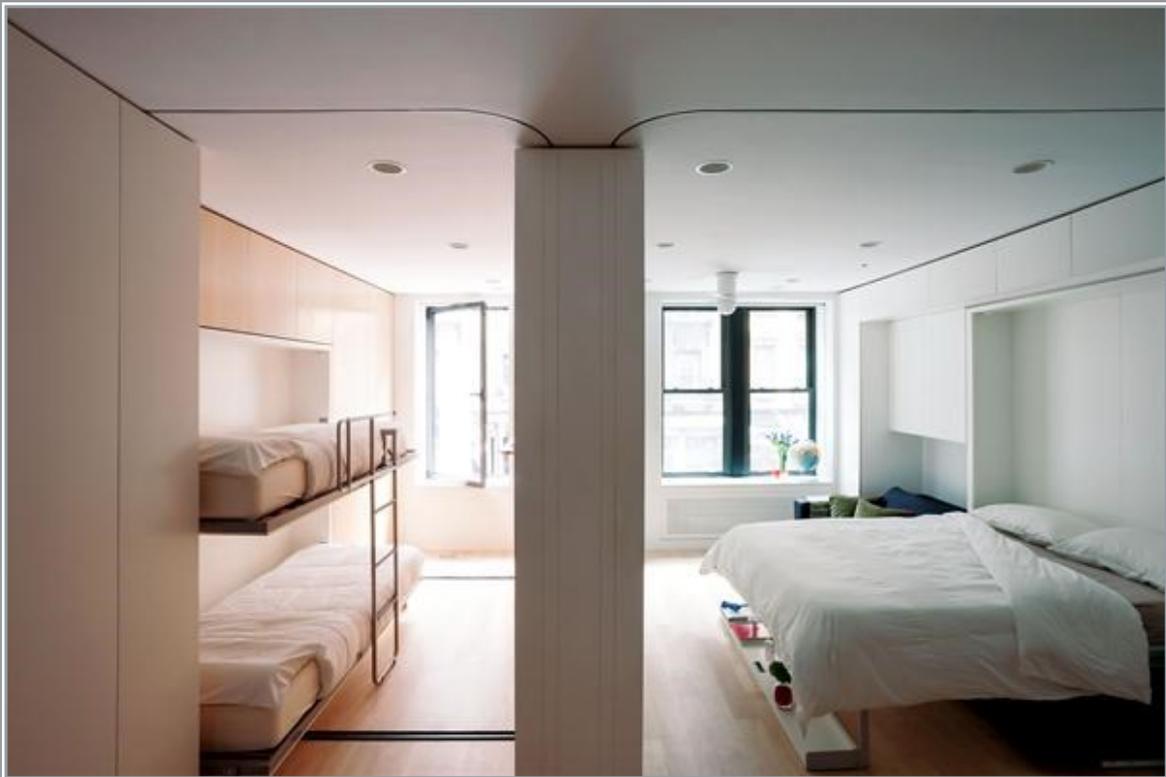


# REIMAGINING HOUSING IN HAWAI'I



**Hawai'i Appleseed Center  
for Law and Economic Justice  
Policy Report:**

**November 2013**

*Innovative and Affordable Models  
to Meet Our Housing Needs*



# Hawai'i Appleseed Center for Law and Economic Justice

P.O. Box 37952  
Honolulu, Hawai'i  
96837-0952  
(808) 587-7605  
[www.hiappleseed.org](http://www.hiappleseed.org)

**Cover:** A "micro-unit" with convertible beds that optimize space by folding into the wall during the day, transforming into shelving and table surfaces.

Introduction .....	3
SROs / Microunits .....	4
Accessory Dwelling Units and Ohana Housing .....	8
Adaptive Reuse .....	12
Small, Ultra Affordable Houses .....	13
Modular Housing .....	15
Keys to Developing Innovative Affordable Housing .....	19
Conclusion .....	20

## INTRODUCTION

**T**HE population of people in need of affordable housing in Hawai'i is diverse, united only by a lack of income that makes finding permanent, stable homes exceedingly difficult. Low-income households include singles, couples, kupuna, and families with children. Different types of households have different housing needs. A family with young children may thrive in a multi-bedroom unit outside of the urban core, but a single person transitioning out of chronic homelessness may be most successful living closer to supportive services. There is no single housing solution, but it is clear that our current housing needs are far from being met.

Fortunately, there are a wide variety of housing models that can be used to increase supply of affordable housing. This report builds on Hawai'i Appleaseed's previous publication, "Addressing Homelessness: New Approaches to Affordable Housing in Hawai'i." We seek to present new ideas to develop units more efficiently and at a lower cost while still providing dignified housing that meets the needs of various segments of Hawai'i's population.

Key options include very small rental units; small, ultra-affordable single-family homes; adaptive reuse of existing buildings; and accessory dwelling units. The primary focus of this report is on rental housing, but these models can be adapted for ownership as well.



Bronx Park East is a single room occupancy building in New York City. The 69 units are 285 sq. ft. each and come with private baths and kitchenettes. The building also contains offices for service providers, a gym, laundry facilities, a large community room, a terrace, and garden. The structure is irregularly shaped to fit on its trapezoidal lot.

## SROs / MICRO-UNITS



An SRO “aPodment” building in Seattle, WA geared toward young professionals. Units are 170 sq. ft. on average.

**S**INGLE ROOM OCCUPANCIES (SROs) are a form of housing targeted toward singles or couples and others who do not need large domestic spaces. Usually one room, traditional SROs are located in dormitory-style buildings where occupants share kitchens and bathrooms. More modern SROs known as “micro-units” are built as small efficiency apartments that include kitchenettes, half-baths, or full bathrooms in-unit. In cities across the world, SROs are being used to serve a wide variety of demographics, from those who require permanent supportive housing, to young urban professionals willing to pay market rents to live downtown. Yet SROs are not widely used in Hawai‘i despite the great need for single-occupant housing: almost one out of four households is composed of one occupant,<sup>1</sup> a rate more than double what it was in 1950.<sup>2</sup> In light of this, SROs represent significant untapped potential for development of much needed affordable housing in Hawai‘i.

Dating back to the turn of the last century, SROs provided housing for low and middle-income workers in urban areas across the country. But over time, many SROs fell into disrepair, while others began to disappear as the value of land in the urban core increased and neighborhoods gentrified. There was a nationwide movement to demolish SROs, and Honolulu was one of the many areas that largely

### Populations Suited for SROs

- The general population as workforce housing for moderate and low-income earners
- Young people in early stages of their career, especially those who value desirable locations and convenience
- Youth aging out of foster care
- People experiencing homelessness
- Older adults able to live independently
- Populations who traditionally face challenges to accessing housing, such as ex-offenders and people with mental health problems or disabilities

## SROs / MICRO-UNITS



This aPodment unit includes a private bath with shower. Full kitchen facilities are shared.

eliminated them from their housing stock.

However, some cities, such as Los Angeles and San Francisco, sought to preserve SROs as an affordable housing option through concerted policy efforts. Now SROs are enjoying a world-wide revival. Dense cities like Tokyo have pioneered the model of livable efficiency units. In the U.S., SROs have recently gained widespread acceptance as an affordable housing option for working professionals, allowing them to live close to their workplaces in expensive cities such as New York, Boston, and San Francisco.

Private developers are building SROs to meet demand for lower-cost housing. While these units are generally offered at market rates, they demonstrate how cities with tight housing markets are taking a creative approach that addresses the growing number of people living alone.

Although SROs fell out of favor because they came to be associated with disrepair and disreputable tenants, more recent experiences in other cities have shown that SROs can be an excellent option for those otherwise priced out of the housing market. They are an effective way to conveniently house people in more populous areas: they are generally readily located closer to jobs and public transportation; small efficiency units can reduce costs due to greater density; they require less land and a smaller structure relative to the number of units; and floor plans are easily replicable.

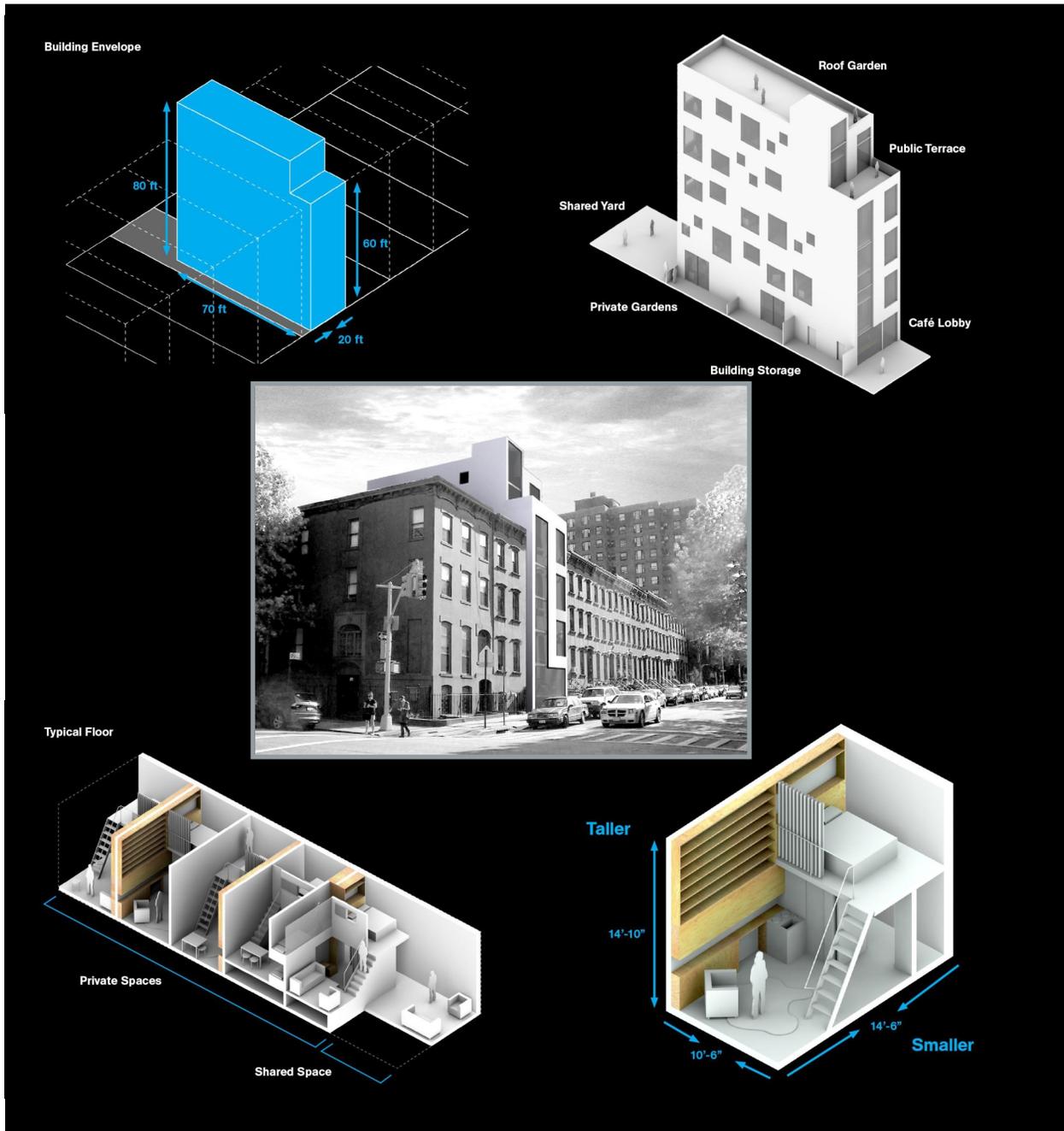
Compact building designs can decrease the need for expensive building components such as the foundation, roof, exterior walls, and elevators. The small and standardized sizes of micro-units means buildings can be smaller and used for infill development and in mixed-use neighborhoods. SROs also work in adaptive reuse contexts—housing created by converting already-existing buildings such as schools, former hotels and dormitories, warehouses, and even abandoned homes.

Micro-units, the modern versions of SROs, are generally single room units ranging in size from 150 to 350 square feet. To maximize the use of space, micro-units may contain lofts or other architectural features such as built-in shelving and storage or convertible furniture that maximizes the use of small spaces.



To make the most of limited space, some micro-units use convertible furniture, such as the above design with a Murphy bed that transforms into a dining table.

# SROs / MICRO-UNITS



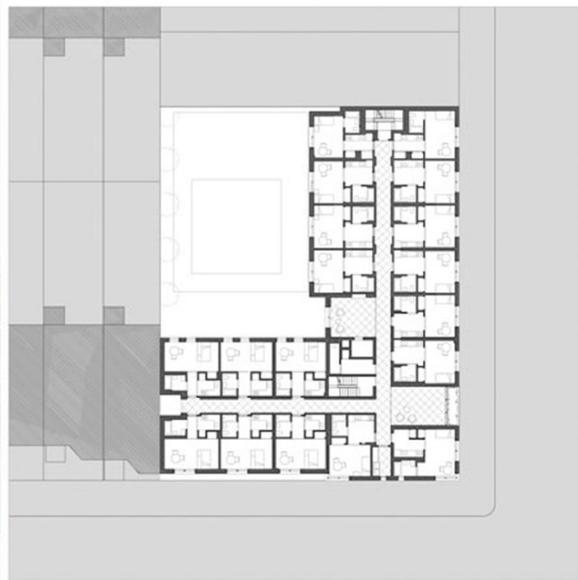
The above design proposal was created for a micro-unit design competition—Adapt NYC—held by the city government of New York. The building fits on a 25' x 100' lot and consists of 20 units of 232 sq. feet. Fifteen ft. ceilings allow full use of the loft area. Common areas are located on each floor.

## SROs / MICRO-UNITS

A wide variety of populations could be served by a micro-unit apartment complex. Lower market rents would attract young professionals and older adults, while the reduced cost per unit would help manage expense for units designated as affordable for low-income people. These factors make them well-suited for mixed income housing.

SROs have also been successful as permanent supportive housing for chronically homeless individuals and Housing First programs. In some nonprofit-run developments, formerly homeless residents assist with the maintenance and operation of the housing, and receive rent waivers or small stipends, thereby creating jobs for the residents.

**HOUSING FIRST** is an evidence-based approach that directly places individuals experiencing homelessness into long-term housing with support services. In cities around the country this model has been successful at reducing chronic homelessness and its associated costs. The state's Office of Homeless Programs recently completed a successful Housing First pilot program that served 71 individuals. The program demonstrated that aggressive outreach focused on housing can engage some of the most vulnerable, hard-to-reach individuals. The City and County of Honolulu will be implementing this strategy as a major component of its plan to end homelessness.



Marcy Residence in Brooklyn, New York is a 50 unit SRO building for people with mental illness. Small individual units are located on the upper levels, with large common areas on the ground floor.

## ACCESSORY DWELLING UNITS AND OHANA HOUSING

**A**CCESSORY DWELLING UNITS (ADUs) are separate living areas with their own kitchen, bathroom, and sleeping facilities, built on a single-family lot. They may be inside, attached to, or detached from the main house. ADUs are an example of a public-private solution to housing stock shortfalls. The property owner responds to market demand and bears the cost of constructing and managing an ADU.

Hawai'i is already familiar with the concept of accessory dwelling units through ohana housing. Similar to an ADU, ohana housing is an additional housing unit built on a lot that usually allows for one residential dwelling, but its use is restricted to relatives of the family living in the main house. In practice, homeowners frequently disregard ohana unit restrictions and rent to people other than family. Some property owners receive permits for "recreation rooms," which are then rented out. Although they violate ordinances, these rentals meet community needs by helping homeowners pay their mortgage and creating more affordable units. Hawai'i should expand upon the concept of an ohana unit and allow general development of accessory dwelling units that can be rented to any tenant.



Newly constructed main dwelling and ohana unit in Kihei, Maui.

### The Impact of ADUs

ADUs offer many benefits to homeowners and communities, although they also present challenges such as increased traffic and parking demands, as well as strain on infrastructure, particularly sewage. These are real issues that already exist because of the ADU black market, but they can be ameliorated by careful planning and rethinking regulation of ADUs—a worthwhile effort in light of the benefits.

#### Benefits to Property Owners

Rental income helps homeowners to stay in their residences and pay of mortgages, providing some relief from the high cost of living in Hawai'i. This additional income can also help prospective homeowners buy their first home, or older adults to age in place. Alternative arrangements could include a bartering system, in which homeowners trade housing for services such as care-taking and chores.

#### Benefits to the Community

Because they are small and located away from the street, well-designed ADUs blend in with the surrounding community and preserve the neighborhood's character. ADUs can be attached to

# ACCESSORY DWELLING UNITS AND OHANA HOUSING

the main dwelling's utilities, where infrastructure is already in place, reducing government costs as well as the demand for the development of infrastructure in outlying areas. ADUs also increase the value of the property on which they are located, enhancing the property tax base. Additional rental units result in increased revenue from additional general excise taxes collected on rental income, monthly sewer base charges, and permitting fees.<sup>3</sup>

## Benefits to the Environment

ADUs are smaller than standard homes, and reducing the size of a home significantly reduces environmental impact. For example, a small home of 1150 square feet produces 36 percent less in greenhouse gas emissions over its lifecycle compared to a standard-sized house of 2260 square feet.<sup>4</sup> Accessory dwelling units also encourage neighborhood infill, preventing sprawl and promoting sustainable land use patterns.

## Accessory Dwelling Units Around the Country

Municipalities permitting and encouraging ADUs may look different from those in Hawai'i, but they generally share important similarities:

- a shortfall of affordable housing
- a desire to make efficient use of already-existing housing stock
- growth limitations that encourage infill to reduce the need for land acquisition
- high housing costs that displace low-income people

The examples below illustrate how ADUs have been used elsewhere to meet these needs.<sup>5</sup>

### Lexington, Massachusetts

A historic town near Boston, Lexington has exhausted its supply of land for any new housing development. Like Hawai'i, the median home price is high (over \$600,000), and 18 percent of its residents are eligible for affordable housing. Lexington chose to emphasize ADUs to encourage neighborhood diversity and meet affordable housing needs while maintaining its historic character.

In 2005, the town made their existing ADU program more flexible and engaged in an outreach campaign to increase creation of ADUs. The bylaw changes reduced or eliminated minimum lot sizes, allowed up to two ADUs per lot, allowed ADUs on properties with homes built more than five years prior, and provided that ADUs can be built with new construction homes with a special permit. Further, the new ordinances require only one off-street parking space per ADU.

### Santa Cruz, California

Only 7 percent of Santa Cruz residents can easily afford to buy a median-price home, making ADU income an important strategy in their affordable housing plan.<sup>6</sup> Santa Cruz took a proactive approach and actively supports the development of ADUs. To encourage rentals to low-income families, some development fees are waived for units rented to low or very low-income households. The town has created a program to facilitate the development of ADUs, providing technical assistance including pre-approved designs and floor plans that expedite the permitting process. An average of 40 to 50 ADUs have been constructed annually since the creation of this program.

## ACCESSORY DWELLING UNITS AND OHANA HOUSING

### Portland, Oregon

Portland has strict urban growth boundaries and heavily emphasizes the efficient use of land and transit-oriented housing. ADUs are now allowed in all residential zones with no minimum square footage requirements. After the city began creating incentives, such as waiving the Systems Development Charges (which had typically cost about \$10,000 per ADU), ADU development increased nearly five-fold in just two years. No additional parking is required for ADUs, which makes them easier to build and encourages the use of public transit.



Accessory dwelling unit in Portland, Oregon.

### Other ADU Initiatives

Barnstable, Massachusetts offers tax relief to property owners to offset the negative impact of deed restrictions in order to preserve the affordability of units. In addition to more traditional ADUs, Fauquier County, Virginia, permits “tenant houses” in zoned agricultural areas. At least one resident of the tenant house must work on the property for the property to qualify under the program.

## Ohana Housing: Overregulated and Underutilized

Ohana housing enables families to stay together—kupuna can “age in place” near their families and adult children can afford to stay in Hawai‘i. However, ohana housing is currently underutilized, with just 2,000 units established through the permitting process, even though more than 17,000 units on Oahu are eligible. Almost all of the ohana units in existence were permitted between 1982–1990, before restrictions limited occupancy to family members.

When ohana dwellings were first allowed in 1982, they comprised almost 25 percent of all single-family construction. In 2011, they accounted for a mere 2 percent of building permits. Maui has already loosened its restrictions on ADUs and seen far more ADUs developed than ohana dwellings on Oahu.

To create more affordable housing, Honolulu should remove restrictive covenants for ADUs that permit only ohana dwellings rented to tenants related by blood, marriage, and adoption. The requirement that accessory dwelling/ohana units be detached from the main house should be lifted. The firewall separation currently required for attached units is an unnecessarily difficult and expensive retrofit, especially for older single-wall homes. The county should also remove the two parking space requirement for ADUs depending on the demographics of renters.

By disallowing a flexible ADU program, homeowners may circumvent the permitting process and build illegal units, potentially creating substandard housing and causing the government to miss out on tax revenue and fees. It is unknown how many unauthorized ADUs exist throughout Hawai‘i, but given the high demand for affordable housing and the number of “recreational rooms” that have been permitted, it appears likely that many illegal ADUs have been constructed.<sup>7</sup> A property owner who is renting out an illegal unit has less of an incentive to remain in compliance with

## ACCESSORY DWELLING UNITS AND OHANA HOUSING

regulations or pay sewer fees and GET on rental income.

Some municipalities have created an “amnesty” program for illegally constructed units to be brought into compliance while preserving already-existing affordable units. For example, Barnstable, Massachusetts on Cape Cod created such a program which required that property owners with unauthorized ADUs rent to low-income tenants for one year to qualify for “amnesty” for compliance. Under the program many units have been brought into compliance, increasing safety and the affordable housing supply.



ADU constructed over garage.

Not only should Honolulu and other counties permit ADUs, but they should take a proactive approach to their creation. Additional incentives could include a GET exemption for income from low-income tenants residing in ADUs. This waiver could also apply to tenants renting individual rooms from homeowners. To encourage production, counties could reduce or waive permitting fees, especially in consideration of an ADU’s smaller size.

Since ADUs are constructed by private homeowners, the availability of financing is important, including the availability of loans for ADUs. Since appraising the value added to a property by an ADU can be challenging, Wellfleet, Massachusetts encourages ADU

construction through interest-free loans, while credit unions in Portland, Oregon have begun offering ADU-specific financing.

Public education about the many benefits of ADUs is critical because their creation relies on individual property owners taking initiative to expand our housing stock. The counties should permit ADUs on a broad scale. Limiting the density of ADUs and ensuring that neighborhoods have adequate infrastructure would address many of the major concerns. Creating an ADU ordinance and allowing existing dwellings to come into code will help ensure safety and increase revenue. Because illegal units are already being built, the counties should capitalize on this and permit ADUs, offer adequate assistance to homeowners interested in developing them, and promote broader awareness of ADU and ohana options.

## ADAPTIVE REUSE

**A**DAPTIVE REUSE is the repurposing of an existing building for a purpose other than its original use, generally taking advantage of under-utilized or abandoned properties. Conversion of these buildings is a sustainable approach to development that can help revitalize neighborhoods, increase public safety, and preserve historic buildings. Using an existing building is almost always more sustainable than the development of a new structure.



This 1890 building was converted into mixed-use commercial office, restaurant, and residential.

An ambitious approach to capitalizing on what already exists in urban areas is to survey and assess unused or underused buildings that can be converted into affordable housing. The Borough of Manhattan conducted a comprehensive survey of all vacant lots and buildings, finding many under-utilized properties. An innovative website—[impossibleliving.com](http://impossibleliving.com)—has taken a community-driven approach by allowing users to suggest abandoned buildings for reuse online.



This former nursing home was converted into 48 units of permanent supportive housing for people who had previously been homeless.

Around the world, former warehouses and industrial buildings have also been frequently converted into lofts. From 1970 to 1999, Los Angeles gained a mere 4,300 units in its housing stock. Following the implementation of the city's Adaptive Reuse Ordinance, Los Angeles added at least 7,300 units in just nine years solely from the conversion of vacant commercial buildings into apartments, condos, and hotels. The Ordinance provides for an expedited approval process and ensures that older and historic building are not subjected to the same zoning and code requirements that apply to new construction.<sup>8</sup>

Given the high cost of construction materials in Hawai'i, such creative reuse is a sustainable and more affordable solution. Adaptive reuse of already-existing buildings is considered the "greenest" building.<sup>9</sup> In Hawai'i, the environmental impact of reuse may be even less than that of mainland structures because no heating is required, so the lack of updated insulation in older buildings is less important.

## SMALL, ULTRA-AFFORDABLE HOUSES



The interior of the 117 sq. ft. "Small House" pictured below right has a standing shower, RV toilet, hot water heater, sink, and stove.

**T**HE "SMALL HOUSE" movement has grown in national popularity as people seek to simplify their lives or economize. Small houses are more affordable and sustainable thanks to their energy-efficiency. Instead of equating small homes with poverty, the small house movement emphasizes design and efficient use of space over size. Some are built to be portable, and many small house designs can be used as accessory dwelling units. The concept is actually not new to Hawai'i—some plantation housing is similar to these models.

Constructing small houses is ideal for both sweat equity, as in the Habitat for Humanity or Self-Help Housing models. A multitude of floor plans for small or tiny houses are available through specialized architecture companies. There are other good resources as well. For example, each year undergraduate students and architecture faculty at the Rural Studio of Auburn University design and build one "20K House" annually for families living in deep poverty.<sup>10</sup> Approximately \$13,000 is spent on construction costs, with an additional \$7,000 for labor. Creating a similar model with architecture students and faculty in Hawai'i could drive innovation and foster civic engagement among the community to address affordable housing needs.



Some small houses are built on wheels so that they can easily be relocated.

## SMALL, ULTRA-AFFORDABLE HOUSES

Beyond general affordable housing purposes, small houses could be used for development on Hawaiian Homelands. Twenty-eight percent of those experiencing homelessness are Native Hawaiian or part Native Hawaiian. While the waiting list for DHHL homesteads is staggeringly long, we also must address the homelessness crisis. Ultra-affordable small houses, possibly for rent, are one way of ensuring people have decent places to live while on the waiting list.



While the home above seems truly tiny, small houses are not all that dissimilar from the one-room plantation cottages familiar to Hawai'i, like the traditional and modernized homes pictured below.



# MODULAR HOUSING



Scenes from a 1000 unit “container city” built in Amsterdam to house university students. Each 320 sq. ft. unit includes a living and sleeping area, bathroom, and kitchen. The units were designed to be moved after five years.

**M**ODULAR HOUSING consists of prefabricated sections of buildings (“modules”) that can be easily assembled on the building site. Using modular construction to create housing for single or multi-family units can offer significant cost savings on labor and construction materials.

Once a house is selected, it can take just six to eight weeks to be ready for a family to move in. Because the structure is constructed off-site, modular construction means that buildings and site work can be completed at the same time, dramatically reducing the length of construction time. This speed of construction both reduces overall labor costs and makes development more advantageous since developers can sell or rent more quickly. Separate assembly also means that construction is largely independent of the weather. Waste is reduced because the modules are replicated and therefore material and labor needs are predictable, reducing the environmental impact. Modular housing can also be used for temporary, relocatable buildings.

Modular housing is best-suited for projects with highly replicable spaces and would be an ideal fit for simplified microunit buildings. New York’s first modular high-rise, the winning design from the adaptNYC microunit competition, is currently under construction

# MODULAR HOUSING

and utilizes locally pre-fabricated modules.<sup>11</sup> The developer expects that the accelerated construction schedule will result in savings for both construction and financing costs, enabling the creation of affordable units without public subsidies.

A Portland, Oregon multifamily affordable housing pilot (pictured below) was built in a local factory and then quickly assembled on-site, resulting in about 30 percent less time from design to move-in. The building is a mixed-income complex with elders, families, and youth aging out of foster care.<sup>12</sup>

Container housing, which has grown rapidly in popularity, can function as a building block for modular housing. Standard shipping containers provide the basic module and are designed as standard units. Containers can also be stand-alone single-family units or stacked and configured as multifamily complexes.

Given the cost of shipping to Hawai'i, modular construction may or may not be more affordable than traditional construction, but the creative adoption of modular housing could save time and labor. The possibility of purchasing partially pre-fabricated and flat-shipped modular housing may be financially efficient. Hawai'i could even explore the possibility of small factories on the island, helping create local jobs. Buildings could be constructed in city centers such as Honolulu and then sold and shipped to more rural areas.



Modular housing can be assembled in the factory while the site preparation work is being completed. Once the modular units are delivered to the site, the buildings go up quickly.

# MODULAR HOUSING

## reTHINK 4x8

a design proposal for modular low-income housing



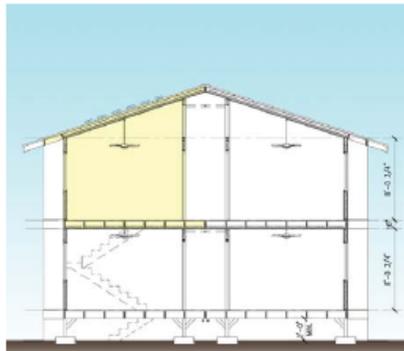
A single module may be used independently or combined as shown below.

**THE MODULE DESIGN** began with a 4x8 plywood sheet. The ubiquitous and inexpensive building material forms the base of our design figuratively and literally—three and a half sheets joined side-by-side establish the basic 8x14 modular floor plan. In this same spirit, we designed the walls, ceiling and roof by harnessing off-the-shelf building materials to minimize cuts, waste, manpower and cost. With the module as the basic building block, plus a bit of imagination, a customized community can be easily assembled.

**A SINGLE MODULE** can be manufactured off-site and used independently or combined with other modules. Modules may be strung together or combined face-to-face to create a double-loaded corridor. Modules may also be stacked up to three stories as allowed by the building code. Module construction, simple and straightforward, can be completed by students, volunteers or prospective residents with a minimum of training. The deceptively simple design of a single module proves flexible, adaptable, expandable and affordable.

**MODIFIED MODULES** allow for amenities and a variety of functional spaces. The basic module can be reconfigured into kitchens, living rooms and then linked to create larger spaces for community activities or a family. Expanding the modular floor plan to four adjoining 4x8 sheets makes it possible to turn a module into a stairway or a shared bathroom. A mix of basic and modified modules transforms into a simple yet inviting community living environment complete with the comforts and amenities of any home.

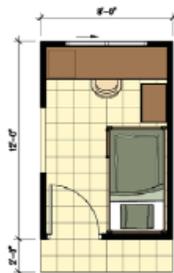
**BY RETHINKING** the humble 4x8 we created a realistic design approach that tackles the issue of homelessness and also meets local building codes and standards. The module is simple, efficient and functional and can be easily assembled by non-professionals from standard building materials found at any hardware store. And with a potential 110 units/acre density (270 persons/acre using bunk-beds), our concept also intelligently addresses the high cost of land in Hawaii. The module will shelter those less fortunate and also inspire everyone to reTHINK and reapPLY the most basic notions of how we build and how we live.



Modules combined and stacked with a base bedroom module highlighted. The Building Code allows for modules to be stacked up to three stories. The stairs from an adjoining unit are dashed in.

### ESTIMATED MODULE MATERIAL COST

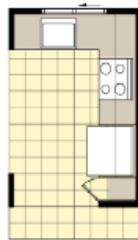
Material	Cost	Material	Cost
Merlex Board w/ Stucco Finish	\$140	Vinyl Window	\$110
Hardboard	\$70	Hollow-core Door w/ Transom Vext	\$110
Cyboard	\$125	FastLight & Switch	\$125
-Nail, Tape, Primer & Paint	\$47	Outlet (including Wiring)	\$100
Plywood	\$142	Sprinkler Head & Piping	\$63
Self-Adhesive Vinyl Tile	\$112	Concrete Footing & Anchor	\$88
Vapor Barrier	\$48		\$7,467
Fatties & Caulk	\$76	Contingency @ 8%	\$7,876
-Caulk	\$10	Taxes @ 4.5%	\$7,800
Fast/Belly Band	\$72		112 if Module
Standing Seam Metal Roof	\$246		\$77.82 per sf
Felt Insulation	\$240	<b>ESTIMATED MATERIAL COST</b>	<b>\$34.00 per sf</b>
Lumber	\$272		
-Screw, Joint Hanger, Tie-down	\$188		



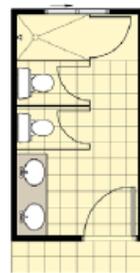
Base bedroom module  
Total Gross Area: 112 sf



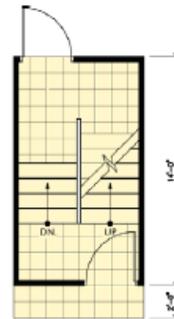
Modified module - Living room



Modified module - Kitchen



Extended module - Bathroom  
Total Gross Area: 128 sf



Extended module - Stair

**KY International, Inc.**  
Architects and Planners

This modular housing design by KY International, Inc. was the overall winner of the May 2013 re\_Think affordable housing design competition held in Honolulu. With this design, modules can be used independently or, as shown on the next page, combined to form a building or entire housing complex.

## MODULAR HOUSING



Perspective view of a low-income community that could be built using the modules on the previous page. According to the architect, KY International, “the variety of building heights and sizes [are] made possible through creative arrangement and simple modification of the base module—the potential is limitless.”

## Cost Efficiency through Design and Experience

Simple, straightforward designs help to reduce costs and offer flexibility for residents to adapt living spaces to their needs. Instead of an emphasis on luxury and expensive finishes, the focus should be on creating a practical, comfortable unit that feels like a home. Location also makes a difference: residents have less of a need and desire for amenities when they live in a desirable and convenient location.

Similarly, a greater degree of standardization and replicability will help keep costs down. Simpler, standardized designs can be adapted to suit different settings and needs of residents. For example, the first floor of a micro-unit building could be used for any of the following: common areas in kupuna housing; offices for service providers in permanent supportive housing; or as commercial spaces in a mixed-use neighborhood. Future iterations of a model will have a knowledge base of cost-saving measures, including efficient and economical construction processes, development methods, and materials. The repetition also allows for continual refinement of the models as they are replicated in different settings.

## Community Engagement

In addition to the usual opposition to development, new housing models must overcome concerns resulting from unfamiliar concepts and designs. Hawai'i's housing stock is composed of traditional single and multifamily units, and community members may need to adjust their expectations regarding housing in order for these models to gain broad acceptance and use.

Our state, counties, and neighborhoods must see affordable housing as an asset, both in terms of its role in solving our housing crisis and as a valuable addition that can enrich communities. Examples from around the world of successful models that are livable, attractive, and well-integrated into their communities will help community members understand that there really are solutions to our housing shortfall. Being ready to respond comprehensively to public concerns will build the community's confidence in the project and lead to smoother execution.

Instead of focusing on preparing for community opposition and its rebuttal, project development should first emphasize proactive engagement of the public throughout the process, including input on design and management, as well as the process of integrating the development into the community.

## CONCLUSION

**H**AWAI‘I’S affordable housing crisis means that we need innovative solutions now to preserve the livability of our islands. There simply is not sufficient affordable housing for the workers essential to our economy, especially housing with ready access to jobs, schools, and conveniences. Traditional affordable housing models alone cannot meet the needs of Hawai‘i’s changing population. New models such as micro-units, modular housing, expanded accessory dwelling units, and adaptive reuse should all be explored to meet Hawai‘i’s housing needs. The affordable housing crisis in Hawai‘i has long-persisted, and it will continue unless we make a significant shift in our thinking about what makes a home.

---

## Endnotes

1. Profile of General Population and Housing Characteristics, 2010.: Hawai'i U.S. Census Bureau. [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC\\_10\\_DP\\_DPDP1](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1).
2. Historical Census of Housing Tables: Living Alone. U.S. Census Bureau. <http://www.census.gov/hhes/www/housing/census/historic/livalone.html>.
3. "The Legacy of Ohana Dwelling Units in Honolulu," Questor Lau. May 29, 2010. <http://allkindsdrafting.blogspot.com/2010/05/legacy-of-ohana-dwelling-units-in.html>.
4. "Small Homes: Environmental Benefits and Trends." Jordan Palmeri, Oregon Dept. of Environmental Quality. <http://www.deq.state.or.us/lq/sw/wasteprevention/presentations.htm>.
5. "Accessory Dwelling Units: Case Study." Office of Policy Development and Research, U.S. Department of Housing and Urban Development. June 2008. <http://www.huduser.org/portal/publications/adu.pdf>.
6. Accessory Dwelling Unit Development Plan, City of Santa Cruz. <http://www.cityofsantacruz.com/index.aspx?page=1150>.
7. "Rec rooms built in 2011," OURchitecture, Questor Lau. June 15, 2012. <http://allkindsdrafting.blogspot.com/2012/06/rec-rooms-built-in-2011.html>.
8. Office of Historic Resources, Los Angeles Department of City Planning. Adaptive Reuse Ordinance, <http://www.preservation.lacity.org/incentives/adaptive-reuse-ordinance>. City of Los Angeles Adaptive Reuse Program, <http://www.scag.ca.gov/Housing/pdfs/summit/housing/Adaptive-Reuse-Book-LA.pdf>.
9. See "The Greenest Building: Quantifying the Environmental Value of Building Reuse," National Trust for Historic Preservation, 2011. [http://www.preservationnation.org/information-center/sustainable-communities/green-lab/lca/The\\_Greenest\\_Building\\_lowres.pdf](http://www.preservationnation.org/information-center/sustainable-communities/green-lab/lca/The_Greenest_Building_lowres.pdf).
10. Rural Studio. <http://www.ruralstudio.org/>.
11. Mayor Bloomberg Announces Winner of adaptNYC Competition to Develop Innovative Micro-unit Apartment Housing Model. Jan. 22, 2013. <http://www1.nyc.gov/office-of-the-mayor/news/032-13/mayor-bloomberg-winner-em-adapt-nyc-em-competition-develop-innovative-micro-unit#/3>.
12. Some assembly required: Kah San Chako Haws affordable housing project uses modular construction. Elliot Njus, The Oregonian. October 11, 2012. [http://www.oregonlive.com/front-porch/index.ssf/2012/10/some\\_assembly\\_required\\_kah\\_san.html](http://www.oregonlive.com/front-porch/index.ssf/2012/10/some_assembly_required_kah_san.html).



P.O. Box 37952  
Honolulu, Hawai'i  
96837-0952  
(808) 587-7605  
[www.hiappleseed.org](http://www.hiappleseed.org)

### **Board of Directors**

David Derauf, M.D.  
Naomi C. Fujimoto, Esq.  
Patrick Gardner, Esq.  
John H. Johnson  
David J. Reber, Esq.

### **Executive Director**

Victor Geminiani, Esq.

**Hawai'i Appleseed Center for Law and Economic Justice** is a nonprofit, 501(c) (3) law firm created to advocate on behalf of low-income individuals and families in Hawai'i on civil legal issues of statewide importance and to complement the assistance provided by other legal services providers in the state.