Affordable Design

The U.S. Department of Housing and Urban Development sponsors or cosponsors three annual competitions for innovation in affordable design: The Innovation in Affordable Housing Student Design and Planning Competition; the American Institute of Architects – HUD Secretary's Housing Community Design Awards; and the HUD Secretary's Opportunity & Empowerment Award, co-sponsored with the American Planning Association. This Cityscape *department reports on the competitions and their winners. Each competition seeks to identify and develop new, forward-looking planning and design solutions for expanding or preserving affordable housing. Professional jurors determine the outcome of these competitions.*

2022 Innovation in Affordable Housing Student Design and Planning Competition: The Housing Authority of the City of Atlanta, Georgia

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U.S. Department of Housing and Urban Development

The Jury:
Jamie Bordenave (Head Juror)—Founder and President, The Communities Group
Dana Cuff—Director, cityLAB, and Faculty, Dept. of Architecture and Better Urban Design, University of California, Los Angeles
Carlos Martin—Project Director of the Remodeling Futures, Harvard University's Joint Center for Housing Studies, Rubenstein Fellow, The Brookings Institution.
Mariela Alfonzo—Founder and Chief Executive Officer, State of Place
Jesse Wiles—Principal, Chief Executive Officer, APD Urban Planning and Management
Cody Owens—Housing Preservation Specialist, Dominion Due Diligence Group

Winning Team—University of Maryland, "Rise of Pines"
Danielle Abe
Fadi Alajati
Maria Fernanda Farieta
Samuel McCormally
Donald Nuzzio

Runner-Up Team—University of California, Berkeley, "Civic Oaks"
James Chang
Norris Cooper
Emiliano Farina
Angela Miki Kobayashi
Brice Lockard

Introduction

The ninth annual U.S. Department of Housing and Urban Development's (HUD's) Innovation in Affordable Housing (IAH) Student Design and Planning Competition challenged multidisciplinary graduate student teams to respond to an existing affordable housing design and planning issue. Teams were composed of graduate students in architecture, planning and policy, finance, business, and other disciplines. The competition required students to address the social, economic, and environmental issues in responding to a specific housing development problem identified by a partnering public housing agency (PHA).

For the 2022 challenge, HUD partnered with The Housing Authority of the City of Atlanta, Georgia (AH), to challenge the competitors to create innovative solutions for redeveloping the Boisfeuillet Jones Atlanta Civic Center complex and the land it sits on (exhibit 1). Teams were asked to find solutions to convert the 13.12 acres of developable land into affordable housing in a mixed-use and mixed-income setting while preserving the cultural, historical, and social significance of the Civic Center. The four finalist teams balanced several factors—including the local planning context, zoning requirements, local economic conditions, the area's historical and cultural significance, the built environment, and the larger social needs of the community—to create their final proposals, which had to include a feasible financing plan for their development.

The overarching goal of this year's competition was to advance innovation in the design of affordable housing. Student proposals contained potential solutions that could be implemented on site, and the plans were to promote durability, reduce energy consumption, increase the quality of housing, and enhance the social and economic vitality of the surrounding community.

Atlanta Housing (AH) is not only the largest housing authority in Georgia, it is one of the largest in the nation, providing and facilitating affordable housing resources for more than 23,000 low-income households. AH has continued to help provide low-income individuals with affordable housing options through services and resources, including AH-owned residential communities; AH-sponsored mixed-income, mixed-finance residential communities; tenant-based vouchers; HomeFlex Program (formerly Project Based Rental Assistance Program); supportive housing arrangements; and homeownership opportunities.

Exhibit 1

Site map of the Boisfeuillet Jones Atlanta Civic Center complex, showing the (1) Auditorium, (2) Exposition Center, (3) Plaza, (4) Stormwater Vault, and (5) Southface Institute

The site was originally home to Buttermilk Bottom, a community of approximately 16,000 people that took root in the early 1900s. Today, the Boisfeuillet Jones Atlanta Civic Center is at the nexus of Downtown, Midtown, SoNo, and the Old Fourth Ward neighborhood in Atlanta, Georgia. In 2017, AH took ownership and acquired the site; however, the facilities have not been open to or operating for public use since 2006. The complex includes a Performing Arts Center and a 125,000-square-foot Exhibition Hall. Both buildings' entrances center on a formal plaza and fountain, continuing the tradition of cultural institutions serving as both an iconic landmark and a public amenity for residents. AH envisions the site's transformation will be a truly vibrant, mixed-use community that includes affordable and market-rate housing along with office, retail, hospitality, and open space that seamlessly integrate into the existing cultural facilities intended to remain on site.

The competition was designed in two phases. In phase I, a jury of five practitioners evaluated the first-round proposals submitted electronically by graduate student teams. The jury deliberated on the 10 highest-scoring teams to select the four finalists that would move on to phase II of the competition. In phase II, the four teams further refined their proposals—addressing complex issues, incorporating more detail, improving their design plans, and conducting additional analyses on the financing needed to create viable housing, following an in-person site visit to Atlanta.

In March 2022, students from each of the four finalist teams traveled to Atlanta for a 2-day site visit, accompanied by Calvin Johnson, deputy assistant secretary of HUD's Office of Policy Development and Research (PD&R), and PD&R staff. AH guided students on a tour of the entire Civic Center complex and its surrounding property, including a stormwater vault adjacent to the auditorium. Students had the opportunity to explore the inside of the auditorium, which features a large performance hall that once seated nearly 4,600 patrons, and the exhibition building, which once held educational, arts, and science exhibits. The students met with local officials, AH executives, AH financing and planning partners, city commissioners and council members, community members, and affordable housing advocates who spoke to the site's history, shared personal stories, and communicated their hopes and aspirations for the site (exhibit 2).

Exhibit 2

Students, guest speakers, and HUD staff during site-visit to Boisfeuillet Jones Atlanta Civic Center, pictured outside in the plaza in front of the auditorium

Several weeks after the site visit, the four finalist teams presented their revised proposals virtually, on April 13, 2022, in the Final Presentations and Awards Ceremony. At that event, the finalist teams presented revised project plans to the panel of jurors and an audience. Audience members included AH staff, city officials, local community members, and HUD leadership and staff. The event was streamed live for public viewing. Each student team delivered a 20-minute presentation addressing how their plans respond to the economic, social, and environmental challenges of the development site. The students then had 10 minutes to field questions from jurors. Following the presentations, the jury selected the University of Maryland team as the winner and the University of California, Berkeley team as the runner-up (exhibit 3).

Exhibit 3

Winning team—University of Maryland Team pictured at virtual Awards Ceremony

The jurors praised the University of Maryland team for their incorporation of thoughtful and purposeful architecture, sustainability initiatives, and human-centered design. The four finalist teams were addressed by Dominique Blom, general deputy assistant secretary of HUD's Office of Public and Indian Housing, who welcomed and encouraged the students, stating, "I hope that this competition has inspired you to begin your careers in housing and community development because we need people like you in this field." Further, Adrianne Todman, HUD deputy secretary,

congratulated all four finalist teams and shared her hopes for the students. Eugene Jones, Jr., president and chief executive officer of AH, also spoke to the student finalists and offered his sincere appreciation for the students' hard work and enthusiasm for the site's potential and future.

The Winning Team: University of Maryland

Danielle Abe, Fadi Alajati, Maria Fernanda Farieta, Samuel McCormally, Donald Nuzzio

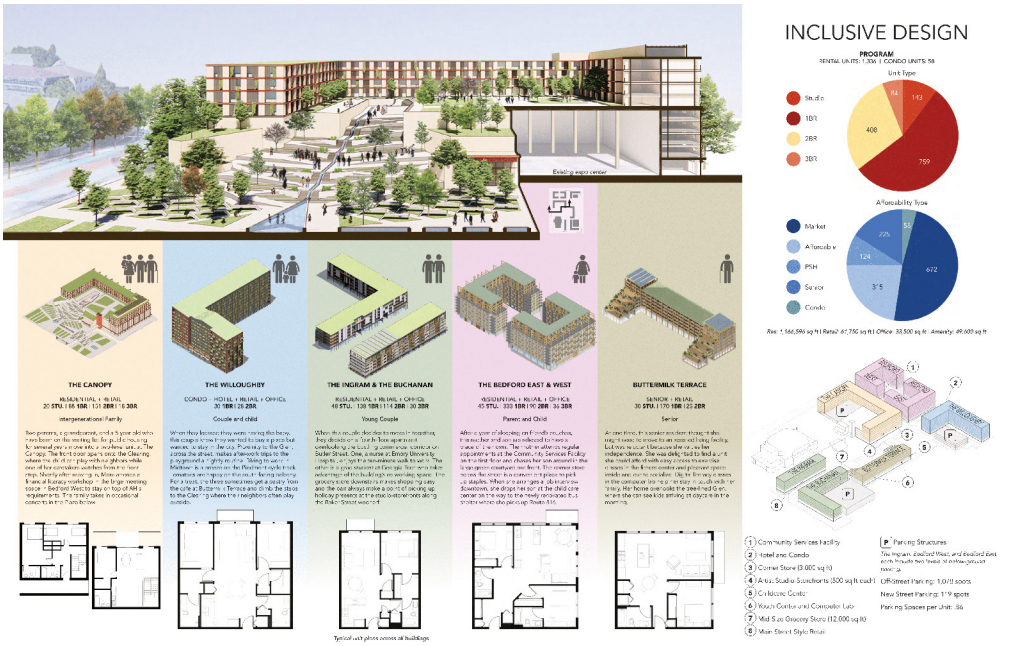
Exhibit 4

Rise of Pines

The University of Maryland team presented their winning proposal, "Rise of Pines," during HUD's 9th Annual Innovation in Affordable Housing Student Design and Planning Competition (exhibit 4). The team's design addresses the need for a true mixed-use, mixed-income community in the heart of Atlanta, Georgia, in a neighborhood that is rapidly gentrifying and losing its supply of affordable housing. In aligning with existing plans and regulations, which aim to create a dense urban texture in Atlanta's Historic Fourth Ward, Rise of Pines proposed 1,394 residential units across seven structures: three cross-laminated timber high-rise buildings and four wood-frame mid-rises.

Exhibit 5

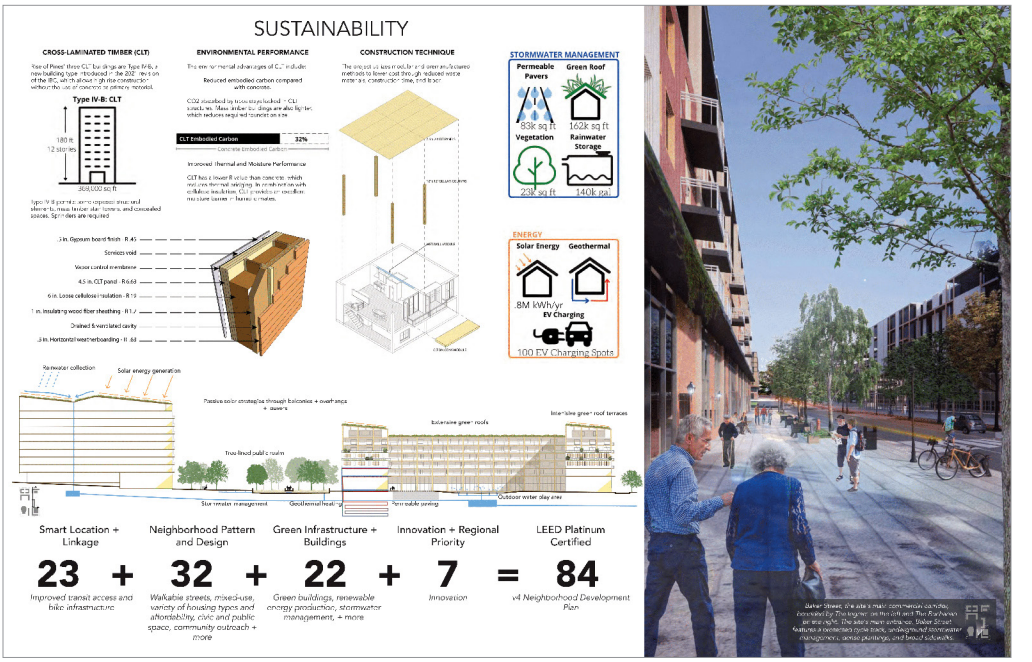
Rise of Pines' Building and Design Features



The central design feature of Rise of Pines is the integration of Atlanta's existing Exhibition Hall into the site (exhibit 5). The northern half of the Exhibition Hall would be demolished at an existing expansion joint. The roof of the Exhibition Hall is reimagined as a 1-acre park connected to the Civic Center Plaza by a terraced network of water, plants, stairs, and wheelchair-accessible ramps. The Rise of Pines structures are designed to be compatible with the EarthCraft program for multifamily homes, and the site could be certified Platinum under the LEED for Neighborhood Design v4 guidelines (exhibit 6). Solar panels and geothermal heat pumps, supported by tax credits, would reduce the project's carbon footprint.

Exhibit 6

Rise of Pines' Sustainable Practices and Design Elements



Rise of Pines proposes housing options for low and very low-income households, recently homeless people, seniors, and working families in an amenity-rich environment with abundant open spaces. The project relies on funding from 4 percent and 9 percent Low-Income Housing Tax Credits (LIHTCs). It would be competitive for 9 percent LIHTCs due to its amenities, transit accessibility, and wide range of services for disabled and elderly residents, and it also would be eligible for a 30-percent basis boost due to its location in a Qualified Census Tract, Difficult Development Area, and New Markets Tax Credit area.

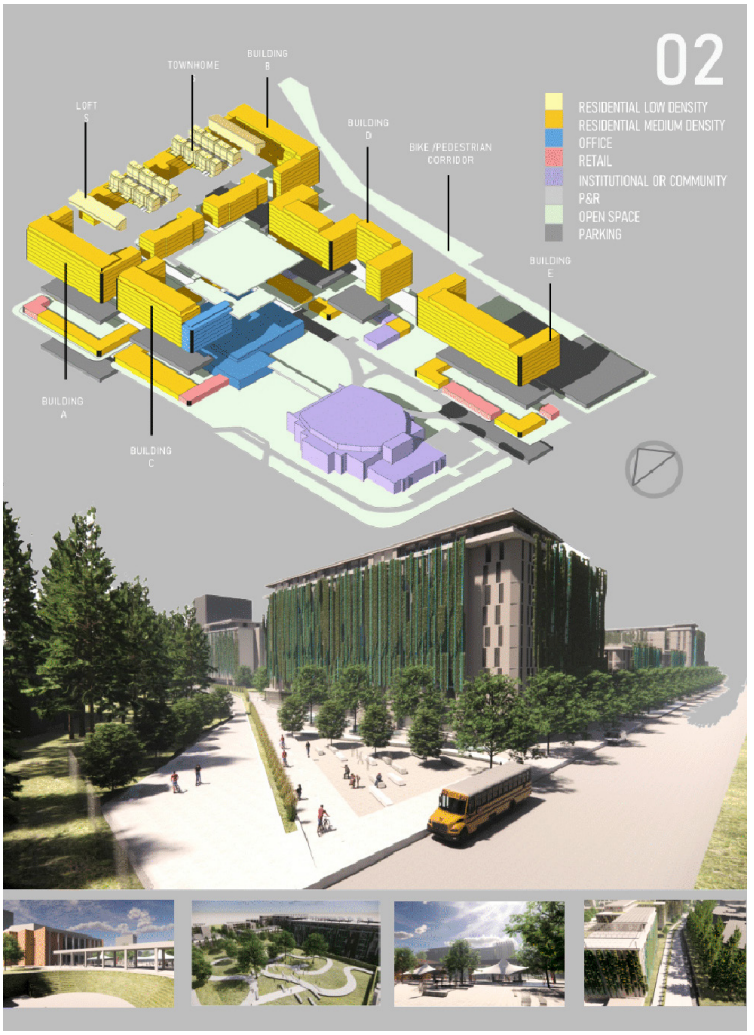
The competition jurors praised the team for their focus on construction and design. The jurors also commended the University of Maryland team for their utilization of the topography of the site and for innovative methods of construction, financing, and organization.

The Runner-Up Team: University of California, Berkeley

James Chang, Norris Cooper, Emiliano Farina, Angela Miki Kobayashi, Brice Lockard

Exhibit 7

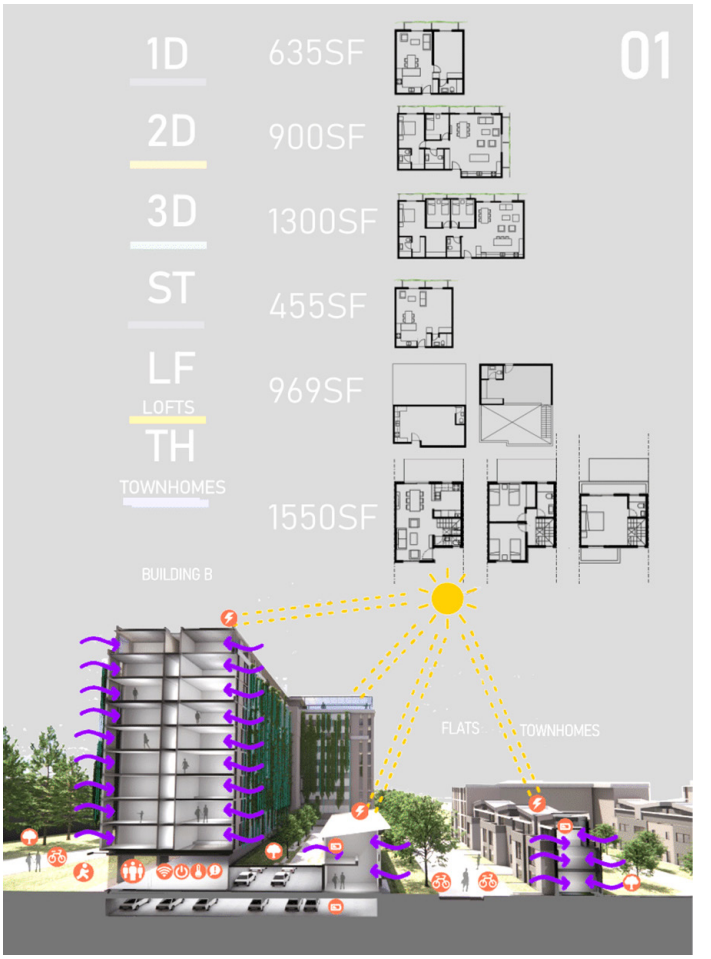
Civic Oaks' Plan and Proposed Site Map



The University of California, Berkeley's Civic Oaks plan was selected as the runner-up (exhibit 7). The team's Civic Oaks development was a collection of more than 748 new residences, approximately 80,000 square feet of office space, 500,000 square feet of green and open space, and 14,600 square feet of retail space that would enhance the culture and unique flavor of Atlanta's Old Fourth Ward. The Berkeley team envisioned transforming the 13+ acre site into a vibrant mixed-use community by using open spaces to integrate the existing cultural facilities and the old Civic Center event space.

Exhibit 8

Civic Oaks' Housing Unit Typologies



Their vision includes subdividing the current "super-block" into smaller, neighborhood-scale streets (exhibit 8). The team considered community opposition to highrise construction and created a medium-height ensemble of buildings. Civic Oaks incorporates various housing types and unit sizes, from studios to three-bedroom units, condominiums, townhomes, and live-work lofts. A centerpiece exposed amphitheater in the central plaza would serve the community through a combination of cultural, educational, and art programs intended to promote community health.

The development plan designates more than 50 percent of the homes to be affordable for low-, moderate-, and middle-income households, with one building set aside specifically for large, family-affordable housing and 28 units for integrated permanent supportive housing. The project uses a wide range of financing to achieve feasibility. Located in a census tract with a 2.5-percent rental vacancy rate—more than 1 percent lower than Atlanta and Fulton County's rates—Old Fourth Ward has a demonstrated need for more housing.

Exhibit 9

Civic Oak's Architecture, Design Features, and Sustainable Practices

The proposal's inclusion of open space and landscaping design was specifically inspired by community input from the Atlanta Civic Center's Neighborhood Planning Unit and the Fourth Ward West Neighborhood Association (exhibit 9). Embracing Atlanta's reputation as a City in a Forest, the proposal seamlessly incorporates a network of green spaces. Civic Oaks would keep the existing oak trees around the site, maintaining old growth foliage. The team's design embraces the context of the existing urban fabric and would pioneer modern sustainable construction practices (exhibit 10).

Exhibit 10

Runner-up team from the University of California, Berkeley, pictured at virtual Awards Ceremony

Thoughts from the Jury

Jamie Bordenave (Head Juror), Dana Cuff, Carlos Martin, Mariela Alfonzo, Jesse Wiles, Cody Owens

The jury for the 2022 IAH Student Design and Planning Competition faced the difficult task of deciding which of the four outstanding finalist teams' site plans best exemplify an innovative design. The jury members were asked specifically to consider how well the student teams successfully and convincingly addressed the following critical elements:

- Is the proposed design reasonable and feasible in its design and planning, demonstrating knowledge and understanding of building codes and zoning?
- Is the proposed design resilient and environmentally responsive to the local climate?
- Is the proposed solution affordable (cost effective to construct and operate)?
- Does the design innovate in a way that integrates the design into the neighborhood and community?

- Does the design promote social responsiveness, such as creating a sense of neighborhood or cohesive community, facilitating access to employment and services, addressing accessibility, and demonstrating the opportunity for social networking, ownership, and comfort?
- Is the approach innovative in all aspects of the solution (for example, planning, design, construction, environmental concerns, and durability)?
- Does the proposal recommend innovative strategies in addressing the needs of the surrounding community and neighborhood?
- Were innovative approaches employed to integrate the design into the neighborhood and community?

The jurors found that two of the four team proposals addressed nearly all the critical elements clearly and with forethought. Jurors narrowed down the four finalist projects to two teams: one from the University of Maryland and the Team Gold from University of California, Berkeley. Both teams had strong proposals. Jurors were impressed with Berkeley's approach to community engagement and their attention to the community. Their design includes feedback from the community; it includes 40,000 square feet of landscape space within the site, creating a highly engaging gathering spot with multiple uses, as well as three-bedroom units, which had been identified as a need by the local residents. Although jurors were extremely impressed by the scale and massing that Team Gold from University of California, Berkeley was able to achieve with their design, the jury agreed that University of Maryland's design both met the housing supply goals and had stronger architectural features.

The jurors chose the University of Maryland team's design for the focus and incorporation of human-centric design and, from a sustainability perspective, an innovate use of land. The jury thought that their innovative use of the site's topography, a factor that was a real challenge, was excellent. The proposal also stood out to the jury for its incorporation and "wonderful focus on construction and design, particularly the innovative use of cross-laminated timber."

Acknowledgments and Honorable Mentions

The U.S. Department of Housing and Urban Development would like to thank the remaining two finalist teams for their competition and contributions during the final event: Team KU 1 from the University of Kansas and the University of California Berkeley Team (exhibit 11).

Exhibit 11

Two remaining finalist teams from the University of Kansas and the University of California, Berkeley, pictured at virtual Awards Ceremony

- Team KU 1, University of Kansas (John Hardie, Inbal Hazlett, Samara Lennox, Karen Lewis, and team lead Elizabeth Overschmidt): The team's proposal includes a solution that presents a healthy and sustainable community and reconnects the street network to increase the neighborhood's walkability. In addition, several housing types and price points are provided in a mixed-use, mixed-income community that features a health clinic intended to operate in collaboration with the local university health center. The jurors enjoyed and appreciated the innovation of the University of Kansas designs, including the method they proposed to reintroduce a street that would break up the super-block and promoted ground-floor commercial uses within the complex.

- Team Oski, University of California, Berkeley (Samuel Day, Joseph Mutter, Dylan Rodolf, team lead Andrew Stasiuk, and Shiying Wang): The team's plan was proposed with a common goal of delivering high-quality affordable housing, catalyzing economic development, and driving social impact strategies to deliver superior financial returns. Team Oski said that the HUD Innovation in Affordable Housing competition allowed them to cross-pollinate perspectives on how to address a historically underserved community. In doing so, the team cultivated an intimate understanding of the site-specific challenges and opportunities innate to the Atlanta Civic Center site. The jurors commented that Team

Oski's solutions were multifaceted, with multiple co-benefits. For example, their proposal included a green solution that not only addresses environmental concerns and benefits but also social concerns and financial restrictions.

In addition, HUD would like to acknowledge and commend all the student teams who participated in the 2022 IAH Student Design and Planning Competition. Although only four teams were selected as finalists, six additional teams submitted plans considered to be outstanding and that jurors ranked among the top 10 proposals. Those student teams are as follows, in chronological order by assigned team number:

- Team #253—Team Urban Innovators from Columbia University (Tamin Abedin, Kourosh Fathi, Eryn Halvey, Kamu Kakizaki, and Nicolas Nefiodow): The Urban Innovators Team proposed development taps into Atlanta's rich culture of music, civic engagement, and hip-hop to create a space where people can live affordably, invest in their talents, and connect deeply with their community. The team proposed to preserve the rich cultural history of the site by retaining and refurbishing the Civic Center and the Exhibition Hall. Their plan for the Civic Center was to wrap it in an open and transparent "sleeve" that would house new studios and small performance spaces for local talent. Jurors said the project was innovative, thoughtful, culturally sensitive, and equitable. They noted that the team clearly considered the history of the area while developing their plans. In addition, they used creative partnerships to achieve their goals, thus increasing the feasibility of their financial proposal.

- Team #262—Team Nip It in the HUD from the University of Michigan (Isabelle Borie, David Elam, Nathanael Nelson, Nelius Wanjohi, and Lauren Ashley Week): The "Nip It in the HUD" team presented Buttermilk Heights, a mixed-use, mixed-income community, anchored by a skilled trades incubator and training center. The design of their complex is drawn from footprints of houses on the site in the 1930s to encourage the site designers and visitors to address the site's legacy. The footprints are consolidated and abstracted in key places throughout the design to account for the needs of current and future generations. In the design plans, the Civic Center and Expo Hall buildings are preserved, with new cultural center buildings wrapping the public corners of the original structures, hiding the windowless 1960s facades, and providing opportunities for murals and other storytelling devices. The materials of the apartment units are reminiscent of Atlanta vernacular construction, with fiber-cement cladding, wooden porches, and traditional "haint" blue paint, creating a unique yet storied environment. Jurors said that the scale of the project integrates well with the scale of existing neighborhood development. Jurors also noted that the proposal preserves the Civic Center and Expo Hall while adding new cultural center buildings and is creative and practical.

- Team #267—Team Synthesis from Virginia Tech (Gabriela Borowiec, Makenzi Moore, Elizabeth Quill, and Chiravi Patel): The site proposed by Team Synthesis incorporated 240 units, 60 studios, and 90 one- and two-bedroom apartments in more than 280,000 square feet of new mixed-use development within four distinct quadrants to address community and residential needs. To ease integration into the community, the site plan differentiates the quadrants on the basis of the needs of residents and visitors to ensure a natural spatial flow, easy navigation, and privacy for residents while still meeting the commercial, civic, and

transportation needs of the greater neighborhood. The structures in the site plan demonstrate innovation focused on seamless growth and sustainability efforts using cross-laminated timber as the primary building material and through the modular design of the buildings. According to the team, the modular design allows for a minimization of preconstruction and labor costs while allowing for cheaper growth over time. That configuration enables the spaces to change and grow with the community without having to completely reconstruct frameworks. Juror comments stated that the proposal was thoughtful, centered around community needs and co-creation, and provides innovative solutions, particularly from an adaptability perspective.

- Team #270—Team U Mish from the University of Michigan (Clayton Artz, Anthony Bui, Kassem Chammout, Chelsea Gaylord, and Jihwan Park): Team U Mish proposed a mixed-use development called "The Buttermilk District" and said that it was where the history of place could be seamlessly integrated with the demands of building toward the future. The development was funded through a mix of debt, equity, and grant opportunities that include 9 percent Low Income Housing Tax Credits, tax exempt bonds, developer equity, a construction loan, and renewable energy and philanthropic funds. In addition, the team proposed partnering with the Southface Institute, Georgia Power, Georgia Tech, the YMCA, and Atlanta Workforce Development to provide successful delivery of services to create a vibrant, connected community. Team U Mish stated that the Buttermilk District was centered on delivering a connected community, where residents of diverse income levels are integrated, celebrated, and uplifted and where history and art meet to tell the stories of our past and work to build a brighter future. Jurors stated that the proposal thought outside the box on several fronts: financing, programming, resident participation, and site density in particular. Jurors also stated that the programming around financial rebuilding and employment were strong elements and very commendable.

- Team #271—Team Buff Goldy from the University of Minnesota Twin Cities and the University of Buffalo (Emily Anderson, Dakota Crowell, Lindsay Erdmann, Tia Jacobs, and Connor McManus): Team Buff Goldy's proposed development, titled "Heart of Atlanta," creates more than 1,000 new housing units, 40 percent of which are permanently affordable at 60 percent AMI or below; 138,000 square feet of leasable commercial, office, and active use space; a new 300-key hotel; a new 51,000-square-foot exhibition hall; and just over 6 acres of public park space. The proposed park space doubles as stormwater management infrastructure and includes a recessed playground designed to hold water during a "100-year storm." All buildings have green roofs to ensure a holistic approach to sustainability and climate resiliency. In addition, the policies, programs, and financial layering proposed for the site address past injustices based on race and income that includes a local, blended-subsidy approach to provide deeply affordable public housing units on site. Buff Goldy's site design maintains the existing historic Civic Center but includes a new, relocated Exhibition Hall that the team stated would help to open up the site while still ensuring state-of-the-art creative space around a renovated plaza. Jurors stated that the adaptation of the Exhibition Hall was well thought out and work well in the overall design of the site. Jurors also remarked that the innovative use of rooftops and additional greenspace also work well together. In addition,

jurors said the proposed Anti-Displacement Preference and Right to Return policies to redress racial and economic injustices are important tools for the project.

- Team #275—Team Possibilities from the Georgia Institute of Technology and the University of Michigan (Keith Luu, Ashley Martinez, Sneha Moorthy, and Siddharth Sivakumar): For their proposal, Team Possibilities sought to reinvent the meaning of "civic center" and reunite the communities between historic Old Fourth Ward and Peachtree Street by repurposing the Boisfeuillet Jones Atlanta Civic Center site into a mixed-income-community living, working, and gathering space. A major aspect of the site design calls for leveraging the green public spaces to connect to surrounding neighborhoods and flow from the northeast corner to Peachtree Street. The team also proposed to connect the East Beltline from Ponce City Market to Central Park and toward the proposed I-85 Stitch, thereby connecting the Beltline to the inner city. Team Possibilities said that their goal for the site was to create housing that would enable residents to build a prosperous future and to allow residents to see their home as either a stepping-stone or a long-term sustainable option they could be proud of. Jurors commented that the emphasis on green space and public space—particularly introducing a link to the Beltline—was excellent, stating, "The project is thoughtful and feasible in terms of social justice, Atlanta history, and larger site-related strategies, particularly around Black-owned businesses."

All of this year's team proposals collectively rose to the challenge by considering the history of Buttermilk Bottom, using creative partnerships, innovative financial proposals, Anti-Displacement Preference, and Right to Return policies to address racial, density, and economic injustices in their designs.

HUD greatly appreciates the 2022 Innovative Affordable Housing jury members' dedication and hours devoted to the award selection process, all of the student teams and faculty advisors who participated this year, HUD staff and leadership for their support, and Atlanta Housing Authority for their involvement and partnership. Finally, HUD thanks Schatz Publishing Group, LLC, for planning and logistical efforts under the constraints of the COVID-19 pandemic. Their hard work and flexibility made this year's competition a success.

Author

Alaina Stern is a social science analyst in the Office of Policy Development and Research's Affordable Housing Research and Technology Division.

Post-Script

This competition is thoroughly documented on the web.

To learn more about the competition visit https://www.huduser.gov/portal/challenge/home.html.

For questions regarding the competition, please email IAH@huduser.gov.