer 2021
Field Study: Westside Neighborhood - English Avenue

Fall 2021
Proposal for Social Production: **The Porch**

ideas inform this recently awarded proposal

Spring 2023
Sustainable Mobile Learning Lab

2022 PIT-UN Grant Award

Fall 2021
Proposal for Social Production: **Moment Home/Momentum**

turning theory into practice

Spring 2021 - present
Prototype: Affordable Single-Family House and Accessory Dwelling Unit

2021 PIT-UN Grant Award

Spring 2021 - present
Smart Old Home: Online Resource

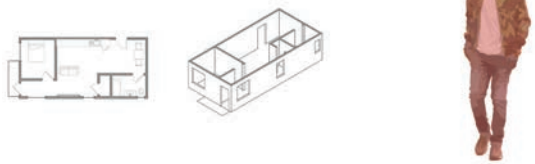
Site Section Collage, Patricia del Moral-Suazo

Proposal for Social Production: The Porch

developed in response to James, Will, the woman at the bus stop, and the little girl with the lemonade stand

Meet the Residents!

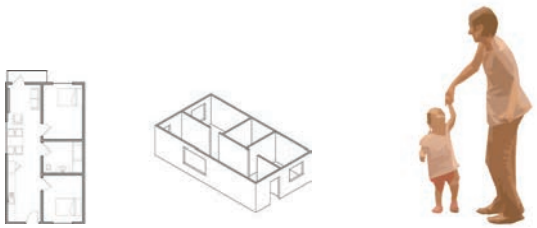
WILSON
local resident passionate about cooking and nutrition.
Works at the Farm to Table Cafe on James P. Brawley Drive.



"I love to share my passion for cooking with people in my community and outside of it! I've been leading weekly classes for six months now and many people, especially college students, told me that they come to our Community Restaurant on Wednesdays to try my new recipes.

My grandmother would be happy to know that I'm keeping her home cooking alive."

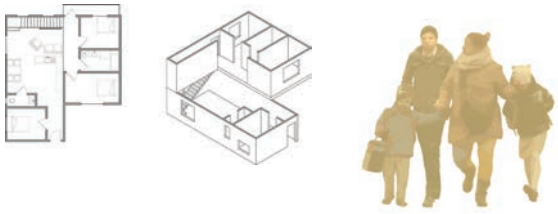
NORA & IZZY
Single mother, works at the Bookhouse downstairs, and her 5 year old daughter.



"I can easily drop off Izzy at the Kids Place during Storytime activities in the morning while I buy fresh produce from the Yellow Store Market.

Izzy is 5 and has already met many neighbors and friends. I tutor Math at The Porch Workshop + Learning in the afternoon and occasionally take cooking lessons at the Teaching Kitchen. I want Izzy to grow up eating healthy home-cooked meals and to teach my own classes one day!"

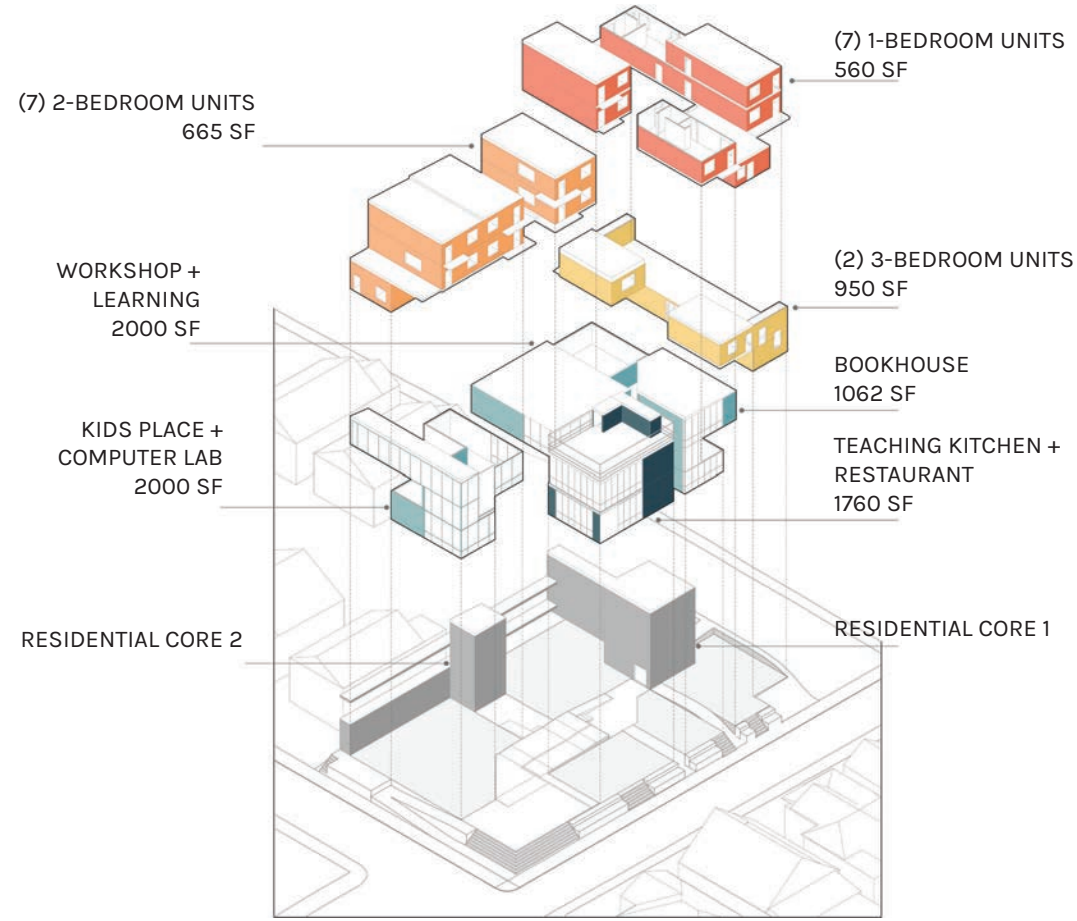
JOHN, SANDRA, ARIANA & JIMMY
Parents of two children who work at the Porch Bookhouse and the local Yellow Store

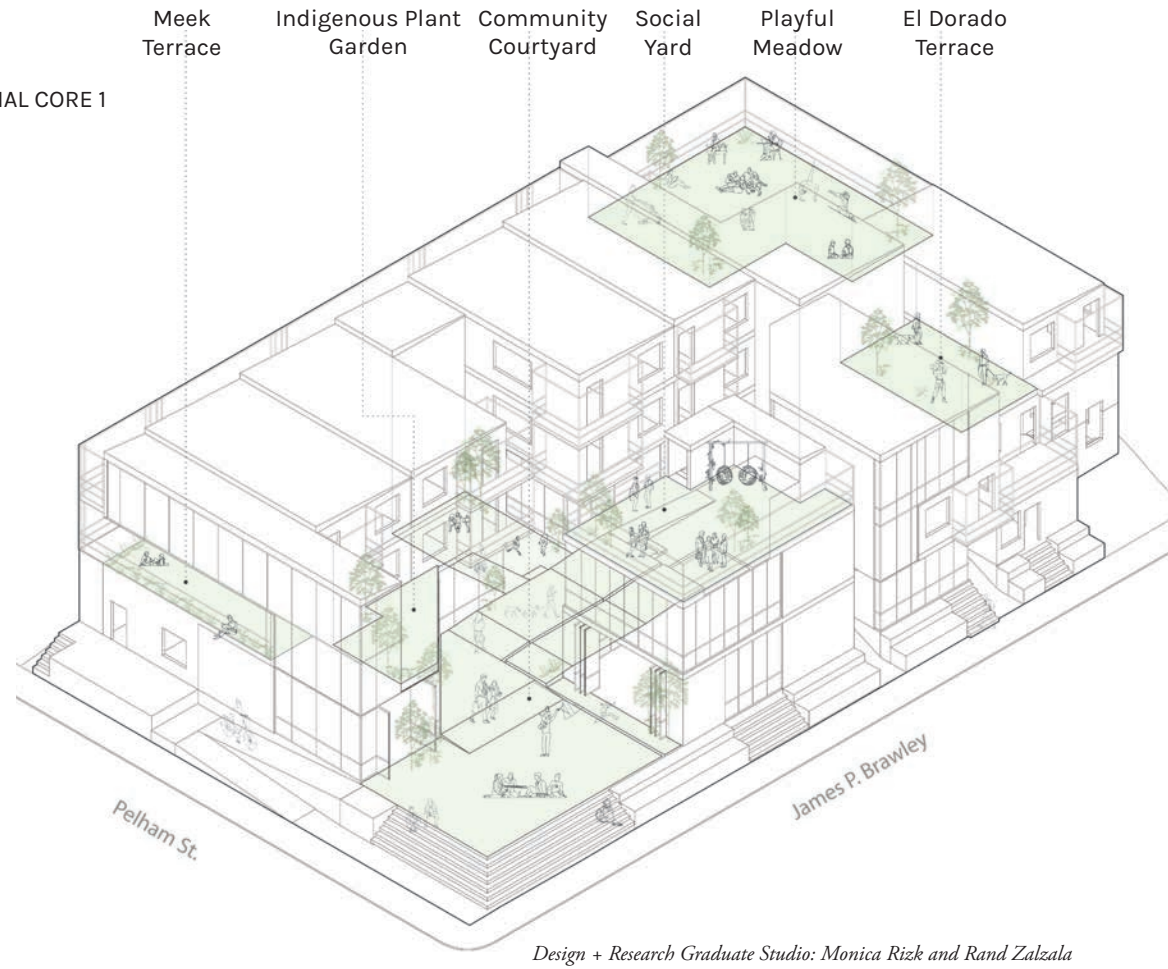


"My wife and I are comforted to know that we can be at work while our children have a place that supports their educational growth and provides tutoring services with access to computers and internet after school at The Computer Lab. Ariana (9) told us that her science tutor goes to Georgia Tech and now she wants to go to college to become a doctor. Jimmy, 5, already knows how to play Minecraft with his friend Izzy and they both want to go on a field trip to the School of Architecture near us to look at student models. Ariana and Jimmy are always teaching us new things that they learn from student volunteers."

Design + Research Graduate Studio: Monica Rizk and Rand Zalzala

The Porch, continued.

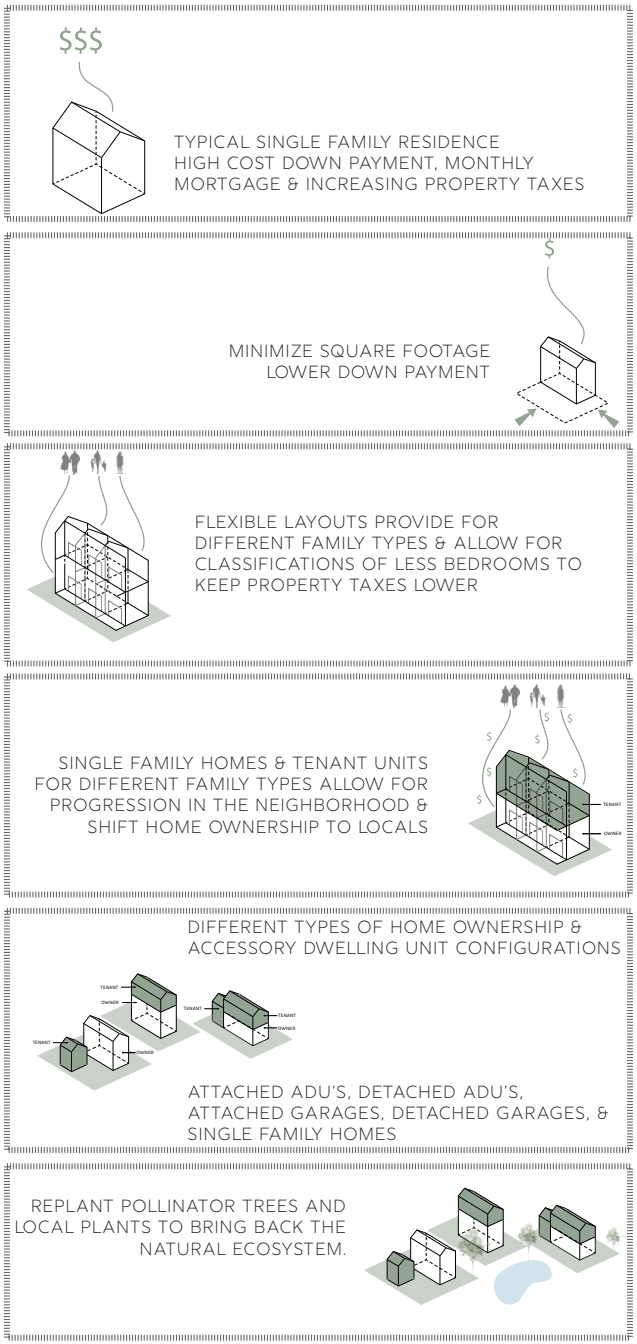




Design + Research Graduate Studio: Monica Rizk and Rand Zalzala

Proposal for Social Production: Moment Home/Momentum

developed in response to Nick, Joann, and the other community residents



This proposal seeks to establish a framework for living that can accommodate diverse family arrangements while simultaneously offering paths from tenant to home ownership. Building on the vernacular of the neighborhood and re-imagining the shotgun house, this project offers a nimble set of housing arrangements that can flexibly adapt to changing needs and demands.

From meetings with community stakeholders, our reading of the 2017 Land Use Framework Plan and neighborhood analysis we determined that our primary concerns would be addressing the high cost of homeownership and stitching together the successful patches of urban fabric in English Avenue.

There is an incredible opportunity to leverage the existing vacant lots to build a variety of residences and ADUs. This concept of multiple families on one lot, multiplied across the neighborhood, creates a path to more affordable homeownership for a variety of family types.

Additionally, extending the existing historic vernaculars (like the shotgun typology), that are inherently naturally daylit and ventilated, cuts down on utility costs. Raised floor structures and the integration of bioswales and rain gardens into the landscape mitigate stormwater flooding. Food gardens and pollinator plants contribute to a balanced neighborhood ecosystem.

Finally, the shared exterior spaces and mix of family types in close quarters provide opportunities for neighbors to get to know each other, potentially provide for each other and build a more resilient, flourishing community.

Design + Research Graduate Studio: Katie Reilly and Breanna Rhoden

Prototype for Single Family Affordable House and Accessory Dwelling Unit

Turning theory into practice -
Moment Home/Momentum lays the groundwork for 746 Jett Street Residences Project

Location: Atlanta, Georgia
Year: 2022 - present

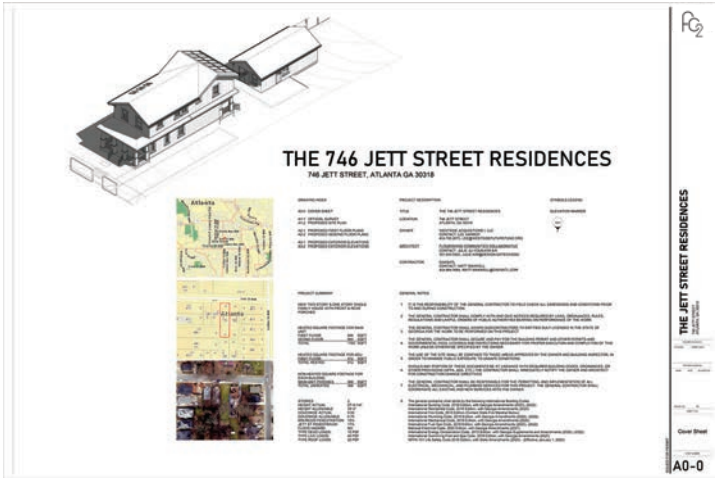
Scope:
This project emerged from a year-long set of design studios in which students employed design research methods including site analysis, schematic design, and performance simulation to empower a current resident with a new affordable home aimed at redefining resiliency and economic sustainability.

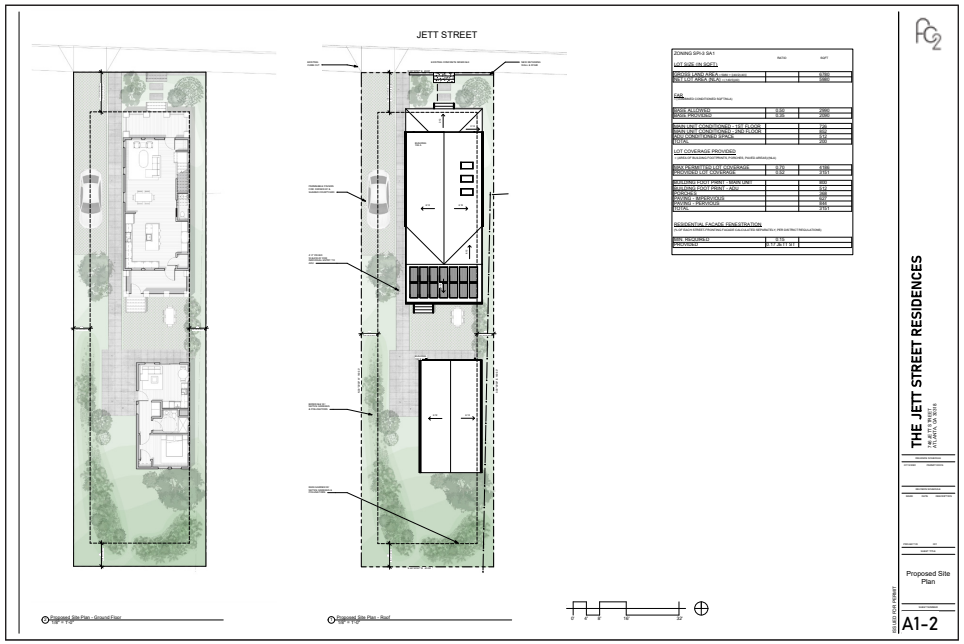
Turning theory into practice, this project brings our work into a real-world application. This proposal offers a replicable model for future development and construction for affordable housing, designed to meet building performance criteria, therefore lessening energy burdens on the homeowner. **A team of recent graduates, supported by practitioners offering technical expertise, are currently developing a set of documents for permit and construction - expected to break ground in Spring 2023.**

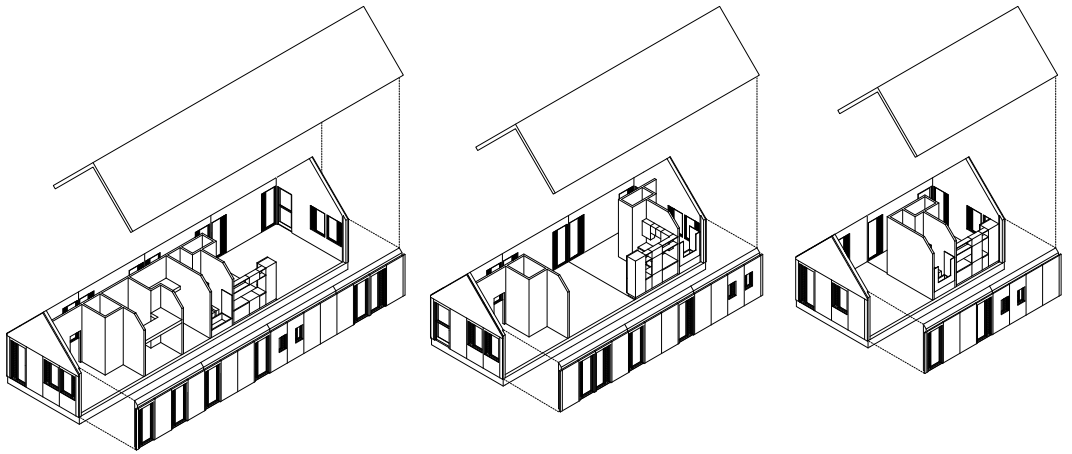
Project Team:
Architect: Flourishing Communities Collaborative:
Julie Ju-Youn Kim, AIA; Tarek Rakha, PhD; Katie Reilly (Project Designer/ Manager); Breanna Rhoden (Project Designer); Ranjitha Jayasimharao (Building Performance Analyst).
Developer: Westside Future Fund
Builder: OaksATL
Practice Partners: HDR Architecture *(Michael Street; Robby Bryant)* and Studio SOGO *(Jessica Flake)*

"Professor Julie Ju-Youn Kim is an inspiring and supportive mentor, providing unique opportunities for both students and the community to collaborate on design. Participating in these courses allowed me to experience the professional world firsthand, working directly with practicing architects and project stakeholders periodically to develop solutions that were implemented beyond the classroom."

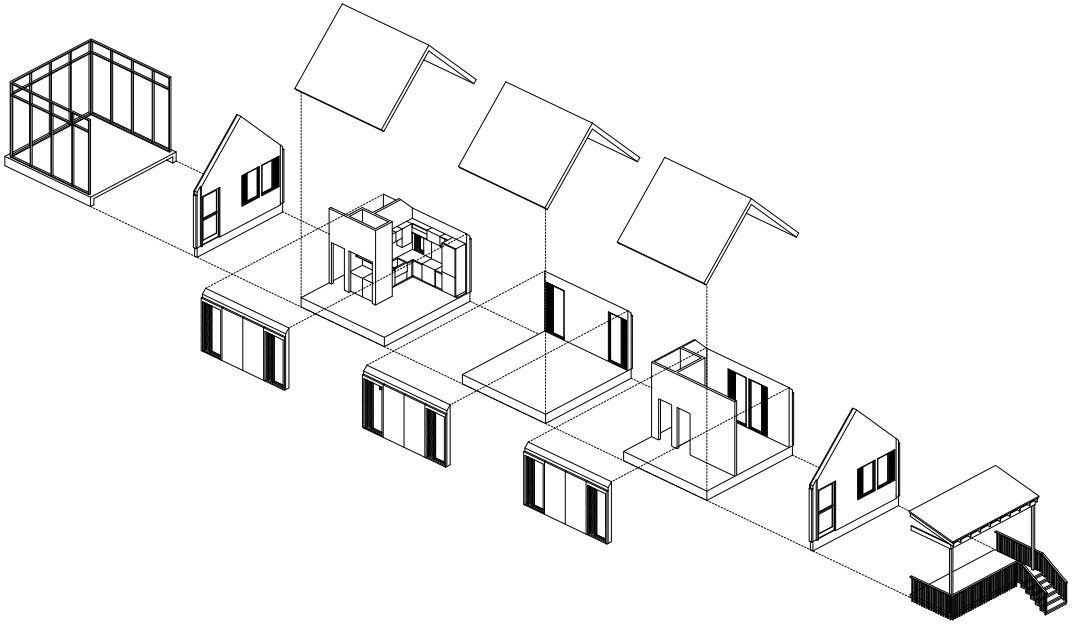
– Kristy Cho (M. Arch 2021)




JETT STREET
ZONING SRU-2 SA 1
LOT SIZE (IN SQFT)
LOT COVERAGE PROVIDED
FAR
Proposed Site Plan - Ground Floor
Proposed Site Plan - Roof
THE JETT STREET RESIDENCES
Proposed Site Plan
A1-2




Proposed Driveway Elevation - Main Unit
Proposed Rear Elevation - Main Unit
Proposed Sideyard Elevation - Main Unit
Proposed Front Elevation - Main Unit
THE JETT STREET RESIDENCES
Proposed Exterior Elevations
A3-1



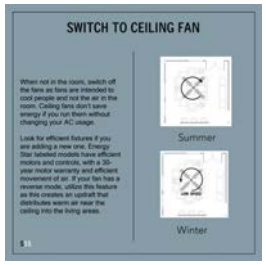
Smart Old Home: Online Resource

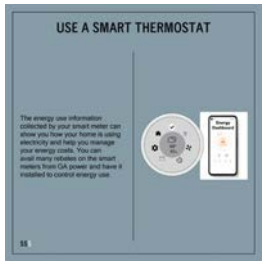
developed in response to Nick, Joann, and the other community residents

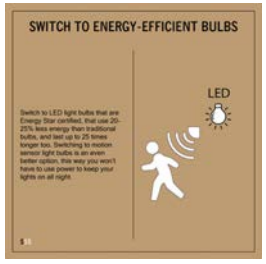
Location: Atlanta, Georgia
Year: 2022 - present

Atlanta has the 4th highest energy burden in the country, where the residents pay more than 7% of their family income on energy bills. **Our multi-institutional team assembled and designed an online resource for current and future homeowners in under-served communities.**

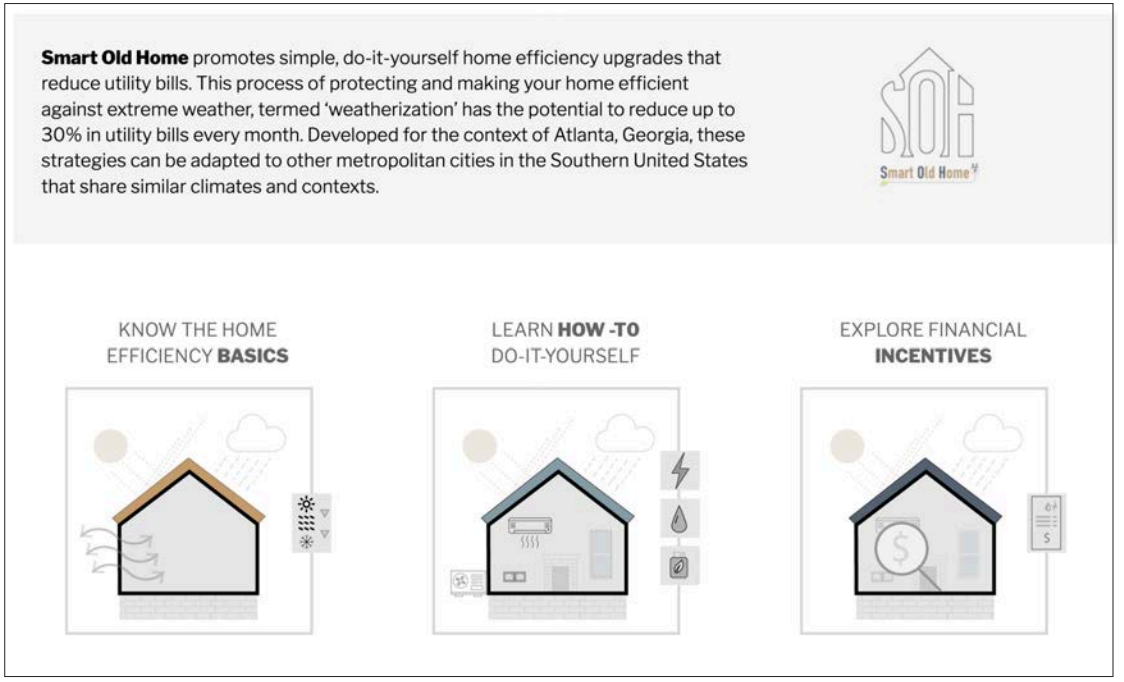
Impact:
Smart Old Home is a website that offers simple solutions to reduce energy bills. Via an easily navigatable website, current homeowners can use these tools to weatherize their homes affordably in Atlanta. We developed this resource using the Department of Energy's guidelines for DIY retrofits, local and state governmental advocacy tools, and other documents by research institutes who advocate for energy efficiency and climate change. **Thousands of current and future homeowners have already started to benefit from this resource.** The resource offers an easy-to-use set of home energy improvements: *low cost solutions that are simple to do, and a list of active financial incentives and weatherization programs in Atlanta by government and non-governmental organizations*







Smart Old Home Research Team, top left
(l to r: Ranjitha Jayasimharao, Georgia Tech; Joirdan Jackson, Atlanta Clark University; Julie Ju-Youn Kim, Georgia Tech; Dmitri Finch, Morehouse College)
Community Engagement Event including Smart Old Home launch, top right



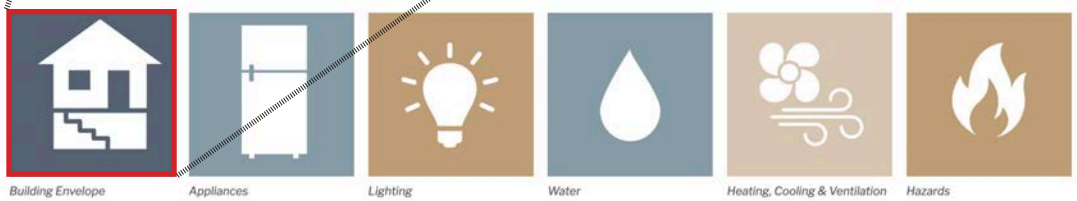
Sample pages from Smart Old Home website

WHAT IS A BUILDING ENVELOPE?

The building envelope separates the indoor environment from the outdoor. It consists of the walls windows, foundation and roof. Retrofitting a building's envelope or designing a new building with the envelope in mind is essential to energy efficiency and comfort.

RESIDENT TIPS AND HOW-TOS

These are low to no-cost tips that can improve your living environment and enhance the energy and water efficiency of your homes. If these are the things you cannot change on your own, share the tips with the landlords and encourage practices that help you make a change for the better.



What is a building envelope?	What are the appliances in your home?	What are different types of lights?	What is water efficiency?	What powers your AC?	What are sources of hazards?

Downloadable PDF: Home Efficiency Checklist

CHECK YOUR HOME'S EFFICIENCY

INEXPENSIVE WAYS TO IMPROVE THE EFFICIENCY OF YOUR HOME

THERE ARE 4 ASPECTS OF YOUR HOME THAT COULD BE GREATLY INCREASING THE EFFICIENCY OF YOUR HOME

1. **Water Usage**
2. **Appliances**
3. **Lighting Equipment**
4. **Heating and Cooling**

1 Water Usage

- **Maintain consistent hot water temperature**
  Have the water heater set to 120 degrees Fahrenheit/medium setting on a gas heater dial or as measured at the faucet nearest to the water heater. Add an insulating wrap to an older water heater, check your manual to see if this is recommended if your water heater is new.
- **Limit hot water usage**
  Avoid running your washer with hot water and opt for cold or warm water when possible. According to Treehugger, 90% of the energy used by the washer is used to heat the water, and the other 10% is used to run the machine. Using cooler water for every load can potentially save a significant amount of energy.
- **Conserve water by careful usage**
  According to the U.S. Environmental Protection Agency (EPA), the average homeowner can save about $170 a year with small changes to their water usage. Wash clothes in cold water, consciously run water while brushing your teeth or shaving, install a shower that uses about 17.2 gallons on average, avoid half loads on laundry in your washer, a full load conserves water and in turn money.
- **Consider installing a water recycling system**
  Georgia water utility costs are billed high for the sewer water. So lesser the wastewater, the lesser would be the utility bill. Install a hot water recycling system to conserve wasted water during the heating process.
- **Use cold water for Laundry**
  The clothes can be as cleanly washed with cold water as with hot water except for stained clothes. Thus, consider switching your laundry to a cold water mode.

2 Appliances

- Maintain your refrigerator at 35-40 °F and freezer at 0-5 °F. Maintain a standalone freezer at 0°F. Use the refrigerator door efficiently and keep the door closed whenever possible.
- Run the dishwasher full loads to save water and energy.
- **Power Down Electronics**
  When not using the electronics, turn them off as these devices can draw a lot of energy simply by being plugged in. The US Department of Energy found constantly that plugged-in devices account for f5-10% of total energy use that can be minimized by efficient use of electronic appliances.
- **Avoid using your dryer and oven in the hottest hours of the day.**
  Running your dryer will cause warm air to be drawn into your home and using your oven will add additional warm air to your home, causing your air conditioner to have to work harder.

3 Lighting Equipment

- **Keep lamps and other heat-producing appliances away from your thermostat.**
  Having heat-producing appliances near your thermostat will tell it that the air in your home needs to be cooled more, causing the system to run longer and work harder than it may need to.
- **Low cost lighting control measures**
  Low-cost measures can reduce the lighting loads significantly. Turn off lights when not in use and use dimmer switches for lighting control.
- **Switch to LED Lights**
  Install LED Lights instead of CFL or incandescent for a longer lifespan and energy savings.

Avg. Life Energy	LED	CFL	INCANDESCENT
	25,000 Hrs	8,000 Hrs	1,200 Hrs
	84% Less	75% Less	90% Lost to Heat

Testimonials of Impact

"I can hardly find the words to describe the impact this work has had on the community. It uplifts the soul - building opportunities to support our neighborhoods with much needed resources and attention. "

– Community resident

"The students approach their community engagement with open minds, a sincere desire to listen, and an ability to gather feedback and improve their design throughout the process. It is the role of the design professional to facilitate this process and use their expertise and knowledge to generate solutions that reach beyond the imagination. The beauty of Flourishing Communities Collaborative, under the guidance of Julie Kim, is the framework it provides to encourage students to think outside their campus and begin to tackle the real issues facing communities across the country. The students are now armed with an experience which they can leverage in their own careers as they continue to engage in meaningful ways as design professionals."

– Kyle Reis, AIA, AICP, President and CEO, Cooper Carry, Inc.

"This experience ignites a passion for community-based client experience. The careful guidance from working professionals and the overall energy of the project can be really inspiring to someone who is just beginning their career— someone like me. A student does not need to have an initial interest in community based design either— they will have one after this experience. This is an opportunity to participate in an actual project with all of the hands-on elements of an academic environment; all your questions are welcome and answered, and the mysticism is taken away from the practice design process."

– Gillian Gingher, student

"Julie Ju-Youn Kim's pedagogy provides a platform for discussion between students, practitioners and community members. Her studios are impactful not only because they are great opportunities to learn from voices outside of academia, but they also foster relationships and agency that will continue to inform design decision making across local communities. Working with Julie has shown me how building an inclusive framework for conversation can be the method and means to encourage resilient communities - this is something I will carry with me in my design career."

– Katie Reilly, Research Fellow, FC2

"Julie's leadership through the Flourishing Communities Collaborative demonstrates the capacity to link research, design, and practice to strengthen disadvantaged communities, solve problems, and help people. Aligned with our focus areas - amplify impact, expand access, and lead by example - Julie builds relationships, inspiring future leaders to create more equitable environments."

– Steven McLaughlin, Provost and Executive Vice President for Academic Affairs, Georgia Institute of Technology

+ **Working side-by-side with underserved communities, we expand equity through access and empower through design and technology.**

+ **Our work demonstrates the value of a computational, quantitative, and data-driven approach to solving social and cultural problems, expanding equity for those who lack access to resources.**

+ **We advance connections to practitioners who model best practices in communication, collaboration, and design thinking.**

+ **Recognized with two National Awards in the arena of Public Interest Technology, we are excited to see what the future holds.**

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