

RtechHIVE



A New Paradigm in Sustainable Living

Innovative + Sustainable + Community-Focused



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Section 1

Project Overview

Introduction to RtechH|VE

Sustainable Development Goals



Introduction to RtechH|VE

Strategic Positioning

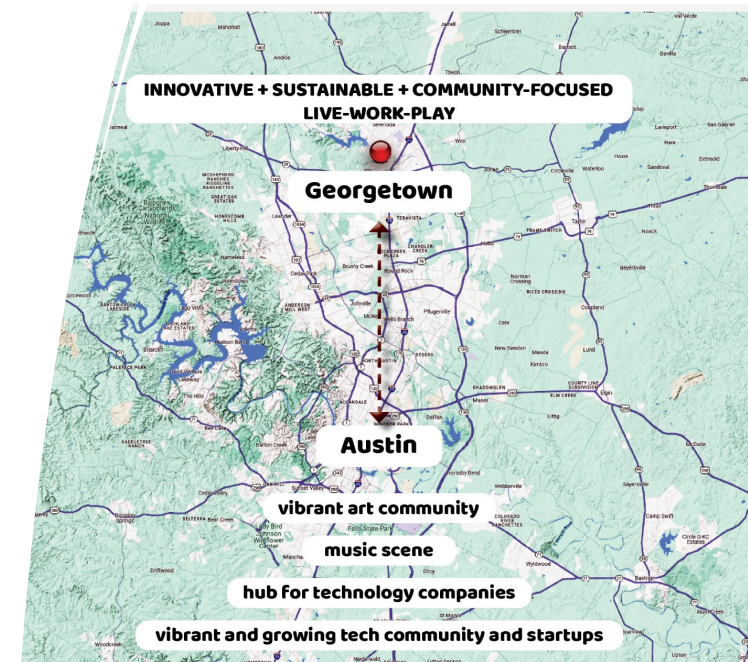
RtechH|VE is a groundbreaking development project located in Georgetown, near the tech hub of Austin. The objective is to establish a distinctive community that integrates living, working, and playing, strongly emphasizing fostering innovation, promoting sustainability, and encouraging active community participation.

Georgetown Advantage

The project leverages its proximity to Austin to offer a blend of small-town quality of life with access to a larger tech ecosystem. Georgetown's affordability and economic growth make it an attractive location for tech professionals and startups.

Urban Sprawl Challenge

The current low-density residential nature of the site presents an opportunity to counter urban sprawl with a sustainable, integrated development that meets the growing demand for housing and amenities while capitalizing on Austin's economic vibrancy.



PROPOSED SITE



GROWING NUMBER OF PLANNED DEVELOPMENTS

Sustainable Development Goals

Environmental Impact

RtechHIVE's commitment to sustainable development aligns with global environmental goals, emphasizing resource efficiency and ecological preservation.

Social Inclusivity

The project's design prioritizes inclusivity, aiming to create a diverse and welcoming community that reflects the broader societal fabric.

Economic Viability

The development's economic impact on the local community and its potential to drive economic growth are key considerations in its planning and execution.



Section 2

Design and Innovation

Sustainable Infrastructure

Decentralized Clusters

3D-Printed Dwellings

Customization and Mass Customization

Sustainability Integration

Art and Technology Integration

Artistic Communal Spaces

Tech-Enabled Living

Sustainable Living Blueprint



Sustainable Infrastructure

Decentralized Clusters

3D-Printed Dwellings

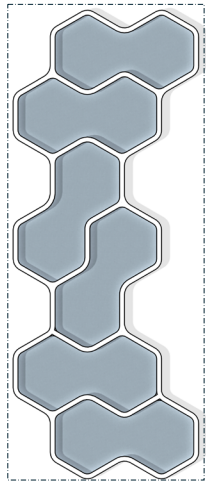
Customization and Mass Customization

Sustainable Technology Integration

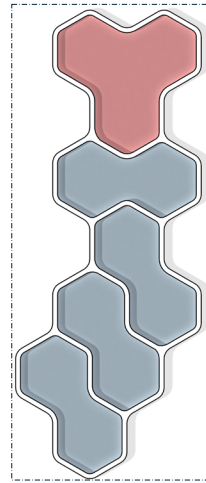
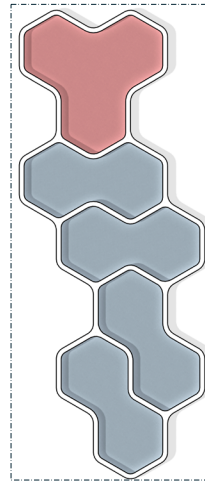
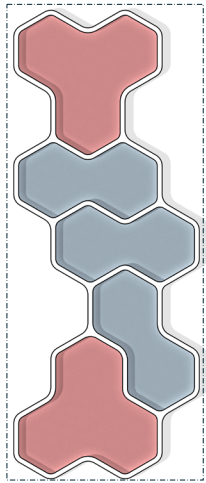


Decentralized Clusters

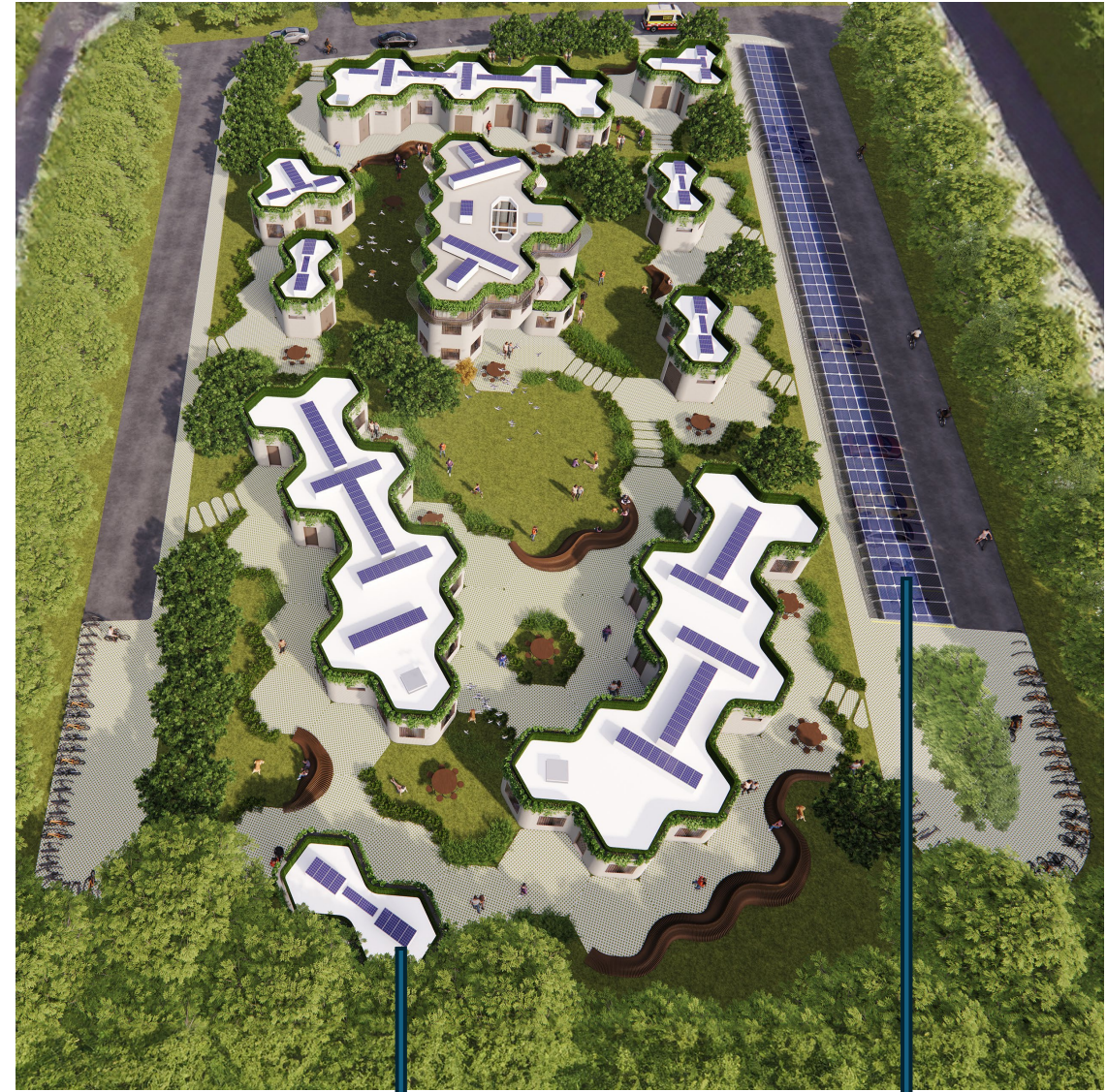
The neighborhood design utilizes decentralized clusters with off-grid microgrids, powered by renewable energy sources, to promote sustainability and resilience.



Diverse Clusters of Modular Living Units Created with Large Format 3D-Printing



33 ft x 100 ft 3D-Printing Bed



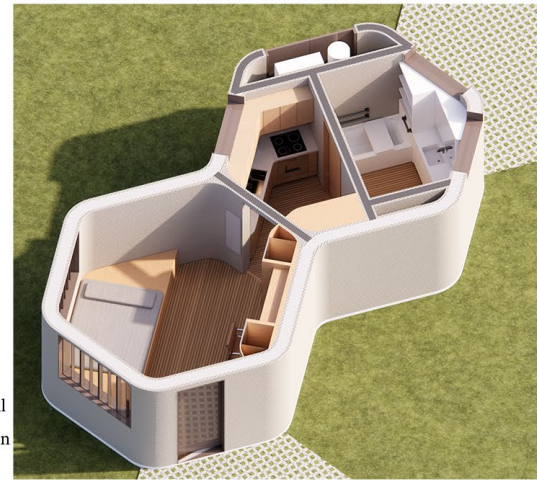
Solar Panels at Roofs

Solar Canopies and EV-Charging Stations at Parking Lots

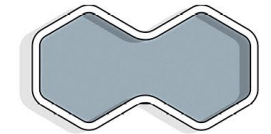
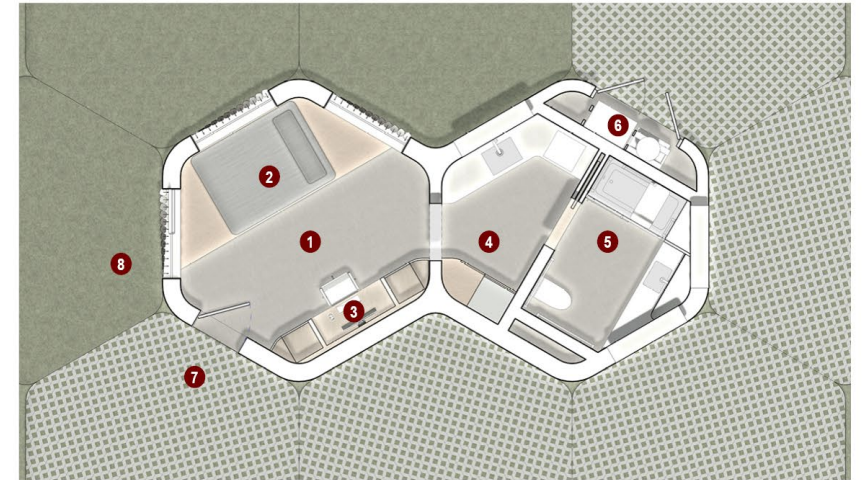
3D-Printed Dwellings

Utilizing large-scale 3D printing platforms, this method creates adaptable and personalized living environments. These innovative 3D-printed homes are designed to meet the changing needs of the community, emphasizing affordability and eco-friendliness. The design of living units allows for easy customization and expansion, accommodating various housing models from shared living spaces to large single-family dwellings.

- 1 Bedroom with Workroom
- 2 Bed with Storage
- 3 Wardrobe with Work Module
- 4 Kitchen
- 5 Bathroom
- 6 Equipment Storage with Access Doors
Heat Pump
Energy Recovery Ventilator
Heat Pump Water Heater
Bio-waste Composter
Portable Roof Access Ladder
- 7 Patio
- 8 Garden
- 9 Solar Panels and Rainwater Harvesting
- 10 Draft Tolerant Plant Integrated Guardrail
- 11 3D Printed Concrete Wall with Insulation
- 12 Window with Adaptive Exterior Shade



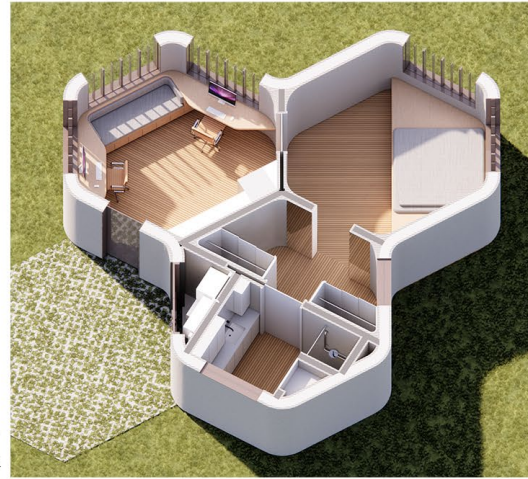
DOUBLE MODULE FOR SINGLES | 396 SF | \$99,000



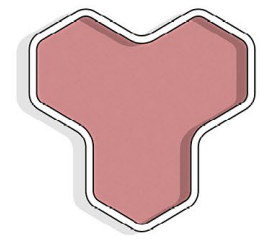
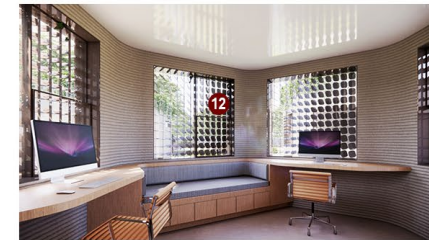
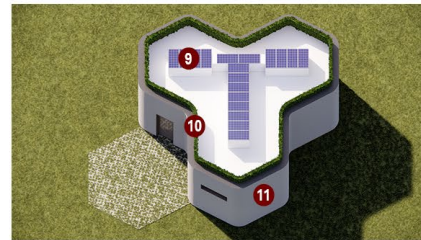
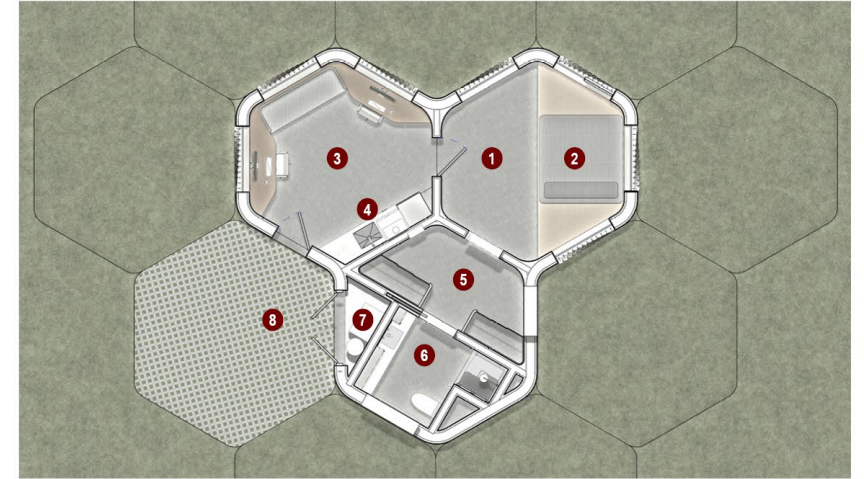
3D-Printed Dwellings

Additionally, these adaptable and expandable housing options can be built with other eco-friendly and energy-saving materials, like mass timber, and are crafted for prefabrication, offering modular, efficient, and wellness-oriented living areas.

- 1 Bedroom
- 2 Bed with Storage
- 3 Work-Play Room
- 4 Convertible Kitchenette with Ceiling Recessed Projector Screen
- 5 Walk-In Closet
- 6 Bathroom
- 7 Equipment Storage with Access Doors
Heat Pump
Energy Recovery Ventilator
Heat Pump Water Heater
Bio-waste Composter
Portable Roof Access Ladder
- 8 Patio with Permeable Paver
- 9 Solar Panels and Rainwater Harvesting
- 10 Draft Tolerant Plant Integrated Guardrail
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TRIPLE MODULE FOR COUPLES | 594 SF | \$148,500

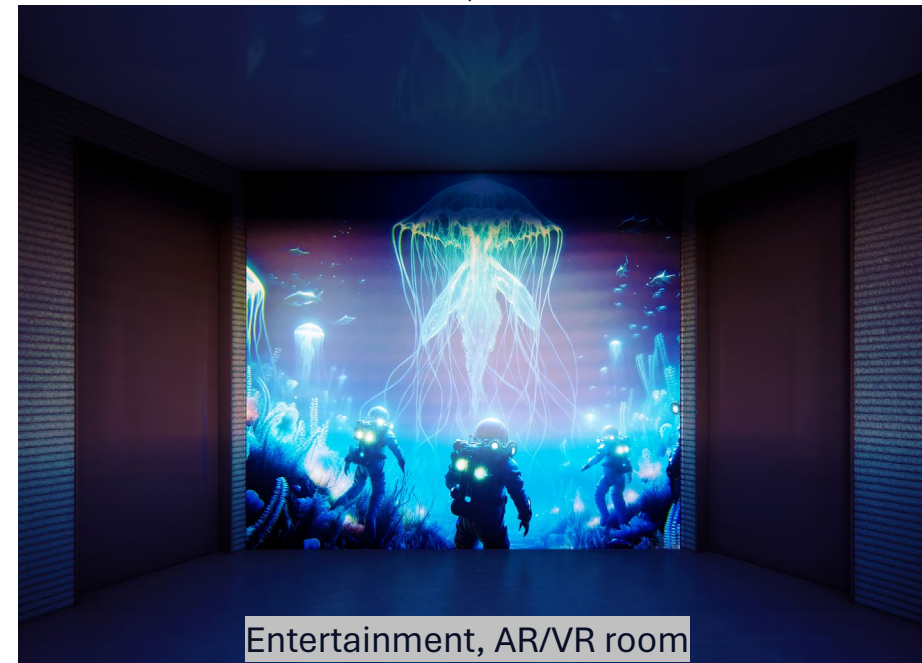
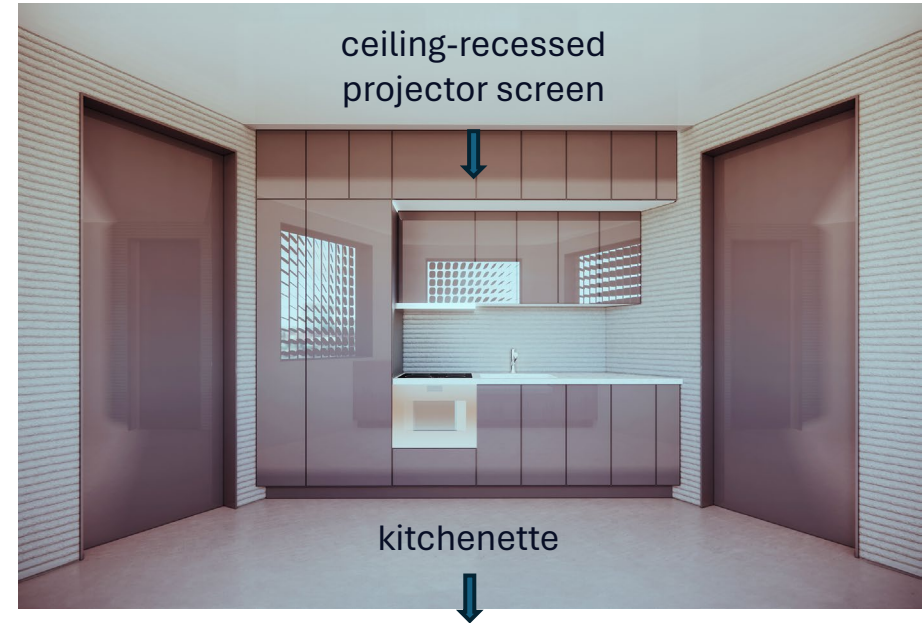
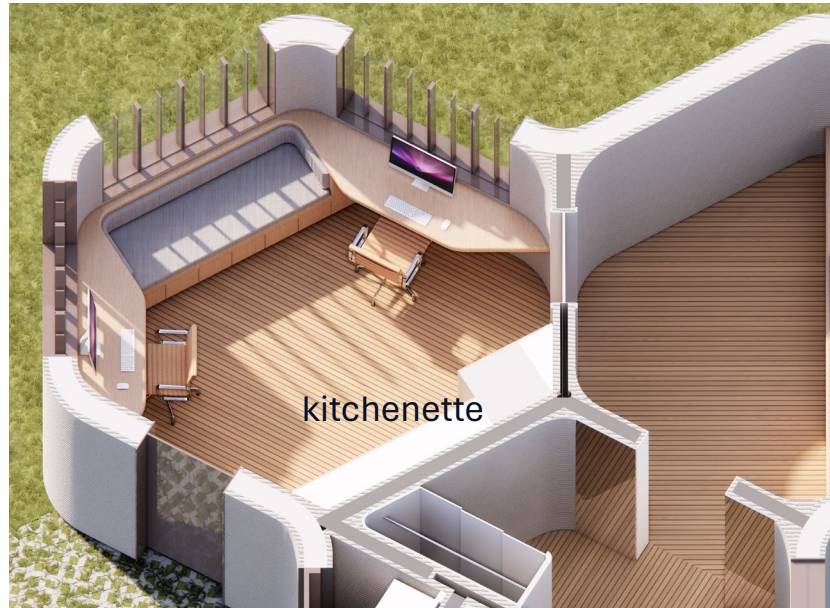


Convertible Spaces

3D-printed living units are not just versatile and flexible for various configurations but also serve multiple functions to conserve space.

An example is the multi-functional work-play flex room that offers three distinct uses, detailed below, with a thoughtfully positioned ceiling-recessed projector screen that smoothly descends for ultimate versatility.

- A workroom with a kitchenette for two people
- Entertainment room for movie nights
- AR/VR room for play, and work collaborations

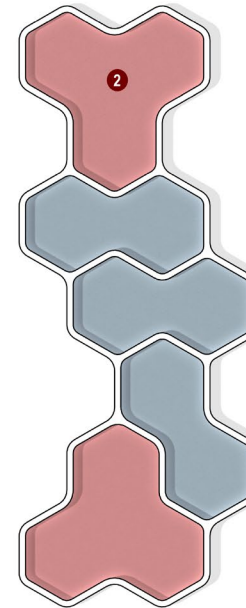
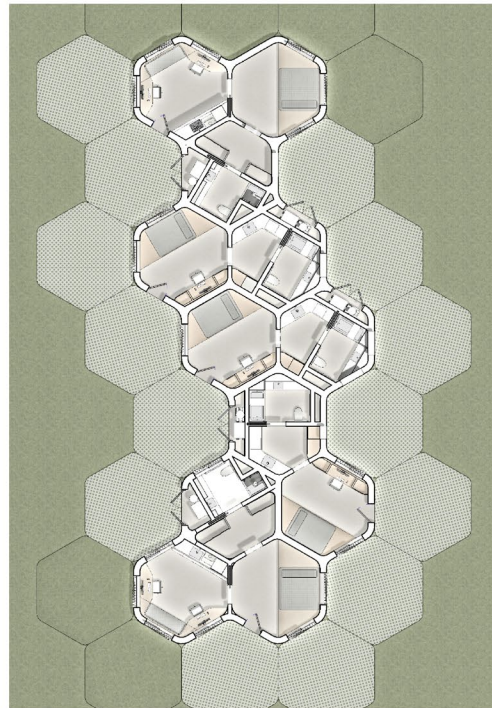


Customization and Mass Customization

Convertible modules — from bedrooms with work areas to flex rooms with kitchenettes that shift from workspaces to entertainment areas with a retractable projection screen, to bathrooms that incorporate walk-in closets or kitchen combos — cater to varied living needs. Suitable for both urban and rural environments, these modules are designed for sustainable community ecosystems and can also be stacked in compact urban infills.

2 TRIPLE + 3 DOUBLE MODULES | 7 PEOPLE | 2,376 SF | \$594,000

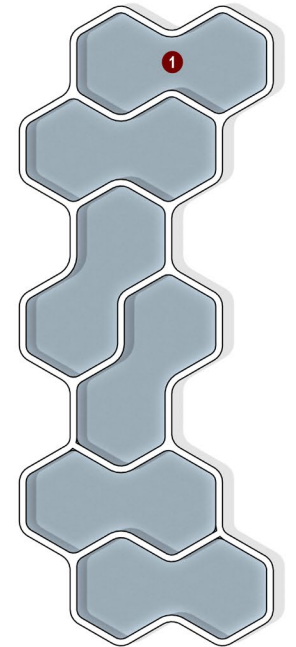
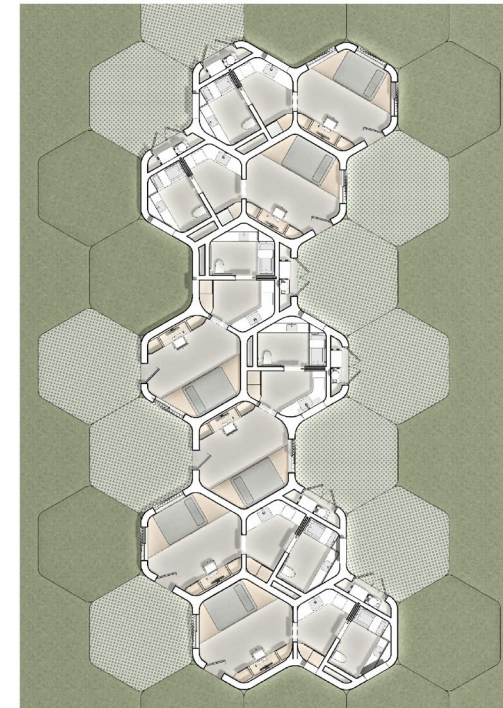
CLUSTER 2



6 DOUBLE MODULES | 6 PEOPLE | 2,376 SF | \$594,000

CLUSTER 1

Double Module for Singles ①
Triple Module for Couples ②



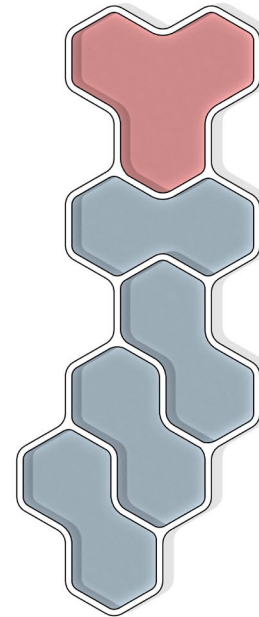
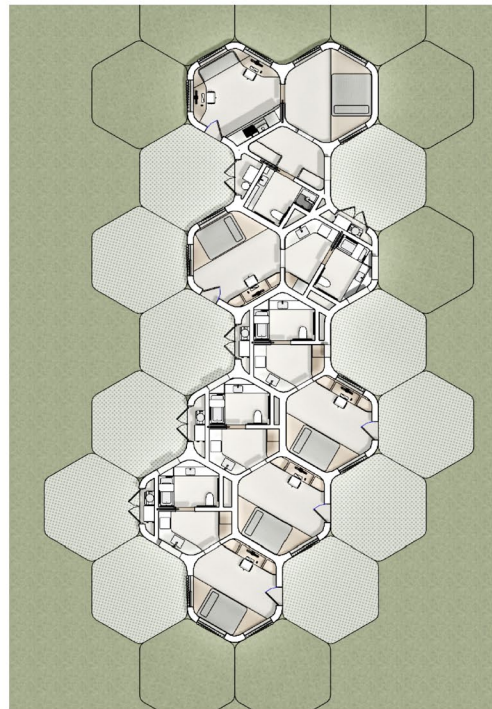
Customization and Mass Customization

This strategy merges efficiency with adaptability, developing scalable 3D-printed homes that boost community involvement with strategically planned neighborhoods.

By employing hexagonal layouts, it naturally removes unnecessary corners, creating courtyards and shared spaces with organic flow.

1 TRIPLE + 4 DOUBLE MODULES | 6 PEOPLE | 2,376 SF | \$544,500

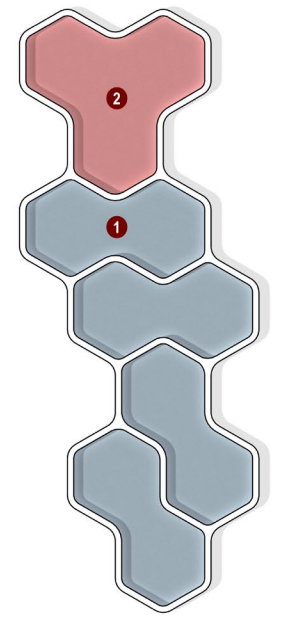
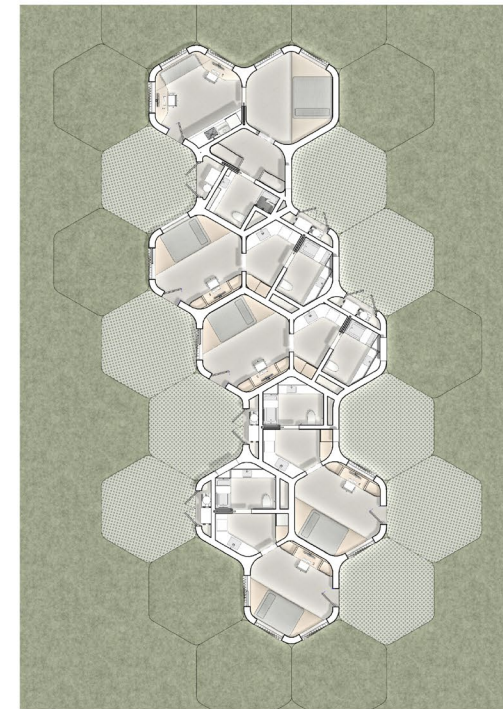
CLUSTER 4



1 TRIPLE + 4 DOUBLE MODULES | 6 PEOPLE | 2,376 SF | \$544,500

CLUSTER 3

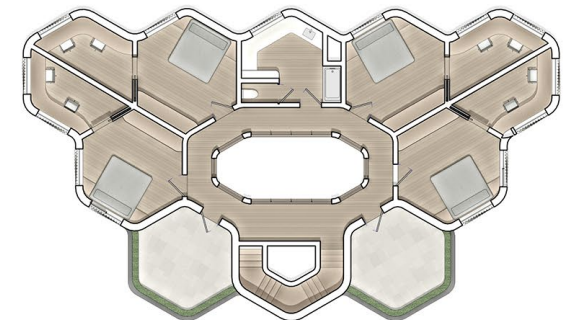
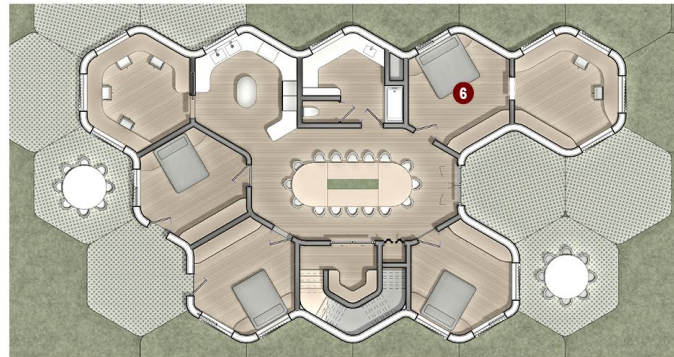
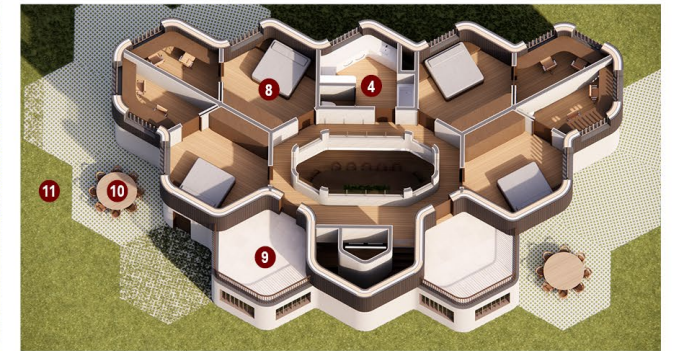
Double Module for Singles ①
Triple Module for Couples ②



Customization and Mass Customization

Their innovative design minimizes concrete use while maximizing functionality and aesthetic appeal. The hexagonal approach optimizes space and adheres to ADA standards, offering versatile housing solutions for a range of settings, from university campuses to tech hubs, and adaptable for both single and multi-family residences.

- 1 Communal Flex Room
- 2 Co-working Room
- 3 Communal Kitchen
- 4 Communal Bathroom
- 5 Studio Apartment with Communal Area Access
- 6 Bedroom with Private Work-Play Room Opt.
- 7 Bedroom
- 8 Bedroom with Workroom
- 9 Balcony
- 10 Patio with Permeable Paver
- 11 Communal Garden
- 12 Solar Panels and Rainwater Harvesting
- 13 Skylight
- 14 Clerestory Windows and Light Reflectors/Shades
- 15 Draft Tolerant Plant Integrated Guardrail

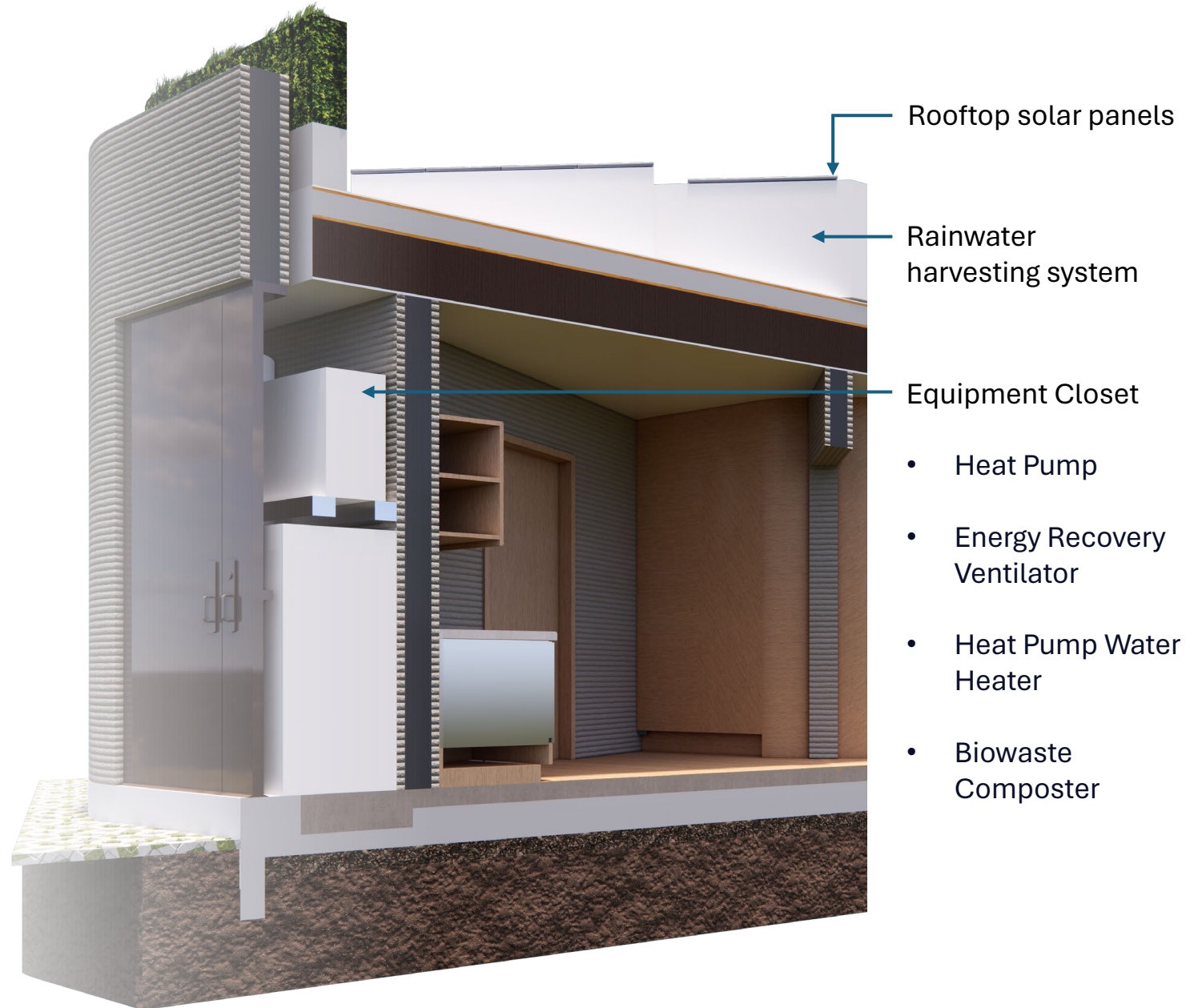


2-STORY CO-LIVING BUILDING | 2,376 SF | \$1,188,000

13 PEOPLE | 5 COUPLES + 3 SINGLES

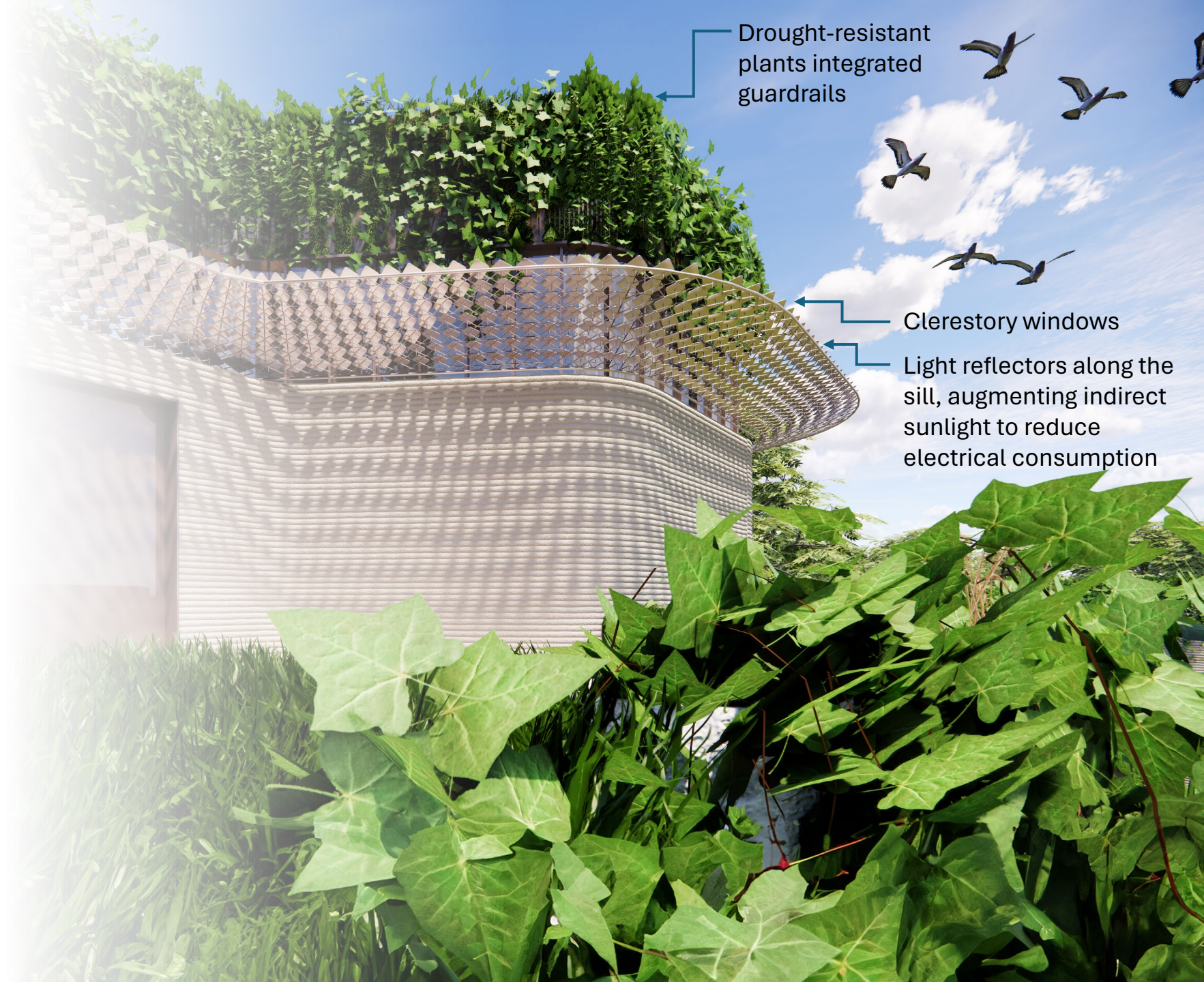
Sustainability Integration

This project is deeply committed to eco-efficiency by incorporating efficient HVAC systems, biowaste composters, rooftop solar panels and rainwater harvesting, along with low-maintenance, drought-resistant plants integrated guardrails on roofs and balconies for heat management.



Sustainability Integration

Clerestory windows, complemented by light reflectors along the sill, augment indirect sunlight to reduce electrical consumption. The same light reflector along the bottom edge of clerestory windows works as a shade for lower levels, enhancing the project's emphasis on environmental responsibility and autonomy.



Drought-resistant plants integrated guardrails

Clerestory windows

Light reflectors along the sill, augmenting indirect sunlight to reduce electrical consumption

Sustainability Integration

Customizable, 3D-printed, leaf-shaped panels offer adaptable shading to minimize glare, preserve natural light, and ensure appealing outdoor views, allowing for a dynamic site design.



Exterior shading featuring leaf-shaped panels, 3D-printed for flexibility, provides adjustable shade, tailor-made to suit varying light exposure.

Thermally Broken Double Glazed Windows

3D-Printed Concrete with Insulation

Sustainability Integration

Permeable paving on patios,
driveway and walkways
reduce the urban heat
island effect and flood risks.

Permeable pavers on
patios, walkways and
parking lots



Art and Technology Integration

Artistic Communal Spaces

Tech-Enabled Living

Sustainable Living Blueprint





Artistic Communal Spaces

Rtech|VE seamlessly integrates art into daily life, creating a space that fosters collaboration, creativity, and the entrepreneurial spirit. With its co-living environments, featuring large communal kitchens, multifunctional meeting rooms, dedicated coworking spaces, and communal gardens for cultivating local produce, Rtech|VE stands as a testament to the synergy of community and innovation.

This initiative redefines urban living, blending art, community, and innovation to forge an environment teeming with vibrancy and inspiration. Diverging from conventional residential models, Rtech|VE embeds artistry into everyday living, energizing its inhabitants towards creative collaboration and entrepreneurial endeavors. This fusion transforms living, working, and creative spaces into a unified, holistic experience of community life.

Central to Rtech|VE's philosophy is the conviction that art transcends the confines of galleries and private collections, becoming an active element in everyday surroundings. Every corner of Rtech|VE, from the walls and communal zones to the outdoor areas, is envisioned as a canvas for artistic expression. This deliberate blurring of art into living spaces not only enhances aesthetic appeal but also ignites inspiration and fosters a shared sense of ownership and community pride among its dwellers.





Tech-Enabled Living

RteCH|VE focuses on integrating cutting-edge technology into residential environments to enhance community connectivity, personal health, and overall well-being, while also promoting efficiency in energy management.

Community Connectivity

A central aspect of this innovative concept is enhancing community engagement and collaboration using digital platforms. Strategically placed within the exterior walls of buildings, digital community boards along with interactive art and business pitch boards act as dynamic platforms. Here, residents have the opportunity to post updates, organize community gatherings, allocate resources, and foster collaborations. This integration of digital elements cultivates a lively and closely-knit community environment.

Personal Health and Well-being

The personal well-being of residents is given priority with the introduction of smart technology in private spaces. Smart Interior Mirrors installed in bathrooms and wardrobes, including walk-in closets, offer personalized health and fashion advice. A Smart Fitness Mirror in a dedicated well-being corner provides real-time feedback on workouts, encouraging a healthy lifestyle. Adjacent to this, an outdoor Zen Gardens offers a tranquil space for meditation and relaxation, emphasizing mental health.



Tech-Enabled Living

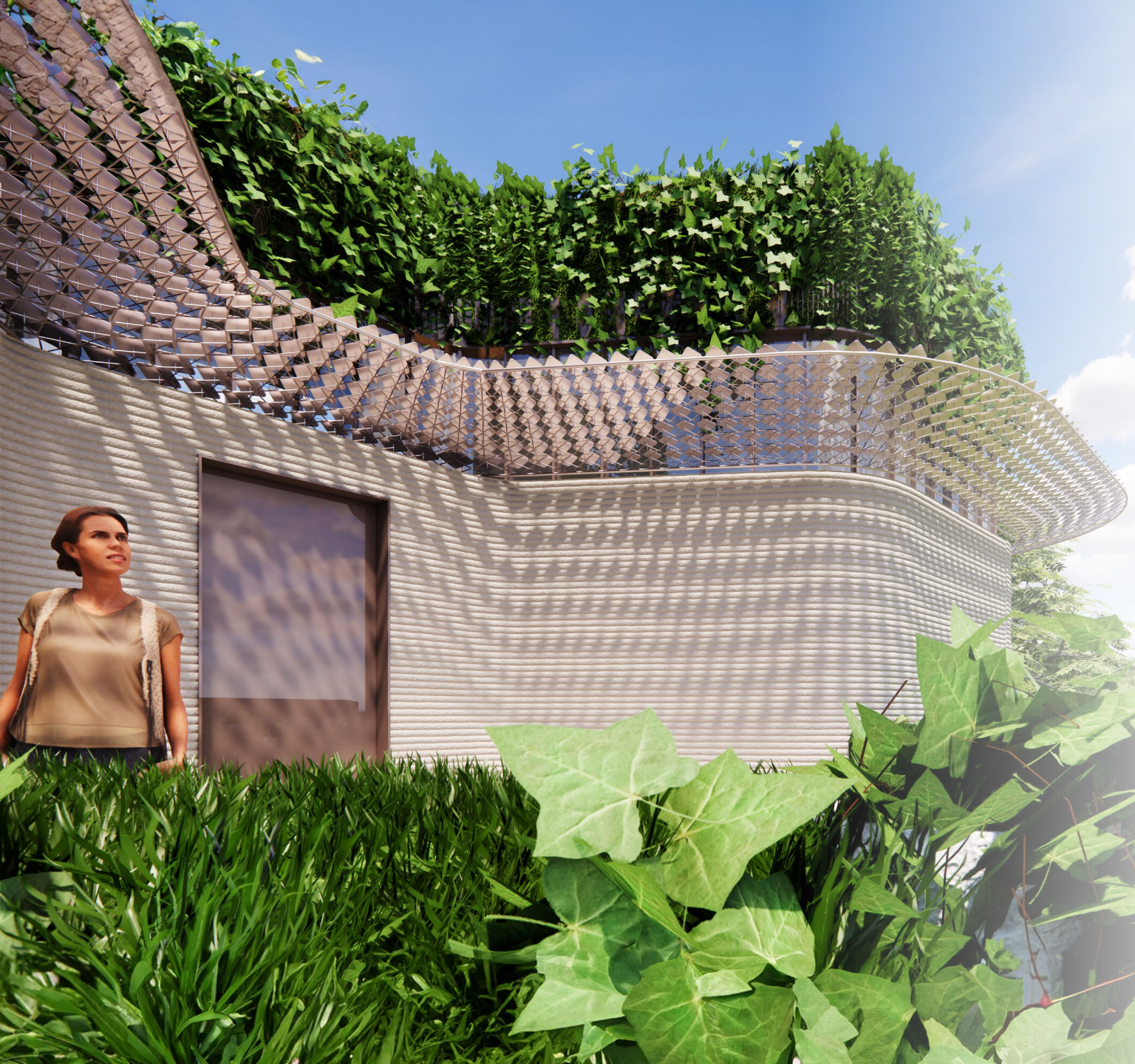
Smart Kitchen and Home Automation

The kitchen becomes a hub of smart technology with appliances like a Refrigerator with a Digital Display for efficient grocery management and meal planning. A central Voice Assistant Device enables control over various aspects of the home environment, such as music, lighting, and temperature, through simple voice commands, thus enhancing the convenience and comfort of daily living.

Smart Lighting and Energy Management

Energy efficiency is addressed through the use of LED Lights that adjust automatically based on the time of day and occupancy, paired with an Energy Management Dashboard. This dashboard, mounted on a sleek tablet, displays real-time data on energy consumption and solar panel output, promoting environmentally friendly and cost-effective home management.

Together, these features represent a holistic approach to modern living, where technology is seamlessly integrated into every aspect of home and community life to enhance convenience, connectivity, and sustainability.



Sustainable Living Blueprint

RtecH|VE in Georgetown, Texas epitomizes an innovative blend of art, technology, and eco-consciousness on a 1.5-acre canvas, cultivating a thriving hub for artists, innovators, and entrepreneurs. It's a scalable housing paradigm tailored to the unique ethos of progressive locales such as Boulder, Asheville, and Madison, embodying creativity and collaborative spirit.

The project stands as a trailblazer for future housing, merging technology, artistic expression, and green living to forge habitats that not only prioritize environmental and communal well-being but also cultural vitality. It invites developers to reimagine community construction that transcends functionality, aiming for spaces that inspire and sustain for generations.

In essence, the project illustrates that a deliberate fusion of tech, art, and eco-centric values can sculpt living spaces that are both efficient and life-enriching, serving as a beacon for future development that harmoniously benefits both the planet and its inhabitants.

Section 3

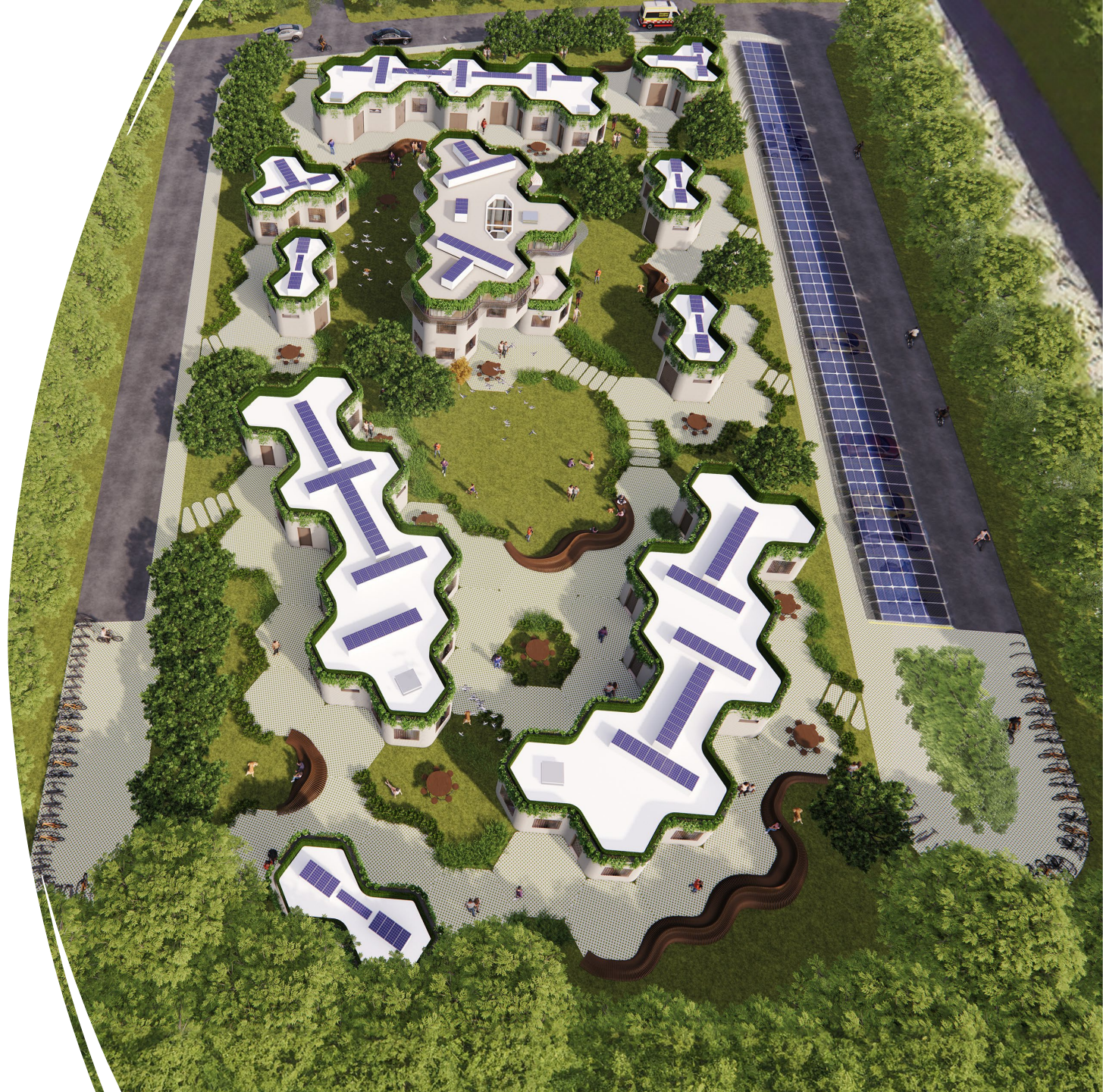
Business Strategy and Future Outlook

Market Positioning

Growth and Expansion

Competitors

Our Expertise



Market Positioning

Affordable Pricing

The competitive pricing of the living units, ranging from \$99,000 to \$1,188,000, positions Rtech|VE as an accessible option for a broad demographic, from individuals to larger communal living arrangements.

Innovative Offerings

The unique combination of sustainability, technology, community focus, efficiency and versatility differentiates the project in the market and can appeal forward-thinking consumers and investors.

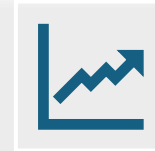
Strategic Partnerships

Collaborations with tech companies, environmental organizations, and local businesses can enhance the project's offerings and drive its success.



2022

\$31.93 BN



2030

\$ 47.54 BN

Global Residential Real Estate Market

Source: <https://www.statista.com/outlook/fmo/real-estate/residential-real-estate/worldwide#value>



2023

\$93.98 BN



2030

\$ 338.28 BN

Global Smart Home Market

Source: Smart Home Market Size, Share & Trends | Statistics [2030] (fortunebusinessinsights.com)



2023

\$22.5 BN



2030

\$ 134.9 BN

Global Green Technology & Sustainability Market

Source: https://www.marketsandmarkets.com/Market-Reports/green-technology-and-sustainability-market-224421448.html?gad_source=1&gclid=Cj0KCQjw8J6wBhDXARIsAPo7QA_98FcTXl1VRajfjOE9cvs0nPyPtsei92_4PWB3-09b9qhKmPfnxUaATJ0EALw_wcB

Growth and Expansion

Scalable Model

Rtech|VE's development model is designed to be scalable, allowing for replication in other urban areas experiencing similar growth and demand for innovative housing solutions around the world.

Long-Term Vision

The project's long-term strategy includes continuous innovation in sustainable living practices, positioning it as a leader in the future of urban development.

Community Impact

By setting a precedent for integrated and sustainable urban planning, Rtech|VE aims to contribute positively to the social, economic, and environmental fabric of Georgetown and beyond.



Competitors



ICON's Design Options



onE.Globe's review

Emphasis solely on form, excluding rooftop utility, with potential for water buildup on roofs and inefficiently utilized spaces.



Source: <https://codex.iconbuild.com/all>

RtechHIVE

by onE.Globe

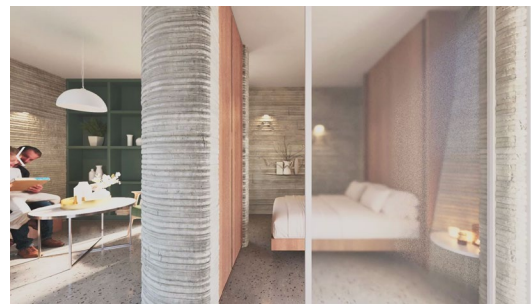


Beta Realities' Design



onE.Globe's review

Constricted and uninspiring interiors lacking windows, where components are inefficiently aligned along hallways, wasting space. Aside from rooftop solar panels, there's a lack of focus on sustainability.



Source: <https://www.linkedin.com/company/betarealities/>

Casa Fami by IAAC



onE.Globe's review

Focus solely on exterior walls, featuring unimaginative interiors and an inefficient layout. Tailored exclusively for a single climate, lacking scalability and versatility.



Source: <https://iaac.net/iaac-students-reimagine-3d-printed-housing-and-win-icon-architecture-competition/>

Our Expertise

I'm a registered architect in New York State and the founder of EK Architecture, PLLC (onE.Globe), where we're dedicated to designing buildings that are not only healthy and regenerative but also push the boundaries of architectural creativity and innovation.

My academic journey in architecture and interior architecture laid the foundation for my expertise in sustainable urban development, smart cities, and designs prioritizing well-being. I'm deeply committed to innovation, leveraging computational design, artificial intelligence (AI), and Building Information Modeling (BIM) to ensure we offer holistic services from design through construction.

At onE.Globe, we're always looking forward, embracing novel ideas and crafting timeless yet futuristic designs, thanks to the latest technological advancements. Our work is a fusion of artistic expression and practical efficiency aimed at enhancing user experiences by fostering positive moods and boosting productivity.

With a wealth of experience across various sectors—from aviation and corporate offices to luxury retail, hospitality, mixed-use residential, and commercial projects—we offer inspiring and visionary designs for an array of building types at all scales. Join us on this journey to reimagine the spaces where we live, work, and play.



Esra Karagoz, AIA, LEED AP BD+C, CPHD, WELL AP, FITWEL AMB., CM-BIM | Owner

onE.Globe

Thank You

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