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Executive Summary

One of the defining public policy issues of our day is the inadequacy of housing for Hawai‘i’s families. The cost of housing is most often cited as the motivation for out-migration of those seeking better economic opportunities in other states and as a primary cause for our high rate of homelessness.

The ALOHA Homes Implementation Study aims to ascertain the feasibility of implementing the proposed ALOHA Homes program and, if feasible, formulate an implementation plan. As part of our research we evaluated key components of the Singapore leasehold housing model to see which could be applied in Hawai‘i. Singapore was chosen as an inspiration for the ALOHA Homes bill because it has successfully provided high quality and affordable housing for its more than 5 million citizens, and virtually eliminated homelessness.

Our research team met with housing experts ranging from developers, to manufacturers, to administrators, to policy problem-solvers in order to assemble best practices and lessons learned applicable to Hawai‘i’s unique circumstances. We asked local consumers, who represent the target group for ALOHA Homes sales, to weigh in on a proposed affordable leasehold model.

A preliminary study was issued in February 2021. It found “some aspects of the [then] current ALOHA Homes bill infeasible or not recommended for Hawai‘i,” while also finding that “many of the provisions proposed in the ALOHA Homes model would have the potential to address housing needs of middle-income earners that are currently priced out of the housing market and have very limited opportunities for homeownership.” However, the study also noted that additional analysis needed to be conducted on one of the core elements of the ALOHA Homes concept: 99-year leases on State lands. This final version includes the results of that analysis.

In brief, the supplemental analysis determined that long-term leases on State lands—for example, leases of 65-years or 99-years—are generally not feasible in combination with other key elements of the ALOHA Homes concept, namely revenue neutrality and large-scale development.

One of the primary issues leading to this conclusion is that when less than 40 years is remaining on a lease, prospective buyers would have difficulty finding financing, and as a result sellers have limited options for buyers and the value of a leasehold home begins to decline markedly. Singapore, upon which the ALOHA Homes concept is based, addresses this issue by buying out leaseholders as their lease-terms near their end—an approach that would be inconsistent with the ALOHA Homes requirement of revenue neutrality. Other jurisdictions in the United States and elsewhere address the issue by allowing renewal of the leases, setting aside the lands for affordable housing leaseholds for 99 years with renewal options. However, because of legal, political, and moral concerns relating to the alienation of State lands which formerly belonged to the Kingdom of Hawai‘i, there are limited State lands where long-term leases with guaranteed renewal would be viable. While there may be some parcels on
which ALOHA Homes could potentially be built, the scale of development contemplated by the ALOHA Homes concept is not feasible.

Considering this finding, while there are elements of the ALOHA Homes concept that can be incorporated into housing policies that could help increase affordable homeownership opportunities, the current ALOHA Homes concept as a whole is not viable.

Summary of Key Findings

Components of the Singapore model, upon which ALOHA Homes is based, that are infeasible in Hawai‘i:

1. **Government structure**
   Singapore has a highly centralized government with extensive land use authority and limited opportunities for citizen input in development decisions.

2. **Cost of construction**
   Singapore is able to build housing and infrastructure at costs that are less than half the costs in Hawai‘i, in large part because the construction workforce is dominated by nonunionized immigrant laborers.

3. **Significant mortgage subsidies for lower-income residents**
   Singapore ensures widespread affordability by reducing the home price for residents with lower incomes. These subsidies aim to keep monthly housing costs at approximately 22% of a resident’s income.

Additional components of the ALOHA Homes concept which are infeasible include:

1. **Constructing a 2 bedroom/2 bathroom home for $300,000**
   Our research indicates a feasible price to be approximately $400,000.

2. **Minimum density of 250 homes per acre**
   Due to our government, social, and political structure, imposing a requirement that does not account for local needs or geographic variation would likely be an empty mandate.

3. **Delivering housing to low- and mid-income earners without State subsidy**
   Even at a low price of $400,000, assuming a subsidy of State lands and district-wide infrastructure, house payments would be affordable to households earning approximately $80,000 a year, or 80% of area median income for Honolulu.$^1$
   Households with lower incomes would need further mortgage subsidies to make home purchases affordable.

4. **99-year leases with renewal options**
   A revenue neutral leasehold program would require long-term leases with renewal options. This is not feasible on State lands, particularly lands which formerly belonged to the Kingdom of Hawai‘i due to legal, political and moral concerns.

Key components of the ALOHA Homes bill which are feasible, but not a best practice for maximizing long-term affordability include:

1. **Five-year affordability period**
   Under the ALOHA Homes concept, the owner can sell at market price after five years, and will share 75% of the equity with the housing agency. The home is no longer affordable to future buyers. Singapore allows a sale at maximum price to qualified buyers.

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$^1$ Assumptions: 3% down payment, 30-year mortgage loan at 3% interest, HOA $350/month, no PMI, homeowner’s insurance $500. HUD Honolulu Household 100% AMI 2020 is $101,600.
after five years, without losing affordability because the government structure enables constant replacement of affordable homes and public land acquisition. This does not apply to Hawai‘i or other places we researched with high citizen engagement in land use decisions.

2. **No income restriction**
   Under the ALOHA Homes concept, a person at any income level can purchase a home. Even in Singapore there are income restrictions for purchasing new and subsidized homes. Every jurisdiction in the U.S. with below-market housing has an income limit. European cities also generally have income limits, with Helsinki having a low-income preference instead of limit.

Other main program areas which need further consideration before implementation include:

1. **Stewardship**
   Successful below-market housing programs require management, generally from a non-profit or other third-party organization. The State would need to find a partner.

2. **Infrastructure funding**
   Significant public investment in infrastructure is needed to enable housing construction in TOD areas at the prices proposed in this study. The public sector must take a much larger role in this area.

Key components of the ALOHA Homes bill which are feasible and which could help to reduce housing costs if implemented include:

1. **State supported financing**
   Financing costs and developer risk could be significantly reduced by using Taxable Mortgage Revenue Bonds. Doing so would not impact the General Obligation bond limit because Taxable Mortgage Revenue Bonds are not secured by the full faith and credit of the State, but are instead secured by a mortgage interest in the leasehold project. This low-cost financing tool could also be done on a project-by-project basis, making it faster and more efficient than other approaches.

2. **Increased density**
   While the proposed minimum density of 250 homes per acre is not feasible for many areas, increased density is feasible where it fits local community needs, including most TOD areas. Increasing density will reduce per home costs by reducing land costs for each home, though the savings greatly diminish after 130 homes per acre.

3. **Restricting ALOHA homes to owner-occupant buyers with no other real property**
   Limiting the amount of wealth generation from publicly subsidized housing is important for the long-term viability of a housing program. Below-market homeownership programs that have allowed people to own other property have been deemed as a waste of public resources and have been discontinued as a result.

4. **Restricting ALOHA homes to Hawai‘i residents**
   A “current resident” requirement would meet legal requirements and reduce the likelihood that a person would establish residency in Hawai‘i just for this program, helping ensure that publicly subsidized housing meets the needs of its residents.

5. **Streamlined entitlement: environmental assessments done by district or waived**
   Affordable housing projects that are in urban infills or areas where environmental assessments (EA) have already been done can apply for an EA waiver which can save over nine months of development time. Additionally, certain large land parcels
owned by the State such as UH West Oahu are good candidates for district-wide Environmental Impact Statements so that an entire area is assessed at one time, instead of each project completing a separate EA.

I Methodology of Study

Project Team

The ALOHA Homes Implementation Study was commissioned by the Hawai‘i Housing Finance & Development Corporation (HHFDC), the primary agency responsible for overseeing affordable housing finance and development in Hawai‘i, and conducted by the Hawai‘i Appleseed Center for Law & Economic Justice. Team members bring together local and regional expertise in housing policy, real estate financing, legal analysis, urban development and State governance. Our team includes:

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Review of Relevant Housing Studies and Programs

The project team reviewed relevant housing studies and programs to document best practices in the design, distribution and management of affordable housing, both locally and abroad. The team’s greatest focus was on public housing and “social housing” programs in Singapore, Vienna and Helsinki. These programs were given the most attention because they are state supported, effective housing delivery systems that provide affordable home-ownership and rental opportunities to low- and middle-income residents. Lessons learned from these publicly supported programs are included throughout the study. In addition to reviewing existing literature and publications, the project team interviewed government officials from the model jurisdictions when possible.

Local Stakeholder Interviews and Focus Groups

To ensure that this study was centered on local knowledge, the project team conducted more than 30 local stakeholder interviews. Stakeholders represented government agencies, academic institutions, nonprofit organizations, community groups, and private developers that are involved in affordable housing in Hawai’i. These sessions were led by a skilled Native Hawaiian moderator with decades of experience in the affordable housing sphere. Collectively, they provided details about the challenges of and opportunities for different affordable housing delivery systems, addressing costs, community engagement, government accountability and equity concerns. The full list of stakeholders who were interviewed is included in Appendix A.

The project team also gathered input from local residents about a potential ALOHA Homes Program through four one-on-one interviews and four focus groups. Each focus group was held via video conference, lasted approximately 1.5 hours and included an average of four participants. In total, there were 18 participants. The names of focus group participants engaged in this study are not provided to protect their privacy. Key input from stakeholder interviews and focus groups is referenced throughout the ALOHA Homes Implementation Study.
II Description of ALOHA Homes Concept

Program History

The proposed ALOHA Homes Program was first championed by State Senator Stanley Chang (District 9), who represents the area stretching from Diamond Head to Hawai‘i Kai. As chairman of the Senate Committee on Housing since 2019, Senator Chang has focused much of his attention on ending Hawai‘i’s housing shortage. He is particularly inspired by the affordable housing model of Singapore, a city-state at the southern tip of Malaysia where it is estimated that over 90% of the city’s 5.5 million people are homeowners.2

In early 2019, Senator Chang introduced Senate Bill 1 (ALOHA Homes Bill).3 While the ALOHA Homes Bill did not ultimately pass, the State approved legislation to study provisions in the bill in Act 167 (Session Laws of Hawai‘i 2019). As part of Act 167, HHFDC is required to “to study and formulate a plan to implement an ALOHA Homes program to provide low-cost, high-density leasehold homes for sale to Hawai‘i residents on state-owned lands within a one-half mile radius of a public transit station.”4 This study is a result of this Act 167 requirement, and our goal is to provide data and analysis to help the State of Hawai‘i implement an affordable leasehold ownership program.

The Original Vision for the ALOHA Homes Program

State Senator Stanley Chang envisioned the ALOHA Homes Program to be based on the following principles, as outlined in the ALOHA Homes Bill:

- Housing should be affordable for Hawai‘i residents with incomes at or below 80% of the area median income (AMI).5 This means a two-bedroom unit could cost no more than approximately $300,000.
- Down payments should be nonrestrictive for potential homeowners at 3% or less so that the down payment for a two-bedroom unit would be approximately $9000 or less.
- 99-year leasehold tenure for sales of residential condominiums on state land.
- Housing should be revenue-neutral for the State and all expenses should be recouped through the sale of the leasehold interest on ALOHA Homes and other revenue sources.
- Housing should be high-density residential to support future transit-oriented development (TOD) on O‘ahu. The ALOHA Homes Bill defined “high-density” as an area that has at least 250 dwelling units per acre. This density is the same as “801 South Street,” two mid-priced condominium towers built in downtown Honolulu between 2015 and 2017. These two towers have a density of roughly 250 homes per acre, with 46 stories reaching 400 feet high.
The relatively affordable price of these two towers was due in part to their density, which allowed more apartments to fit on a parcel of land.

- **Housing should be part of mixed land-use communities**, accommodating both residential and commercial uses to promote walkable and livable neighborhoods.

- **Housing should be sited near community amenities** such as parks, meeting places, childcare centers, schools, educational facilities and libraries.

- **Housing should be owner-occupied** to ensure local residents have the opportunity to build equity and have more control over their housing than they would as renters.

- **Housing should be sited in urban development areas**, to promote smart and sustainable growth in Hawai‘i. The ALOHA Homes Bill defined “urban development sites” as state and county land within county-designated TOD areas or within a half-mile radius of a public transit station in a county that has a population greater than 500,000.

- **There should be no first-time homebuyer or income limits on potential homeowners**, to promote neighborhoods that integrate residents with a variety of incomes and ages.

- **Homeowners would not own any other real property** to prevent people from using the program primarily as a form of real estate investment. Anyone who currently owns property would be required to sell that property within six months of purchasing a below-market home. This clause emphasizes that the primary purpose of the program is to provide affordable housing and that wealth or equity building is secondary.

- **There would be waitlist preferences** to prioritize people who are affected by the new development, such as local area residents. The program would also prioritize residents affiliated with a school or university if housing is built on land owned by the school or university.

- **Restricted resale to eligible buyers** would ensure that the units are affordable long-term. Home sales would be restricted to buyers who meet the eligibility requirements as outlined above, including to local residents who own no other property.

- **Equity sharing** would provide a fair profit, but not a windfall to the owner who resells a unit. The owner has two options:
  1. The owner can sell the home back to the public agency for the original purchase price plus inflation for Honolulu as determined by Consumer Price Index.
  2. If the agency does not exercise the right to purchase the home, the owner may sell the property to another qualified buyer at market price and keep 25% of the profit, while the public agency would retain 75% of the gain.

This equity share provision emphasizes that the program’s purpose is to provide and maintain a supply of affordable housing for local residents. While some profit for the owner is acceptable, it is not the main goal of the program.

**Differences Between the ALOHA Homes Program and the Singapore Model**

Although similar, there are key differences between Singapore’s Housing and Development
Board (HDB) approach and the original vision for the ALOHA Homes Program:

- **Less citizen oversight and community involvement.** Generally speaking, the Singaporean government designed HDB with minimal citizen oversight or community involvement. Although the ALOHA Homes Bill does not currently outline any community involvement process, HHFDC must comply with numerous state rules and regulations designed to promote transparency and protect the public interest. Some examples of this include HRS §91 rulemaking procedures, which require agencies to provide the public access to information on and opportunities to inspect and provide input on agency laws and procedures.⁶

Hawaii’s Sunshine Laws also require meetings of the HHFDC board to be conducted as “openly as possible.” In contrast, Singapore is one of a minority of countries that does not have “Freedom of Information” laws, for citizens to request government data,⁷ and in general the level of transparency and public involvement in land use planning in Singapore is much lower than in Hawaii.

- **Income-based subsidies for first-time buyers.** HDB provides income-based subsidies amounting to 20–25% of a person’s income in order to ensure that mortgages are affordable. For example, a person earning $2000 per month would receive a subsidy to reduce their mortgage payment to $450 a month, but a person earning $4000 a month would pay a $900 monthly mortgage for the same home. Homeownership is made affordable for everyone because initial home prices are based partly on income, not just on the cost of building the home. The ALOHA Homes Bill does not include mortgage subsidies based on income. Instead, it emphasizes the program is revenue-neutral for the State, and the price of the homes is based on the cost of building the units.

- **Strict eligibility requirements for purchasers of new homes.** Purchasing new affordable housing with 99-year leases in Singapore is heavily regulated by residency, ethnicity, age and income requirements. Singapore eligibility restrictions include:
  - **Minimum age.** A married couple must be at least 21 years old while the minimum age for a single person is 35 years old.
  - **Income restrictions.** Income limits apply to people purchasing a new HDB home. Although top income earners are excluded from the new construction program, there are no income restrictions on the secondary resale market.
  - **Strict ethnic quotas.** Singapore supports racial integration through its “Ethnic Integration Policy,” which sets quotas for HDB blocks and neighborhoods for the city’s major ethnic groups: Malay, Chinese and Indian/Others. Racial quotas are updated periodically to ensure they continue to reflect Singapore’s demographics. For example, in 1989 the permissible proportion of HDB apartments for Malays was up to 22% in any given neighborhood and 25% within

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⁶ Hawai‘i Revised Statutes (HRS) §91-2, Title 8, Public Proceedings and Records, Chapter 91 Administrative Procedure. files.hawaii.gov/dcca/oah/hrs/hrs_oah_91.pdf.

⁷ Freedominfo.org: A total 119 countries have Freedom of Information laws, but not Singapore.
an HDB block. These ethnic quotas also apply to the secondary resale market.

None of the above restrictions apply to ALOHA Homes

- The Singapore model is entirely state financed. The Singapore housing model is entirely financed by the State. No outside funders or investors are involved in building housing. The ALOHA Homes model does not explicitly identify its financing strategy, but says the program must be “revenue-neutral.” In Singapore, the housing program is not revenue-neutral, but instead receives considerable subsidies from the government to ensure that almost every working Singapore resident can afford their first home purchase. A 2019 presentation by HDB for the World Bank highlights that affordability is made possible through “generous subsidies and concessionary loans.” These subsidies include not only a reduction in the price of the home, but also government issued mortgages with 2.6% interest, and down payment support through a government savings account.

In Singapore, subsidies are provided because housing is considered a right of citizenship, much like education and healthcare. As a fundamental right, the government develops tens of thousands of homes a year (15,800 homes in 2018) so that the affordable housing supply meets residents’ needs and no citizen is left homeless.

- Singapore’s 37% payroll tax helps with down payment. The Singapore government has a mandatory savings plan similar to social security in the United States, in which every employee and employer contributes a portion of a worker’s wages towards a government-managed savings account. The employee contributes 20% from each paycheck and the employer puts in 17%. The total 37% goes to the Central Provident Fund. This wage-based (i.e. payroll) tax is three times the U.S. Social Security tax of 12.4% (with 6.2% from employees and 6.2% from employers).

In Singapore, approximately 62% of a person’s Central Provident Fund savings is set aside to be used for a down payment, educational or other personal investments. According to HDB program documents, it takes the average worker three years to accumulate mandatory savings sufficient for a down payment.

The ALOHA Homes proposal does not create a mandatory payroll tax or propose a specific mechanism for helping residents acquire a down payment.

As is evident from the above description, the ALOHA Homes proposal was inspired by the Singapore model but differs significantly in key areas of program design, including owner qualifications, project financing and approval, and mandates and subsidies for leasehold buyers.

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10 Ibid.
Intended Goals of the ALOHA Homes Program

As outlined in the 2019 ALOHA Homes Bill, the intended goals of the ALOHA Homes Program envisioned by Senator Chang are to:

1. End the housing shortage in Hawai‘i;
2. Facilitate development of affordable leasehold homes on State land near transit stations;
3. Authorize HHFDC to sell residential units as 99-year leasehold properties; and
4. Develop an ALOHA Homes demonstration project by July 1, 2025

III Feasibility of Key ALOHA Homes Components

Why the Singapore Housing Model Cannot Be Replicated in Hawai‘i

Styles of Governance

Singapore

One source notes that Singapore enjoys political stability, honest and effective government, and successful economic policies but “is also known for its limited tolerance for opposition or criticism.” Though Singapore does have elections, the People’s Action Party has been in power since independence in 1965 and, by most accounts, is in little danger of being unseated in the near future. With no dissenting opinions from rival political parties or the public, Singapore’s top-down, unified style of government has allowed its Housing & Development Board to construct public housing at a scale uncommon in most democratic nations.

Hawai‘i

Though Hawai‘i’s voters and elected officials are heavily Democratic-leaning, there is much disagreement about public spending and State-run programs. Community sentiment, especially about housing policy, can be sharply divided and strongly expressed. Because developing an adequate supply of affordable housing requires a significant and sustained public infrastructure investment, access to developable land, and community approval, it is difficult to imagine Hawai‘i replicating Singapore’s speed and scale of development.

Labor Unions and Wages

Singapore

Singapore’s access to abundant, cheap, migrant labor has allowed it to build housing at a low cost. Singapore is one of the world’s biggest net
importers of migrant labor, with workers coming primarily from Malaysia, Bangladesh, Nepal, India, China and other Asian nations. Legal constraints keep migrant workers from organizing for better wages and conditions. As a result, Singapore’s migrant construction workers earn notoriously low wages—approximately $5 to $20 per hour.\(^{13}\)

**Hawai‘i**

Hawai‘i leads the nation in union membership, with 23.1% of the State’s workers in labor unions. Political support for unions is strong.\(^{14}\) These unions allow workers to negotiate higher compensation and better working conditions through the power of collective bargaining.\(^{15}\) In contrast to Singapore’s poorly-paid migrant laborers, Hawai‘i’s construction workers earn an average of $33 per hour.\(^{16}\)

**Construction Costs**

**Singapore**

The average cost for constructing a standard mid-rise or high-rise condominium in Singapore is $125–150 per square foot.\(^{17}\)

**Hawai‘i**

The average cost to construct the same kind of multifamily dwelling in Hawai‘i is approximately $275–400 per square foot, more than double Singapore’s cost of construction.\(^{18}\) Duplicating Singapore’s cost of construction would require construction wages that are not possible or desirable for Hawai‘i workers.

**Models That Can Work in Hawai‘i**

After determining that several aspects of the Singapore model cannot be replicated in Hawai‘i, our project team looked at examples of affordable housing programs in Helsinki and Vienna to explore other options that Hawai‘i might draw from. These two places are known for their exceptional affordable housing policies and, similar to Hawai‘i, they have very strong unions, a high cost of construction, and a robust process to engage citizens in planning decisions. Their projects also deal with a high degree of NIMBYism (Not In My Back Yard), which is prominent in Hawai‘i’s development processes.

**Vienna, Austria**

**Cost of construction**

$250–300 per gross square foot\(^{19}\)

**Union labor representation**

Trade unions are politically influential in Austria,

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\(^{15}\) Ibid.


\(^{18}\) Based on pro-forma analysis of local projects and interviews with Hawai‘i builders and developers.

\(^{19}\) Interview with Kurt Pachinger, Vienna City Administrator, Office of the Executive City Councillor for Housing, Housing Construction, Urban Renewal and Women’s Issues.
particularly in Vienna. Across Austria, there are an estimated 1.4 million employees who are trade union members, the majority of whom reside in Vienna. The Austrian Trade Union Federation provides various benefits to its members, such as negotiation of collective agreements, safeguarding of social standards and fair wages, and legal services.

Citizen engagement in land use decisions
Vienna has a long history of civic engagement in community planning, and it continues to guide urban development today. For example, to overcome recent opposition to city transit service initiatives and other car-free amenities, officials brought residents into the decision-making process by providing community groups and neighborhood associations with small grants ($5000) to plan and finance public-space improvement projects.

Public housing rent as a percentage of income
18–22%

City liveability, housing access
In both 2018 and 2019, Vienna was named the world’s most “liveable city” on the Global Liveability Index. This prestigious ranking is due in part to residents’ bountiful access to affordable housing and transportation. According to Bloomberg CityLab, Vienna—a city with approximately 2 million residents—experiences an annual increase of about 25,000 residents and adds approximately 13,000 new units of housing each year to accommodate them. Strict land-use regulations have focused growth in existing urban neighborhoods, as opposed to suburban sprawl. Population growth is further supplemented by parks and public spaces and, today, more than half of the city is dedicated to green space.

Helsinki, Finland

Cost of construction
$325–400 per gross square foot

Union labor representation
Trade unions are exceptionally strong in Finland, where 59% of the working population are members. The average salary for a construction worker in Finland is $54,500 a year or $31 per hour, very similar to Hawai‘i’s $33 per hour.

Citizen engagement in land use decisions
Finland has high citizen engagement in land-use decisions and consequently, it is very difficult to add affordable housing to older neighborhoods. Instead the government housing development

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21 Ibid.

22 Ibid.

23 Ibid.


25 eiu.com/topic/liveability.


27 Ibid.

28 Interview with Housing Finance and Development Centre of Finland, pro-forma of recent project.


agency focuses on incorporating affordable housing into new neighborhoods.\textsuperscript{31}

Public housing rent as a percentage of income 18–28\%\textsuperscript{32}

City liveability, housing access
In 2017, Helsinki was ranked as the second most liveable city in Europe, following Vienna.\textsuperscript{33} One of the main reasons for this high ranking is a successful housing policy which has ensured affordable housing for almost all residents and virtually eliminated homelessness.\textsuperscript{34}

Summary

Although Vienna and Helsinki are farther away from Hawai‘i than Singapore by location, these cities face many of the social, political, and cost constraints to building new housing that are common in Hawai‘i. In many ways, compared to the Singapore model, housing policies in Vienna and Helsinki are more relevant to Hawai‘i.

Case studies of Vienna and Helsinki further demonstrate that building new housing is expensive and requires significant community buy-in and participation. For these reasons, best practices from these two municipalities are included when evaluating various components of the ALOHA Homes proposal.

\textsuperscript{31} Interview with Jarmo Linden, Director, Housing Finance and Development Centre of Finland, 2020.

\textsuperscript{32} “Role of ARA in Social Housing and in Actions to Reduce Homelessness in Finland” Presentation of Housing Finance and Development Centre of Finland, January 2020; Average Finnish income from statista.com.


\textsuperscript{34} “The Role of Social Housing and Actions to Reduce Homelessness in Finland” Presentation by The Housing Finance and Development Centre of Finland, 2020.

The more dwelling units built per acre, the less impact additional density has on overall costs. Assumptions: $2 million per acre land cost and construction costs constant $400,000 per unit.

One approach to cost savings is density, although savings diminish as density increases. The more homes that can be built on a specific parcel, the greater the savings in land costs. For example, if a 1-acre parcel is worth $2 million and five homes are built, the land cost for each home is $400,000. However, if 10 homes are built on that same parcel, land cost per home drops to $200,000, which translates into significantly lower prices per home.

If the average cost to build a 1000 square foot home is about $400,000, there are significant savings when the density is increased from 10 to 40 homes, or even to 70 homes, but the savings greatly diminish after 130 homes per acre.

Density should fit local community needs.
In most of the TOD areas on O‘ahu, mid-rise developments would blend in with the surrounding community. The ‘Iwilei, Chinatown and Downtown station areas may have higher density since this is the most
Use public lands for long-term affordability. All three jurisdictions use public lands as a way to maintain affordability.

**Singapore creates a constant supply of HDB flats to keep prices stable.** In Singapore, the government is able to consistently build enough new homes to meet demand. They acquire land and develop train stations, public infrastructure, and other amenities as needed for the new developments. Due to the continual supply of new HDB flats, these public sector homes—which make up about 80% of the housing market—have maintained relatively stable prices. Resale prices for HDB flats ended 2020 slightly lower than at the beginning of 2013.35 Of course, this ability to add public infrastructure and housing as needed is very difficult in places with less central government control and a high degree of citizen involvement in land-use decisions.

**Sense of community**
We learned from discussions with developers that projects with high density can lack a sense of community and be less attractive to long-term residents. One developer recounted how a project of 120 homes per acre leased up much more quickly than another project of almost 200 homes per acre in the same neighborhood.

**Conclusion**
At least 250 homes per acre is only appropriate for some areas. For many TOD areas, a lower density would achieve cost savings, retain a sense of community, and fit the surrounding community.

Public Land Contribution in Transit Oriented Areas

**Public land contribution is key.** One important practice in all three jurisdictions studied—Helsinki, Vienna and Singapore—is that public land is used for affordable housing. As a result of their investments and long-term vision, each city builds enough quality housing to reasonably match demands. Rents meet affordability standards of no more than 18–26% of residents’ incomes. In addition, each jurisdiction has virtually eliminated homelessness.

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Helsinki and Vienna use price controls to maintain long-term affordability. The government and political structure of Vienna and Helsinki make the process of acquiring new developable land with public infrastructure and transportation more difficult and time intensive. For example, Singapore has added 122 stations to...
its public transit system since 2000, whereas Helsinki has only added 8 and Vienna 12.

As a comparison, Hawai‘i is about to complete nine stations of a rail system that has been discussed and planned for over 50 years. The amount of time, resources, and citizen consensus required in Hawai‘i for major construction projects is more similar to Vienna and Helsinki than to Singapore.

Vienna and Helsinki both preserve the affordability of state supported housing by setting price limits. Price increases in rental and for-sale homes that receive government subsidies are generally limited to inflation plus the cost of improvements. The use of public land, financing, and long-term price controls ensures that every new development maintains a significant supply of affordable housing.

**Case Study**

**Planning for Affordability:**

**Jätkäsaari in Helsinki, Finland**

A newly developed waterfront neighborhood in Helsinki provides an excellent example of planning for affordability. Jätkäsaari was an old industrial waterfront neighborhood similar to Honolulu’s Kaka‘ako neighborhood. In 2010, Helsinki began efforts to transform the area into residential and commercial uses. As part of the development process, the Helsinki planning department purchased most of the land area, and between 2008 and 2019 the city invested more than $275 million in Jätkäsaari, with another $240 million budgeted for future development. The planning department sold about 45% of the land to the private market, and reserved the remaining land area for publicly-funded housing and other public purposes.

After the land-use decisions had been made, the municipality financed the construction of 60 new apartment buildings that were a mix of rental housing and shared equity ownership with restricted resale prices. Once construction is completed, it is estimated that Jätkäsaari will be home to 21,000 residents and offer jobs to 6000 people.

To create a more equitable neighborhood, the public and private housing developments were integrated throughout the area.

**This map by housing type clearly shows how Helsinki has planned for long-term affordability:** more than half the land is publicly supported and will remain affordable for the life of the building. Not only will this neighborhood maintain affordable housing, but it also ensures income diversity of residents by developing a mix of private housing and state subsidized rental and for-sale properties. Jätkäsaari is not a poor neighborhood or a wealthy neighborhood: it is a mixed neighborhood where the percentage of households in the various income quartiles is remarkably evenly distributed.

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JÄTKÄSSARI, HELSINKI, FINLAND

PUBLIC VERSUS PRIVATE AFFORDABLE HOUSING

RESIDENTIAL PROPERTY OCCUPANCY TYPES
- PRIVATE
- PUBLIC owned with restricted resale
- PUBLIC rented with controlled rent

Household Income Distribution Jätkässari

- Lowest 20%
- 20-40 percentile
- 40-60 percentile
- 60-80 percentile
- Top 20%

2.5% 22% 23% 23% 2.0% 20% 15% 12% 10% 5% 0%
Vienna uses similar land-use and pricing strategies to maintain housing affordability.

“What makes Vienna unique is that you cannot tell how much someone earns simply by looking at their home address.” —Kathrin Gaál, Vienna’s Councilor of Housing

Although Singapore, Vienna and Helsinki employ different strategies to maintain affordable pricing, all three use a combination of public land and publicly-funded infrastructure as the starting point.

Public Lands in Transit-Oriented Development Areas: a Tremendous Opportunity

The State of Hawai‘i is the largest landowner along the new 21-station rail system being built on O‘ahu. Between various State agencies, there are approximately 2000 acres of land within half a mile of the rail line. Additionally, State and county land near bus transit corridors on neighbor islands offer opportunities for transit-oriented development and affordable housing. For example, Maui is developing a new bus transit hub on State lands, with the opportunity to build affordable housing on more than 5 acres of adjacent State lands. University of Hilo in Hawai‘i County, has land which could be used for student housing, and Kaua‘i is developing affordable housing on county lands at Lima Ola in ‘Ele‘ele.

Buyer Restrictions

The ALOHA Homes Bill proposes several restrictions related to the home purchaser. The following is the analysis of each restriction based on best practices from other jurisdictions.

Buyer Owns No Other Real Property

Home is primarily a place to live.

Purpose
When it takes considerable public resources to develop affordable housing, it is important that housing be primarily developed as a place for residents to live, not a wealth building vehicle. Restricting ownership to buyers with no other property supports the concept that housing is an essential human need and an important public purpose. Permitting the purchase of these units as second homes rather than as a primary residence, would subvert the purpose of public investment in housing as well as allowing a buyer to use them as investment vehicles.

Analysis: Provision is recommended

Limiting the amount of wealth generation from publicly subsidized housing is important for the long-term viability of a housing program. Restricting ownership as proposed is a standard requirement for most publicly-supported for-sale housing. Most jurisdictions in the United States include such a requirement for below-market for-sale housing offered under inclusionary zoning policies (see Appendix B for examples from other U.S. jurisdictions). Singapore, which has the largest owner-occupied public housing
system in the world, also has strict prohibitions about owning other property. Notably, Helsinki had a below-market homeownership program called HITAS, which allowed people to own other property. As purchasers increasingly used the program to build wealth by owning multiple homes, HITAS became unpopular and was considered a waste of public resources. It was discontinued in 2020.42

**Hawai‘i considerations for fractional ownership of homestead and other properties.**
In Hawai‘i, many residents have fractional ownership as a partial interest in a family owned property. These properties have significant cultural and family value but partial owners typically cannot use them as homes for themselves. Moreover, it can be difficult to divest from some partial ownership structures. It is, therefore, important to recognize and accommodate partial ownership of less than 50% when establishing restrictions to purchase state-sponsored housing.

**Hawai‘i Resident Requirement**

**Purpose**
It is appropriate that the benefits of programs supported by state and local tax dollars are restricted to local residents. A failure to include such constraints could incentivize out-of-town residents to move Hawai‘i for the benefit of affordable housing in such a desirable location.

**Case Study**

**San Diego, CA**

As part of their inclusionary zoning program, San Diego offers below-market for-sale homes to people up to 120% of area median income. Initially their program did not have a residency requirement, which prompted a significant number of applications from out-of-state residents. Since this was not the intended purpose of the program, the San Diego Housing Commission updated the rules in 2017 to require **two years of residency** in San Diego County, verified by three years of tax returns.43 The policy has remained in place since then.

**Legal Considerations: Durational-Residency Requirements Could Be Challenged**

A durational-residency requirement for a public benefit which requires that a person live in a place for a certain length of time has generally been found by the courts to limit the “constitutional right to travel from one State to another.” The right to travel has been interpreted to refer to not just entering and exiting another state but to the right to be treated like other citizens of that state.

For example, a California law attempted to limit welfare benefits for newly-arrived residents to the amount paid by their previous state of residence for their first twelve months in California, at which point they were entitled to benefits at the California rate. In *Saenz v. Roe* (526 U.S. 489, 119 S.Ct. 1518, 143 L.Ed.2d 689 (1999)), the U.S. Supreme Court invalidated California’s restriction.

However, courts have made an exception to the general rule of disallowing durational-residency requirements for “portable” benefits that a

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42 “Helsinki is going to close the Hitas system of affordable owned apartments,” Finrepo, July 2020, finrepo.fi/en/news-helsinki-is-going-to-close-hitas-system.

nonresident could obtain and take out of the state. (See, for example, Martinez v. Bynum, 461 U.S. 321, 332–33, 103 S.Ct. 1838, 75 L.Ed.2d 879 (1983)). In-state tuition requirements are an important example of a “portable” benefit.

“The State can establish such reasonable criteria for in-state [college tuition] status as to make virtually certain that students who are not, in fact, bona fide residents of the State, but who have come there solely for educational purposes, cannot take advantage of the in-state rates.” Vlandis v. Kline, 412 U.S. 441, 453–54, 93 S.Ct. 2230, 37 L.Ed.2d 63 (1973)

Applicability to ALOHA Homes
One could argue that homeownership is a portable benefit as compared to renting. An owner builds equity in their home, which translates into a profit that can be taken out of state when the owner sells. However, before the sale of the home the benefit is not portable since it requires the owner to live in the home. Whether ownership is considered a portable benefit similar to college tuition or a non-portable benefit more similar to welfare has not yet been decided by the courts.

Analysis
The most conservative legal approach would be to require no specific length of time for residency but simply that a person be a current Hawai’i resident. Moreover, applicants to the ALOHA homes program would need to be on a pre-approved buyer list before construction begins. They would likely be waiting at least two years before construction is completed and they own a home. This reduces the likelihood that a person would establish residency in Hawai’i just for this program.

Recommendation
A current resident provision is likely to be sufficient to dissuade out-of-state residents from moving to Hawai’i just for this program. However, the requirement could be amended as a durational-residency requirement later if warranted.

Defining “Resident” by Voting Record

Description
The ALOHA homes bill states that a person “voting in the most recent primary or general election shall be an indication of residency in the State; provided further that not voting in any primary or general election creates a rebuttable presumption of non-residency.”

Purpose
This measure would disqualify non-voters from participating in the program and presumably reward residents who do vote.

Legal Concerns
Voting is not a standard definition of residency and could be considered discriminatory. At the least, it would discriminate against legal residents who are noncitizens and citizens who choose not to vote for personal or religious reasons.

The Hawai’i Supreme Court has adopted a common definition: ‘[a]ny person who occupies a dwelling within the State, has a present intent to remain within the State for a period of time, and manifests the genuineness of that intent by establishing an ongoing physical presence within the State together with indicia that his presence within the State is something other than merely transitory in nature.” (Citizens for Equitable & Responsible Gov’t v. Cry. of Hawaii, 108 Haw. 318, 323, 120 P.3d 217, 222 (2005).

Analysis
A standard definition of “resident” is someone who can demonstrate an intention to stay in Hawai’i, which can be shown with a driver’s
license, completed voter registration, or rental agreements with a Hawai‘i address etc.

Recommendation
Using a standard definition of “resident” will prevent legal challenges and still achieve goals of the program.

Income Restrictions
Purpose
Having no income restrictions for buyers could make the program more popular among people who would not otherwise qualify. It would also support the idea that housing is a right which everyone is allowed to access.

Analysis: not a best practice
A constrained housing supply requires prioritizing access, and higher income earners have options in the private market.

Our survey of affordable housing policies for for-sale homes shows that, to the extent the public is subsidizing the home, income limits and preferences are typically imposed. Even Singapore has income restrictions for who can qualify for their “new flat” program. As of 2019 the income limit was $9000 per month for a couple and $4500 for a single person in Singapore. An exception is Finland, where lower-income applicants have preferences but there is no set income limit.

Generally, the lesser the amount of affordable housing available, the stricter the income requirements. Places with large proportions of State supported public housing, such as Singapore, Vienna and Finland, have relatively high income thresholds because there is enough housing to accommodate need. For example, Vienna’s income limits allow 80% of the population to buy state supported homes. At the same time, they ensure that about 79% of the housing stock is affordable, with 50% owned directly by the City and 29% subject to rent control. However, in places without enough affordable housing to meet demand, income requirements are stricter to ensure that housing is going to people with greatest need.

Factors to Consider When Determining Income Limits
1. Benefits of mixed income neighborhoods
   Good policy encourages mixed-income neighborhoods and discourages income segregation, which has forged many divisions and unequal access to opportunity.

2. Income limits high enough to qualify for a mortgage
   Where a publicly-supported project is designed to recoup the cost of units built, income limits for buyers must be high enough so that they can qualify for mortgages. For example, a one-bedroom affordable home at $290,000 would still cost approximately $1800 a month in housing costs, which would require a yearly salary of about $65,000 or 80% AMI for Honolulu.44

3. Income limits high enough that public workers can qualify: 140% AMI
   A state supported housing program should be available to teachers, police, firefighters and other public workers. An income limit of 120% AMI would disqualify many households with public sector workers. For example, the average teacher salary in Hawai‘i for 2019 was $65,800,45 so a household with two teachers would earn

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$131,600 which is approximately 130% of the area median income for Honolulu. A limit of 140% AMI would include most public sector households.

4. **Offering opportunity to those with greatest need.**
Honolulu has a scarcity of affordable housing so publicly-supported housing should be allocated at least partly on the basis of need. This could be achieved by preferring qualified buyers who are lower-income for a portion of the homes.

**Recommendation:** Income limit of 140% AMI with some preferences for lower-income residents. Set an upper income limit of 140% AMI, with a goal of having some percentage of homes occupied by people earning 100% AMI and below. Lower-income residents could be provided a preference in a lottery system.

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**First-time Homebuyer**

**Purpose**
The purpose of this provision is to allow more residents to access the program, including residents who have previously owned property or currently own property but would consider selling to purchase an affordable home.

**Analysis**
Many affordable for-sale programs do not require that a person be a first-time homebuyer, but do require that the person not own another home at the time of purchase.

**Recommendation:** First-time home buyer provision is not necessary
A first-time homebuyer provision could exclude people who previously owned property and are now priced out of private market ownership. The more important provision is that a person not own another home.

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**Owner Occupancy Enforcement**

Owner-occupancy compliance is a major concern with affordable housing units.

To address the potential of creating a “black market” of illegal rental units, we have examined two options for enforcing owner-compliance:

1. **Biometric security systems**
   - Using iris, facial, or fingerprint scans to verify identities
2. **Stewardship specialist(s)**
   - Employing full- and part-time staff to monitor compliance

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**Biometric System**

**Benefits: Secure and Modern**
By requiring a retinal, facial, or fingerprint scan upon entry, a biometric system provides highly secure owner occupancy enforcement. An automatic record is maintained of all entries, which could have security benefits as well.

**Focus Group Concerns:**
**Privacy, Flexibility for Guests, and System Maintenance**

Though biometric systems are reliable, both providers and focus group participants raised concerns about privacy. While receiving quotes for biometric systems, the concern of whether biometrics have received the “sign off” was raised. Providers noted that tenant pushback is common with biometric systems and wondered if there are precedents for using them in owner-occupied housing. This apprehension was echoed by participants in our focus groups. While acknowledging that biometrics would ensure owner-occupancy, some participants
expressed discomfort about having their data saved. Focus group participants also raised concerns about the effects of biometric systems on visiting friends or family members and about the overall flexibility of the system. Lastly, informants raised questions about the system’s performance during power outages, and what type of maintenance it would require.

**Costs**

$1500–$2800 for installation, on-going supervision and maintenance.

Quotes for biometric systems range between $400 to $600 per housing unit, exclusive of the cost to have a contractor install wiring or an internet connection and integrate it into a system. Installation raises the price to $1,500 to $2,800 per unit. The system would also require staff to provide on-going oversight, manage connectivity problems, and enter system updates for guests and new residents.

**Stewardship Specialist Most Common Enforcement Method**

Affordable housing departments across the United States most commonly employ staff to manage enforcement. The Champlain Housing Trust in Vermont serves as one of the largest and most successful land trusts in the country. The Trust employs a staff of five to manage their inventory of more than 630 homes and enforce occupancy rules. The service is financed by monthly charges to each home, similar to an HOA fee. The Champlain Trust team handles not just owner-occupancy requirements but also compliance with re-sale restrictions, re-financing requests and disputes that may arise between owners. Enforcement is based on random checks and annual audits. The success of the Champlain land Trust and many others is due to the stewardship specialist role and to adjusting the size of the team as the housing inventory grows.

**Benefits: Flexible, Human Enforcement, Includes Other Services**

A stewardship approach would more easily accommodate guests or other changes in unit occupancy. It also makes enforcement feel less invasive than a high-tech approach. Lastly, a steward specialist helps with all aspects of the leasehold agreement including resales and conflicts between occupants.

**Concerns: human error, less predictable**

Unlike biometric systems, the stewardship specialist system is human-operated and managed. This can lead to a higher margin for error and a greater variability in the quality of services, depending on the skill of the staff.

**Costs: $50–$75 monthly fee per home**

A stewardship specialist program is supported by monthly homeowner fees also referred to as “ground lease fees,” since they are used to ensure compliance with lease terms such as owner-occupancy. Many stewardship programs also use a software program called “HomeKeeper,” which has a set-up fee of $3500 and an annual cost of approximately $3000.

**Recommendation: A Stewardship Approach**

While both owner occupancy enforcement methods have benefits, a stewardship specialist would provide more services, including managing the resale process and dealing with lease disputes. When paired with substantial fines for breaking owner-occupancy rules, the stewardship model has proven to be effective for many below-market for-sale programs.

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46 Based on quote from Fulcrum Biometrics, Iris Id 2020.
99-Year Leases and Use of State Lands

Purpose
The purpose of a 99-year lease is to allow homeowners to pass the home on to their children, and to avoid any depreciation in the home’s value during the useful life of a typical mid-rise to high-rise building.

Analysis
The proposed 99-year lease on public lands component of ALOHA Homes is a contentious issue. Without 99-year lease terms, the concept may not be viable due to financing considerations. However, 99-year lease terms on public lands that have been designated as "ceded" from the Hawaiian Kingdom, also known as public land trust (PLT) lands, come with moral, political, and legal concerns.

Even if stakeholders were able to overcome the significant barriers to identifying an acceptable path to allowing 99-year leaseholds, the ALOHA Homes concept would not be feasible unless further lease extensions were permitted—an unviable alienation of public trust lands. A lease without renewal options will begin to decline in value when there is less than 40 years left on the lease or at 59 years for a 99-year lease, at which point current owners will experience a decline in home value and eventually need to relocate.

Leaseholders in a State sponsored program are likely to expect the State to provide a buyout plan where they are compensated at fair market value or relocate them to a new leasehold, which is the case in Singapore. This adds cost to the program, making it no longer revenue neutral.

There are some State lands which are not subject to the restrictions on sale of public lands, such as certain lands purchased after Statehood, and these could be appropriate for long-term renewable leases. However, these lands are more limited in scope and would support much less housing than envisioned by the ALOHA Homes concept. The State could also purchase new land in fee simple, however, this would require further subsidies to keep the housing affordable and the program would no longer be revenue neutral. Without securing land appropriate for long-term renewable leases, the ALOHA Homes model as a revenue neutral program will not be viable.

99-year leases on State lands in Hawai‘i are more complex and contested than in Singapore

The context for the use of 99-year leases on State lands in Hawai‘i is very different than in Singapore. In Singapore the lands for housing are purchased through eminent domain by the State of Singapore, where a commission determines the value of compensation to the private landowner. A landowner can appeal the valuation of the land commission, but does not have any recourse in a court of law, and ultimately must accept the compensation determined by the commission. This process for land valuation and condemnation by the Singapore government would not be considered due process in the United States. Additionally, much of the land in Singapore was acquired at prices far below market value, which also contributed to the success of the program. 47

In Hawai‘i the characterization of certain public lands as “State lands” is strongly contested. Native Hawaiians groups and individuals assert that what may be referred to as “ceded” lands or public land trust lands are lands that retain a trust obligation in favor of native Hawaiians. Those

lands were originally crown and government lands of the Kingdom of Hawai‘i. Native Hawaiians, through their monarchy, were deprived of those lands by an overthrow in 1893 that could not have succeeded but for the military intervention of the United States. The United States in 1993 issued a formal apology for its role in the overthrow of a sovereign nation that was an ally of the United States. Some Native Hawaiians claim that the United States apology amounts to a recognition not only of the wrong of the overthrow, but the wrong of seizing the lands that now are designated as “ceded” lands. The Apology Resolution recognizes that these lands were acquired without consent or compensation:

“Whereas, the Republic of Hawai‘i also ceded 1,800,000 acres of crown, government and public lands from the Kingdom of Hawai‘i, without the consent of or compensation to the Native Hawaiian people of Hawai‘i or their sovereign government.”

As a result of the manner in which “ceded” or PLT lands were acquired prior to statehood, their significance to Native Hawaiians has been recognized and their interests must be considered when using State lands held in trust for public benefit. Although section 5(f) of the Admission Act of 1959 designates five uses of PLT lands: 1) public education, 2) betterment of the conditions of native Hawaiians, 3) farm and homeownership, 4) making of public improvements, and 5) for public use; the overarching importance of Native Hawaiian interests was affirmed by the 1978 Constitutional Convention and subsequent amendments to the State constitution.

There are several amendments to the State constitution which indicate that, with respect to PLT lands, Native Hawaiian interests are of particular importance. Several of these are in Article XII of the State Constitution: section 4 states that land granted to the State of Hawai‘i, “shall be held by the State as a public trust for native Hawaiians and the general public”; and sections 5 and 6 establish OHA and its powers to manage proceeds from PLT lands to benefit Native Hawaiian among other duties. This unique role of OHA with regards to PLT land proceeds supports the claim that it is essential to consider OHA’s interests in PLT land use.

Native Hawaiian claims on public trust lands have been validated by the courts and the legislature. This recognition was clearly expressed in the court case Hawai‘i v. OHA (2009). In 1993, a State agency sought to sell PLT lands on Maui to a private developer to create affordable housing. Native Hawaiian individuals and OHA sued to enjoin the sale. The Hawai‘i Supreme Court halted the sale of the lands by stating that Native Hawaiian land claims as stated in the 1993 Apology Resolution have not been settled and that the reconciliation process called

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49 The lands that are referred to as “ceded” to the United States comprise much of what are currently referred to as “public land trust lands” belonging to various agencies such as the Hawai‘i Housing Finance and Development Corporation (HHFDC), the Department of Accounting and General Services, and the Department of Land and Natural Resources. The vast majority of the current State lands were part of this 1.8 million acres “ceded” from the Kingdom of Hawai‘i, though the exact amount is still a matter of dispute.

50 An Act to Provide for the Admission of the State of Hawai‘i into the Union; Section 5(f), March 18th 1959, Pub L 86-373, Stat 4.
for had not been completed. The Apology Resolution urges the President of the United States to:

... acknowledge the ramifications of the overthrow of the Kingdom of Hawai‘i and to support reconciliation efforts between the United States and the Native Hawaiian people. (SJR 19, 1993, Section 1).

Although the Hawai‘i Supreme court halted the sale of PLT lands, the case was appealed to the U.S. Supreme Court. The U.S. Supreme Court overturned the Hawai‘i Supreme Court’s ruling, opining that the 1993 Apology Resolution did not have the force and effect of law, but left open the possibility that the Hawai‘i State Supreme Court could enjoin sales based on State law. Subsequently the parties settled. In 2011, the Hawai‘i State Legislature enacted Act 179, which requires a two-thirds majority approval by the House and Senate before sale of any public land.

Most PLT lands have maximum lease terms of 65 years.

In light of the historical context underlying PLT lands, while there is no single shared Native Hawai‘i community perspective, Native Hawaiian stakeholders are generally opposed to extremely long-term leases such as those extending more than 65 years, while some are opposed to multi-year leases altogether. Since Statehood, most departments with control and management over lands in the public lands trust were granted the authority to enter into 65-year leases for commercial purposes such as operating a boat harbor, a farm, or another business on PLT lands.

There are limited exceptions where 99-year leases have been created on PLT lands, including the following:

- In 2005, the Hawai‘i Housing Finance and Development Corporation (HHFDC) was granted authority to enter into 99-year leases with nonprofits for low-income housing where 50% of the units would go to families earning less than 50% of area median income (Act 196, SL 2005). Currently, HHFDC may issue 99-year leases for lands on which it holds title.
- In 2019, the Department of Education (DOE) was granted the right to enter leases of “not more than ninety-nine years” for up to three public land sites for the purposes of redevelopment of public libraries.53

Based on the unrelinquished claims of Native Hawaiians, Native Hawaiian stakeholders have generally opposed 99-year leases that could diminish the corpus of available PLT lands. For example, in legislative testimony from 2020, OHA wrote: 54

OHA expresses its continued concerns over the length of the proposed 99-year leasehold interests for HHFDC lands set aside by the governor or leased from other State agencies... OHA believes that providing for 99-year leasehold interests in “ceded” lands may be excessively long, and may unnecessarily risk the eventual loss of such leased lands.

OHA reiterates its long-held concern that extremely long-term, multigenerational leases on “ceded” lands inevitably create a sense of entitlement on the part of lessees that has led to and may continue to lead to the

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54 Office of Hawaiian Affairs, “Testimony on SB3104, Relating to Land Development,” February 6, 2020
alienation of public and “ceded” lands. OHA strongly objects to the sale or alienation of “ceded” lands except in very limited circumstances, and has significant concerns over any proposal that may facilitate the diminution of the “ceded” lands corpus.

One of the primary concerns expressed here is that there is a risk that long-term leases will be converted into full fee-simple ownership. There is precedent for this occurring in the Land Reform Act of 1967, which allowed thousands of single-family home leaseholders to purchase the fee interest to their property.55

In spite of these concerns, it is possible that further dialogue among stakeholders could find a workable solution to the issue of long-term leases. OHA, for example, has not taken a binary all or nothing approach on the issue of long-term leases and has proposed potential alternative approaches which would, “recognize or protect and preserve Native Hawaiian claims to the “ceded” lands corpus.”56

Ensuring that native Hawaiians have access to ALOHA Homes may be part of a solution. As OHA pointed out in testimony:

“Without any income restrictions or preferences for eligible buyers, Aloha Homes units developed on public and “ceded” lands are likely to be purchased much more quickly by those with higher incomes, who are more likely to have the available capital necessary to acquire such units immediately.”57

In light of income disparities in Hawai‘i, many native Hawaiians would be deprived of the opportunity to benefit from the ALOHA Homes program. OHA proposed that income restrictions might address this issue. But a further possibility is a set-aside for native Hawaiians in recognition of their interests in the land upon which ALOHA Homes units would be built. Such a set-aside could be accomplished through a transfer of units to DHHL. However, further analysis is needed to address fair housing, economic, management, and legal issues.

**Legal Considerations of Transferring Units to OHA or DHHL**

The prospect of a set-aside raises potential legal issues, primarily related to laws such as the Fair Housing Act that prohibit discrimination on basis of race, ethnicity, or other classes.

Organizations and legal scholars who have researched the question of providing preferences to Native Hawaiians assert that lease transfers to DHHL for affordable housing would not violate State or federal discrimination laws.58

The Hawaiian Homes Commission Act (HHCA) of 1920 provided land and homestead benefits to native Hawaiians of at least 50% Hawaiian ancestry. DHHL, led by the Hawaiian Homes Commission, manages these Hawaiian home lands. This act recognizes the unique obligations, protections and political standing of Native Hawaiians and their relationship with the federal government. Today, beneficiaries of HHCA number in the tens of thousands, and over 28,000 are still waiting for homestead lots. Furthermore, over 11,000 are waiting for homesteads on


57 February 26, 2021, OHA Testimony on SB1 SD1—“Relating to Housing.”

58 For information on legal rights and standing see the U.S. Department of the Interior’s Office of Native Hawaiian Relations resources. doi.gov/hawaiian/home-land-regulations.
O’ahu, where there is the least amount of land available through Hawaiian homelands. With limited available lands, the State must consider new avenues to meet the housing needs of Native Hawaiians, so they can afford to live in their homeland.

The federal standing of native Hawaiians defined in the Hawaiian Homes Commission Act and the federal authorization of DHHL’s administrative role provides the opportunity and legal protection for the State to partner with DHHL in providing set-asides for native Hawaiians.

Protections for Native Hawaiians in non-DHHL housing are less clear and open to legal challenge.

OHA was created in 1978 to represent the interests of Native Hawaiians of any blood quantum who are recognized descendants of “the aboriginal people, who prior to 1778, occupied and exercised sovereignty in the area that now comprises the State of Hawai’i.” This definition of Native Hawaiian is often denoted with a capital “N” and includes all Hawaiians of any blood quantum.

Native Hawaiians of less than 50% Hawaiian ancestry also have a unique status under federal law. More than 150 federal statutes have recognized Congress’s “special political and trust relationship with the Native Hawaiian community.”59 However, because of previous legal challenges e.g. Rice vs. Cayetano,60 it is less clear that preference for Native Hawaiians in housing would be upheld in court.

In 2000, the U.S. Supreme Court in Rice vs. Cayetano struck down OHA’s ability to provide preferences for Native Hawaiians in voting for OHA board members or in running for seats on OHA’s board. The 7–2 decision was based on the 15th Amendment, which grants all citizens the right to vote regardless “of race, color, or previous conditions of servitude.” The two dissenting judges, Justice Ginsberg and Justice Stevens, noted the decision of Morton v. Mancari (417 U.S. 535, 1974) which held that Indian Americans are entitled to employment preferences by the Bureau of Indian Affairs. Preferences for Indians did not violate anti-discrimination laws because, “preferential treatment that is grounded in the government’s unique obligation toward Indians is a political rather than racial classification.”

Analysis of Legal Protections

To avoid legal challenges, the safest approach to providing housing preferences for people of Hawaiian ancestry is for land to be conveyed to DHHL or for certain units within a project to be conveyed to DHHL via a Condominium Property Regime (CPR). DHHL can then administer the housing to native Hawaiians of at least 50% ancestry as defined in the HHCA. Additionally, there are other forms of housing support such as down-payment assistance and financial counseling that can be administered by OHA and targeted to Native Hawaiians of any blood quantum. OHA and DHHL should be consulted on the best approach for providing preference for Native Hawaiians.


60 Rice v. Cayetano, U.S. Supreme Court decision in 2000 which determined that elections for OHA trustees could not be limited to only Native Hawaiians but must be open to all residents based on 15th amendment voting rights.
Conclusion

The current proposal of 99-year leases on PLT lands is not feasible due to the history of PLT lands and the strong objections of OHA and other Native Hawaiian organizations.

Developing a feasible plan for 99-year ALOHA Homes leases would require negotiations brokered at the highest levels of State government. The governor’s office would need to take a leadership role in bringing together Native Hawaiian stakeholders and agencies such as HHFDC, OHA, and DHHL—which all share an interest in creating more affordable homeownership opportunities for Hawai‘i residents—to reach an agreement on how to best address the concerns related to long-term leases while also maintaining the value of leasehold homes for future homeowners. Although there are potential advantages to providing leasehold housing on PLT lands, we cannot recommend this strategy without significant consultation and negotiation among stakeholders. A viable plan could only move forward with the concurrence of residents, Native Hawaiian organizations and stakeholders, local lenders, housing developers and involved departments.

Another alternative would be to develop leasehold housing on State lands that are not subject to restrictions on sale according to HRS 171–64.7. The State should consult with OHA regarding the status of certain lands as non-PLT and their potential for sale or long-term leases. Looking at the PLT status of land in TOD sites reveals that there are State-owned parcels which are not part of the public land trust. For example, most lands that were purchased after Statehood in 1959 are not part of the public land trust. Land that is not part of the PLT and does not have the same unresolved native Hawaiian land claims, would be an easier path for 99-year leases with renewal options should the State decide to develop a leasehold housing program. However, there are not enough such lands to support development of the scale envisioned by the ALOHA Homes concept, and acquiring sufficient land would violate the revenue neutrality requirements of ALOHA Homes.

Five Year Affordability Period

Purpose

The intent of this provision is to give the buyer an incentive to maximize the resale price by maintaining the home, and it prevents any incentive for a “black market” because the new buyer will be purchasing the unit at market price instead of a discounted price.

Example

The current ALOHA Homes bill states:

“If the corporation does not exercise its right to purchase the ALOHA home, the ALOHA home may be sold by the owner to an eligible buyer; provided that the corporation shall retain seventy-five per cent of all profits from the sale net of closing and financing costs, using the price at which the owner purchased the ALOHA home, plus documented capital improvements, as the cost basis.”

2010

Discount Purchase Price: $300,000 by qualified buyer

Market Price = $400,000

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61 “Public Land Trust Information System,” Hawai‘i State Department of Land and Natural Resources, 2021 pltis.hawaii.gov.
**2020**
Market Selling Price: $590,000  
(4% yr increase)
Buyer Equity: $72,500  
(25%)
Total Equity Gains: $290,000
Agency Equity: $217,500

**Case Study**

**Kaka’ako Affordable homes lost and have yet to be replaced.**

From 2008–2019 Kaka’ako developed 7300 for-sale condominiums, of which 1,872 (26 percent) were priced below market rates. Most of those homes were required to remain affordable for only two to five years. As a result, today only 637 homes (9 percent) are still under an affordable price requirement. By 2025 only 3% of for-sale homes will be under an affordability restriction, and, without any new additions, by 2035 there will be no homes available at below-market prices.

**Best Practices**

**Long term affordability periods**

Over the past few years, the trend in high-cost cities and counties across the U.S. is to extend the affordability period, with many requiring that the home stay affordable for the duration of the lease period. In San Diego, a below market home must stay affordable for 55 years, while in San Francisco, Washington D.C., and New York City, the affordability period is the life of the building.

**Recommendation:**
Maintain affordability for all subsequent buyers by restricting the resale price.

If the State invests funds to accomplish the public purpose of giving less-affluent people the opportunity to own their own homes, State policy should safeguard the supply of these homes so they’ll be available to working families for years to come. We recommend that the sales price of affordable units be restricted so that subsequent buyers can purchase a home at the same area median income level as their predecessors. This way the home stays in the affordable pool, and the neighborhood maintains its affordability.

With this recommendation, the price appreciation is limited and will likely be lower than market price appreciation (unless the market price drops). However, the owners still enjoy significant equity gains that accrue as the owner pays down the mortgage—not to mention the security of owning one’s home. See Appendix C for models of gains made with equity sharing based on CPI. This model does not provide funds back to the agency, but it also does not require the agency to replace the home and it maintains affordable housing in that same neighborhood.
## IV Analysis of Key Cost Savings Approaches

Estimated Cost Significantly Below Market Prices

<table>
<thead>
<tr>
<th>HOME TYPE</th>
<th>AVERAGE MARKET PRICE for all condos, Honolulu metro area only, 2019</th>
<th>STATE SUPPORTED HOUSING COST RANGE for mid- to high-rise buildings</th>
<th>SQUARE FOOTAGE</th>
<th>STATE-SUPPORTED APPROXIMATE COST</th>
<th>SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1bd / 1ba</td>
<td>$395,000</td>
<td>$280,000–$325,000</td>
<td>600</td>
<td>$300,000</td>
<td>24%</td>
</tr>
<tr>
<td>2bd / 2ba</td>
<td>$569,000</td>
<td>$385,000–$425,000</td>
<td>830</td>
<td>$405,000</td>
<td>30%</td>
</tr>
<tr>
<td>3bd / 2ba</td>
<td>$744,000</td>
<td>$460,000–$530,000</td>
<td>1,000</td>
<td>$500,000</td>
<td>33%</td>
</tr>
</tbody>
</table>

These savings arise from two main sources: State land contributions and reductions in all expenses that are not direct costs for vertical construction.
Reducing all soft costs besides vertical construction is a best practice.

State Supported Financing

The complexity and difficulty in securing financing contributes significantly to project delays and the overall cost of affordable housing. Providing low-cost financing in a timely and straightforward manner would increase competition for projects and reduce development costs.

All three jurisdictions we researched provide access to low-cost funding to reduce the costs of affordable housing, as noted below:

- **Helsinki, Finland**
  Government-backed construction loans at 1% interest for 40 years.
- **Vienna, Austria**
  Construction loans offered at 1% interest for 35 years.
- **Singapore**
  The Housing Development Board pays construction companies directly to build housing so no loans are needed.

After researching several financial tools, we recommend the following approach to minimize project financing costs and reduce risk for developers and the State.

1. **DURF for pre-development costs.** The Dwelling Unit Revolving Fund (DURF) is extremely flexible and could be used to cover pre-development costs such as due diligence, master planning, and a programmatic EIS.

2. **Streamline Entitlement: Environmental Impact Statements/Environmental Assessments.** Completing an EIS or an EA can add one to two years to a project timeline. In fact, this work can be done most efficiently if carried out directly by the State.

3. **Buyer Pipeline & Pre-Sales of Homes.** Ensuring a pipeline of qualified buyers and pre-sales is key to minimizing financial risk.
to the State and to developers. Every developer of lower-income for-sale housing emphasized the importance of programs that ready prospective buyers to take on a mortgage, for which an average of two years is needed. In addition to buyers needing preparation, there is also likely a pool of middle-income buyers already mortgage qualified should a pilot project be developed.

4. **Issue taxable mortgage revenue bonds for construction.** These bonds affect the State budget less than general obligation (GO) bonds. The interest rate is currently 3–4%.

5. **Fewer competing interests.** Unlike GO bonds, taxable mortgage revenue bonds are not backed by the full faith and credit of the State of Hawai‘i. They are, instead, secured by a pledge of mortgage payments and a deed of trust in the building. In this way, financing with mortgage revenue bonds does not compete with all the other State interests that are paid for with GO bonds, such as roads and schools, and are not a private activity bond.

6. **Easy to sell bonds for affordable housing.** Bonds backed by affordable housing projects in high cost areas such as Hawai‘i are relatively easy to sell because investors know there is significant demand for below-market housing, and there is little risk that homes will go unsold. Catalyst Housing Group in California has partnered with local jurisdictions and the California Community Housing Authority to sell over $550 million of limited obligation mortgage revenue bonds since 2017.62 Currently, there are many times more buyers than available bonds and as a result the interest rate on these bonds is expected to continue to drop as this becomes a more common way to finance affordable housing for middle-income earners.

7. **Efficient and straightforward.** HHFDC could serve as the issuing authority for these bonds, which could be issued on a project-by-project basis. Since bonds would not likely have to go through a complex budgetary or allocation process, they could be issued quickly, and that agility would reduce the time to secure project financing. The marginally higher interest rate cost compared to tax-exempt bonds is trivial.

8. **Stand-alone financing or combined with other tools in the toolbox.** A taxable mortgage revenue bond structured with a 3-year, interest-only, bullet maturity would act like a construction loan. It could fund all of the project costs or be combined with other sources of public or private financing, such as funding from nonprofit lenders or commercial banks offering community-based financing programs.

**Bond issue example**

Appendix D presents a high-level sample analysis of a 3-year taxable mortgage revenue bond. It would include two years of capitalized interest, which would allow debt service on the bonds to be fully covered for 2½ years, creating a real cash-flow advantage not available with many other sources of financing. At the end of the 3-year term only a small amount of debt service would remain, and it could be funded by the developer and rolled into the permanent financing, or, more likely, added to each homeowner’s individual mortgage. With an average coupon of 3.5 percent, and an

62 Interview with Jordan Moss, founder of Catalyst Housing Group, December 2020.
underwriter’s discount and total issuance costs amounting to 2% of the bond issue, this form of financing would appear superior to many forms of private construction loans with higher rates and similar fees.

**Community Lending Options**

Taxable municipal bonds could also be used in combination with commercial construction loans. Many banks have programs that are designed for community investment and would fund affordable housing construction. We spoke with several local banks that would be interested in partnering on this type of project.

**Non-Profit Options**

Many nonprofit lenders also have products designed to support affordable housing. Hawaiian Community Assets, among others, has funded affordable housing construction loans.

**Off-site Infrastructure Costs of District Plan**

Individual projects paying for off-site infrastructure is inefficient, driving up cost.

“Off-site” infrastructure costs are those not directly situated on the project site. It is more cost efficient and effective to have these costs paid for not by each project but as a publicly-supported district-wide infrastructure investment. Relieving developers of these requirements would allow them to be selected for what they do best: delivering housing. In fact, this is what all three jurisdictions—Vienna, Helsinki, and Singapore—do. There, the government has created the plan and put in the necessary backbone—roads, sewers, water and electrical services—before developers start building houses. These elements of the planned neighborhood are fairly standard and do not require much creative design. This model allows housing developers to compete on cost and design for the parts that customers will actually experience, such as the layout of the apartments and common area amenities. Also, when the public sector assumes the costs of basic infrastructure, the overall cost of building affordable housing is lower and homes can be sold at a lower price.

Public infrastructure investment best supports affordable housing in areas with public land. Market rate housing is affected less by savings in off-site infrastructure cost because its price is largely determined by the market, not by the cost to build. However, there are many places where even market rate housing cannot be built due to lack of infrastructure, and if the public sector provided the infrastructure, more houses would be built. This could lead to a reduction in price, although market rate housing would still not likely be as affordable as a publicly-supported housing project where the price is determined by the cost of building.

There are two main ways for the public to pay for district infrastructure: GET or Property Assessment (Community Facilities District).

A July 2020 planning and implementation study prepared for the TOD Council assessed various options to pay for infrastructure needed in TOD areas, and concluded that using General Excise

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Tax (GET) funding was preferable to other proposals. The study recommended that the State increase the GET rate by 0.01% on economic activity in the newly-developed area. It would dedicate the resulting revenue collected over 10 years to pay for state supported infrastructure costs. In addition to GET, 30% of future property tax revenue from developed areas would be used to cover the costs.

**Recommendation**

**Considering a CFD model: more equitable and can provide enough revenue.** Although we appreciate that the authors of this study felt it was more politically feasible to use an increase in GET to pay for infrastructure, we believe that a Community Facilities District (CFD) model is more appropriate. In fact, such an approach might be more feasible since the COVID-19 pandemic recession has imposed new constraints on the State budget. The 2020 study assumed a pre-COVID economy when the State budget was not facing a $2 billion budget shortfall, tourism was strong, and unemployment low. Additionally, the impacts of COVID have revealed a deeply inequitable economy: single family home prices keep increasing, while low- and middle-income workers are struggling with lost jobs and earnings.

**Property assessments are a better tax: can be adjusted to be progressive.** Property tax assessments tend to be progressive in nature (that is, wealthy households pay the most and low-income households pay the least) because the higher the value of the home, the larger the tax amount. The homeowner’s exemption of $100,000 (or more) makes these taxes more progressive because it disproportionately benefits households in lower priced homes. In many Hawai‘i counties, property taxes are becoming more progressive with increased rates for non-owner occupants and marginally higher rates for more expensive homes.64

Community facilities district approach is a targeted tax: only properties in improvement areas are impacted, not the entire island. Also, permanently affordable homes can be exempted.

Another advantage of a CFD approach for infrastructure is that the added tax can be targeted to new developments that benefit from the public improvements. The tax can also be crafted to largely exempt affordable homes, while remaining in place for market priced homes.

Based on data from the July 2020 study for the TOD council here is an example of how a CFD can pay for district-wide infrastructure:

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Iwilei-Kapalama TOD Plan Projections for Phase I and II

Number of Homes to be Constructed between 2020-2039: **16,661**
- Public Housing (HPHA projects): 3800
- DHHL: 500
- HHFDC (Liliha Civic Center): 200
- Market Priced Homes: **12,161**

Number of affordable homes, according to Honolulu County guidelines (15%): 1824
Number of private homes sold at market prices: **10,337**

Using the above housing projections, an assessment could be implemented on the market rate property which would generate enough revenue to pay for both market rate and affordable housing.

**Infrastructure Investment Needed for 1000 Units**

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Phase II</th>
<th>Total:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$235 million</td>
<td>$227 million</td>
<td>$512 million</td>
</tr>
</tbody>
</table>

Based on some general assumptions*, the following CFD assessments on market rate homes would produce funding adequate to support infrastructure investment needs:

<table>
<thead>
<tr>
<th>Assessed Value</th>
<th>Current RPT Rate Honolulu</th>
<th>Infrastructure Tax</th>
<th>Total RPT Rate + CFD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-$500K</td>
<td>0.35%</td>
<td>0.5%</td>
<td>0.85%</td>
</tr>
<tr>
<td>$500K–$1M</td>
<td>0.35%</td>
<td>1%</td>
<td>1.35%</td>
</tr>
</tbody>
</table>

*Assumptions: annual CFD special tax revenues, in current dollars, would amount to $33M, assuming an average private market home value of $569,000. Depending on future property value increases (assumed 1–2% per year), number of people claiming a homeowner’s exemption, and timing of infrastructure requirements, this additional CFD revenue could generate approximately $500M in net bond proceeds available to fund infrastructure. These CFD tax rate assumptions may be considered high, and lower CFD special tax rates would produce less funds, but that may be compensated for if private market home prices are higher than assumed in this simple example.

In this way, a Community Facilities District assessment on private market properties could subsidize the infrastructure costs needed for all homes, including the long-term affordable rental and for-sale.

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66 Id, p. 87–88.
67Assumptions: Average price for 2bd condo in Honolulu Metro area in 2019: $569,000, property value increase of 1.5% per year, no home-owners exemption.
Construction Methods

Our analysis determined that hard cost management for a state supported affordable housing program should be the same as for market rate housing.

We looked at these three hard cost approaches and present our findings:

- **Factory-built / Modular**
  Savings begin only at an initial order of 4000–5000 homes
  
  Our interview with Factory OS indicated that, at this time, the only way modular construction of multi-story homes could save costs in Hawai’i would be if shipping costs were eliminated by having a factory built on O’ahu. In order for Factory OS to recover the costs of building a factory in Hawai‘i, the State would need to approve and fund orders for 1000–1500 homes per year for 4–5 years.

  At this time, with the concept of State supported for-sale homes being a new approach to delivering affordable housing, it would be unwise to “guarantee” such a large order of homes. Funding a pilot project and testing the viability of the model should be the first priority. At a later time, if the price of a modular unit comes down, it could make sense to follow this route.

- **Artificial Intelligence (AI) Design**
  Savings of 1–3%

  According to two contractors who use AI and Design, savings related to AI use are about 3–5% of hard construction costs or 1.5–2.5% of total project costs. Although it is not a significant savings, it is one advancement that the state can take advantage of by providing financing for larger projects. While construction companies use this technology to gain a competitive edge over other companies, the State can directly pass savings onto the buyer.

- **Limited Do-It-Yourself (DIY) Construction or “Shell Housing”**
  5–10% savings

  We interviewed several developers that have used sweat equity models in mid-rise dwellings, who report that future residents could have some significant savings by doing some of the finishing work themselves. Work that could be completed in a mid-rise includes installing floors, painting walls, hanging kitchen cabinets, and installing light and plumbing fixtures. Cost savings of even just 5–10% would be significant and especially if could be applied towards a down payment, as has sometimes been the case with Self-Help housing.

Streamlined Entitlement: Environmental Assessment

In TOD areas, the development of affordable housing and mixed-use developments could be expedited by the implementation of Programmatic Environmental Impact Statements (EIS) for regional areas. Further, there was a 2019 amendment to the Hawai‘i Administrative Rules (HAR) regarding the waiver of an Environmental Assessment (EA) when developing affordable housing. An EA for each parcel adds significant time and costs to any development project. One way to save costs is for the State to complete a Programmatic EIS in TOD areas. The utilization of the following...
HAR sections could expedite the development of affordable housing in TOD areas.

**EA Waiver for affordable housing**

As stated in Hawai‘i Administrative Rules:

“§11-200.1-15 General types of actions eligible for exemption:

(c) The following general types of actions are eligible for exemption:

“(10) New construction of affordable housing, where affordable housing is defined by the controlling law applicable for the state or county proposing agency or approving agency, that meets the following:

A. Has the use of state or county lands or funds or is within Waikiki as the sole triggers for compliance with chapter 343, HRS;

B. As proposed conforms with the existing state urban land use classification;

C. As proposed is consistent with the existing county zoning classification that allows housing; and

D. As proposed does not require variances for shoreline setbacks or siting in an environmentally sensitive area, as stated in section 11-200.1-13 (b) (11).”

The above HAR can be used to expedite the development of affordable housing.

The EA completion and process ranges from 8-12 months; hence, the waiver of an EA expedites the development process by approximately one year.

Programmatic EIS can be used in instances requiring a “larger total undertaking.” If the project or a series of projects within an area sited for future development is proposed and the approving agency determines that the “larger total undertaking” requires an Environmental Impact Statement (EIS), the following HAR section can be implemented: Section 11-200.1-10.

**Example Aloha Stadium**

A recent mixed-use development in a TOD area implementing the HAR section stated above is the New Aloha Stadium Entertainment District (NASED) EIS. This multi-phased project is utilizing this HAR provision to complete their EIS requirement and process. The NASED project is essentially a Programmatic EIS as it’s a large-scale development to be completed in phases.

**Recommendation**

To achieve cost savings, an ALOHA Homes project should qualify for an EA waiver or be included as part of a larger programmatic EIS.
Developer Fees

Developer fees and overhead run at 4–6% of project costs.

This housing delivery model significantly reduces risks and costs for the developer, which can translate into a lower development fee still being an attractive level of compensation. In a model where the State is providing construction loan financing, in the form of taxable mortgage revenue bonds supported by a mortgage interest in the property (not a private activity bond), and where entitlements and permits have been streamlined, the developer assumes less risk. For the purposes of our sample pro-forma, we have used a middle number of a 5% developer fee. A few relevant comparisons include:

1. In places with a similar housing delivery model, such as Finland, the developer fees are 4%.
2. Some non-profit developers in Hawai‘i complete projects with a 3–5% developer fee.
3. Lastly, average LIHTC projects have developer fees and overhead largely in the 6–8% range, so 4–6% seems reasonable for a project with less risk and lower upfront costs.

Hard Construction Costs

For affordable housing, $325–375 per square foot of leasable area is achievable.

Based on our interviews with local industry experts including both construction companies and developers, the actual costs of vertical concrete construction in TOD areas with land well-suited for housing is $260–$300 per gross square foot. For an affordable housing project with limited amenities, the common areas, not including parking, are about 20% of the total constructed space. This translates into a cost of roughly $325–$375 per square foot of leasable space for the project. In addition to having fewer amenities, affordable housing can use less expensive construction methods such as tunnel form construction employed by Hawai‘i Dredging. For affordable housing construction of sound quality but not luxury, we estimate that a hard cost of $350 per square foot of leasable space is reasonable and accurate. These hard costs are lower than what is found in typical LIHTC projects for two reasons:

1. The conditions on construction and compliance with LIHTC requirements adds to the cost.
2. An extended pre-development process often results from complicated financing structures and circumstances.

Parking Separated from Housing Cost

Best Practice: Unbundling parking from the cost of housing.

The cost for a parking stall can range from $25,000 to $40,000. In Vienna and Helsinki parking is always unbundled and one parking structure is often shared by multiple buildings. High cost jurisdictions such as San Francisco, New York and Seattle are increasingly separating the cost of parking from the cost of housing.

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*Based on interviews with several local developers and construction contractors.*
Especially in areas near transit this is becoming standard practice. Parking becomes an option that homeowners can pay for with a monthly fee instead of automatically being incorporated into the purchase. To finance parking sometimes a developer will partner with a private parking operator that owns, operates and maintains the structure. In TOD areas where there are other transit options some people would choose to own fewer cars or choose a car sharing option, such as the Hawai’i Hui Car Share program where you can reserve cars for personal use.  

**Focus Group results: residents are receptive as long as parking is available**

When presented with the option to separate the cost of parking in order to lower the purchase price of a home, our focus group participants agreed it would be good to have a choice. The main concern was ensuring enough parking for those who wanted to pay for it.

1. **Create a two-step process in which developers first submit qualifications.** Invite no more than three developers to submit a more detailed RFP. This is the process in use by the New Aloha Stadium Redevelopment Authority to maximize competition and initial interest in a project. However, expect detailed plans from only the top contenders.

2. **Engage private consultants to provide third-party analysis of private development pro-formas as a prerequisite for the contribution of publicly-owned land.** This helps to build trust in the process through accountability and transparency. This is a common practice in many jurisdictions and the cost—about $20,000—is minimal compared to the cost of the overall project. Additionally, the developer can wrap the cost into the overall project budget if a development agreement is executed.

Development Model to Increase Competition

**We recommend the following for a development model:** a **two-step RFQ/RFP process with third-party verification** of financial documents

To encourage competition among developers and to reduce costs for the State, it is recommended that proposals undergo a two-step vetting process and that in the final proposal developers be required to submit their pro-forma for third-party verification.

69 drivehui.com
This model would provide a pathway to ownership for people earning average and above-average wages, but who can still not afford to purchase in the private market. Based on the recent Hawai‘i Housing Planning Study, there are approximately 5000 households in the 80%–140% who would like to purchase a home.¹⁰ Leasehold ownership offers significant benefits over rental housing, including:

1. **Greater stability and control over lease terms**
   Leasehold owners, as members of the housing association, can set rules for the building, priorities for common area spaces and choose building maintenance schedule.

2. **Sense of ownership, improved well-being**
   In the words of one focus group participant, “Owning a home would make me feel like more of a community member, more of a citizen.” Numerous studies show that homeowners are more likely to be invested in their community and there are significant health and educational benefits.⁷¹ ⁷²

3. **Inheritance: transfer property to children**
   Under a long-term leasehold model, a property can be passed down from parents to their children in the same way as fee simple. The ability to transfer property, security, and equity to future generations is a significant benefit over renting.

4. **Financial gains: price stability, wealth generation, and tax benefits**
   With a fixed 30-year mortgage, a person’s monthly housing costs are stable over time, and not subject to annual increases allowable under most rental agreements. Also, even in a limited-equity model where the resale price is restricted, an owner gains by paying down their mortgage and from inflationary increases in home value. Lastly, tax benefits through the mortgage-interest deduction program amount to thousands of dollars in savings every year. For residents with an income of $60,000–$90,000, who would most likely take advantage of this program, the savings would be approximately $2500–$3000 a year for the first five years of a mortgage.⁷³

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⁷³ Assumptions: 30-year mortgage with 3% interest rate. Federal effective tax rate of 12%, Hawai‘i rate of 7%.
Demand for State Supported Leasehold Housing

After determining what a feasible price would be for this type of housing, we conducted focus groups to gauge interest in this model and what the concerns would be.

Methodology
To conduct the focus groups, we sent out messages via text and social media to the public through our website and partner organizations, including local unions. Over four weeks, over 160 people completed our survey. Ultimately, 18 people participated in either a one-on-one session or group conversation.

We initially screened for people who had enough household or individual income to potentially qualify for a mortgage with our price assumptions. However, because approximately 66% of respondents would not be able to income qualify, we held one focus group with low-income participants to gauge interest in a rent-to-own model supported by low-income tax credits (LIHTC). This rent-to-own model is one of the few pathways to ownership for those below 80% of the area median income, and is something the State can facilitate through the existing LIHTC program. Because the ALOHA Homes model does not expressly contemplate a rent-to-own option, we conducted only one focus group with lower-income participants. Fourteen of our 18 focus group participants were income qualified.

Focus Groups’ Key Input

- Leaseholds: hesitation at first, receptive after learning details
  Generally speaking, participants did not fully understand the limits and benefits of leasehold properties prior to participating in the focus groups. The focus group facilitator explained that leasing was a way to cut down costs, because “you don’t pay for the land, you only pay for the building.” While many participants were initially apprehensive about the idea of engaging in a leasehold agreement, most were open to it after better understanding what became within reach.

  Given the stigma of leasehold properties for many focus group participants, it was important to make a clear distinction between private-market leaseholds, and state-provided leaseholds, which offer a public benefit, and in some cases, operate similar to a public land trust.

- Importance of pricing: low-monthly costs key to program interest.
  Program participants who were initially very skeptical of a leasehold program became interested after being presented with monthly costs, including homeowners association (HOA) fees that are similar to market-rate rental prices. Even participants who strongly preferred fee simple ownership were interested in this option as an intermediate ownership strategy or a stepping stone. “I would do this for the next five years or so,” said one participant who
was initially very skeptical. Three participants expressed concern that HOA fees would increase over time and wanted assurance that there were sufficient funds for maintenance.

- **Down payment assistance and mortgage readiness: critical for access**
  For most focus group participants, down payments were the greatest barrier to owning property. Access to a lower down payment (3% or less) and potential down payment assistance were important to almost everyone. For some, it was the most attractive aspect of the entire program. Moreover, some participants indicated that financial literacy and mortgage readiness programs would be of great benefit, as they face credit score and debt barriers to receiving bank loans.

- **Shared equity: initial confusion, strong support after explanation**
  Similar to leaseholds, most participants did not fully understand the concept of shared equity prior to participating in the focus groups. The focus group facilitator used graphics to explain the concept’s financial trade-offs of keeping housing affordable over the long-term. Once explained, participants almost unanimously supported the concept of shared equity. As one participant stated, “If I receive help buying a place, it only makes sense that I don’t make a lot of money if I sell the place.” Moreover, most participants felt it would be unfair for people to sell affordable units at market-rate value at any time after the initial purchase.

- **99-year lease versus 65-year lease lengths**
  Not surprisingly, most people preferred a longer lease although one participant commented that at her age either one would be fine. The main benefit people cited for longer leases was being able to pass the home onto their children.

- **Preferences and set-asides: Set asides perceived to be more fair**
  Focus group participants generally supported both preferences and set-asides for special groups in need of housing. However, some participants were hesitant about the idea of preferences because they thought “everyone should be equal.” Notably, even the participants who were against preferences were in support of housing set-asides. A set-aside felt more fair to participants who were opposed to some applications receiving preference over others.

- **Sweat equity: highly popular option, 94% support**
  Nearly all focus group participants were in support of the sweat equity model and expressed interest in engaging in such a program if it could help reduce the cost of the home and the down payment. They also expressed interest in the fact that sweat equity would help create community among residents and provide homeowners with useful home maintenance skills. As one participant noted, “This [sweat equity] is a great way to solidify tenants’ commitment.”

- **Future resident involvement in planning: strong interest, once a month is feasible**
  Focus group participants believed future residents should be involved in planning the ALOHA Homes Program and its eventual design of affordable housing units. Many participants also expressed interest in participating themselves. However, there was disagreement over preferred frequency of involvement. Some participants would be interested in meeting on a monthly basis for
about a year, while others said they would only participate a few times a year.

- **Housing amenities: gathering space desired, low HOA fees is priority**
  While focus group participants expressed a desire for amenities, such as recreation rooms and communal spaces with grills, there were few amenities which participants indicated would “make-or-break” their involvement in the ALOHA Homes Program. Instead, participants preferred lower HOA fees and fewer amenities. However, many participants indicated that having laundry machines within their own unit was critical; they would not live in a housing complex with shared laundry machines. Moreover, there was a general interest in having access to gardens or open green spaces.

- **Parking: support separating from cost of housing, concern there will be enough**
  The focus group facilitator began the discussion about parking by sharing information about how parking increases tenants’ mortgages. Many participants were surprised to learn the high costs associated with parking. Although participants generally desired the availability of parking, some participants were open to the idea of having a “one-car-family.” Others were open to not having parking, pending the availability of other transit options. Participants were particularly interested in the option of separating parking from the cost of housing by paying a separate monthly fee of approximately $160 per stall in exchange for a lower mortgage. Participants appreciated the option to not have parking included in the cost of the mortgage.

- **Owner-occupancy enforcement: concerns with high-tech, management preferred**
  Focus group participants universally agreed that owner-occupancy must be a requirement of the ALOHA Homes Program and that it should be strictly enforced, including with high fines for residents who break the rules. Some participants, particularly single-women, felt this was important for ensuring safety.

  Generally, participants were not in favor of technological solutions such as face-scanning and fingerprinting, as they felt it was an invasion of privacy, could be difficult to accommodate guests and was susceptible to technological error. As one participant put it, “I can’t even get my fob to work sometimes.” Participants were more in favor of solutions that involved a property manager enforcing the rules. They felt that the residents themselves should have an active role in monitoring and identifying tenants who are illegally renting their units. Lastly, participants expressed a need for flexibility in cases where family and friends are visiting for extended periods.

**Potential Pilot Project**

**Liliha Civic Center**

In order to make the program more tangible and relatable we suggested the Liliha Civic Center as a potential pilot project site. This site was selected because it is close to downtown Honolulu, near a future rail station and already has plans for affordable housing. Most participants were very interested in this location, with several commenting that it would save them significant time spent in their cars commuting. Some people were so enthusiastic that they asked when the project would start and to be informed of progress.
Strong support for state-operated affordable leasehold housing

While there was disagreement over some of the potential elements of the ALOHA Homes program, focus group participants were generally supportive of the State pursuing this effort and felt that it was the responsibility of the State to provide affordable housing opportunities to its residents. Several participants expressed frustration that current properties being built were not affordable to local residents and one noted that “even the supposedly ‘affordable’ homes are not really affordable.”

Given the lack of affordable homeownership programs in Hawai‘i, focus group participants felt that many of their family members, friends and colleagues would be interested in this new and innovative opportunity. As one participant from Kaua‘i said, “I would actually move to Honolulu for this program.

Conclusion

There is likely very high demand among local residents for leasehold affordable housing at the prices that are currently feasible with this model, especially if it is coupled with down payment assistance programs. Concerns that emerged about the model were the potential for HOA prices to increase, possible limits in being able to pass the property onto one’s children, and ensuring that the property be well-maintained and managed in the future.

The interest in affordable homeownership opportunities, even with shared equity and a restricted-resale price, mirrors the experiences in other high cost places shared with our research team. In San Francisco, there are 20 approved applications for every available below-market home, even with a permanent resale price restriction.74 Other interviews with land trusts and local governments affirmed that ownership opportunities priced at least 25% below market have strong demand even with resale price and buyer restrictions.75

74Interview with San Francisco Mayor’s Office of Housing and Community Development.
75 Interviews with Grounded Solutions Network and several Community Land Trusts.
State Land Contributions Are Key: Mission Alignment of State Agencies

For this housing delivery model to be successful, it is critical that land is contributed at a minimal cost. Otherwise, the housing will require further subsidies in order to be affordable at 80–140% of area median income. It is also crucial that the housing projects are part of a larger mixed-use area plan where market rate housing and commercial properties can subsidize the affordable homes.

Although the State has significant land holdings in TOD areas, the land is often owned by different State agencies whose missions do not include affordable housing. For example, the Department of Education must prioritize education goals and the Department of Accounting and General Services must provide office space for State agencies. However, for affordable housing to be built near rail or other transportation hubs, some of their lands should be repurposed for housing.

The difficulty is determining which lands should be used for affordable housing, and then facilitating the transfer of development rights to an agency such as HHFDC or HCDA which can deliver the affordable housing. Also, landowning agencies which do not have housing missions, such as the Department of Education, should be compensated for their contribution of land towards affordable housing. Otherwise the goal of affordable housing will always be competing with the primary mission of other agencies. A land contribution can and should be a win-win.

Fortunately, the process of bringing agencies together to create a plan for affordable housing in TOD areas has already been started by the Hawai‘i Interagency Council for Transit Oriented Development. Created in 2016, the council has encouraged agency collaboration and has initiated important planning efforts for TOD areas. However, it does not have the authority to implement an affordable housing plan or the structure necessary to hold agencies accountable for moving a plan forward. To assist the TOD council and the State in reaching the goals of affordable housing, the following actions are recommended:

1. **Establish a TOD subcabinet under the governor’s executive office.** The subcabinet would be responsible for advising the governor and guiding the planning and coordination of State agency TOD implementation. The governor should regularly attend TOD subcabinet meetings to assess progress towards housing goals and offer assistance with obstacles that emerge. To demonstrate that affordable housing is a top priority for the State, the governor must be visibly involved in ensuring that benchmarks are reached.

2. **Create the position of Director of Affordable Housing, who would report**
directly to the governor and ensure that progress is being made across departments and agencies. The director would create a set of housing goals and report on progress towards them regularly to the governor. This position would emphasize the importance of affordable housing and require greater State accountability in progressing toward goals.

3. Support funding for the TOD council and the Director of Affordable Housing to provide seed money for planning efforts and hiring consultants as needed. Even an annual budget of $1–2 million for affordable housing planning and implementation efforts would create efficiencies in how hundreds of millions of State and county dollars are spent, and ensure that affordability is prioritized in future development plans.

Expanding the availability of affordable housing will depend on many agencies collaborating and working together towards this common purpose. Unfortunately, collaboration cannot be mandated or simply passed into law. Instead, it needs to be incentivized by providing resources and plans that advance affordable housing goals, compensating non-housing agencies that contribute land, and by continuous assessment of progress. There are no short-cuts to effective collaboration, or to achieving long-range, ambitious goals such as providing quality affordable housing to Hawai‘i residents.

Mortgage Assistance: Down Payment Support and Mortgage Readiness

Down payment support is one of the most referenced hurdles for people trying to purchase a home. According to the Hawai‘i Housing Planning Study of 2019, when researchers asked people for their top reasons for not buying a home, the overall price of the house was the response for 56% of respondents, followed by the down payment for 31 percent.76

This data aligns with our focus group research, which indicated that the ability to obtain a 3% down payment and other forms of assistance such as grant or matched savings programs, was a significant benefit to interested residents. All of our focus group participants could afford the monthly house payments at our projected sales prices; it was simply the down payment and loan qualification requirements that would prevent homeownership.

Savings & down payment programs in Hawai‘i

Hawaiian Community Assets (HCA) provides a MATCH Savings Program. HCA matches savings for individuals to put towards an identified savings goal. HCA also provides micro loans of up to $10,000 that a buyer can put toward a down payment.

Local Banks offer 3% down payment options. We spoke with three local lenders and all offered mortgage products with a 3% down payment.77

Department of Hawaiian Home Lands: pilot program.

As of December 2020, the Department of Hawaiian Home Lands (DHHL) approved a pilot program for down payment assistance to help those on the housing waitlist to make payments toward fee-simple residences not situated on

77 Interviews with Bank of Hawai‘i, Central Pacific Bank, and American Savings Bank.
With a community of nearly 250 people, Pu’uhonua O Wai’anae is one of the oldest and most established houseless encampments on O’ahu. Although the residents are technically houseless, Pu’uhonua O Wai’anae is an established village on 19.5 acres of land, where residents grow their own food, share resources with one another, engage in community services, and plan community events. Pu’uhonua O Wai’anae is organized into sections of 20 to 25 people, forming “communities within the community.” Each section is appointed a village “captain” to help enforce rules and settle disputes.

In 2020, Pu’uhonua O Wai’anae succeeded in raising $1.5 million in private donations to purchase a 20-acre parcel of land in Wai’anae Valley to relocate their village. The initial design concept for the new village included a cluster of tiny homes based on the village sections, and shared spaces at the center of the community, including restrooms, kitchens, cooking areas and gardens.

Village residents were then invited to participate in design charrettes to provide input on the design of proposed community spaces and the homes. Once the relocation site was selected and purchased, organizers and future residents began site visits, clearing rubbish, and building relationships with neighbors of the future village, establishing a sense of responsibility for the land before the building starts. Moreover, the selected

79 “Affordable Housing Development Training Webinar,” Hawaiian Community Assets, 2020
design of the homes, A-frame structures, is simple enough to install that residents can actively participate in the process once construction begins. The simple design, communal kitchens and bathrooms, and villagers’ demonstrated ability to perform functions like groundskeeping and security, help keep development and operating costs down—savings that will be passed on to residents in the form of rents below $300 per household.

International Case Study
Co-determination in Vienna,
Participation model in Helsinki

Vienna has a long history of government-sponsored housing. Today, 62% of residents in the city live in public housing. The developers of public housing actively engage future tenants through a process of “co-determination.” Through this process, residents can provide input on housing design, as well as on the use of and decoration of communal areas. The level of collected input varies by development, with some projects allowing residents to choose a floor plan, while others allow input on only common areas.

Helsinki multi-family housing developers are working with buyers during pre-construction to get design input especially for amenities and community spaces. Meeting with future occupants is seen by some developers as a way to add value to a project and have residents help with resource choices: should we have less parking and more car sharing options? How should communal space be used? Involving future occupants in these conversations can create better design and also save project costs.

International Case Study
Senakw Development in Vancouver

In January, 2020, Squamish Nation members approved the construction of a new district, called Sedakw, in Vancouver that would house 11 towers with 6,000 total dwelling units for more than 10,000 residents. The future development sits on 11.7 acres of former railway lands within one of Canada’s smallest First Nations reserves.

Since Sedakw is on federal land and not city land, the planners of the future development have the flexibility to work outside of Vancouver’s design standards. While the city typically mandates one parking stall per unit, only 10% of Sedakw apartments will include parking. Sedakw buildings will also forgo the podium-and-tower design that has become iconic in Vancouver. Instead, the apartments will be slender high-rises with a density of 500 units per acre, on par with the density in cities such as Hong Kong.

The future Sedakw development challenges the notion that indigenous communities must be low-density, rural, and located on the outskirts of cities. Revery Architecture, the architecture firm responsible for the Sedakw design, worked with

80 Dudley, 2019


83 Ibid.
members of the Squamish Nation to ensure the design paid tribute to the site’s history and relationship to the natural environment. For example, apartments near the Burrard Street Bridge have been designed to emulate the feeling of entering a forest.

**Lessons for the ALOHA Homes program**

- **Engage future residents early**
  Consider ways for future residents to become involved with project design before construction begins. This builds a sense of community and adds value.
- **Dense urban design can pay tribute to local history and the native environment.**

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**Cost Recovery Principle:**
State Funding is Recycled

One advantage of an ownership model for affordable housing is that State funding for the project can be recovered and recycled for another project when new residents secure mortgages that cover the costs of development. Note that this is for the cost of the building only and not for all the offsite infrastructure, community-wide amenities, and other costs that go into a larger community plan. However, recycling the money for just the vertical construction costs helps create a sustainable path to expanding affordable homeownership in Hawai‘i.
VIII Proposed Legislative Action Items

Most of the following tools needed to implement an affordable leasehold program already exist within current State laws and administrative rules:

- **Community Facility Districts for Infrastructure Financing**
  
  One area that might require some legislative change is allowing the State to be re-paid for infrastructure investments through Community Facilities Districts implemented by the counties. In this arrangement the State would put in the initial bond funding and the counties would repay the bond financing with increased property assessments in the various improvement districts. Further research is needed to assess whether this arrangement would require any changes in the HRS or if it simply requires a memorandum of understanding between the State and county.

- **Affordable Housing Facilitator**
  
  Access to affordable housing is such a key issue for Hawai‘i residents that it deserves high level attention and direct communication with the Governor’s Office. This position would coordinate efforts across multiple agencies and work towards a long-term strategic plan.

- **Taxable Mortgage Revenue Bonds**
  
  This financing tool could be used by HHFDC to provide low-cost and efficient construction financing on a project-by-project basis without impacting the State budget or the private activity bond cap. Further legal research is being conducted to determine if the current HRS 201H provisions for Taxable Mortgage Securities Programs are sufficient for the purposes of financing affordable leasehold housing.
**IX Lease End Game Issues**

Even if a solution were reached on the 99-year lease term issue, the ALOHA Homes concept faces another barrier—what happens as a lease nears its end date and eventually terminates.

Due to mortgage financing standards, leasehold values decline when there is less than 40 years remaining on a lease. Current home mortgage standards require a minimum of 35 years remaining on a lease in order for a buyer to secure a mortgage. In addition, new lease terms are typically negotiated in the five-year period before the 35-year mark, that is, it starts when there are 40 years left on a lease. If there is less than 40 years remaining on a lease with no possibility of extension, a buyer will have a difficult time securing a mortgage and, as the seller struggles to find buyers with financing, a home will begin to decline in value.

In Singapore, for example, some 99-year leasehold homes built in the early 1960s now have less than 40 years left on their leases. These homes are seeing a decline in value as sellers must either sell for less than what they initially paid or remain in the property until the government provides a new housing option for them.  

According to local lenders, leasehold properties in Hawai‘i also decline in value as owners cross this 40-year threshold on a lease. A 99-year lease will retain value for significantly longer than a 65-year lease, however, they both will require a plan to either buyout or relocate homeowners.

- 65-year lease declines after 25 years.
- 99-year lease declines after 59 years.

For the first owner on a 99-year lease there is no financial impact at the end date since the owner will usually be able to find a buyer with mortgage financing while alive, assuming leasehold purchase as a young adult. However, subsequent buyers are likely to be negatively financially impacted as they do not fully perceive the consequences of a shortening lease period.

**Admiral Thomas Apartments**

Admiral Thomas Apartments is a 149-unit leasehold high-rise condo tower in Makiki. The lease on the building expires on December 15, 2046. A review of recent sales price data for these units reveals steadily declining values for units that have been sold since it hit the 40-year lease-expiration threshold at the end of 2006.

There are 50 one-bedroom, one-bath, one-parking units at Admiral Thomas. Examining the last sales price data suggests that those units have dropped to nearly a third of their 2006 peak value. Data for the 47 two-bedroom, two-bath, two-parking units mirror this trend.

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85 The data from Admiral Thomas examined for this report included only the last sales price for each unit from the building. For example, if unit 101 sold in 2003 and again in 2020, only the 2020 sale would be reflected in the data. While more complete data that included all sales information for the building would provide a more precise picture of changes in sale prices, the downward trend since the building hit the 40-year threshold is clear.
The graph below provides examples of two of the units at Admiral Thomas Apartments which demonstrates the impacts of these trends on individual homeowners.

In the case of Apartment 2603, someone purchased the apartment in 2008 for $405,000 and then after 12 years, sold the unit for just $130,000. Assuming the person used a 30-year mortgage with a 3.5% interest rate and a 20% down payment, in 2021 the seller would have
still owed around $223,000 on the mortgage but would have only gotten $130,000 from the buyer. The seller would need to secure over $90,000 to pay off the mortgage before being able to sell. With a smaller down payment (the ALOHA Homes concept proposed a 3% down payment) or a higher interest rate, the situation would be far worse. The situation would be similar for Apartment 1701 and most others at Admiral Thomas.

The above scenario where a homeowner cannot sell a home for what they owe on their mortgage is a likely outcome for many owners in a leasehold without renewal options. This situation would be unacceptable for an affordable homeownership program whose goal is to expand housing opportunities and help people build equity. The reality of the program for these later-arriving participants would be declining equity and very limited options: either stay until the lease ends or walk away from the house and mortgage.

Local lenders are wary of leaseholds with uncertain renewal options due to previous negative experiences.

Leasehold housing is not new in Hawai‘i. Previous experiences with private leaseholds where a lease could end or suddenly increase in price at the renewal period created uncertainty and frustration on the part of the leaseholders. For a family who has been living in a home for 30 years and dutifully paying their mortgage to suddenly have their home decline in value or to face a big increase in lease payments, is a very upsetting experience. Frustrated leaseholders then seek assistance from lenders, community organizations, and their elected officials to change the terms of their lease as it feels unfair to pay a mortgage for decades and then have financial expectations change. Although a leasehold buyer is informed that the value of their property can decline as the lease term shortens, in practice it is challenging to suddenly shift expectations after years of living and investing in a home. These conversations with frustrated and disappointed leaseholders are understandably difficult for lenders. As a result there is hesitancy to offer mortgages on leasehold properties where there is uncertainty about lease renewal options.

Examples from other jurisdictions: renew lease or create provisions for relocation

Based on conclusions drawn from the examples below of how other jurisdictions have handled the lease end game issue, it seems that either the lease is extended or significant State resources are used to relocate owners or compensate them for their homes at fair market value. The only option which does not add significant cost and maintains the revenue neutral goals of ALOHA Homes is a lease extension. However, as discussed earlier there are significant concerns about long-term leases on State lands which have unresolved native Hawaiian land claims. Certain State lands which do not have sale restrictions could be appropriate for long-term renewable leases, however, opportunities for development would be much more limited in scope than contemplated by the original ALOHA Homes proposal.

Case Study: Canberra, Australia

**Australian Capital Territory’s Leasehold System, est. 1921**

End Game Policy
Renew 99-year leases; allow sales at market price.

Background
At the beginning of the 19th century, Australian
political leaders wanted to avoid large increases in land prices that had occurred in established cities and aimed to preserve affordability in the new Australian capital city and to provide revenue for the new Commonwealth Government through public land ownership which would be leased. Initially, in 1924 the land was leased for 99 years at only 5% of the land’s market value, with the intention that the lease rents would be re-assessed in 20 years at a higher rate. Although intended to create affordable housing, the leases were allowed to be traded and there were no restrictions on the selling price. With an unrestricted sale price and no requirements of owner occupancy, the leasehold homes soon became as expensive as fee simple homes. Today, home prices in Canberra are similar to other Australian cities, in fact the average leasehold home price in Canberra in 2020 was $855,410. The earliest 99-year leases will be expiring in 2023 and government policy is to renew the 99-year lease to the current leaseholder provided that the land “is not required by either the Territory or Commonwealth,” in which case compensation at market value would be paid to the owner.

Canberra highlights the importance of price and buyer restrictions to maintain affordability.

**Case Study**

**Kaua‘i County**

**99-Year Limited Appreciation Leasehold Estate Program**

**Est. 2007**

**End Game Plan**

One-time lease renewal or transfer of property to community land trust.

The current County of Kaua‘i leasehold agreement allows for one renewal of the lease period. However, the original intention of the program was for leasehold properties to be transferred to a “Kaua‘i community housing land trust” to alleviate the County from administering the program. Recently, the Hawai‘i HomeOwnership Center has established a community land trust (CLT), and there is the potential for the County leasehold properties to

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be transferred to this CLT for ownership and management.

**Background**
Since establishing the “limited appreciation leasehold estate” program in 2007, the Kaua‘i County Housing Agency has offered 27 leasehold properties for local residents with sales prices 30-40% below market prices. Although it is a small program, it appears to be a very successful one from the standpoint of maintaining affordability, satisfaction of current owners, and demand for the homes. Only one leasehold home has been resold over the past 15 years, and there is a waiting list of over 400 income qualified Kaua‘i residents hoping to access this below-market opportunity. The type of housing reflects the local housing market and needs of residents— all the homes are single family homes and most have three bedrooms with multiple bathrooms. Although the homes are basic in design, and have permanent affordability restrictions which limit the profit or equity gains which go to the owner, the housing remains in high demand because it meets people’s needs at a much lower price than market homes.

**Limited appreciation does not deter demand; low-pricing is likely the bigger factor.**
One of the striking things about this leasehold program is how it maintains demand even with owner equity set at only 25% of the total equity increase—a much lower amount than other models which are closer to 50% of the appreciation in home value. The high demand in spite of very limited appreciation indicates that other factors are more important – presumably the low initial price and perhaps the benefit of passing the home onto qualified family members. These homes are clearly purchased primarily as a place to live and secondarily as an investment. However, the owners will still accrue significant benefits in comparison to renting, not least of which is paying down a mortgage so that after 30 years housing costs are greatly reduced.

**Kaua‘i residency requirement**
The original ordinance for the program passed in 2007 has four requirements to be considered a “qualified resident”. These include: (a) citizen of the U.S. or resident alien, (b) Is 18 years of age, (c) Is a full-time resident of Kaua‘i County, and (d) shall reside in the workforce housing unit. In addition to these requirements, to be placed on the homebuyer list a resident must 1) complete 8 hours of homebuyer education and 2) not own a majority interest in another property.

To date all of the program participants have been Kaua‘i residents and there have been no legal challenges to this requirement.

**Stewardship and re-sale support provided by County; future plans for Community Land Trust**
Currently the County provides stewardship to ensure that owners are following the rules of the program such as occupying the homes and not renting the properties, and fulfilling tax and home insurance obligations. Additionally, in the event a buyer wants to sell a property the County acts as a broker by offering the property first to people on the affordable homebuyer waitlist and then if no buyer on the list purchases the home it can be sold at a restricted below-market price to a qualified Kaua‘i resident without an income limit. However, it has not been necessary to sell a home outside of the qualified buyer waitlist and with over 400 people on the waitlist, it is unlikely that any homes would go to higher income buyers. Regardless of buyer qualifications the

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90 Id pg. 4.
homes are always kept affordable and below-market. The ground lease agreement clearly states:

“In no event may the Home be sold for a price that exceeds the Purchase Option Price.”

This clause emphasizes the long-term affordability of the home. In the event that the County does not exercise its right to purchase and the home is listed on the market to buyers of all incomes, the price remains affordable for the length of the lease.

Currently, finding income-qualified buyers has been less of a challenge than adding inventory, as current resources support only one or two acquisitions a year. Even at this slow pace of growth, the program will either require more staff time or to transfer the homes to an established CLT. Based on language in the ordinance it seems the preferred approach is to migrate the program to a CLT at some point.

Analysis
Leasehold housing can be a popular option, 99-year leases are renewed

The Kaua’i leasehold program offers valuable insights into how leasehold housing can overcome previous stigmas around leasehold and be a popular option for local residents even with limited equity and long-term affordability requirements. However, this model uses County lands which, arguably, do not have the same Native Hawaiian land claims as public land trust lands and so the use of long-term renewable leases has not been a point of controversy. Additionally, all the homes are single family homes. The lease end game plan in Kaua’i is to automatically provide a renewal of the 99-year lease. This prevents the home from declining in value, and if the sales price is restricted (as with the Kaua’i leasehold program), affordable housing is permanently retained.

Community Land Trust Model: Renewal of 99-year leases

We also spoke with community land trusts in Hawai’i and in the continental U.S. who currently manage affordable housing on their land trust. Generally, their buyers enter into long term (usually) 99-year leases. When the lease term is shorter than 40 years, the leases can be renewed for another 99 years. In this model, the land used for permanently affordable housing is assumed to be the highest and best use of that land parcel for the foreseeable future.

Singapore Model: No extensions; buy out owners and retain ability to change land use

In Singapore there are no extensions to the 99-year lease. Instead, other provisions are made for owners when a lease has less than 40 years remaining and starts to decline in value. For homes that are currently 60 years old, the Singapore government has started a “Selective En Bloc Redevelopment Scheme” in which owners are offered to move into a replacement home built by the government or are paid the market value of their property.

This Singapore model requires significant government re-investment at the 60-year mark, however, the proposed ALOHA Homes program

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is intended to be revenue neutral and does not contemplate additional investments that would be necessary without lease renewal options.

**Summary**

**Lease end game issues**

A 99-year lease without renewal would need to plan for significant investment in 60 years to assist homeowners, as Singapore has done with providing new homes and mortgage buy-outs. However, that design is incompatible with a revenue neutral program. For the current model of ALOHA Homes to be feasible it must be implemented on lands that allow for renewable leases similar to other land trust housing models, and such opportunities are limited.

**Alternative forms of land tenure**

Rent-to-own models would face the challenges similar to leasehold housing with respect to use of public lands. Rental housing would be the most appropriate for State lands where lease renewal is not an option. Residents would not need to secure mortgages and are not investing in an asset so declining value would not be a problem. Additionally, it would be easier for more people to access since there is no need to qualify for a mortgage or save for a down payment.

**Analysis**

For land on which options to renew or extend a lease are not feasible, rental housing is the most appropriate form of land tenure.
Conclusions

In more than 5000 households in Hawai‘i, there are residents earning good wages, who want to purchase a home but find prices to be out of reach. The ALOHA Homes concept was developed to address this need by taking a “go big” approach designed to dramatically increase Hawai‘i’s affordable housing stock, taking on a growing affordable housing problem that the legislature has been trying to address for at least 50 years.\(^{93}\)

The 2019 bill that was introduced to advance the ALOHA Homes concept articulated the following ambitious goals:

1. End the housing shortage in Hawai‘i;
2. Facilitate development of affordable leasehold homes on State land near future transit stations;
3. Authorize HHFDC to sell residential units as 99-year leasehold properties; and
4. Develop an ALOHA Homes demonstration project by July 1, 2025.

This study examined the elements of the ALOHA Homes proposal to determine its goals could be feasibly met. While the ALOHA Homes concept includes elements that have the potential to increase affordable homeownership opportunities, the concept as a whole is not viable. Although there is an appetite for greater State involvement in expanding affordable homeownership opportunities—evidenced by discussions with Hawai‘i residents for the purposes of this study—there are too many barriers to the concept for it to be feasible. Important differences between Hawai‘i and Singapore, upon which ALOHA Homes is based, make it impossible to replicate Singapore’s success. Critically, discussions with local lenders, and a review of end-game options for leasehold housing indicate that a revenue neutral model for leasehold housing would require long-term leases with renewal options. Such renewals are not viable given significant legal, political and moral concerns about alienation of State lands formerly belonging to the Kingdom of Hawai‘i. Although there may be some parcels of State lands which do not have restrictions on sale and could potentially enable some leasehold projects, a leasehold program at the scale contemplated in ALOHA Homes will not be feasible.

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\(^{93}\) In 1970 the Hawai‘i legislature passed Act 105 for the purpose of enabling the Hawai‘i Housing Authority to develop affordable homeownership opportunities, and emphasizing the importance of sufficient affordable housing for Hawai‘i residents. The act stated: “The legislature has also determined that decent shelter and the responsibility of home ownership contributes to the pride and dignity of man and makes him a greater asset to the community and that lack of decent shelter and the responsibility of home ownership contributes to harmful frustration in our community. The home is the basic source of shelter and security in society, and the center of our society which provides the basis for the development of our future citizens. Frustration in the basic necessity of decent shelter, in the satisfaction of the basic drive in man to provide a decent home for his family, provokes an unrest in our community that is harmful to the overall fiber of our society.”
While ALOHA Homes as originally envisioned is not feasible, the concept may work on limited land parcels under certain circumstances, serving as a small component of a much larger affordable housing strategy. Additionally, elements of ALOHA Homes examined in this study can be pursued to advance ALOHA Homes’ purpose of ending the housing shortage, though these measures alone will not achieve that end. The State can convene stakeholders to explore the possibility of using State lands which are not suitable for long-term renewable leases for affordable rental housing, for which there is great demand.\textsuperscript{94} And the State and counties can pursue State supported financing, increased density, occupancy restrictions on subsidized developments geared to serving Hawai‘i resident owner-occupants, and the streamlined entitlements suggested by this report.

If Hawai‘i is going to turn the tide on a housing crisis that’s been steadily growing for 50 years, we need to continue to consider big ideas that can address the fundamental issues of housing affordability, and adopt whichever concepts—both big and small—that are likely to get us to a place where Hawai‘i residents can afford a place to live.

\textsuperscript{*}

\textsuperscript{94} According to the 2019 Hawai‘i Housing Planning Study there is demand for 17,840 rental homes at below 80% of the area median income.
Appendix A

Interviewees

Local Developers and Construction Companies

Hawai‘i Dredging
Albert C. Kobayashi Inc.
Stanford Carr
Hawai‘i Island Community Development Corporation
Alaka‘i Development

Mark Development Inc.
Self-Help Housing
Artspace
Hunt Co. Hawai‘i
Ahe Group

Local Government

State of Hawai‘i
Office of Planning
OHA
DHHL

City and County of Honolulu Planning Department
City and County of Hawai‘i Planning Department

Local Housing Organizations

LURF
BIA
Lenders
American Savings Bank
Central Pacific Bank
Hawai‘i Community Assets

Financial Consultants
UH Office of Budget and Finance
280CapMarkets

Other Housing Organizations and Agencies
City of Burlington
Department of Planning and Zoning
Portland Housing Bureau
San Diego Housing Commission
City and County of San Francisco
DC Department of Housing and Community Development
Champlain Housing Trust
Na Hale ‘O Maui Land Trust
Grounded Solutions
ARAC – Housing Finance and Development Centre of Finland

Habitat for Humanity NYC
Habitat for Humanity Maui
Catalyst Housing Group
Factory OS
Center for Budget and Policy Priorities
Ferraro Choi and Associates
Dean Sakamoto Architects
SHADE Group
University of Hawai‘i
Community Design Center
Interviewed People

Jonathan Huskey
Deputy Director for State Campaign Communications, Center for Budget and Policy Priorities

Bernie Bergmann
State Data and Campaigns Senior Manager, Center for Budget and Policy Priorities

Claudia Shay
Executive Director, Self-Help Housing

Craig Watase
President, Mark Development Inc.

Jarmo Linden
Director, The Housing Finance and Development Centre of Finland

Jeremy McComber
Development Manager, Hawai‘i Island Community Development Corporation

Keith Kato
Executive Director, Hawai‘i Island Community Development Corporation

Jon Wallenstrom
Principal, Alaka‘i Development

Greg Handberg
Senior Vice President, Artspace

Naomi Chu
Vice President of Asset Management, Artspace

Juliana Bernal
Project Manager, Habitat for Humanity NYC

Kevin Brown
President, Factory OS

Paul Silen
Vice President, Commercial Division, Hawaiian Dredging

Stanford Carr
President, Stanford Carr Development

Paul Kay
Executive Vice President & COO, Hunt Development Group – Hawai‘i Division

Thomas Lee
Senior Vice President of Development, Hunt Development Group – Hawai‘i Division

Sharon Gi
Vice President of Development, Hunt Development Group – Hawai‘i Division

Steve Colón
President, Hunt Development Group – Hawai‘i Division

Ruby Edwards
Planner, Office of Planning (Hawai‘i)

Rodney Funakoshi
Planner, Office of Planning (Hawai‘i)

Jeff Weiss
Hunt Development Group
Dwight Mitsunaga  
President, Building Industry Association

Dean Uchida  
President, Building Industry Association

Jessica Leorna  
CEO of Building Industry Association

Sherri Dodson  
Executive Director, Habitat for Humanity Maui

Jenee Gaynor  
Capacity Building Manager, Grounded Solutions

Robert Leuchs  
Director of Homeownership Center, Champlain Land Trust

Kalbert Young  
Vice President and Chief Financial Officer, UH Office of Budget and Finance

Jordan Moss  
Founder, Catalyst Housing Group

Shelly Tanaka  
Vice President, John Child & Company

Roberta Hsu  
Project Manager, Albert C. Kobayashi Inc.

Michael Young  
Vice President, Albert C. Kobayashi Inc.

Tom Lockard  
Managing Director, Head of Investment Banking, 280CapMarkets (Originations Head, Co-Founder)

Catherine Lee  
Managing Director, 280 CapMarkets

Makani Maeva  
Developer, Ahe Group

Jessica Conner  
Senior Policy and Planning Coordinator, Portland Housing Bureau

Dory Van Bockel  
Program Manager, Development Incentives Team, Portland Housing Bureau

Gene Bulmash  
Inclusionary Zoning Manager, DC’s Department of Housing and Community Development

Todd Rawlings  
Housing Program Manager, City of Burlington Department of Planning and Zoning

David White  
Director of Planning and Zoning, City of Burlington Department of Planning and Zoning

Rusty Rasmussen  
SVP, Division Manager, Central Pacific Bank

Sujata Raman  
Vice President, Single-Family Housing Finance – San Diego Housing Commission
Maria Benjamin  
Deputy Director, SF Mayor’s Office of Housing and Community Development

Reece Bonilla  
Architectural Designer, Ferraro Choi

Jason Takeuchi  
Architect, Ferraro Choi

Dean Sakamoto  
Principal, Dean Sakamoto Architects/SHADE group; Executive Director, SHADE Institute; AIA Hawai‘i State Council Disaster Coordinator

Brian Strawn  
Senior Research Associate, University of Hawai‘i Community Design Center; Lecturer, University of Hawai‘i at Mānoa, School of Architecture
## Appendix B

### Other Jurisdictions

<table>
<thead>
<tr>
<th>Managed by</th>
<th>Washington DC</th>
<th>Portland, OR</th>
<th>San Francisco, CA</th>
<th>San Diego, CA</th>
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<tr>
<td></td>
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<td>Portland Housing Bureau</td>
<td>Mayor's Office of Housing and Community Development</td>
<td>San Diego Housing Commission</td>
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<td>AMI Range</td>
<td>50–80%</td>
<td>60–80%</td>
<td>80–130%</td>
<td>100–120%</td>
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<tr>
<td>% Units Affordable</td>
<td>8–10%</td>
<td>10–20%</td>
<td>12%</td>
<td>20%</td>
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<td>Affordability Period</td>
<td>Life of the building</td>
<td>99 years</td>
<td>Life of the building</td>
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<td>Owner occupancy</td>
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<tr>
<td>In lieu fees</td>
<td>—</td>
<td>$24/sq foot</td>
<td>$199.5/sq foot</td>
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<td>Residency Requirement</td>
<td></td>
<td></td>
<td></td>
<td>Live/work 2 years</td>
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<tr>
<td>Own Other Property</td>
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<td>No liquid assets &gt; $20,000</td>
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<td>Other Requirements</td>
<td>Not a college student</td>
<td>*Rentals at 30%</td>
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<td>In-lieu increasing to $25 incrementally</td>
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<tr>
<td>Managed by</td>
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<td>Vail, CO</td>
<td>Naples, FL Collier County</td>
<td>Boston, MA</td>
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<td>--------------------------------</td>
<td>--------------------------------</td>
<td>--------------------</td>
<td>---------------------------</td>
<td>-------------------------------------------------------------</td>
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<tr>
<td>AMI Range</td>
<td>&lt;205%</td>
<td>—</td>
<td>80–150%</td>
<td>Varies, &lt;100%</td>
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<td>—</td>
<td>Built</td>
<td>—</td>
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<td>Affordability Period</td>
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<td>Owner occupancy</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>In lieu fees</td>
<td>—</td>
<td>—</td>
<td>Potential preference</td>
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<td>Residency Requirement</td>
<td>Work full-time in Pitkin County or 75% of Income</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Own Other Property</td>
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<td>No residential in Vail</td>
<td>—</td>
<td>—</td>
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<td>Other Requirements</td>
<td>Occupy unit at least 9 months out of the year</td>
<td>Must work full-time in Vail</td>
<td>—</td>
<td>Preferences (depending on unit) for Veterans, senior citizens, first time homebuyers, approved professional artists, Boston residents</td>
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<tr>
<td></td>
<td>&quot;Employee housing&quot;</td>
<td>Don't have IZ program</td>
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</table>
Appendix C
Equity Share Model

Cost Difference: Affordable versus Market Rate (FOR SALE)
(Two-Bedroom, Two-Bath Units)

Initial Price
- ALOHA Homes Program
- Market Value

<table>
<thead>
<tr>
<th>Cost</th>
<th>ALOHA Homes Program</th>
<th>Market Value</th>
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<tr>
<td></td>
<td>$380,000</td>
<td>$560,000</td>
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Downpayment
- 5% – Market Average

<table>
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<th>Cost</th>
<th>1.5% Option</th>
<th>3% Option</th>
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<tr>
<td></td>
<td>$5,700</td>
<td>$11,400</td>
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</table>

($28,000

ALOHA Homes Implementation Study | rev. September 2021
Mortgage Payments: Affordable Leasehold $380,000 vs. Market Rate $570,000

Cost

$2,100

$3,250

2 Bed/2 bath: Affordable Leasehold $380,000 vs. Market Rate Rental

Mortgage Amt
Rent Price 3% Increase

$2,100
$2,364
$2,740
$3,682

5 yrs
10 yrs
20 yrs

2bd (380k)
Equity-Share Difference: Affordable versus Market Rate (FOR SALE) (Two-Bedroom, Two-Bath Units)

After 5-Years

- Selling Price Gain
- Mortgage Paydown

- Restricted (2% Consumer Price Index)
  - $31,551
  - $41,626

- Market (4% per year)
  - $74,328

After 10-Years

- Selling Price Gain
- Mortgage Paydown

- Restricted (2% Consumer Price Index)
  - $75,218
  - $89,245

- Market (4% per year)
  - $174,493
Appendix D
Hawaiʻi Three-Year Taxable Bonds

TABLE OF CONTENTS

Hawaii Housing Authority
Hawaii Housing Finance Authority, Mortgage Revenue Bonds, Series 2021 (3-Year)

<table>
<thead>
<tr>
<th>Report</th>
<th>Page</th>
</tr>
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<tbody>
<tr>
<td>Sources and Uses of Funds</td>
<td>1</td>
</tr>
<tr>
<td>Bond Summary Statistics</td>
<td>2</td>
</tr>
<tr>
<td>Bond Pricing</td>
<td>3</td>
</tr>
<tr>
<td>Bond Debt Service</td>
<td>4</td>
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<tr>
<td>Bond Solution</td>
<td>5</td>
</tr>
<tr>
<td>Net Debt Service</td>
<td>6</td>
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# SOURCES AND USES OF FUNDS

Hawaii Housing Authority
Hawaii Housing Finance Authority, Mortgage Revenue Bonds, Series 2021 (3-Year)

## Sources:

<table>
<thead>
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<th>Bond Proceeds:</th>
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<tr>
<td></td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
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## Uses:

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<tr>
<td><strong>Total</strong></td>
<td>44,883,811.81</td>
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<table>
<thead>
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<th>Other Fund Deposits:</th>
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<td><strong>Capitalized Interest Fund</strong></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td>4,116,188.19</td>
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<table>
<thead>
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<th>Delivery Date Expenses:</th>
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<tr>
<td><strong>Underwriter's Discount</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td>1,000,000.00</td>
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</table>

**Total Uses:** 50,000,000.00

---

**Notes:**
- Cost of Issuance includes market study, appraisal, Financial Advisor, Bond Counsel, Disclosure Counsel, Issuer Fees, HOA Counsel, Trustee, Environmental Assessment, Construction Manager Consultant
- 30 months of capitalized interest
- 2023 bullet maturity

---

Nov 24, 2020 12:01 pm  
280 Securities
### BOND SUMMARY STATISTICS

**Hawaii Housing Authority**  
**Hawaii Housing Finance Authority, Mortgage Revenue Bonds, Series 2021 (3-Year)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Dated Date</td>
<td>12/16/2020</td>
</tr>
<tr>
<td>Delivery Date</td>
<td>12/16/2020</td>
</tr>
<tr>
<td>Last Maturity</td>
<td>12/01/2023</td>
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<tr>
<td>Arbitrage Yield</td>
<td>3.470403%</td>
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<tr>
<td>True Interest Cost (TIC)</td>
<td>3.831217%</td>
</tr>
<tr>
<td>Net Interest Cost (NIC)</td>
<td>3.808028%</td>
</tr>
<tr>
<td>All-In TIC</td>
<td>4.196439%</td>
</tr>
<tr>
<td>Average Coupon</td>
<td>3.470000%</td>
</tr>
<tr>
<td>Average Life (years)</td>
<td>2.958</td>
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<tr>
<td>Duration of Issue (years)</td>
<td>2.836</td>
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<tr>
<td>Par Amount</td>
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<tr>
<td>Bond Proceeds</td>
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<tr>
<td>Total Interest</td>
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<tr>
<td>Net Interest</td>
<td>5,632,708.33</td>
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<tr>
<td>Total Debt Service</td>
<td>55,132,708.33</td>
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<tr>
<td>Maximum Annual Debt Service</td>
<td>51,735,000.00</td>
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<td>Average Annual Debt Service</td>
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<tr>
<td>Underwriter's Fees (per $1000)</td>
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<tr>
<td>Average Takedown</td>
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<td>Other Fee</td>
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<td>Total Underwriter's Discount</td>
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<td>Bid Price</td>
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<table>
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<th>Bond Component</th>
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<th>Price</th>
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<th>Average Life</th>
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<td>50,000,000.00</td>
<td>100.00</td>
<td>3.470%</td>
<td>2.958</td>
</tr>
<tr>
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<td>50,000,000.00</td>
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</table>

<table>
<thead>
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<th>Description</th>
<th>Value</th>
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<tr>
<td>Par Value</td>
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<tr>
<td>+ Accrued Interest</td>
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<tr>
<td>+ Premium (Discount)</td>
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<tr>
<td>- Underwriter's Discount</td>
<td>-500,000.00</td>
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<tr>
<td>- Cost of Issuance Expense</td>
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<td>- Other Amounts</td>
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<tr>
<td>Target Value</td>
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<td>Yield</td>
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<tr>
<td>All-In TIC</td>
<td>4.196439%</td>
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<tr>
<td>Arbitrage Yield</td>
<td>3.470403%</td>
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</table>
## BOND PRICING

**Hawaii Housing Authority**

**Hawaii Housing Finance Authority, Mortgage Revenue Bonds, Series 2021 (3-Year)**

<table>
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<th>Bond Component</th>
<th>Maturity Date</th>
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<td>3.47%</td>
<td>3.47%</td>
<td>100,000</td>
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</table>

50,000,000

| Dated Date      | 12/16/2020   |
| Delivery Date   | 12/16/2020   |
| First Coupon    | 06/01/2021   |
| Par Amount      | 50,000,000,00|
| Original Issue Discount | |

| Production | 50,000,000,00 | 100.000000% |
| Underwriter's Discount | -500,000,00 | -0.000000% |
| Purchase Price | 49,500,000,00 | 99.000000% |
| Accrued Interest | |
| Net Proceeds   | 49,500,000,00 |
## BOND DEBT SERVICE

Hawaii Housing Authority  
Hawaii Housing Finance Authority, Mortgage Revenue Bonds, Series 2021 (3-Year)

<table>
<thead>
<tr>
<th>Period Ending</th>
<th>Principal</th>
<th>Coupon</th>
<th>Interest</th>
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<td>1,662,708.33</td>
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<td></td>
</tr>
<tr>
<td>12/01/2022</td>
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<td>1,735,000.00</td>
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<td></td>
</tr>
<tr>
<td>12/01/2023</td>
<td>50,000,000</td>
<td>3.470%</td>
<td>1,735,000.00</td>
<td>51,735,000.00</td>
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<tr>
<td>50,000,000</td>
<td>5,132,708.33</td>
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Nov 24, 2020 12:01 pm  280 Securities
### BOND SOLUTION

Hawaii Housing Finance Authority, Mortgage Revenue Bonds, Series 2021 (3-Year)

<table>
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<th>Proposed Principal</th>
<th>Proposed Debt Service</th>
<th>Total Adj Debt Service</th>
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<td>12/01/2021</td>
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<td>1,662,708</td>
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<tr>
<td>12/01/2022</td>
<td>1,735,000</td>
<td>1,735,000</td>
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<tr>
<td>12/01/2023</td>
<td>50,000,000</td>
<td>51,735,000</td>
<td>51,735,000</td>
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<tr>
<td>50,000,000</td>
<td>55,132,708</td>
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### NET DEBT SERVICE

Hawaii Housing Authority, Mortgage Revenue Bonds, Series 2021 (3-Year)

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<thead>
<tr>
<th>Period Ending</th>
<th>Total Debt Service</th>
<th>Capitalized Interest Fund</th>
<th>Net Debt Service</th>
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<tr>
<td>12/01/2021</td>
<td>1,662,708.33</td>
<td>1,662,708.33</td>
<td></td>
</tr>
<tr>
<td>12/01/2022</td>
<td>1,735,000.00</td>
<td>1,735,000.00</td>
<td></td>
</tr>
<tr>
<td>12/01/2023</td>
<td>51,735,000.00</td>
<td>934,972.22</td>
<td>50,800,027.78</td>
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</table>

Subtotal: 55,132,708.33 | 4,332,680.55 | 50,800,027.78
## Appendix E

**Sample Pro-Forma for 2-Bedroom / 2-Bath Home**

<table>
<thead>
<tr>
<th>Type</th>
<th>Cost</th>
<th>Per Home</th>
<th>Per Sq Ft</th>
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<td>Mid-Rise / High-Rise Building on 1.5 Acres - With Parking</td>
<td>$250,000</td>
<td>$1,667</td>
<td>$2</td>
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<tr>
<td>2 Bedroom / 2 Bath Unit</td>
<td>$450,000</td>
<td>$3,000</td>
<td>$5</td>
</tr>
<tr>
<td>150</td>
<td>124,500</td>
<td>65,340</td>
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### Project Costs

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<th>Basis</th>
<th>Explanation</th>
<th>Cost (Per Sq Ft)</th>
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<tr>
<td>Estimate</td>
<td>Reduced since State will complete a portion</td>
<td>$63,400</td>
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<tr>
<td>$3,000</td>
<td>Not Applicable</td>
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</tr>
<tr>
<td>$350</td>
<td>State/County contributes land</td>
<td></td>
</tr>
<tr>
<td>$450,000</td>
<td>Recent HI pro forms</td>
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<tr>
<td>$290,500</td>
<td>Input from HI developer contractors</td>
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<tr>
<td>$350</td>
<td>Traditional Parking Structure</td>
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<td>$3,400</td>
<td>Less than typical due to lower risk and State financing</td>
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<tr>
<td>$472,871</td>
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<tr>
<td>$1,826,066</td>
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<td>$60,866,665</td>
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<td>$802,620</td>
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<tr>
<td>$677,211</td>
<td>Construction Interest-15%</td>
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<tr>
<td>$5,530</td>
<td>Construction Interest-5%</td>
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<tr>
<td>$40,779</td>
<td>Construction Interest-1%</td>
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<tr>
<td>$12,173</td>
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<tr>
<td>$504</td>
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### Additional Contagency

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