



The Weatherization Kit Project

Pittsburgh, PA

Academic

Iteration / Ongoing

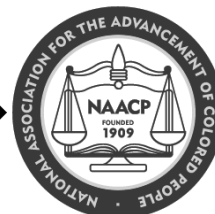
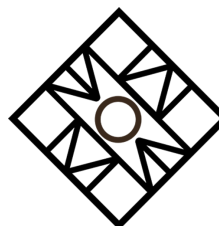
<https://www.aiascmu.org/fbdweatherizationkit>

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NOMA-NAACP-SEED Awards

Based on common foundations and a shared vision, NOMA, NAACP, and the SEED Network announced the [2020 Awards for Justice, Equity, Diversity and Inclusion](#) (JEDI) in design, architecture, and land development. Seven projects were selected through a competitive process and by a distinguished jury. This case study profiles one of the winning projects.

About the National Organization of Minority Architects

The National Organization of Minority Architects (NOMA) mission is to champion diversity within the design professions by promoting the excellence, community engagement, and professional development of its members. NOMA is committed to creating a pipeline to the architecture profession to a more diverse spectrum of students and cultivate a more inclusive profession that reflects the communities served by design: all communities. As architects, we acknowledge that our professional duty is to protect the health, safety and welfare of the public and as NOMA members, we seek to fulfill this duty by ensuring that we help to facilitate diverse teams that can optimally address the needs of increasingly more diverse communities. Our signature annual event is our national conference that attracts students and professionals from nearly every corner of the building industry to converge, exchange ideas, network and support one another professionally to create a better build environment for everyone.

About the National Association for the Advancement of Colored People

The mission of the National Association for the Advancement of Colored People (NAACP) is to secure the political, educational, social, and economic equality of rights in order to eliminate race-based discrimination and ensure the health and well-being of all persons. Environmental injustice, including the proliferation of climate change, has a disproportionate impact on communities of color and low-income communities. The NAACP Environmental and Climate Justice Program supports community leadership in addressing this human and civil rights issue. With the launch of the Centering Equity in the Sustainable Building Sector (CESBS) Initiative, the NAACP seeks to universalize access to safe, affordable, healthy, energy-efficient, regenerative, and resilient buildings for all people.

About the SEED Network

Established in 2005, the Social Economic Environmental Design (SEED) Network provides a common standard to guide, evaluate and measure the social, economic, and environmental impact of design. SEED is premised on the belief that design can play a vital role in the most critical issues that face communities and individuals, in crisis and in everyday challenges. To accomplish this, the SEED process guides professionals to work alongside locals who know their community and its needs. This practice of “trusting the local” is increasingly recognized as a highly effective way to sustain the health and longevity of a place or a community as it develops.

Award Jury

Carl Anthony, Architect, author and urban / suburban / regional design strategist

Kim Dowdell AIA, NOMA, NCARB, LEED AP BD+C, 2019-2020 National President of NOMA

Maya Henderson, Sustainability Professional

Christopher Lee, AIA, Architect, Mark Cavagneo Associates

Tiffany Mayhew, NOMA

Marquis Miller, Chief Diversity Officer, City of Chicago, Office of the Mayor

Jacqui Patterson, Senior Director of Environmental and Climate Justice at the NAACP

Paloma Pavel, President of Earth House Center

Laura Shipman, Director of Community Development and Planning, One Treasure Island

Jimmie Tucker FAIA NOMA LEED AP, Managing Principal, Self + Tucker Architects

Barbara Brown Wilson, Associate Professor, Author, University of Virginia

How would you know if a project supports JEDI?

Justice: "Successful projects will map out strengths and weaknesses of a community or client through the lens of history, economics, culture, environment, and access to opportunity. And it will also include the 'in-perts' (those who are deeply connected with the place and people) and not just the 'ex-perts.'"

Equity: "Project team would need to demonstrate how the project meets each group's needs, so that all groups have the same (equal) benefits from the project."

Diversity: "Diversity is to represent and co-develop with people from different races, genders, occupations, political ideologies in the formation of a project - so that even groups marginalized by the current system are represented and included."

Inclusion: "Proactively include all voices in this engagement and begin with any necessary education or translation needed to give people a true chance to understand the project and offer their feedback. There would be a way to track stakeholder recommendations and which were implemented so they can report back to the community."

To view even more reflections on the definitions of JEDI, visit [the summary](#) of survey responses from NOMA, NAACP, and SEED Network members.

Executive Summary

In Pittsburgh, 66% of working families must decide between paying their rent or utilities in the winter months. This is a direct result of the aging housing stock in Pittsburgh, and the lack of investment in low-income communities. Many homes in the East End communities, such as Larimer, Homewood and East Liberty, are poorly maintained and have never been renovated. The Weatherization Kit Project from our chapter of [Freedom by Design](#) aims to address these housing inequalities by providing a resource of information and materials to those living in older homes who don't have the means to move, or do permanent renovations, to save money and energy in the winter months.

The Weatherization Kit is a cardboard box, fabricated by Freedom By Design volunteers, that contains items families can use to add insulation to their homes. These items include: window plastic, weather stripping, outlet insulators, rope caulk, and door sweeps. However, it is also our goal to empower these residents to take the betterment of their homes into their own hands. As such, the Kit is supplemented by an instructional booklet, a distribution event, and optional installation assistance. The booklet outlines not only how to install the contents, but also other products that can be bought to add even more insulation to the home such as pipe insulation, which is not included in the Kit. Finally, the Kits and Booklets are distributed annually at an interactive event during which we teach the residents who have signed up to receive a Kit how to install all of its contents. The workshops give the recipients a chance to attempt to install the Weatherization Kit contents in a risk-free setting before installing the items in their own homes. Between the materials in the Kit, the booklet, and the event, this project is a holistic effort that accomplishes: student-community engagement, cost effective home insulation, and empowerment for families to gain necessary knowledge to continue these efforts independently.

Who are the communities involved in and impacted by the project?

The Weatherization Kit Project is situated in Allegheny County and has focused mainly in East Liberty and Larimer but has also reached out to households in the South Hills neighborhood. East Liberty's population makeup is 59% African American and 30% Caucasian which is a result of gentrification in the neighborhood due to the recent influx in technology corporations and startups. Larimer, the neighborhood adjacent to and directly to the east of East Liberty, has a population consisting 87% of African Americans and 11% of Caucasians. In both the first and second year of the project, we have donated a

combined 70 Weatherization Kits to families in both East Liberty and Larimer. Additionally, during the second year we reached out to the refugee population located in the South Hills neighborhoods through our partnership with the Build A Bridge Foundation. Build A Bridge is a network of refugees living in Pittsburgh, and local residents who volunteer to help them with adjusting to life in the U.S. in many ways. The organization is led by Ayla Abiad, who helped connect us with translators (many of the refugees speak only Arabic) for our Distribution Event, and reached out to refugees on our behalf to inform them about the project and the Distribution Event.

Our project does not have a specific physical location. However, the context it situates itself in has a complex history. Pittsburgh is a Post-Industrial City, meaning that its economy is no longer based on steel production. In the 50s and 60s when the steel mills began to close, many residents lost their jobs and the city experienced massive population loss. Since then its economy has been rebuilt primarily based on its academic institutions, and its position as a leading medical research hub in the world. While this has slowed Pittsburgh's population decline, and restored its economy, it has not brought back blue-collar jobs to many East End residents.

The Weatherization Kit primarily addresses the insufficient insulation in Pittsburgh's aging housing stock, which is largely concentrated in these low-income neighborhoods of color in the East End. These neighborhoods are populated with long-time residents who have not seen the benefits of Pittsburgh's so-called "Renaissance." For example, during our first year, we served the community of Enright Court in East Liberty, which was one of the first neighborhoods in Pittsburgh with African American owned housing. These are exactly the types of residents and communities we aim to serve.

Finally, we have also provided Kits this year to members of our local refugee community, (made up of refugees primarily from Syria, Iraq and Yemen) who live in the South Hills neighborhoods.

Project Stakeholders

PROJECT RE_, Construction Junction, Build a Bridge Foundation, Larimer Consensus Group, the Kingsley Association, East Liberty Development Inc., Frost King, NCARB, AIAS

CMU Chapter, AIAS National, Carnegie Mellon University

Project Design Advisor:

John Folan (2017-2019) + Stephen Lee (2019-present)

Design team members:

(2017-2019) Alex Lin, Alina Kramkova, Alison Katz, Angela Castellano, Anthony Ra, Chitika Vasudeva, Christina Brown, Christoph Eckrich, Cotey Anderegg, Edward Fischer, Elizabeth Levy, Ellen Zhu, Gargi Lagvankar, Gisselt Gomez, Giulia Giampapa, Jessica Kusten, John Butler, Katelyn Smith, Ken Preister, Longney Luk, Lydia Randall, Martin He, Michael Powell, Nika Postnikov, Ophelie Tousignant, Shanice Lam, Sophie Nahrman, Takumi Davis, Timmy Khalifa, Zhuoying Lin, Zoe Li

(2019-2020) Alex Lin, Alison Katz, Angela Castellano, Anthony Wu, August Fox, Brenna Robinson, Chitika Vasudeva, Christina Brown, Clover Chau, Colin Walters, Cotey Anderegg, Dickson Yau, Edward Fischer, Esme Williams, Gabrielle Benson, Giulia Giampapa, Graana Khan, Hannah Haytko-DeSalvo, Howie Li, Isabel Xu, Jason Garwood, John Fang, Lydia Randall, Ricky Chen, Shanice Lam, Takumi Davis, Vishesh Pagarani, Winston Kim, Yingying Yan



Brainstorming, designing, discussion, and prototyping process for the creation of the Weatherization Kit and the accompanying informational Booklet.

How were each of these communities involved in the process and project?

Although we did not solicit design input from the community in the original phase of the project, the communities that this project serves have been polled for feedback in various ways. Last year we sought feedback about the Distribution Event and installation tutorials, and received a lot of positive feedback. Most community members who attended said that they learned a lot, and were very pleased with the process. This year we sought additional feedback about the Kit contents. Most feedback was positive, but we found that some people had more trouble with the installations this year, since we distributed only an installation tutorial video, but were not able to hold in-person installation tutorials due to the pandemic. We also found that families would like to receive more window plastic, and so we may change the design of the Kits next year to accommodate this.

Furthermore there was a high level of engagement between our team and the Build-A-Bridge team when translating the Booklet into Arabic. We sent the English text line-by-line to their team who sent us translation in response, and we iterated through this process to get the best translation we could, before editing the InDesign file, and reprinting. Working with the BAB team, and receiving feedback from the community has been very helpful in improving the project and making it more impactful.

The Director acts as the primary link between the University AIAS Chapter, FBD Program and the AIAS National Office. Directors are responsible for general oversight of the program.

- Sophie Nahrman (2017-2018)
- Alison Katz (2018-2019)
- Alex Lin (2019-2020)
- Edward Fischer (2020-2021)

The Project Manager is responsible for overseeing a specific Freedom by Design project, including establishing the schedule, coordinating the building approval process.

- Elizabeth Levy (2017-2018)
- Christoph Eckrich (2018-2019)

- Edward Fischer (2019-2020)
- Vishesh Pagarani (2020-2021)

The Development Manager is responsible for developing a fundraising strategy and locating donated materials.

- Alison Katz (2017-2018)
- Alina Kramkova (2018-2019)
- Angela Castellano (2019-2020)
- August Fox (2019-2020)
- Gabrielle Benson (2020-2021)

The PR Manager is responsible for recording the progress of the team, social media activity, student outreach, and assembling presentations for the AIAS Office.

- Michael Powell (2018-2019)
- Christina Brown, Shanice Lam (2019-2020)
- Hannah Haytko-DeSalvo, Colin Walters (2020-2021)

The Community Leader/Liaison is responsible for communicating on behalf of the residents that they actively engage and for reaching out to families that would benefit from the project.

- The Kingsley Association: Malik Bankston (2018-2019) & Lynette Drawn-Williamson (2019-2020)
- The Larimer Consensus Group: Malik Morris (2018-2020)
- East Liberty Development Inc.: Mary Hester (2018-2019)
- The Build A Bridge Foundation: Ayla Abiad (2019-2020)

The Translator is responsible for making materials accessible to multiple communities.

- Samah Sanda (2019-2020)

The Sponsors generously contribute financial and monetary support to enable the project to reach more families, augmenting the impact of the project.

- Frost King: Ted Gerstein (2018-2020)
- National Council of Architectural Accreditation Boards (NCARB)
- (2017-2020)
- Carnegie Mellon University
- Student Leadership, Involvement, and Civic Engagement (SLICE)
- Crowdfunding
- Eric Brown



"A distribution event at PROJECT RE_ that includes a demonstration workshop where we teach the residents how to install parts of the Kit and answer any questions they may have for their own house."

"I really like how the individual stations were set up. I think this was necessary for the community, and helpful to learn tips. Keep up the good work, thanks!"

Anonymous kit recipient after attending 2019 distribution event

"A common thread among the concepts of Justice, Equity, Diversity, and Inclusion is the need for interaction with people or communities that are often left out of the conversation. The Weatherization Kit project is guided by the principle that impactful design only occurs through a high level of engagement on both sides of the table. We strive for the community to feel ownership over the final product and empowerment through successful installation of the kit and the results they can bring to the home."

Colin Walters, CMU Student



How does the project support...?

Justice

The Weatherization Kit supports justice by making home improvement more accessible in low-income communities and providing students an outlet to act upon their values within their community. Every Pittsburgh citizen deserves a safe, efficient, and protected home, and the Kit provides them with some of the materials and information needed to empower residents to work toward that vision. Home improvement is an important skill for homeowners and renters alike, and our distribution event educates community members on how to properly utilize the weatherization products.

Within our Freedom By Design chapter, there are many students who are concerned with justice; and seek out opportunities to act and support local communities in their efforts towards justice and equality. Due to our desire to create positive impact, the Weatherization Kit and its Distribution Events provide students with an opportunity to make a difference within their community in a way that they know is effective and powerful for justice in Pittsburgh. This also provides students the opportunity to learn more about their local communities, and be informed on the issues that are present within Pittsburgh.

Equity

This project supports Equity by distributing our limited resources to those most in need of support. The Weatherization Kit is intended to be both a physical resource, as well as a resource of information. Given that we are a student organization with limited funding, we are only able to make around 40 Kits each year (although we hope to increase that number in coming years). These Kits are made available only to those most in need: those who would otherwise not be able to afford the items in the Kit. However, since we also aim to

provide easy access to information, we print more Booklets than needed for the Kits, in order to be able to give out more if people attend the Distribution event who were not signed up to receive the Kits. The Booklet is also available for free on our website.

Finally, given the current COVID-19 crisis, we are in the process of making contingency plans for our upcoming Distribution Event. We are considering recording instructional videos, and perhaps delivering the Kits ourselves to be able to continue to provide both the Kits and the supplementary information, while maintaining our safety, and the safety of the Pittsburgh community. Our commitment to providing weatherization resources to everyone, but focusing the Kits specifically on those who are most in need, demonstrates our project's focus on Equity.



"Multiple working sessions to cut, spray paint, fold, and assemble the Weatherization Kits. To date, we have created more than 80 Weatherization Kits for the local community."

Diversity

The Weatherization Kit project has relied on a diverse group of stakeholders for time, funding, and materials to achieve success over the years. Although Freedom By Design is affiliated with the American Institute of Architecture Students, we welcome and have worked with an interdisciplinary group throughout the process of designing, assembling, and distributing the Kits. Students studying everything from computer science and history to design and architecture have come together to research, synthesize, and refine solutions to address the issues of inequity, and sustainability in our local Pittsburgh community. To fund, and enable the project to reach as many families as possible, we have been generously sponsored by the National Council of Architectural Registration Boards, by our University and the School of Architecture, and by countless other individuals through our crowdfunding efforts. Lastly, the materials included inside of our Kits are, in part, provided by our partnership with Frost King, a weatherization products manufacturer that has annually donated materials to the cause. Our engagement with architects, designers, and student collaborators, but also with manufacturers, community organizations, and regulatory bodies, has enabled the Weatherization Kits to draw from a diverse stakeholder network to affect scalable, positive impact and to empower low-income families in Pittsburgh.

Inclusion

The Weatherization Kit project is grounded in inclusion and interacting with communities that are often left out of the conversation in Pittsburgh. As the project has developed, so has the reach of our impact within the Pittsburgh area. During the first year that the Kits were distributed they were given to residents of the East Liberty and Larimer communities. Last year however, we expanded our audience greatly, by partnering with the Build A Bridge Foundation, which allowed for the Kits to be distributed to members of a refugee community in the Pittsburgh area. A separate distribution event was created to specifically serve the residents of the refugee community, scheduled for a day that was responsive to the religious routines of the group and supplemented by translators to offer more effective demonstration. The ongoing project will include an instructional booklet that is translated into Arabic for the refugee community beyond the distribution event alone. Finally, we aim to be even more inclusive in the future, as we hope to expand the number of Kits we can create. This will hopefully allow us to reach other under-served communities in Pittsburgh as well, outside of the East End, including the Hill District, and neighborhoods along the

Monongahela River which are still recovering from the loss of the steel industry which their economy was based on.



"We continue to serve diverse communities in Pittsburgh. Our most recent collaboration with BAB allowed us to serve the Middle-Eastern refugee community, in addition to low-income families from East Liberty."

"This is a really valuable project to support improved quality of life in a low-cost and low-tech way,...showing how design can play a vital role in improving the immediate needs of community members, building trust and helping to improve the relevancy of the profession to BIPOC communities."

NOMA-NAACP-SEED Jury Member

Double-click & watch their story!



Project Journey

How did the project evolve in response to intentional JEDI strategies?

The project always had a focus on Equity by addressing housing problems in underserved communities of color. The original community partners (Larimer Consensus Group, East Liberty Development, and The Kingsley Association) were a liaison between the project and the people that the project aims to serve. One of the biggest evolutions the project experienced was the partnership with the Build A Bridge Foundation (BAB). This partnership allowed us to reach a more diverse group of communities in Pittsburgh including Middle Eastern refugees and immigrants. In 2019 BAB representatives attended our Distribution Event to help translate our tutorials into Arabic, for the immigrants and refugees who received kits. Later, in 2020, the instructional booklet was translated into Arabic because the BAB leader informed us that it would be helpful and completely change their experiences with the Kit's installation.

What are the critical measurements of the success or failure of the project?

As we continue the Weatherization Kit Project, each year we attempt to improve the process of creating the kits, coordinating with community organizations, and distributing the kits to the community. To quantify these actions as successful or unsuccessful, we look at the number of kits we have been able to distribute that year as well as if we have been able to both increase and retain relationships and community organizations and community members.

Each year we have increased the number of kits we have given to Pittsburgh residents. This has come from continually working with community organizations as well as reaching out to new groups in other reaches of the city.

An additional measure of success revolves around how individuals are using the kits. If the materials in the kits aren't meeting the needs of the community, or the distribution process is inconvenient for many people, we need to reconsider how we are running the project. This past fall, we reached out to individuals who had received kits with a survey to see just how much the community was able to get out of the kits. When we realized that many people may need more of certain items, we decided to alter the contents of next year's box according to that feedback.



Many iterations and prototypes were created for various design elements within the Kit, which led to the final product (shown in the center of the photo).