



KEYSER MARSTON ASSOCIATES

**WORKFORCE HOUSING NEXUS  
AND FINANCIAL FEASIBILITY ANALYSIS**

*in Support of Updates to the*

**HOUSING POLICY FOR THE COUNTY OF KAUA'I**

*Prepared for:*  
**County of Kaua'i**

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## 1.0 INTRODUCTION AND SUMMARY OF FINDINGS

This report presents the Workforce Housing Nexus and Financial Feasibility Analysis (“Nexus and Feasibility Study”) prepared by Keyser Marston Associates, Inc. (KMA) for the County of Kaua’i (“County”). The purpose of the study is to support updates to the Housing Policy for the County of Kaua’i (“Housing Policy”) by providing information regarding the ability of new residential and resort development projects to sustain existing and potential updated workforce housing requirements and by documenting and quantifying the relationship between new residential and resort development and the need for workforce housing.

The two major components of the study are:

- **Real estate financial feasibility analysis** to evaluate the ability of residential and resort development to sustain existing or updated affordable housing requirements. The purpose is to inform consideration of updates to the Housing Policy.
- **Workforce housing nexus analyses** to document and quantify the linkages between new residential and resort development in Kaua’i, added employment, and added demand for workforce housing. Because workers have a range of compensation levels, there is a need for housing at a range of income levels. The nexus analyses quantify the increased need for housing within six income tiers in connection with new residential and resort development and the cost of mitigating the increased workforce housing need.

### 1.1 Existing Housing Policy for the County of Kaua’i

The Housing Policy for the County of Kaua’i was enacted in 2007 by Ordinance 860 and is established in Section 7A of the Kaua’i County Code. The Housing Policy requires workforce housing to be provided in conjunction with new residential and resort developments in Kaua’i.

Residential developments with ten or more units are required to include 30% of units as workforce housing.

Resort projects with more than 20 hotel rooms, 10 residential units, or estimated to generate more than 100 jobs are required to fully address the need for workforce housing based upon the findings of an analysis specific to the resort project.

Incentives are available that enable up to a 50% reduction in workforce housing requirements if projects integrate workforce and market rate units, provide single family attached or detached units, build “green,” or provide rental units at 60% of Area Median Income (AMI) or below. Provision of workforce units off-site or payment of an in-lieu fee are permitted as alternatives to providing units on-site.

Table 1-1 provides an overview of the Housing Policy.

<b>Table 1-1: Overview of Existing Housing Policy</b>		
<b>Project Type</b>	<b>Workforce Housing Requirement</b>	<b>Income Level (% of AMI)</b>
<b>Residential Developments</b>		
Projects 10 to 25 units	30% of units for workforce	80% to 140%, average of 100%
Projects 26 or more units	30% of units for workforce	20% of units at 80% or below 30% of units at 100% 30% of units at 120% 20% of units at 140%
<b>Resort Projects</b>		
Projects with 20+ rooms, or 10+ residential units, or generating 100+ jobs	Fully address workforce housing need based on project-specific analysis	Based on project-specific analysis

KMA’s understanding based upon discussions with County of Kaua’i staff is that, since adoption of the Housing Policy in 2007, few development projects have been subject to the Housing Policy requirements. This is in part because development activity was limited during the U.S. housing market crash and recession that was beginning as requirements were adopted. There is also a pipeline of development projects approved prior to enactment of the current policy and therefore not subject to its terms. Prior approved projects have provided workforce housing determined on a case-by-case basis as part of approval processes.

## 1.2 Development Types Addressed

The analysis addresses new development in Kaua’i subject to the County’s Housing Policy including:

- **Residential** projects include development of new for-sale and rental residential units. The analysis separately addresses residential development inside and outside of the Visitor Destination Areas (VDA).
- **Resort** projects are defined as developments that primarily provide accommodations for transient vacation rentals.

The distinction between resort and residential uses within Visitor Destination Areas can become blurred because residential units may be used for a combination of owner-occupancy, second homes and vacation rentals. To address this, the workforce housing nexus analysis analyzes residential units built within the VDA assuming both residential occupancy and vacation rental use.

### 1.3 Household Income Categories

The analysis addresses income categories as defined by the United States Department of Housing and Urban Development (HUD) and the Housing Policy for the County of Kaua'i. All income categories are defined in relation to the Area Median Income (AMI) for Kaua'i County as follows:

- Extremely Low Income: households earning up to 30% of AMI;
- Very Low Income: households earning over 30% AMI up to 50% of AMI;
- Low Income: households earning over 50% AMI up to 80% of AMI;
- 80% to 100% of AMI;
- 100% to 120% of AMI; and
- 120% to 140% of AMI

Under the Housing Policy, the terms “workforce housing” and “affordable housing” refer to housing affordable to workers qualifying in one of the income tiers up to 140% of AMI. While the Housing Policy does not specify requirements specific to the Extremely Low and Low-Income categories, these income categories are included in the analysis to address differences in the cost of delivering workforce housing units at these income levels.

The 2018 Income Limits as published by the Kaua'i County Housing Agency are presented in Table 1-2.

	<b>Household Size (Persons)</b>					
	1	2	3	4	5	6 +
30% AMI	\$18,550	\$21,200	\$23,900	\$28,900	\$33,850	\$38,850
50% AMI	\$30,850	\$35,250	\$39,650	\$44,050	\$47,600	\$51,100
80% AMI	\$49,350	\$56,400	\$63,450	\$70,500	\$76,150	\$81,800
100% AMI	\$60,900	\$69,600	\$78,300	\$87,000	\$94,000	\$100,950
120% AMI	\$73,100	\$83,550	\$94,000	\$104,400	\$112,800	\$121,150
140% AMI	\$85,300	\$97,450	\$109,650	\$121,800	\$131,550	\$141,300

Source: Kaua'i County Housing Agency

The 2018 income limits were the most current available as of the time the analyses presented in this report were prepared.

### 1.4 Financial Feasibility Analysis

A financial feasibility analysis was prepared to inform the update to Ordinance 860. The feasibility analysis evaluates development economics of residential and resort projects in Kaua'i and the sustainability of existing and potential modified Housing Policy requirements.

The analysis addresses “prototypical” or representative projects to facilitate a general understanding of feasibility conditions in Kaua'i. The analysis does not address specific projects

on specific sites. The economics of specific projects can be expected to vary to some degree from the prototypical projects analyzed, with some having stronger and some having weaker economics based on project-specific zoning, site conditions, development costs, market considerations and target returns. A summary of the analysis and findings follows. In reviewing the findings of the feasibility analysis, it is important to keep in mind that it represents a snapshot in time based on market conditions as of late 2018. Conditions are constantly evolving and are likely to be different in a year or two.

*a. Residential Feasibility Analysis*

The residential feasibility analysis evaluates the development economics of prototypical residential development projects in Kauai. Due to differences in market conditions, the analysis separately addresses projects in the VDA more oriented to the visitor / off-island market and projects outside the VDA more oriented to local buyers and renters (also referred to for purposes of this report as “primary residential”).

<b>Table 1-3: Residential Development Prototypes Analyzed</b>					
	<b>Luxury Resort Home</b>	<b>Single Family/ Duplex</b>	<b>Townhome</b>	<b>Condominium</b>	<b>Apartment</b>
Avg. Unit Size (SF)	2,500	1,800	1,500	1,200	900
Avg. # Bedrooms	4.0	3.0	2.5	2.0	2.0
Gross density (du/ac)	2.5	5	9	17	20
<b>Sales Price / Rent</b>					
Visitor Serving (VDA) Per Sq.Ft.	\$4,125,000 \$1,650/SF	\$1,080,000 \$600/SF	\$900,000 \$600/SF	\$870,000 \$725/SF	<i>Not analyzed</i>
Primary Residential Per Sq.Ft.	<i>Not analyzed</i>	\$756,000 \$420/SF	\$630,000 \$420/SF	\$546,000 \$455/SF	\$2,250/Mo \$2.50/SF/Mo

Residential financial feasibility was tested under the following scenarios:

- No workforce housing requirement; and
- Compliance with Ordinance 860 workforce housing requirements. VDA residential projects are assumed to satisfy requirements by providing offsite units or payment of the in-lieu fee while primary residential projects are assumed to provide units on-site.

The principal findings of the feasibility analysis are as follows:

<b>Table 1-4: Residential Feasibility Analysis Summary</b>						
	<b>Luxury Resort Home</b>	<b>Single Family/ Duplex</b>	<b>Townhome</b>	<b>Condo</b>	<b>Apartment</b>	
<b>Visitor Market (VDA)</b>						
No Workforce Requirement	Feasible	Feasible	Feasible	Feasible	not analyzed	
With Ord. 860 Requirement	Feasible	Feasible	Feasible	Marginal	not analyzed	
<b>Primary Residential</b>						
No Workforce Requirement	not analyzed	Feasible	Feasible	Feasible	Infeasible	
With Ord. 860 Requirement	not analyzed	Marginal	Feasible	Infeasible	Infeasible	

- *Visitor Market (VDA) Residential* – All of the VDA residential prototypes were found to be feasible with no workforce housing requirement and all but the condo were found to be feasible with the existing requirements of Ordinance 860. Feasibility of the condo was significantly impacted by compliance with Ordinance 860 requirements, reducing it to a project with marginal or weak feasibility.
- *Primary Residential* – With no workforce housing requirement, the for-sale residential project types are all found to be generally feasible while the apartments were found to be infeasible under current market conditions. Compliance with workforce housing obligations under the current Housing Policy render the condo infeasible and reduce the single-family project type to marginal / weak feasibility. The economics of the townhome prototype are impacted by requirements but are estimated to remain within a feasible range.

The estimated cost for residential projects to comply with current Ordinance 860 requirements is summarized in Table 1-5. Figures represent the cost of workforce housing obligations spread across all units in the project (not just the workforce units). Costs are estimated to range from \$15,000 per unit to \$37,000 per unit in the project. On-site units are estimated to represent the lowest cost option for primary residential projects. Visitor serving projects are not anticipated to elect to provide units on-site given they are more likely to be built on premium sites and may contain more costly visitor-oriented amenities; therefore it is likely more economical to provide the workforce units off-site. High HOA dues more common for VDA projects may also be problematic for households in the workforce income categories.

<b>Table 1-5: Estimated Cost to Comply with Ordinance 860, Per Total Unit or Total Square Foot in Project</b>						
	<b>Luxury Resort Home</b>	<b>Single Family/ Duplex</b>	<b>Townhome</b>	<b>Condo</b>	<b>Apartment</b>	
In-Lieu Fee	\$34,600	\$34,600	\$34,600	\$34,600	\$34,600	
Off-Site Units	\$22,100	\$22,600	\$29,700	\$37,100	\$24,300	
On-Site Units (non-VDA)	Not estimated	\$15,500	\$15,800	\$27,800	\$18,200	

Table 1-6 converts the cost to provide workforce housing to a percentage of sales price or unit value assuming VDA projects provide off-site units or pay the in-lieu fee and primary residential projects provide units on-site. As shown, the percentage burden that requirements represent

increase as density increases, potentially providing a disincentive to develop higher density projects.

	<b>Luxury Resort Home</b>	<b>Single Family/ Duplex</b>	<b>Townhome</b>	<b>Condo</b>	<b>Apartment</b>
VDA / Visitor Serving	0.5%	2.1%	3.3%	4.0%	not analyzed
Primary Residential	not analyzed	2.1%	2.5%	5.1%	6.1%

*b. Resort Feasibility Analysis*

The resort financial feasibility analysis addresses two prototypical hotel projects representative of the project types that Kaua'i is likely to see developed in the future.

- Luxury Resort; and
- Full Service “Lifestyle” Hotel.

As with the residential feasibility analysis, the analysis does not reflect specific projects in specific locations. It is expected that individual resort projects will vary in their feasibility based on project-specific considerations.

Key findings of the resort feasibility analysis are:

- Luxury Resort and Full-Service Lifestyle Hotel development are feasible under current market conditions without workforce housing requirements.
- The economics of luxury resort development are estimated to be sufficiently robust to support a workforce housing obligation representing a cost of up to approximately \$45,000 per room (key). This converts to an estimated 6% of development costs or \$38 per square foot of building area. It is estimated that the following workforce housing requirements would be approximately equivalent in cost to this \$45,000 per key figure:
  - Workforce units representing 35% of the number of rooms / keys, OR
  - 0.29 workforce units per 1,000 square feet of building.
- The full-service lifestyle resort project is estimated to support a workforce housing obligation representing a cost in the range of \$13,000 per key. This converts to an estimated 3% of development costs or \$14 per square foot of building area. It is estimated that the following workforce housing requirements would be equivalent in cost to this \$13,000 per key figure:
  - 10% of the number of rooms / keys, OR
  - 0.11 workforce units per 1,000 square feet of building.

Estimates of the level of workforce housing requirement that can be supported are provided to assist in informing consideration of updated requirements; however, it should be noted that

estimates are quite sensitive to changes in market conditions, estimated costs and revenues reflected in the pro forma analysis.

The economics of existing requirements under Ordinance 860 were not specifically tested as requirements are determined from a project-specific analysis. It is KMA's understanding that there are no existing examples or established methodology exists for such project-specific analyses on which to base an estimate of obligations under the existing ordinance.

## **1.5 Workforce Housing Nexus Analysis**

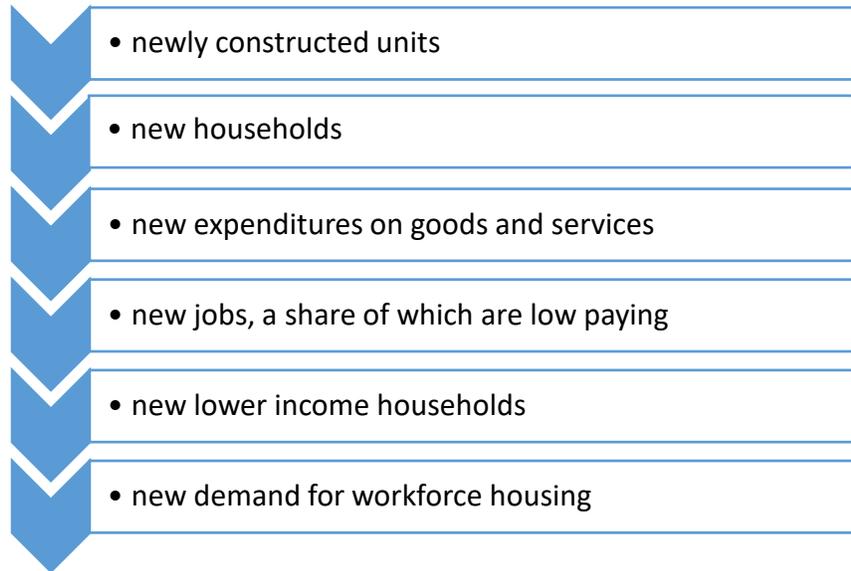
The workforce housing nexus analyses address the impact of new residential and resort development on the need for workforce housing in Kaua'i. The analyses establish the number of workforce units needed in relationship to new residential and visitor accommodation unit development and establishes the mitigation cost associated with addressing the increased workforce housing needs.

### *a. Residential Workforce Housing Nexus*

The residential workforce housing nexus analysis quantifies the impact new residential development in Kaua'i County has on the need for workforce housing. The residential workforce housing nexus analysis addresses the same residential unit prototypes as analyzed in the residential financial feasibility analysis. The analysis assumes all residential prototypes are occupied for residential purposes. Potential vacation rental use of units in the VDA is addressed separately as part of the resort workforce housing nexus analysis.

The residential workforce housing nexus analysis estimates the income of households purchasing or renting the new residential units in Kaua'i, their demand for goods and services such as groceries, restaurants, and healthcare, the jobs created by the additional demand, and the workforce housing needs by income level for the workers who will hold these new jobs. The analysis is conducted using a project size of 100 units for convenience and to avoid tiny fractions. As a final step, findings per 100 units are converted to a per unit and per square foot basis.

## Residential Workforce Housing Nexus Concept



Findings of the analysis are as follows:

1. *Workforce Housing Demand Per 100 Market Rate Units* – Table 1-7 summarizes findings regarding the increased demand for workforce housing by income associated with each 100 new market rate residential units. Findings represent the workforce housing needs of workers in retail, restaurants, health care and other services to residents of the new units.

**Table 1-7: New Worker Households per 100 Market Rate Units**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Under 30% AMI	0.8	0.4	0.4	0.4	0.3	0.3	0.2	0.2
30% to 50% AMI	6.0	3.4	3.1	3.0	2.4	2.0	1.9	1.9
50% to 80% AMI	15.2	8.8	8.0	7.8	6.2	5.0	4.7	4.8
80% to 100% AMI	11.5	6.6	6.0	5.9	4.6	3.8	3.5	3.6
100% to 120% AMI	11.6	6.6	6.0	5.8	4.6	3.8	3.6	3.6
120% to 140% AMI	6.2	3.6	3.2	3.1	2.4	2.0	1.9	1.9
<b>Total 0% to 140% AMI</b>	<b>51.2</b>	<b>29.4</b>	<b>26.8</b>	<b>26.0</b>	<b>20.6</b>	<b>16.8</b>	<b>15.7</b>	<b>16.0</b>
Greater than 140% AMI	7.7	4.7	4.3	4.2	3.4	3.7	3.5	3.5
<b>Total, New Households</b>	<b>58.9</b>	<b>34.2</b>	<b>31.1</b>	<b>30.2</b>	<b>23.9</b>	<b>20.5</b>	<b>19.2</b>	<b>19.5</b>

2. *Workforce Housing Percentage Requirement Sufficient to Address Impacts* – Findings regarding the number of workforce housing units needed for every 100 market rate units are adjusted to an equivalent workforce housing percentage requirement as summarized in Table 1-8. Percentages are expressed two ways, as a percentage of market rate units and

as a percentage of total units, including both market rate and workforce. Findings represent the percentage of workforce housing sufficient to fully address the need for workforce housing as documented in the residential workforce housing nexus analysis, which ranges from 14% to 34% of total units.

**Table 1-8: Workforce Housing Percentage Sufficient to Mitigate Workforce Housing Impacts of New Residential Development**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Percent of Total Units <sup>(1)</sup> (Mkt + Workforce)	34%	23%	21%	21%	17%	14%	14%	14%
Percent of Market Units Only	51%	29%	27%	26%	21%	17%	16%	16%

(1) Calculation example: Luxury Resort Homes in VDA: 51.2 workforce units per 100 market rate units translates to 151.2 total units; 51.2 workforce units out of 151.2 total units is 34%.

3. *Mitigation Cost of Workforce Housing Impacts* – Findings regarding the number of workforce housing units needed to address the impacts of new residential development in Kaua’i are combined with an analysis of the total cost of assistance required to make housing affordable. This cost to produce the needed workforce housing represents the “total mitigation cost” and is expressed on a per unit and per square foot basis. *Findings are technical impact analysis findings only and are not recommended levels for requirements.*

**Table 1-9: Mitigation Cost of Residential Workforce Housing Impacts, Kaua’i**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Per Market Rate Unit	\$63,200	\$36,400	\$33,200	\$32,200	\$25,600	\$20,800	\$19,600	\$19,900
Per Square Foot*	\$25.30	\$20.20	\$22.20	\$26.90	\$14.20	\$13.80	\$16.40	\$22.10

\*per square foot of net livable area. Excludes parking/garage, lanai, corridors and common areas.

The analysis assumes residential use. Vacation rental use of the VDA residential prototypes is addressed as part of the resort analysis. To address projects with a mix of vacation rental and residential use, findings of the residential and vacation rental analysis are combined as a weighted average. See Section 6 for these combined findings.

See Section 5.0 for full documentation of the analysis, data sources and methodology.

*b. Resort Workforce Housing Nexus*

The resort workforce housing analysis quantifies workforce housing needs associated with resort development including hotels and vacation rentals. The analysis reflects housing needs of two categories of workers:

- Workers who operate and maintain the hotel and vacation rental units; and
- Workers in visitor-oriented retail, restaurants, services, amenities, tours and entertainment patronized by visitors who stay in the hotel or vacation rental units. This includes workers in services and amenities located on-site as part of a resort property as well as off-site establishments patronized by resort visitors.

Findings of the analysis are as follows:

1. *Number of Workforce Housing Units Need Per 100 Visitor Accommodation Units* – Table 1-10 presents the number of workforce housing units needed in each affordability category and the total number over 140% of Area Median Income for each 100 visitor accommodation units. Workforce housing demand from 0% to 140% of AMI ranges from approximately 100 workforce units per 100 visitor accommodation units for the Luxury Resort Homes to 45 units per 100 visitor accommodation units with the condominium vacation rentals. Findings reflect the housekeeping, restaurant, retail, transportation, entertainment and other jobs generated by visitors.

<b>Table 1-10: New Worker Households Per 100 Visitor Accommodation Units</b>					
	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
Under 30% AMI	1.1	1.7	1.2	0.9	0.7
30% to 50% AMI	8.0	12.4	9.1	6.8	5.5
50% to 80% AMI	21.7	29.7	22.1	16.8	13.4
80% to 100% AMI	16.4	22.4	16.6	12.6	10.1
100% to 120% AMI	16.6	22.1	16.4	12.4	10.0
120% to 140% AMI	9.0	11.9	8.8	6.7	5.4
<b>Total, Less than 140% AMI</b>	<b>72.9</b>	<b>100.1</b>	<b>74.2</b>	<b>56.2</b>	<b>45.1</b>
Greater than 140% AMI	8.0	11.7	8.7	6.6	5.3
<b>Total, New Households</b>	<b>80.9</b>	<b>111.9</b>	<b>83.0</b>	<b>62.9</b>	<b>50.4</b>

2. *Ratio: Worker Housing Units to Visitor Accommodation Units* - Findings regarding the number of workforce housing units needed for each 100 visitor accommodation units are translated into a ratio, as shown in Table 1-11.

<b>Table 1-11: Workforce Housing Units Needed Per Visitor Accommodation Unit to Fully Mitigate Impacts</b>					
	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
Workforce Housing Units Needed Per Visitor Accommodation Unit	0.73	1.00	0.74	0.56	0.45

3. *Mitigation Cost* – Findings regarding the number of workforce housing units needed to address the impacts of new resort development in Kaua’i are combined with an analysis of the total cost of assistance required to make housing affordable. This cost to produce the needed workforce housing represents the “total mitigation cost” and is expressed as a cost per unit and per square foot of visitor accommodation unit development. Findings are presented in Table 1-12. *Findings are technical impact analysis findings only and are not recommended levels for requirements.*

<b>Table 1-12: Workforce Housing Mitigation Cost - Visitor Accommodation Development</b>					
	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
Per Visitor Accommodation Unit	\$89,000	\$125,200	\$92,700	\$70,100	\$56,200
Per Square Foot of Visitor Accommodation Development*	\$98.90	\$50.10	\$51.40	\$46.70	\$46.90

\* Hotel findings are per gross square foot of building area while residential findings are per square foot of net livable area excluding common areas, corridors, garages/parking and other non-livable space.

See Section 6.0 for full documentation of the analysis, data sources and methodology. Findings of this section may be applied to units in a time share ownership structure based on the most applicable development type.

## **1.6 Requirement for Other Counties**

KMA compared Housing Policy requirements in Kaua’i with the counties of Honolulu, Maui, and Hawai’i, each of which have workforce housing policies in place. Kaua’i’s residential requirements are most similar to those in place in Maui and Hawai’i and are more rigorous than Honolulu’s program. Kaua’i’s requirements for resorts are the most rigorous in that they require projects to address all workforce housing impacts. Honolulu does not have a requirement for resorts. See Section 2.0 for more information.

## **1.7 Recommendations for Updates to Housing Policy**

KMA’s recommendations for updates to the Housing Policy are outlined below.

### *1.7.1 Residential Uses Within the Visitor Destination Area (VDA)*

This subsection addresses recommendations for residential requirements within the VDA, inclusive of residential units permitted to be used as vacation rentals.

- (a) *Maintain Requirement at a Similar Level to Current* – The existing Housing Policy requirement was found to be feasible for most residential project types within the VDA. Accordingly, it is recommended that residential requirements within the VDA be maintained at a similar level to current. With existing incentives, the current workforce housing requirement is estimated to equate to approximately 16.5% of units if provided on-site and 24% of units if provided off-site (the off-site alternative is estimated to be the preferred option for most projects in the VDA).
- (b) *Condominiums* – Consider treating projects with condominium property regime ownership the same as other projects. Currently, condominium projects are subject to a higher requirement than single family and attached townhomes because certain incentives are not available to condominiums. For the example projects analyzed by KMA, the on-site workforce housing requirement for condos would be 22.5% vs. 16.5% for single family and townhomes. With off-site provision of workforce units, the requirement is 30% for condos vs. 24% for single family and townhomes. Application of a higher requirement for condos makes feasibility for this project type more challenging.
- (c) *Simplify and Clarify the Program* – explore opportunities to simplify requirements so that they are easier for developers to understand and easier for the County to administer.
- (d) *140% Pricing Level* – Units priced at 140% of Area Median Income (AMI) outside of the VDA are too close to market prices. When deed restricted units are priced too close to market, this can create challenges in marketing the units. Consider modifying requirements so units are priced at a level affordable to a lower AMI level. Households earning up to 140% of AMI could remain eligible to purchase the units.
- (e) *Workforce Housing Prices / Technical Methodology* – Consider modifying the technical methodology used to set workforce housing prices. Smaller for-sale workforce units were found to require greater subsidy to produce than larger units. There may be an opportunity to adjust the technical approach used to determine workforce housing prices so the outcome is more logical (e.g. larger units require greater subsidy than smaller units).
- (f) *Affordability Term* – Currently, for-sale units are required to be maintained as affordable for a period of 20 years. This term is within the range used by other counties of Hawai'i; however, programs on the U.S. mainland typically require longer affordability terms, such as 45 years, with the term reset each time the unit changes hands. If units are permitted to be sold at market rate after 20 years, the workforce housing would be lost and the owner could receive a windfall by selling the unit at market rate. An alternative to extending the affordability term that would also address the issue would be to recapture the difference between any market rate sale of the unit after the 20-year term expires and the workforce price through an equity share note recorded in favor of the County.

Then, if the unit is sold at market rate after expiration of the term, a share of sale proceeds would be due to the County for reinvestment in additional workforce units. It's possible this issue is already being addressed in some manner through provisions of the affordability covenants employed by the County.

### 1.7.2 Residential Uses Outside Visitor Destination Areas

This subsection addresses recommendations for residential requirements applicable outside of the VDA.

- (a) *Exemption for Apartments* – Consider exempting apartments from requirements. Feasibility is challenging for apartments under current market conditions even with no workforce housing requirement in place. Additionally, market rate rents for apartments are estimated to fall within the income range being targeted for workforce housing (up to 140% of Area Median Income).
- (b) *Reduce For-Sale Requirements* – Current requirements were found to impact feasibility. Explore options for reducing the financial burden that requirements represent through a reduced percentage requirement, modifying the income levels required for workforce units, permitting an increased density bonus when workforce units are provided within the development, or a combination of these methods.
- (c) *Consider Allowing Increased Residential Densities or Density Bonus* – One impediment to feasibility is the cost of site improvements such as interior streets, utilities, and other costs necessary to make properties buildable. Increased allowable densities and reduced minimum lot sizes in appropriate locations could enhance feasibility of some projects outside the VDA by allowing costly site improvements to be spread across a greater number of units. The Housing Policy currently provides for a density bonus of 10% when workforce units are integrated with market rate units. Increasing the density bonus permitted in connection with provision of workforce units on-site could also be explored.
- (d) *VDA Recommendations (b) through (f) Also Apply* – Recommendations (b) through (f) from the VDA recommendations discussion would apply outside of the VDA as well.

### 1.7.3 Hotel / Resorts

- (a) *Set a Specific Requirement* – Specify the workforce housing requirement for resort projects and eliminate the current custom analysis process. Unless the County specifies what the requirement is, it will be difficult for developers considering a resort project in Kaua'i to predict what the cost of complying with the Housing Policy will be. The custom analysis approach could also lead to inconsistent application of requirements from one

project to the next. Specifying the requirement will clarify the County's expectations for potential resort developers. Findings identified in Section 1.4 (b) could be used as a guide for selecting a requirement at a feasible level.

- (b) *Continue to Allow In-Lieu Fees* – Continue to allow payment of in-lieu fees (and other alternative means of compliance). As noted in Section 1.4 (b) an in-lieu fee of up to approximately \$14 per square foot is estimated to be feasible for full-service hotels while a fee of up to \$38 per square foot is estimated to be feasible for luxury resort projects. If the County elects to establish separate fees for luxury and other hotels, it will be important to set objective standards to determine which projects are subject to the higher rate. If the County would like to encourage the fee option, it could be made a by-right option for projects. On the other hand, if the County would prefer to limit the use of fees, fee levels could be set higher than the estimated cost to provide units and continue to be subject to approval of the County Housing Agency.

## **1.8 Report Organization**

The report is organized into the following seven sections:

- Section 1.0 provides an introduction and summary of the analysis findings.
- Section 2.0 provides information on workforce housing requirements for other islands of Hawai'i.
- Section 3.0 analyzes financial feasibility of residential development inside and outside of the Visitor Destination Areas and the ability for projects to sustain workforce housing requirements.
- Section 4.0 analyzes financial feasibility of resort developments and the ability to sustain workforce housing requirements.
- Section 5.0 presents the workforce housing nexus analysis for residential development concluding with the workforce housing need and associated mitigation cost per unit and per square foot of new residential development.
- Section 6.0 presents the workforce housing nexus analysis for resort development including hotels and vacation rental development. The analysis concludes with the number of workforce housing units needed and the associated mitigation cost per unit and per square foot of new resort development.
- Section 7.0 contains the affordability gap analysis to determine the net cost of delivering workforce housing at each of the income levels under study.

The report includes four appendix sections that provide supporting data and analysis:

- Appendix A. presents supporting residential market data
- Appendix B. provides supporting analyses for the residential workforce housing nexus analysis.
- Appendix C. contains support information on worker occupations and incomes for the resort workforce housing nexus analysis.
- Appendix D. presents supporting hotel and resort market data

## **1.9 Data Sources and Qualifications**

The analyses in this report have been prepared using the best and most recent data available. Local and current data were used whenever possible. Sources include the American Community Survey of the U.S. Census, the 2010 Census, Bureau of Labor Statistics, Hawai'i Department of Labor and Industrial Relations, the economic modeling software IMPLAN. Additional sources are noted in the text and footnotes. While we believe all sources utilized are sufficiently accurate and reliable for the purposes of the analyses, we cannot guarantee their accuracy. KMA assumes no liability for information from these or other sources.

## 2.0 WORKFORCE HOUSING REQUIREMENTS – OTHER ISLANDS

Workforce housing requirements in Kaua'i are compared with three other counties including Honolulu, Maui, and Hawai'i to provide context for consideration of updated requirements. The comparison is presented in Table 2-1.

### *Residential*

All four counties have requirements that apply to residential developments. Kaua'i has a base onsite percentage requirement of 30%. This is higher than other islands' which range from 5% to 20%<sup>1</sup> of total units. Kaua'i offers incentives that can reduce the base onsite requirements to as low as 15%. With use of the incentives, requirements in Kaua'i are similar to Maui and Hawai'i. Kaua'i and Maui allow developers to pay a fee in lieu of providing units onsite, while Honolulu and Hawai'i do not. Honolulu does not apply workforce housing requirements to rental projects, while the other islands do.

Kaua'i is comparable to other programs in requiring ownership workforce housing to serve a range of income levels from 80% AMI up to 140% AMI. Other programs differentiate the required income levels for rental and for-sale, usually requiring lower income levels for rentals. Kaua'i does not differentiate the required income levels by tenure but provides a two for one incentive when rentals are provided at 60% AMI.

Kaua'i requires that for-sale units be affordable for 20 years and rental units for 40 years. For for-sale units, Honolulu and Maui offer developers a choice of the term of affordability, with incentives for longer terms. Hawai'i requires a relatively short term of affordability, at 10 years for for-sale units and 20 years for rental units.

### *Resorts*

Kaua'i, Maui, and Hawai'i have requirements that apply to resort developments while Honolulu does not. Following is a brief summary:

- Kaua'i requires resort projects that generate 100 or more full time equivalent (FTE) employees or create 20 or more hotel rooms to offset 100% of the demand for affordable housing generated by the project, based upon a project-specific analysis.
- Maui requires new hotel projects with 10 or more hotel rooms to provide affordable units equal to 25% of the number of new hotel rooms.
- Hawai'i requires affordable unit "credits" equal to 25% of the number of new FTE employees generated for projects with 100 FTEs or more and also requires new industrial developments to comply.

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<sup>1</sup> The requirement in Maui is 25% of market rate units which is equivalent to 20% of total units.

<b>Table 2-1: Comparison of Workforce Housing Requirements</b>				
<b>County</b>	<b>Kaua'i</b>	<b>Honolulu</b>	<b>Maui</b>	<b>Hawai'i</b>
<b>Year Adopted / Updated</b>	2007	Rev. 2018	Rev. 2016	Rev. 2005
<b>Residential Projects</b>				
<b>Minimum Project Size</b>	10 units	FS: 10 units Rentals exempt	10 units	Rezoning and projects of 5+ units
<b>Workforce Housing Set-aside Percentage</b>	30% (reduction to as low as 15% with incentives for integration w/mkt rate, single family, 60% AMI rentals, build green)	5% for 30 years OR 10% for 10 years OR 15% for 5 years	25% of market units (20% if units affordable in perpetuity)	Credits equal to 20% where FS: 0.5 credits: 120 - 140% AMI 1.0 credits: 100 - 120% AMI 1.5 credits: 80 - 100% AMI 2.0 credits: <80% AMI
<b>Income Level of Units</b>	10-25 units: 80-140% AMI with average of 100% AMI  26+ units: 20% up to 80% AMI 30% 80-100% AMI 30% 100 - 120% AMI 20% 120 - 140% AMI	FS: 50% at 100% AMI, 50% at 120% AMI  R: 80% AMI	FS: 20% @ 120-140% AMI 50% @ 100-120% AMI 30% @ 80-100% AMI  R: 1/3 @ 100-120% AMI 1/3 @ 80-100% AMI 1/3 @ 50-80% AMI	R: 0.5 credits: 100 - 120% AMI 1.0 credits: 80-100% AMI 1.5 credits: 60-80% AMI 2.0 credits: <60% AMI  40% of credits must be 2.0; 30% 1.5; and 20% 1.0.
<b>Term of Affordability</b>	FS: 20 years R: 40 years	FS: 5-30 years depending on set-aside percent R: 30 years	FS: 5-10 years depending on AMI level R: 30 years	FS: 10 years R: 20 years
<b>Fee Option</b>	Fee per unit owed: 80% AMI: \$215,100 100% AMI: \$149,100 120% AMI: \$81,900 140% AMI: \$14,700 (CPI applied by KMA)	no fee option	Fee per unit owed equal to difference between affordable price at 160% AMI and 100% AMI for a 3 BR unit.	no fee option
<b>Other Compliance Options</b>	Offsite units (within 5 miles or same property tax zone), land dedication, rental units	Rental units, offsite units, land dedication	Offsite (within same community plan area), land dedication, credits.	Offsite (within 15 miles), rental or for-sale units, land dedication, infrastructure, credits.
<b>Resort Projects</b>				
<b>Land Uses</b>	Resort projects	no requirement	Hotels	Rezoning: Resort, Hotel, Industrial
<b>Minimum Project Size</b>	100 FTEs or 20 hotel rooms		10 hotel rooms	100 FTEs
<b>Workforce Housing Requirement</b>	Address 100% of need based on project-specific analysis		25% of hotel rooms (20% if in perpetuity)	Credits = 25% of FTEs created
<b>Other Key Provisions</b>	Fees, income levels, term, & alternatives are same as residential		Fees, income levels, term, & alternatives are same as residential	Income levels, term, and alternatives are same as residential

Abbreviations: R = Rental FS = For Sale AMI = Area Median Income FTE: Full Time Equivalent Employees

Note: This chart presents an overview, and as a result, terms are simplified. For use other than general comparison, please consult the code and staff of the jurisdiction.

### **3.0 FINANCIAL FEASIBILITY ANALYSIS – RESIDENTIAL DEVELOPMENT**

For the Housing Policy to be an effective tool for creating workforce housing, it must not burden new development to such a degree that it renders development financially infeasible. The residential financial feasibility analysis evaluates whether residential development projects in Kaua'i "pencil" or are financially feasible with and without workforce housing obligations in place. The purpose is to help inform establishment of updated requirements at an economically sustainable level.

#### **3.1 Context and Limitations of Feasibility Analysis**

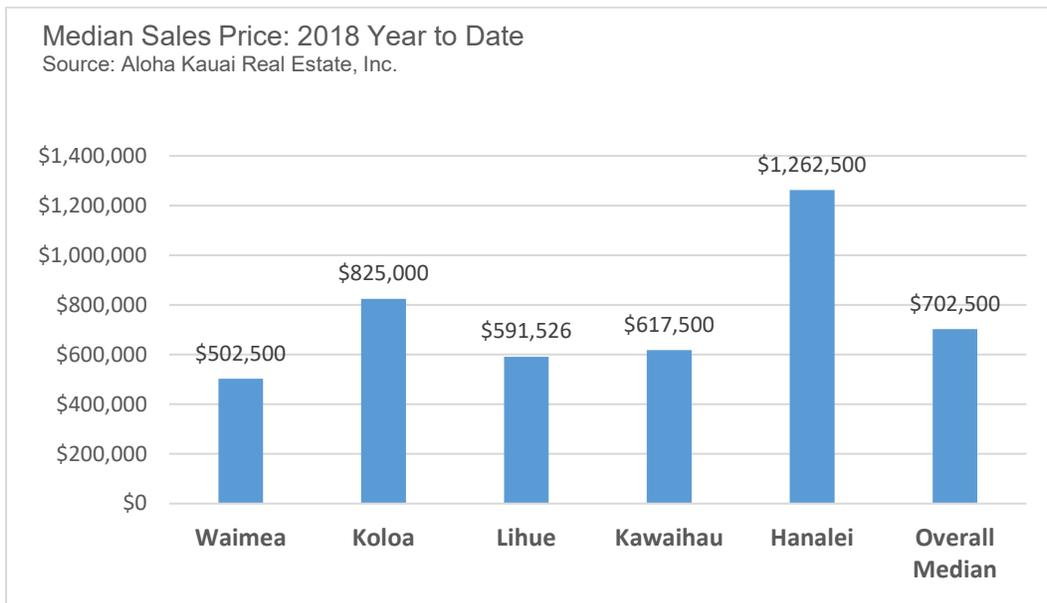
Before describing the feasibility analysis, it can be helpful to put the analysis into perspective by summarizing how it can be useful and where limitations exist in its ability to inform longer-term policy decisions:

- a) *Prototypical Nature of Analysis* – This financial feasibility analysis by its nature can only provide an overview-level assessment of development economics generally because it is based on prototypical rather than specific projects. Every project has unique characteristics that will dictate sale prices or rents supported by the market as well as development costs and developer return requirements. Each developer will assess the project's risk and return and assemble project financing differently. This feasibility analysis is intended to reflect prototypical projects in Kaua'i but it is recognized that the economics of some projects may look better and some may look worse than those of the prototypes analyzed.
- b) *Near Term Time Horizon* – This feasibility analysis is a snap-shot of real estate market conditions as of late-2018. The analysis is most informative regarding near term implications workforce housing requirements could have for projects that have already purchased sites and are currently in the pre-development stages. Real estate development economics are fluid and are impacted by constantly changing conditions with regard to rent potential and sales prices, construction costs, land costs, and costs of financing. A year or two from now, conditions will undoubtedly be different than they are today.
- c) *Adjustments to Land Costs over Time* – Developers purchase development sites at values that will allow for financially feasible projects. When a workforce housing requirement is in place, developers "price in" the requirement when evaluating a project's economics and negotiating the purchase price for development sites. When requirements are increased, it is possible that downward pressure on land costs could result as developers adjust what they can afford to pay for land. This downward pressure on land prices can to some degree bring costs back into better balance with the overall economics supported by projects. The potential for adjustments to land costs are more

of a factor in urbanized development markets with a high level of demand for limited development sites. In Kaua'i, unimproved land has been transacting at relatively low prices; therefore, the potential for land cost adjustments to absorb increased requirements is probably limited.

### 3.2 Residential Market Overview

The residential market in Kaua'i reflects a broad range of pricing from a luxury market oriented to out-of-state buyers to a more moderately priced locally-serving market. Around 50% of newly built homes sold over the past five years were to out of state buyers. The median single family home price is approximately \$700,000 for Kaua'i as a whole. There is a wide range of median pricing amongst the communities in Kaua'i from just over \$500,000 in Waimea to above \$1.2 million in Hanalei Bay<sup>2</sup>.



<sup>2</sup> Kaua'i Aloha Real Estate, Inc. based on single family home closings from January to September 2018.

Table 3-1 summarizes sales of new residential units built since 2013 by submarket and price range, illustrating the breadth of the market.

<b>Table 3-1: Pricing and Location of Housing Units Built since 2013 (sales are for 2013 to 2018)</b>						
	Units	%Units	Avg. SF	Avg. Sale Price	\$/SF	Out of State Owner % <sup>1</sup>
<b>Over \$1M</b>						
North Shore	8	10%	2,348	\$2,839,288	\$1,209	38%
East Kaua'i	4	5%	2,136	\$1,966,175	\$920	75%
Līhu'e	1	1%	2,665	\$1,020,000	\$383	0%
South Kaua'i	67	84%	2,247	\$2,701,508	\$1,202	66%
Hanapēpē-'Ele'ele	0	0%	n/a	n/a	n/a	n/a
Waimea-Kekaha	0	0%	n/a	n/a	n/a	n/a
Total/Average	80	100%	2,257	\$2,657,500	\$1,178	63%
<b>\$500K-\$1M</b>						
North Shore	7	5%	1,385	\$770,604	\$557	43%
East Kaua'i	15	10%	1,528	\$638,067	\$417	7%
Līhu'e	24	17%	1,721	\$641,775	\$373	8%
South Kaua'i	98	68%	1,440	\$713,380	\$495	69%
Hanapēpē-'Ele'ele	0	0%	n/a	n/a	n/a	n/a
Waimea-Kekaha	0	0%	n/a	n/a	n/a	n/a
Total/Average	144	100%	1,494	\$696,382	\$466	51%
<b>Under \$500K</b>						
North Shore	0	0%	n/a	n/a	n/a	n/a
East Kaua'i	10	25%	1,103	\$438,580	\$398	20%
Līhu'e	4	10%	1,352	\$474,542	\$351	0%
South Kaua'i	3	8%	1,141	\$393,333	\$345	33%
Hanapēpē-'Ele'ele <sup>2</sup>	20	50%	1,125	\$379,249	\$337	0%
Waimea-Kekaha	3	8%	1,153	\$368,296	\$320	0%
Total/ Average	40	100%	1,146	\$403,846	\$353	8%

Source: County Tax Office

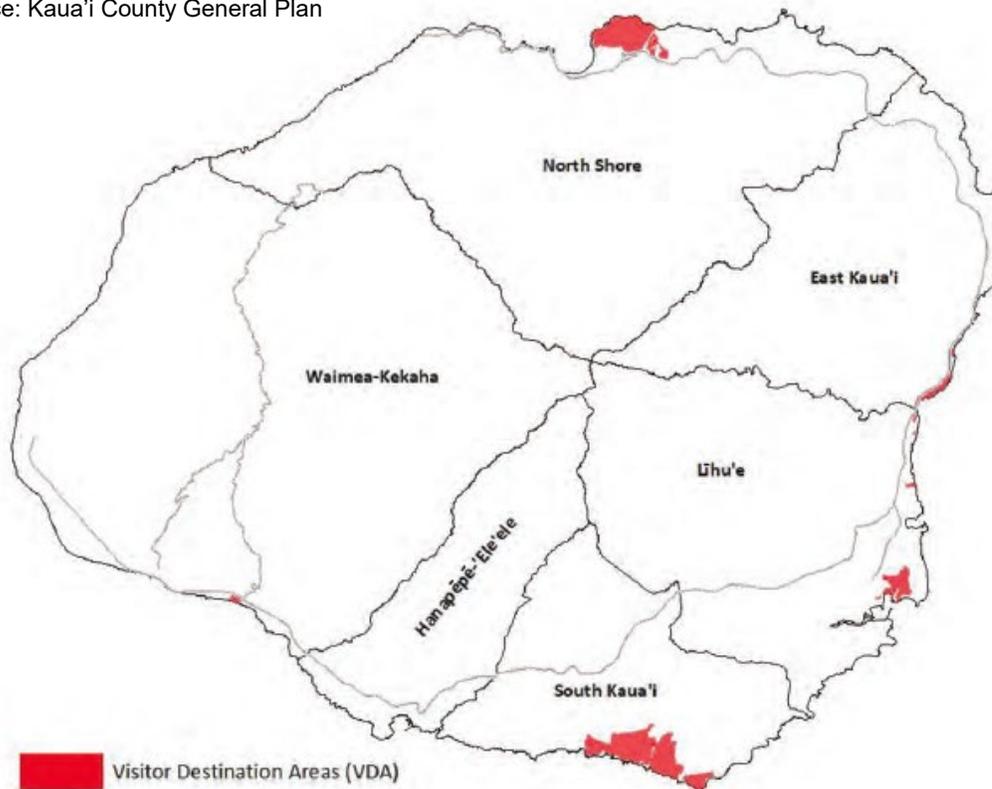
<sup>1</sup> Share of units owned by out of state residents based on tax records.

<sup>2</sup> All units belong to Habitat for Humanity affordable project in 'Ele'ele Iluna Subdivision.

For purposes of the analysis contained in this report, the market is differentiated between areas inside and outside of the Visitor Destination Areas (VDA). Residential units in the VDA are more oriented toward the out-of-state / visitor market and pricing is generally higher. Another key distinction is that vacation rentals are permitted within the VDA but are restricted elsewhere. In some locations within the VDA such as Princeville and Poipu, upwards of 70% of residential units are being used as vacation rentals according to data from the Hawaii Tourism Authority for 2017.

## Kaua'i Visitor Destination Area Map

Source: Kaua'i County General Plan



KMA identified three new residential projects currently selling in Kaua'i:

- **Ho'oluana at Kohea Loa** by DR Horton – the project is located in Lihue and consists of single family and duplex units. The initial phase of the project that is currently marketing includes 151 units ranging in size from approximately 1,100 to 1,600 square feet with prices starting in the \$500,000 to \$600,000 range depending on the plan. The project is outside of the VDA.
- **Pilimai at Poipu** by Brookfield homes – the project is in South Kaua'i within the Visitor Destination Area and consists of attached townhome and condominium units ranging in size from approximately 1,200 to 1,850 square feet. Pricing is in the \$700,000 to \$900,000 range.
- **Kukui'ula** is a 1,000 acre master planned community being developed near Poipu within the Visitor Destination Area that includes extensive on-site amenities. The project is a joint venture between Alexander and Baldwin and DMB Associates, Inc. The initial 60 homes in the project have been built. Unit sales to date have been in the \$2 - \$4 million range with some premium units and home sites listed for well above this level.

No recent market rate rental developments were identified. Rental market data available from the real estate data provider CoStar indicates rents averaging \$1,400 per month or \$1.87 per square foot for an average sized apartment unit of approximately 750 square feet with relatively stable rents over the past several years (Appendix A Tables 5 and 6). Since CoStar data does not include single family homes offered for rent and some smaller multi-family properties, KMA extracted rental listings from Craigslist, as summarized in the table below. Rental housing listed on craigslist as of 11/12/18 has an average monthly rent of approximately \$2,100 and a median rent of \$1,925, which is significantly higher than the Costar data.

<b>Table 3-2: Summary of Craigslist Rental Housing Listings, Kauai</b>			
	No. Listings	Avg Rent	Median Rent
Room	4	\$900	\$900
Studio	11	\$1,355	\$1,300
1 BR	38	\$1,585	\$1,500
2 BR	21	\$2,374	\$2,300
3 BR	32	\$2,818	\$2,800
4 BR	6	\$3,154	\$3,288
<b>Total</b>	<b>112</b>	<b>\$2,122</b>	<b>\$1,925</b>

Source: Craigslist listings for Kaua'i viewed on 11-12-18.

Excludes certain listings marked as "scam," renters seeking housing, and restricted / below market rate units.

Additional residential market data is provided in Appendix A.

### **3.3 Residential Prototype and Pricing/Rent Assumptions**

The following five prototype residential projects are analyzed as part of the residential financial feasibility analysis:

- Luxury Resort Homes;
- Single Family and Duplex;
- Townhomes;
- Condominiums; and
- Apartments.

Prototypes are based on a review of recent and pipeline projects for Kaua'i and are representative of a range of residential projects the County is expected to see into the future. For the Single Family, Townhomes and Condominiums, the analysis was conducted at two pricing levels reflective of representative market pricing inside and outside of the VDA. The Luxury Resort Home prototype represents a luxury resort residential product at the upper end of pricing being achieved in the Kaua'i market. Apartments were analyzed as a primary residential development type only and are not analyzed for the VDA. Table 3-3 provides a summary of the development prototypes including sales prices and rents. Pricing and rents are estimated from market survey data described in the prior section and supporting data included in Appendix A.

**Table 3-3: Residential Development Prototypes**

	Luxury Resort Home	Single Family/ Duplex	Townhome	Condominium	Apartment
Avg. Unit Size (SF)	2,500	1,800	1,500	1,200	900
Avg. # Bedrooms	4.0	3.0	2.5	2.0	2.0
Gross density (du/ac)	2.5	5	9	17	20
Avg. Lot Size (SF)	13,000	7,000	n/a	n/a	n/a
Stories	1-2	1-2	2	3	3
<b>Sales Price / Rent</b>					
Visitor Serving (VDA)	\$4,125,000	\$1,080,000	\$900,000	\$870,000	<i>Not analyzed</i>
Per Sq.Ft.	\$1,650/SF	\$600/SF	\$600/SF	\$725/SF	
Primary Residential	<i>Not analyzed</i>	\$756,000	\$630,000	\$546,000	\$2,250/Mo
Per Sq.Ft.		\$420/SF	\$420/SF	\$455/SF	\$2.50/SF/Mo

### 3.4 Financial Feasibility Analysis Approach

The financial feasibility analysis estimates the costs to develop a new market rate residential project and the sales revenues or rental income generated by the project upon completion. If the sales revenues or rental income are sufficient to support the development costs and generate a reasonable profit margin, the prototype is considered feasible. This approach to financial feasibility, known as a pro forma approach or income approach, is standard practice in the real estate industry and is utilized in one form or another by virtually all developers when analyzing new construction projects.

This analysis organizes the pro forma as a “residual land value analysis”, meaning the pro forma solves for what the project can afford to pay for a development site based on the sales/income projections and the non-land acquisition costs of the project. It then compares the residual land values with land costs in the current market in order to test whether developers can afford to buy land and develop projects.

The analysis evaluates feasibility both with and without compliance with existing workforce housing requirements under Ordinance 860. The cost of providing the workforce housing is estimated in Section 3.10 including the major ordinance alternates of on-site units, off-site units and an in-lieu fee payment. Projects are assumed to select the lowest compliance cost option as estimated in Section 3.10.

The pro forma tables identifying the revenues, costs, and supported land values for each prototypical residential development project analyzed are included at the end of this section in Tables 3-7 through 3-9. The following sections describe the assumptions utilized in the analysis and the conclusions drawn therefrom.

### **3.5 Development Cost Estimates**

The direct costs of development include all contractor labor and material costs to construct the project including general requirements, contractor fees, and contingencies. Direct construction costs for the for-sale prototypes range widely depending on the size, type of unit and market. At the low end, condominiums marketed to local buyers are estimated to have a direct construction cost of \$282,000. At the high end, the Luxury Resort Homes in the Visitor Destination Areas are estimated to cost \$1.5 million for the prototypical unit. For the apartment, direct construction costs are estimated at \$202,000 per unit. In addition, a site development cost of \$15 per square foot of land has been included, or \$20 per square foot of land for the luxury Luxury Resort Homes. Projects serving a visitor market are assumed to have higher quality materials, finishes and appliances. The condominium in the VDA assumes concrete construction while wood is assumed for units built for the primary residential market. Estimates reflect use of third-party construction data sources such as RS Means and Marshall and Swift, and data reported in financial disclosures required for publicly traded developers currently active in Hawai'i.

Indirect costs of development include architecture and engineering (A&E) costs, fees and permits costs, taxes, insurance, overhead, debt financing costs, etc. Fees and permit cost estimates include all building permit fees, capacity charges and inspection fees and were estimated for the prototype residential projects by the County of Kaua'i. Indirect costs excluding workforce housing related costs are estimated to range from roughly \$75,000/unit to over \$500,000/unit depending on the prototype.

### **3.6 Sales Revenue and Supported Rental Unit Values**

Pricing and rent estimates are summarized in Table 3-3 and reflect the market data summarized in Section 3.2 and supporting data in Appendix A. For the apartment prototypes rental income is translated into an estimate of supported developer investment. Rents are estimated at \$2,250/unit/month (\$2.50/square foot) for an apartment with an average unit size of 900 square feet. As shown on Table 3.8, after a vacancy factor, operating expenses, and property taxes, the net operating income (NOI) for market rate apartments units is estimated at \$18,720/unit/year. A threshold developer return on cost requirement of 6.25% is assumed based upon review of capitalization rates reflected in multifamily sales transactions elsewhere in Hawai'i and reflection of spread to account for developer profit and the less proven nature of the Kaua'i market for new rentals. Dividing NOI by the required return on cost yields the warranted private investment in the project estimated at \$300,000 per unit.

### **3.7 Residential Land Sales**

KMA reviewed residential land sales using data from County tax records and Costar, a third party vendor of market data. The data is summarized in Appendix A Table 3. The land sale data

is relatively limited. As a result, it provides only a general indication of residential land values in Kaua'i.

The data indicates that raw or partially improved residential land (without all site improvements necessary to make the property buildable) has a value in the range of \$3 to \$7 per square foot. Finished lots in a buildable condition sold for approximately \$10 to \$20 per square foot. High quality sites within the VDA can be expected to sell for a premium over these ranges.

The feasibility analysis assumes that residential development sites are acquired in a raw or partially improved condition, requiring site improvement costs on the order of \$15 to \$20 per square foot, which are reflected in each prototype's development budget. Therefore, residential prototypes are considered feasible if the supported land value falls in the range of raw or partially improved residential land.

### **3.8 Feasibility Conclusions**

The financial feasibility analysis is based on the relationship between the project's revenue potential, the estimated development costs, and a reasonable developer profit commensurate with the development risk. The residual land value approach, described earlier in this section, produces a residual value that each prototype can afford to pay to acquire a site. If the residual value exceeds the cost to acquire a site for development, the prototype is generally determined to be feasible. If the residual value is less than the cost to acquire and prepare the site, feasibility conditions will need to improve before the project can become feasible, for example through higher sales prices. As mentioned previously, some projects can be expected to have economics that are somewhat better or somewhat worse than the "typical" prototype projects analyzed.

The residual land values are derived by subtracting the development costs before land acquisition from the net sales revenues (with for-sale prototypes) or net project value/ supported investment (for the rental prototypes).

Table 3-4A summarizes the feasibility analysis findings of the VDA or visitor-serving residential prototypes including the sales price, development cost, residual land value, and feasibility conclusions for each prototype. All VDA residential development types were found to be feasible both with and without the cost of providing workforce housing under the County's Housing Policy. Complying with workforce housing requirements was found to have the greatest impact on feasibility of condos, reducing supported land value by over 60% and reducing the project to a marginally feasible to infeasible level.

<b>Table 3-4A: Feasibility Analysis Summary</b>				
<b>Visitor Serving Prototypes (VDA)</b>				
	<b>Luxury Resort Home</b>	<b>Single Family/ Duplex</b>	<b>Townhome</b>	<b>Condo</b>
Avg. Unit Size - Mkt.	2,500	1,800	1,500	1,200
Avg. # Bedrooms	4.0	3.0	2.5	2.0
Gross Density du/ac	2.5	5	9	17
<b>Visitor Market - No Workforce Requirement</b>				
Sale Price	\$4,125,000	\$1,080,000	\$900,000	\$870,000
Development Cost (1)	\$3,096,000	\$904,000	\$752,000	\$813,000
Residual Land Value	\$1,029,000	\$176,000	\$148,000	\$57,000
<i>Per SF Land</i>	\$59	\$20	\$31	\$22
<b>Feasibility Conclusion</b>	<b>Feasible</b>	<b>Feasible</b>	<b>Feasible</b>	<b>Feasible</b>
<b>Visitor Market - With Workforce Requirement [off-site for SF &amp; townhome, fee for condo]</b>				
Sale Price	\$4,125,000	\$1,080,000	\$900,000	\$870,000
Development Cost (1)	\$3,119,000	\$928,000	\$783,000	\$848,000
Residual Land Value	\$1,006,000	\$152,000	\$117,000	\$22,000
<i>Per SF Land</i>	\$58	\$17	\$24	\$9
<i>% Difference vs. no req.</i>	-2%	-14%	-21%	-61%
<b>Feasibility Conclusion</b>	<b>Feasible</b>	<b>Feasible</b>	<b>Feasible</b>	<b>Marginal to Infeasible</b>

(1) With for-sale projects, development costs are inclusive of developer profit and cost of sale.

Table 3-4B summarizes the feasibility analysis findings for the local serving residential development types. All of the for-sale residential development types were found to be feasible without a workforce housing requirement. Providing workforce housing was found to significantly impact feasibility, rendering the condo infeasible and the single family project marginally feasible. Apartments are estimated to be infeasible either with or without a workforce housing requirement.

<b>Table 3-4B: Feasibility Analysis Summary, Local Serving Prototypes (outside the VDA)</b>				
	<b>Single Family/ Duplex</b>	<b>Townhome</b>	<b>Condo</b>	<b>Apartment</b>
Avg. Unit Size - Mkt.	1,800	1,500	1,200	900
Avg. # Bedrooms	3.0	2.5	2.0	2.0
Gross Density du/ac	5	9	17	20
<b>No Workforce Requirement</b>				
Sale Price / sup. investment	\$756,000	\$630,000	\$546,000	\$300,000
Development Cost (1)	\$703,000	\$576,000	\$528,000	\$310,000
Residual Land Value	\$53,000	\$54,000	\$18,000	(\$10,000)
Per SF Land	\$6	\$11	\$7	(\$5)
<b>Feasibility Conclusion</b>	<b>Feasible</b>	<b>Feasible</b>	<b>Feasible</b>	<b>Infeasible</b>
<b>Local Market With Workforce Requirement [on-site units integrated with mkt rate]</b>				
Sale Price / sup. investment	\$756,000	\$630,000	\$546,000	not analyzed
Development Cost (1)	\$719,000	\$592,00	\$557,000	as infeasible
Residual Land Value	\$37,000	\$38,000	(\$11,000)	with no
Per Acre	\$185,000	\$342,000	(\$187,000)	requirement
Per SF Land	\$4	\$8	(\$4)	
% Difference vs. no req.	-30%	-30%	-161%	
<b>Feasibility Conclusion</b>	<b>Marginal</b>	<b>Feasible</b>	<b>Infeasible</b>	<b>Infeasible</b>

(1) With for-sale projects, development costs are inclusive of developer profit and cost of sale.

### 3.9 Development Community Contacts

KMA conducted interviews with residential developers involved in the construction of visitor- and local-oriented housing on Kauai who provided insight into the development economics of their respective projects and their outlook on the housing market. Developers affirmed the distinction between visitor-oriented housing in the Visitor Destination Areas and local-oriented housing outside the Visitor Destination Areas. Visitor-oriented housing development is characterized by higher values, premium construction costs, and greater risk due to seasonality of sales and competition from other visitor-oriented markets. Local-oriented development is characterized by moderate values, average construction costs, and steadier absorption. A key feasibility threshold for both product types is the ability to support horizontal costs to entitle and improve greenfield sites, in addition to vertical construction. Horizontal costs include a multi-year entitlement process and delivery of backbone infrastructure (water, sewer, drainage, dry utilities, and roads). Developers note that while rising development costs are a concern, costs have not reached a point that would cause projects to stall development.

### 3.10 Cost to Provide Workforce Housing – Existing Ordinance 860 Alternatives

KMA estimated the cost for each residential project type to comply with current Ordinance 860 requirements. Estimates are summarized in Table 3-5 and supporting calculations are provided

in Table 3-10. Figures represent the cost of workforce housing obligations spread across all units in the project (not just the workforce units).

<b>Table 3-5: Estimated Cost to Comply with Ordinance 860, Per Total Unit or Total Square Foot in Project</b>					
	<b>Luxury Resort Home</b>	<b>Single Family/ Duplex</b>	<b>Townhome</b>	<b>Condo</b>	<b>Apartment</b>
Avg. Unit Size - Mkt.	2,500	1,800	1,500	1,200	900
In-Lieu Fee	\$34,600	\$34,600	\$34,600	\$34,600	\$34,600
<i>Per Square Foot</i>	\$14	\$19	\$23	\$29	\$38
Off-Site Units	\$22,100	\$22,600	\$29,700	\$37,100	\$24,300
<i>Per Square Foot</i>	\$9	\$13	\$20	\$31	\$27
On-Site Units (non-VDA estimate)	not	\$15,500	\$15,800	\$27,800	\$18,200
<i>Per Square Foot</i>	estimated	\$9	\$11	\$23	\$20

For local-serving projects, on-site workforce units are estimated to represent the lowest cost option.

For visitor-oriented resort residential, it is assumed the developer would opt to provide off-site units or pay the in-lieu fee. Integrating units within the market rate project is not assumed to be viewed as a favorable choice by the developer because it will likely occur on more valuable land with more costly site improvements such as pools, golf courses, etc. For the luxury resort, single-family, and townhome VDA project types, off-site units are estimated to represent a lower cost than the in-lieu fee. For the condo VDA prototype, the in-lieu fee is estimated to be the lower cost option.

Table 3-6 converts the cost to provide workforce housing to a percentage of sales price or unit value using the compliance option selections described above. As shown, the percentage burden that requirements represent increase as density increases. This is because the condo and apartments are not eligible for incentives under the Housing Policy for single family attached or detached units, which reduces the workforce housing percentage applicable to the lower density projects. In addition, larger affordable units (by bedroom count) provided with the lower density projects have a lower net cost than smaller affordable units provided with the higher density projects, based on the difference between the estimated development cost of the units and the affordable sales prices published by the County.

<b>Table 3-6: Workforce Housing Compliance Costs As Percent of Unit Value / Sales Price</b>					
	<b>Luxury Resort Home</b>	<b>Single Family/ Duplex</b>	<b>Townhome</b>	<b>Condo</b>	<b>Apartment</b>
VDA / Visitor Serving	0.5%	2.1%	3.3%	4.0%	not analyzed
Primary Residential	not analyzed	2.1%	2.5%	5.1%	6.1%

**TABLE 3-7A**  
**FINANCIAL FEASIBILITY ANALYSIS - FOR-SALE, VISITOR MARKET, NO WORKFORCE HOUSING REQUIREMENT**  
**RESIDENTIAL FEASIBILITY ANALYSIS**  
**KAUA'I, HI**

	Luxury Resort Home		Single Family/ Duplex		Townhome		Condominium	
Market Orientation	Visitor Serving		Visitor Serving		Visitor Serving		Visitor Serving	
Average Unit Size - Market	2,500 sf		1,800 sf		1,500 sf		1,200 sf	
Average Number of Bedrooms	4.0 bedrooms		3.0 bedrooms		2.5 bedrooms		2.0 bedrooms	
Gross Density	2.5 du/acre		5.0 du/acre		9.0 du/acre		17.0 du/acre	
Lot Size	13,000 sf		7,000 sf		n/a		n/a	
Stories/ Construction Type	1-2 stories/ wood		1-2 stories/ wood		2 stories/ wood		3 stories/ concrete	
Parking Ratio/ Type	2.0 garage		2.0 garage		2.0 garage/ surface		2.0 surface	
<b>Revenue</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>
Gross Sales-100% Market Rate	\$1,650	\$4,125,000	\$600	\$1,080,000	\$600	\$900,000	\$725	\$870,000
<Less> Sales Expense (5%)	(\$83)	(\$206,250)	(\$30)	(\$54,000)	(\$30)	(\$45,000)	(\$36)	(\$43,500)
Sales Net of Sales Expenses	\$1,568	\$3,918,750	\$570	\$1,026,000	\$570	\$855,000	\$689	\$826,500
<b>Development Costs</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>
Site Work	\$139	\$348,480	\$73	\$130,680	\$48	\$72,600	\$32	\$38,435
Direct Costs	\$610	\$1,525,000	\$235	\$423,000	\$260	\$390,000	\$375	\$450,000
Fees & Permits	\$11	\$28,000	\$12	\$22,000	\$11	\$17,000	\$14	\$17,000
Ord 860: units or fee		not included		not included		not included		not included
Other Indirect Costs	\$157	\$393,431	\$65	\$116,273	\$65	\$97,146	\$85	\$102,571
Financing	\$40	\$99,700	\$16	\$28,900	\$15	\$22,400	\$18	\$22,000
<b>Total Devel. Costs (excl. land)</b>	<b>\$958</b>	<b>\$2,394,611</b>	<b>\$400</b>	<b>\$720,853</b>	<b>\$399</b>	<b>\$599,146</b>	<b>\$525</b>	<b>\$630,007</b>
<b>Residual Land Value</b>								
Net Sales Revenue	\$1,568	\$3,918,750	\$570	\$1,026,000	\$570	\$855,000	\$689	\$826,500
<Less> Development Costs	(\$958)	(\$2,394,611)	(\$400)	(\$720,853)	(\$399)	(\$599,146)	(\$525)	(\$630,007)
<Less> Profit Margin		(\$495,000)		(\$129,600)		(\$108,000)		(\$139,200)
<b>Residual Land Value (Per Unit)</b>		<b>\$1,029,000</b>		<b>\$176,000</b>		<b>\$148,000</b>		<b>\$57,000</b>
Per Acre		\$2,573,000		\$880,000		\$1,332,000		\$969,000
Per Sq. Ft. of Land Area (Gross)		\$59		\$20		\$31		\$22
<b>Profit Margin</b>		<b>12.0%</b>		<b>12.0%</b>		<b>12.0%</b>		<b>16.0%</b>
<b>Profit Margin Basis</b>		<b>return on sales</b>		<b>return on sales</b>		<b>return on sales</b>		<b>return on sales</b>

**TABLE 3-7B**  
**FINANCIAL FEASIBILITY ANALYSIS - FOR-SALE, VISITOR MARKET, WITH ORDINANCE 860 COMPLIANCE**  
**RESIDENTIAL FEASIBILITY ANALYSIS**  
**KAUA'I, HI**

	Luxury Resort Home		Single Family/ Duplex		Townhome		Condominium	
Market Orientation	Visitor Serving		Visitor Serving		Visitor Serving		Visitor Serving	
Average Unit Size - Market	2,500 sf		1,800 sf		1,500 sf		1,200 sf	
Average Number of Bedrooms	4.0 bedrooms		3.0 bedrooms		2.5 bedrooms		2.0 bedrooms	
Gross Density	2.5 du/acre		5.0 du/acre		9.0 du/acre		17.0 du/acre	
Lot Size	13,000 sf		7,000 sf		n/a		n/a	
Stories/ Construction Type	1-2 stories/ wood		1-2 stories/ wood		2 stories/ wood		3 stories/ concrete	
Parking Ratio/ Type	2.0 garage		2.0 garage		2.0 garage/ surface		2.0 surface	
Ordinance 860 Compliance	off-site units		off-site units		off-site units		in-lieu fee	
<b>Revenue</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>
Gross Sales-100% Market Rate	\$1,650	\$4,125,000	\$600	\$1,080,000	\$600	\$900,000	\$725	\$870,000
<Less> Sales Expense (5%)	(\$83)	(\$206,250)	(\$30)	(\$54,000)	(\$30)	(\$45,000)	(\$36)	(\$43,500)
Sales Net of Sales Expenses	\$1,568	\$3,918,750	\$570	\$1,026,000	\$570	\$855,000	\$689	\$826,500
<b>Development Costs</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>
Site Work	\$139	\$348,480	\$73	\$130,680	\$48	\$72,600	\$32	\$38,435
Direct Costs	\$610	\$1,525,000	\$235	\$423,000	\$260	\$390,000	\$375	\$450,000
Fees & Permits	\$11	\$28,000	\$12	\$22,000	\$11	\$17,000	\$14	\$17,000
Ord 860: units or fee	\$9	\$22,100	\$13	\$22,600	\$20	\$29,700	\$29	\$34,600
Other Indirect Costs	\$157	\$393,431	\$65	\$116,273	\$65	\$97,146	\$85	\$102,571
Financing	\$40	\$100,400	\$16	\$29,600	\$16	\$23,400	\$19	\$23,100
<b>Total Devel. Costs (excl. land)</b>	<b>\$967</b>	<b>\$2,417,411</b>	<b>\$413</b>	<b>\$744,153</b>	<b>\$420</b>	<b>\$629,846</b>	<b>\$555</b>	<b>\$665,707</b>
<b>Residual Land Value</b>								
Net Sales Revenue	\$1,568	\$3,918,750	\$570	\$1,026,000	\$570	\$855,000	\$689	\$826,500
<Less> Development Costs	(\$967)	(\$2,417,411)	(\$413)	(\$744,153)	(\$420)	(\$629,846)	(\$555)	(\$665,707)
<Less> Profit Margin		(\$495,000)		(\$129,600)		(\$108,000)		(\$139,200)
<b>Residual Land Value (Per Unit)</b>		<b>\$1,006,000</b>		<b>\$152,000</b>		<b>\$117,000</b>		<b>\$22,000</b>
Per Acre		\$2,515,000		\$760,000		\$1,053,000		\$374,000
Per Sq. Ft. of Land Area (Gross)		\$58		\$17		\$24		\$9
<b>Profit Margin</b>		<b>12.0%</b>		<b>12.0%</b>		<b>12.0%</b>		<b>16.0%</b>
<b>Profit Margin Basis</b>		<b>return on sales</b>		<b>return on sales</b>		<b>return on sales</b>		<b>return on sales</b>

**TABLE 3-7C**  
**FINANCIAL FEASIBILITY ANALYSIS - FOR-SALE, LOCAL MARKET, NO WORKFORCE HOUSING REQUIREMENT**  
**RESIDENTIAL FEASIBILITY ANALYSIS**  
**KAUA'I, HI**

	Single Family/ Duplex		Townhome		Condominium	
Market Orientation	Primary Residential		Primary Residential		Primary Residential	
Average Unit Size - Market	1,800 sf		1,500 sf		1,200 sf	
Average Number of Bedrooms	3.0 bedrooms		2.5 bedrooms		2.0 bedrooms	
Gross Density	5.0 du/acre		9.0 du/acre		17.0 du/acre	
Lot Size	7,000 sf		n/a sf		sf	
Stories/ Construction Type	1-2 stories/ wood		2 stories/ wood		3 stories/ wood	
Parking Ratio/ Type	2.0 garage		2.0 garage/ surface		2.0 surface	
<b>Revenue</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>
Gross Sales-100% Market Rate	\$420	\$756,000	\$420	\$630,000	\$455	\$546,000
<Less> Sales Expense (4%)	<u>(\$17)</u>	<u>(\$30,240)</u>	<u>(\$17)</u>	<u>(\$25,200)</u>	<u>(\$18)</u>	<u>(\$21,840)</u>
Sales Net of Sales Expenses	\$403	\$725,760	\$403	\$604,800	\$437	\$524,160
<b>Development Costs</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>
Site Work	\$73	\$130,680	\$48	\$72,600	\$32	\$38,435
Direct Costs	\$175	\$315,000	\$195	\$292,500	\$235	\$282,000
Fees & Permits	\$12	\$22,000	\$11	\$17,000	\$14	\$17,000
Ord 860: provide units or pay fee		not included		not included		not included
Other Indirect Costs	\$52	\$93,592.80	\$51	\$76,671	\$56	\$67,291
Financing	\$12	\$20,700	\$11	\$16,400	\$12	\$14,100
<b>Total Devel. Costs (excl. land)</b>	<b>\$323</b>	<b>\$581,973</b>	<b>\$317</b>	<b>\$475,171</b>	<b>\$349</b>	<b>\$418,827</b>
<b>Residual Land Value</b>						
Net Sales Revenue	\$403	\$725,760	\$403	\$604,800	\$437	\$524,160
<Less> Development Costs	<u>(\$323)</u>	<u>(\$581,973)</u>	<u>(\$317)</u>	<u>(\$475,171)</u>	<u>(\$349)</u>	<u>(\$418,827)</u>
<Less> Profit Margin		<u>(\$90,720)</u>		<u>(\$75,600)</u>		<u>(\$87,360)</u>
<b>Residual Land Value (Per Unit)</b>		<b>\$53,000</b>		<b>\$54,000</b>		<b>\$18,000</b>
Per Acre		\$265,000		\$486,000		\$306,000
Per Sq. Ft. of Land Area (Gross)		\$6		\$11		\$7
<b>Profit Margin</b>		<b>12.0%</b>		<b>12.0%</b>		<b>16.0%</b>
<b>Profit Margin Basis</b>		<b>return on sales</b>		<b>return on sales</b>		<b>return on sales</b>

**TABLE 3-7D**  
**FINANCIAL FEASIBILITY ANALYSIS - FOR-SALE, LOCAL MARKET, WITH ORDINANCE 860 COMPLIANCE**  
**RESIDENTIAL FEASIBILITY ANALYSIS**  
**KAUA'I, HI**

	Single Family/ Duplex		Townhome		Condominium	
Market Orientation	Primary Residential		Primary Residential		Primary Residential	
Average Unit Size - Market	1,800 sf		1,500 sf		1,200 sf	
Average Number of Bedrooms	3.0 bedrooms		2.5 bedrooms		2.0 bedrooms	
Gross Density	5.0 du/acre		9.0 du/acre		17.0 du/acre	
Lot Size	7,000 sf		n/a sf		sf	
Stories/ Construction Type	1-2 stories/ wood		2 stories/ wood		3 stories/ wood	
Parking Ratio/ Type	2.0 garage		2.0 garage/ surface		2.0 surface	
Ordinance 860 Compliance	on-site units		on-site units		on-site units	
<b>Revenue</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>
Gross Sales-100% Market Rate	\$420	\$756,000	\$420	\$630,000	\$455	\$546,000
<Less> Sales Expense (4%)	(\$17)	(\$30,240)	(\$17)	(\$25,200)	(\$18)	(\$21,840)
Sales Net of Sales Expenses	\$403	\$725,760	\$403	\$604,800	\$437	\$524,160
<b>Development Costs</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>	<b>Per SF</b>	<b>Per Unit</b>
Site Work	\$73	\$130,680	\$48	\$72,600	\$32	\$38,435
Direct Costs	\$175	\$315,000	\$195	\$292,500	\$235	\$282,000
Fees & Permits	\$12	\$22,000	\$11	\$17,000	\$14	\$17,000
Ord 860: units or fee	\$9	\$15,500	\$11	\$15,800	\$23	\$27,800
Other Indirect Costs	\$52	\$93,592.80	\$51	\$76,671	\$56	\$67,291
Financing	\$12	\$21,200	\$11	\$16,900	\$13	\$15,000
<b>Total Devel. Costs (excl. land)</b>	<b>\$332</b>	<b>\$597,973</b>	<b>\$328</b>	<b>\$491,471</b>	<b>\$373</b>	<b>\$447,527</b>
<b>Residual Land Value</b>						
Net Sales Revenue	\$403	\$725,760	\$403	\$604,800	\$437	\$524,160
<Less> Development Costs	(\$332)	(\$597,973)	(\$328)	(\$491,471)	(\$373)	(\$447,527)
<Less> Profit Margin		(\$90,720)		(\$75,600)		(\$87,360)
<b>Residual Land Value (Per Unit)</b>		<b>\$37,000</b>		<b>\$38,000</b>		<b>(\$11,000)</b>
Per Acre		\$185,000		\$342,000		(\$187,000)
Per Sq. Ft. of Land Area (Gross)		\$4		\$8		(\$4)
<b>Profit Margin</b>		<b>12.0%</b>		<b>12.0%</b>		<b>16.0%</b>
<b>Profit Margin Basis</b>		<b>return on sales</b>		<b>return on sales</b>		<b>return on sales</b>

**TABLE 3-8**  
**FINANCIAL FEASIBILITY - RENTAL, LOCAL MARKET, NO WORKFORCE HOUSING REQ.**  
**RESIDENTIAL FEASIBILITY ANALYSIS**  
**KAUA'I, HI**

	<b>Apartment</b>	
Market Orientation	Primary Residential	
Average Unit Size - Market	900 sf	
Average Number of Bedrooms	2.0 bedrooms	
Gross Density	20 du/acre	
Lot Size	n/a	
Stories/ Construction Type	3 stories/ wood	
Parking Ratio/ Type	1.5 spaces/ surface	
<b>Revenue</b>	<b>Per SF</b>	<b>Per Unit</b>
Gross Rent - 100% Market	\$2.50	\$27,000
Other Income		\$600
Vacancy / Operating Expense		(\$8,880)
Net Operating Income		<u>\$18,720</u>
<i>Return on Cost</i>		6.25%
<b>Investment Supported</b>	\$333	\$300,000
<b>Development Costs</b>	<b>Per SF</b>	<b>Per Unit</b>
Sitework	\$36	\$32,670
Direct Costs	\$225	\$202,500
Fees & Permits	\$17	\$15,000
Ord 860: provide units or pay fee		not included
Other Indirect Costs	\$55	\$49,386
Financing	\$12	\$10,500
<b>Total Development Cost (excl. land)</b>	<u>\$345</u>	<u>\$310,056</u>
<b>Residual Land Value</b>		
Supported Investment		\$300,000
<Less> Development Costs		<u>(\$310,056)</u>
<b>Residual Land Value (Per Unit)</b>		<b>(\$10,000)</b>
Per Acre		(\$200,000)
Per Square Foot of Land Area		(\$5)

**TABLE 3-9  
FINANCIAL FEASIBILITY - COMMON ASSUMPTIONS  
RESIDENTIAL FEASIBILITY ANALYSIS  
KAUA'I, HI**

<b>Development Costs</b>		<b>Income/Revenues</b>	
<u>Direct Construction Costs*</u>		<u>Market Sales Prices</u>	
Luxury Resort Home	\$610 /NSF	Luxury Resort Home	\$1,650 /NSF
Single Family (Visitor)	\$235 /NSF	Single Family (Visitor)	\$600 /NSF
Single Family (Primary)	\$175 /NSF	Single Family (Primary)	\$420 /NSF
Townhome (Vistor)	\$260 /NSF	Townhome (Vistor)	\$600 /NSF
Townhome (Primary)	\$195 /NSF	Townhome (Primary)	\$420 /NSF
Condominium (Visitor)*	\$375 /NSF	Condominium (Visitor)	\$725 /NSF
Condominium (Primary)	\$235 /NSF	Condominium (Primary)	\$455 /NSF
Apartment (Primary)	\$225 /NSF		
Parking	included above	<u>Market Apartment Rents</u>	
Site Work (Luxury Resort)	\$20 /SF site	Apartment (Primary)	\$2.50 /SF/mo
Site Work (Visitor)	\$15 /SF site	Misc. Income	\$600 /unit/yr
Site Work (Primary)	\$15 /SF site		
<u>Indirect Construction Costs</u>			
Construction Contingency	6% of directs		
<u>Fees and Permits</u>			
Luxury	\$28,000 /unit		
SF Detached	\$22,000 /unit		
SF Attached	\$17,000 /unit		
Condo	\$17,000 /unit		
Rental	\$15,000 /unit		
Other Soft Costs	15% of directs		
<u>Financing</u>		<b>Apartment Operating Expenses</b>	
Loan-to-Cost	65% LTC	Vacancy	5.0% vacancy
Interest Rate	5.0% /year	Operating Expenses	\$5,000 /unit/yr
Points and Fees	1% loan	Property Taxes - Market	\$2,500 /unit/yr
Loan Term	18 months	Property Taxes - Affordable	\$0 /unit/yr
Avg Outstanding Balance	55% loan		
		<b>Investment Thresholds</b>	
		<u>Stabilized Return on Cost (ROC)</u>	
		Apartments - Market	6.25% ROC
		Apartments - Affordable	6.75% ROC
		<u>Profit / Closing Costs</u>	
		Closing Costs: Primary	4% sales
		Closing Costs: Visitor	5% sales
		Profit: SF/ Townhome	12% sales
		Profit: Condo	16% sales
* Assuming wood construction for all prototypes except visitor condominiums (concrete assumed).			

**TABLE 3-10  
ESTIMATED COST OF COMPLIANCE - EXISTING ORDINANCE 860  
INCLUSIONARY HOUSING ANALYSIS  
KAUAI COUNTY**

	Prototype 1		Prototype 2 & 5		Prototype 3 & 6		Prototype 4 & 7		Prototype 8	
	Luxury Resort Home		Single Family/ Duplex		Townhome		Condominium		Apartment	
	2,500 sf 4.0 bedrooms		1,800 sf 3.0 bedrooms		1,500 sf 2.5 bedrooms		1,200 sf 2.0 bedrooms		900 sf 2.0 bedrooms	
	Per SF	Per Unit	Per SF	Per Unit						
<b>1. Existing In-Lieu Fee <sup>(1)</sup></b>	\$14	\$34,600	\$19	\$34,600	\$23	\$34,600	\$29	\$34,600	\$38	\$34,600
<b>2. Cost Per Workforce Unit (Tbl 7-4) share of units</b>										
80% AMI		\$208,400		\$228,400		\$233,100		\$237,800		
100% AMI		\$114,800		\$124,850		\$144,975		\$165,100		
120% AMI		\$16,000		\$36,350		\$62,375		\$88,400		
140% AMI		<u>no gap</u>		<u>no gap</u>		<u>no gap</u>		<u>minor gap</u>		80%-140% rental
Average cost per unit		\$80,920		\$94,040		\$108,825		\$123,610		\$81,000
Credit per unit based on Ord 860 lot size table		0.88		1.00		0.88		1.00		1.00
<b>3. Cost to Provide Off-Site Workforce Hsg</b>										
Applicable Percent of Market Rate Units <sup>(2)</sup>		24%		24%		24%		30%		30%
<b>Avg Cost Per Unit in Project</b>	\$9	\$22,100	\$13	\$22,600	\$20	\$29,700	\$31	\$37,100	\$27	\$24,300
<b>4. Cost to Provide On-Site [outside VDA] <sup>(3)</sup></b>										
Applicable Percent of Project Units <sup>(2)</sup>				16.5%		16.5%		22.5%		22.5%
<b>Avg Cost Per Unit in Project</b>		not estimated	\$9	\$15,500	\$11	\$15,800	\$23	\$27,800	\$20	\$18,200

**Notes**

(1) In-Lieu Fee by AMI level	% of units	2007 level	Adjusted: CPI
80% AMI	20%	\$176,000	\$215,100
100% AMI	30%	\$122,000	\$149,100
120% AMI	30%	\$67,000	\$81,900
140% AMI	20%	\$12,000	\$14,700
Total average	100%	\$94,300	\$115,260
Per Mkt Rate Unit @30% Requirement		\$28,290	\$34,578

(2) Applicable Percentage Requirement	SF & Town	Condo & Apt	
On-site Units			
Base Requirement	30%	30%	
With Incentives (SF attached, integration)	16.5%	22.5%	SF attached incentive not available for on-site units in condos and apartments
Off-site Units			
Base Requirement	30%	30%	
With Incentives (attached)	24%	30%	SF attached incentive not available for condo and apartments

(3) Estimate reflects project outside of the VDA. The cost of providing units within the VDA may be higher due to the higher pricing of market rate units in the VDA.

#### 4.0 FINANCIAL FEASIBILITY ANALYSIS – RESORT DEVELOPMENT

This section presents the financial feasibility analysis for resort development to provide context for updates to Housing Policy requirements. The analysis is focused on hotels. Residential units developed in the VDA are addressed in Section 3.

Analysis limitations described in Section 3.1 apply to the resort development feasibility analysis as well.

#### 4.1 Kaua'i Hotel Market Overview

Kaua'i has roughly 4,400 hotel rooms with upscale and luxury class hotels representing approximately 90% of all rooms (Table 4-1). The average daily room rates and Revenue Per Available Room ("RevPAR"), an average revenue factor that considers the combination of average room rate and occupancy, are higher in Kaua'i than Honolulu and Hawai'i but less than Maui (Table 4-2).

Class	No. of Rooms	% of Rooms
Economy Class	34	0.8%
Upper Midscale Class	451	10.1%
Upscale Class	1,456	32.8%
Upper Upscale Class	1,275	28.7%
Luxury Class	1,229	27.6%
<b>Total</b>	<b>4,445</b>	<b>100.0%</b>

Source: Smith Travel Research

	Occupancy	Average Daily Rate (ADR)	Revenue per Available Room (RevPar)
Honolulu	84.4%	\$ 233.33	\$ 196.93
Maui	78.7%	\$ 398.02	\$ 313.15
<b>Kauai</b>	<b>79.2%</b>	<b>\$ 294.76</b>	<b>\$ 233.39</b>
Hawai'i (Big Island)	77.5%	\$ 271.57	\$ 210.36
State of Hawai'i	81.7%	\$ 280.09	\$ 228.91

Source: CBRE

Average daily rates and occupancy have been on an upward trajectory since 2012 as shown in Table 4-3. Kaua'i hotels are averaging 79% occupancy with an average daily rate of \$295 per night or \$234 in RevPar.

<b>Table 4-3: Kaua'i Hotel Performance by Year</b>						
Year	Luxury & Upper Upscale Hotels			All Hotels		
	Occupancy	Average Daily Rate	Revenue per Available Room	Occupancy	Average Daily Rate	Revenue per Available Room
2012	72.4%	\$286.79	\$207.53	67.6%	\$215.82	\$145.84
2013	75.2%	\$296.30	\$222.70	69.0%	\$225.20	\$155.29
2014	76.9%	\$295.02	\$226.81	70.2%	\$227.72	\$159.90
2015	77.4%	\$317.55	\$245.78	71.2%	\$242.62	\$172.86
2016	78.6%	\$326.42	\$256.44	72.7%	\$253.15	\$184.12
2017	77.2%	\$341.23	\$263.31	75.7%	\$263.93	\$199.83
2018 (YTD)	80.0%	\$377.76	\$302.56	79.2%	\$294.67	\$233.61
Annualized Growth		5%	6%		5%	8%

Source: Smith Travel Research August 2018

Table 4-4 presents monthly hotel performance data. January, February, July and December are the peak months in terms of Revenue Per Available Room.

<b>Table 4-4: Kaua'i Hotel Performance by Month</b>						
Month	Luxury & Upper Upscale Hotels			All Hotels		
	Occupancy	Average Daily Rate	Revenue per Available Room	Occupancy	Average Daily Rate	Revenue per Available Room
January	82.7%	\$354.98	\$293.69	79.8%	\$278.90	\$222.57
February	84.7%	\$337.62	\$286.02	81.9%	\$269.03	\$220.33
March	77.5%	\$335.87	\$260.40	76.0%	\$262.64	\$199.70
April	76.5%	\$320.79	\$245.37	73.0%	\$251.79	\$183.85
May	77.1%	\$318.09	\$245.30	75.2%	\$248.01	\$186.51
June	76.8%	\$349.92	\$268.82	76.4%	\$267.25	\$204.23
July	79.3%	\$382.71	\$303.42	77.8%	\$291.08	\$226.32
August	76.0%	\$366.33	\$278.54	74.8%	\$275.75	\$206.28
September	73.5%	\$304.37	\$223.58	72.6%	\$236.36	\$171.56
October	77.2%	\$302.44	\$233.54	76.2%	\$236.54	\$180.32
November	71.3%	\$300.51	\$214.34	71.7%	\$232.23	\$166.39
December	74.2%	\$414.93	\$307.77	73.7%	\$312.84	\$230.54
<b>Annual</b>	<b>77.2%</b>	<b>\$341.23</b>	<b>\$263.31</b>	<b>75.7%</b>	<b>\$263.93</b>	<b>\$199.83</b>

Source: Smith Travel Research August 2018

Appendix D provides additional hotel market data for Kaua'i.

## 4.2 Financial Feasibility Analysis

The financial feasibility analysis estimates the costs to develop a new hotel project and the level of investment that can be supported by the revenue streams it generates. As with the analysis of residential projects, financial feasibility analysis for the hotel projects is based on a residual

land value analysis approach, meaning the feasibility analysis solves for what the project can afford to pay for a development site based on the sales/income projections and the non-land acquisition costs of the project. It then compares the residual land values with land costs in the current market in order to test whether developers can afford to buy land and develop projects.

KMA analyzed the financial feasibility of two prototypical hotel projects representative of the types of hotel projects that Kaua'i is likely to see developed in the future:

- Luxury Resort Hotel (300 rooms); and
- Full Service “Lifestyle” Hotel (175 rooms)

Lifestyle hotels seek to provide unique design experience and service of a boutique hotel with benefits associated with being under the umbrella of a hotel chain. The pro forma tables identifying the revenues, costs, and supported land values for the two prototypical hotel developments are included at the end of this section in Tables 4-10 through 4-11.

*Workforce Housing Requirements Not Included in Base Case Pro Forma:* The base case pro forma analysis is conducted without consideration of workforce housing obligations under Ordinance 860. Ordinance 860 requires a project-specific workforce housing analysis. KMA's understanding is that no such study has yet been completed or accepted by the County since enactment of Ordinance 860. Without a track record of prior studies, it is difficult to estimate the cost of complying with existing requirements with any degree of precision and costs may vary from project to project. Instead, KMA has provided an estimate of the workforce housing obligation that is estimated to be financially feasible under current market conditions, provided in the next section.

The following sections describe the assumptions utilized in the feasibility analysis and the conclusions drawn therefrom.

1. *Development Costs* – Total development costs except land are estimated at \$691,000 per room for the Luxury Resort and \$448,000 per room for the Full Service Lifestyle hotel. Estimates include site improvements, hotel construction, furniture and fixtures, fees and permits, indirect costs, and financing as summarized in the table below. Estimates are based on KMA's experience with comparable hotel and resort projects and use of third-party construction data sources such as RS Means and Marshall and Swift. As noted, development costs do not include existing workforce housing obligations under Ordinance 860.

	<b>Luxury Resort Hotel</b>	<b>Full-Service/Lifestyle Hotel</b>
Site Improvements	\$43,600	\$32,700
Direct Construction & FF&E	\$515,000	\$325,000
Fees & Permits	\$16,500	\$16,500
Other Indirect Costs	\$83,800	\$53,700
Financing	\$32,100	\$19,700
<b>Total Costs, Except Land</b>	<b>\$691,000</b>	<b>\$447,600</b>

2. *Net Operating Income* – The projected net operating income is \$57,900 per room annually for the luxury resort hotel and \$143,300 annually for the Full Service Hotel. This estimate reflects revenue generated by the Average Daily Rate (ADR) of \$425 and \$310, respectively. The Luxury ADR represents a 25% premium over the 2017 ADR for existing luxury and upper scale hotels in Kauai but is well below the \$550 ADR being achieved by the St. Regis, Princeville. The Full Service ADR is about 5% above the blended ADR for existing Kauai hotels and similar to rates being charged by the existing Marriot in Kauai. Stabilized occupancy is projected at 76%, which is reflective of a longer-term average assumption and somewhat below recent performance levels. Revenues from food and beverage operations and other non-room revenues are estimated to represent a combined 45% of gross revenue. Operating expenses for rooms, food and beverage, distributed expenses, fixed expenses, and management are estimated at a combined 73% and 71% of gross revenues respectively for the luxury and full-service hotel prototypes, resulting in estimated net operating income of \$57,900 and \$41,300 per room per year.

	<b>Luxury Resort Hotel</b>		<b>Full-Service/Lifestyle Hotel</b>	
	<u>Per Room</u>	<u>% of Gross</u>	<u>Per Room</u>	<u>% of Gross</u>
Room Revenues	\$117,900	55%	\$86,000	60%
Food & Beverage	\$64,300	30%	\$40,100	28%
Other Revenues	\$32,200	15%	\$17,200	12%
Gross Revenue	\$214,400	100%	\$143,300	100%
<Less> Operating Expenses	(\$156,500)	-73%	(\$102,000)	-71%
<b>Net Operating Income</b>	<b>\$57,900</b>	<b>27%</b>	<b>\$41,300</b>	<b>29%</b>

3. *Warranted Investment* – The level of investment supported by the operational income of the Hotel prototypes was estimated utilizing the return on cost method. This measure of return identifies the blended return on debt and equity supported by a Project's NOI. Based on the level of risk, quality of development, and project scope, the warranted investment supported is estimated based on a target return on cost of 7.5% for the Luxury project and 8.5% for the Full Service hotel. Luxury hotels often accept somewhat lower targeted returns particularly when adding a premium destination that can add value to brand identity. A spread in returns between luxury and full service is consistent

with capitalization rates applicable to recent Hawai'i property transactions. The estimated level of return combined with the estimated net operating income results in a supported investment of \$772,000 per room for the luxury projects and \$486,000 per room for the full-service hotel.

<b>Table 4-7: Warranted Private Investment</b>			
	<b>Luxury Resort Hotel</b>	<b>Full-Service/Lifestyle Hotel</b>	
A. Net Operating Income	\$57,900	\$41,300	Per Room
B. Return on Cost	7.5%	8.5%	
C. Warranted Investment (=A./B.)	\$772,000	\$485,900	Per Room

4. *Residual Land Value* – The residual land value represents the amount the project can afford to pay for a development site based upon the difference between the warranted private investment and the development costs of the project, other than land. The finding is that, *prior to consideration of workforce housing obligations*, the prototypical projects can support a land payment of \$28 per square foot for the Luxury Resort and \$18 per square foot for the Full-Service Lifestyle Hotel.

<b>Table 4-8: Residual Land Value</b>			
	<b>Luxury Resort Hotel</b>	<b>Full-Service/Lifestyle Hotel</b>	
Warranted Private Investment	\$772,000	\$485,900	Per Room
Development Cost, except land	(\$691,000)	(\$447,600)	Per Room
Residual Land Value ( <i>before workforce housing reqrmt</i> )	\$81,000	\$38,300	Per Room
Per Acre (@ 15 rms/acre)	\$1,215,000	\$766,000	Per Ac
Per Square Foot	\$28	\$18	Per SF

5. *Land Values* – KMA identified three land transactions for resort / hotel development in Kauai as summarized in Appendix D. Land values average approximately \$10 per square foot of land. These transactions occurred in 2016 and it is possible that values would be somewhat higher if transactions occurred today. Note that at least one of these transactions occurred with the knowledge that workforce housing requirements would apply and therefore may recognize, at least to some degree, the cost of complying with workforce housing requirements in that the developer would have needed to account for the workforce housing obligation in their pro forma.
6. *Feasibility Conclusion* – The analysis finds that the economics of Luxury Resort and Full-Service Lifestyle Hotel development are strong enough to support the cost of acquiring a development site in Kauai. Therefore, both project types are feasible under current market conditions, *before consideration of costs associated with workforce housing requirements*.

### 4.3 Workforce Housing Requirement Supported

KMA utilized the pro forma analysis described in the prior section to test the workforce housing obligation, expressed as a dollar per room cost, that could be sustained by the economics of the prototypical projects. The analysis is presented in Table 4-10B. The finding is that the economics of the luxury resort project could support a workforce housing obligation that represents a cost of up to approximately \$45,000 per room while the full-service lifestyle project is estimated to support an obligation representing a cost up to approximately \$13,000 per room. These dollar figures were combined with findings regarding the cost per unit of workforce housing from Section 7 to translate these figures into a number of workforce housing units, as follows:

- *Luxury Resort* – For the luxury resort, the finding is that a workforce housing obligation of up to 35% of the number of rooms or 0.29 units for each 1,000 square feet of building would be supportable. Such a requirement would represent an estimated 6% of total development costs or \$38 per square foot of building area.
- *Full-Service / Lifestyle Hotel* – For the full-service hotel project the estimate is that a workforce housing unit obligation representing up to 10% of rooms or 0.11 units for each 1,000 square feet of building could be supported. Such a requirement would represent an estimated 3% of total development costs or \$14 per square foot of building area.

Findings reflect the assumption that 3-bedroom for-sale workforce units priced from 80% to 120% of AMI are provided. The analysis is summarized in Table 4-9. Estimates will be quite sensitive to changes in market conditions and pro forma analysis assumptions.

Table 4-9: Estimate of Feasible Workforce Housing Obligation		
	Luxury Resort Hotel	Full-Service/ Lifestyle Hotel
A. Supportable Workforce Housing Obligation Per Room From Pro Forma Table 4-10B.	\$45,000	\$13,000
Percent of Total Supported Project Investment	5.8%	2.7%
B. Blended Cost Per Workforce Unit (from Section 7) @1/3 each: 80%, 100%, 120% AMI, 3BR for-sale units	\$130,000	\$130,000
C. Supported Percent Requirement (% of rooms) [A. / B.]	35%	10%
D. Building Square Feet Per Hotel Room	1,200	900
E. Supported Workforce Units Per 1,000 Sq.Ft. [1,000 SF / (C. X D.)]	0.29	0.11

**TABLE 4-10A  
FINANCIAL FEASIBILITY ANALYSIS - HOTEL  
INCLUSIONARY HOUSING ANALYSIS  
KAUAI COUNTY**

	Luxury Resort Hotel			Full-Service/ Lifestyle Hotel		
Number of Rooms (Keys)	300 Rooms			175 Rooms		
Hotel building area	360,000 sf			157,500 sf		
Sq.Ft. Per Room	1,200 sf/room			900 sf/room		
Site Area	15 acres			7 acres		
Gross Density	15.0 rooms/acre			20.0 rooms/acre		
Average Room Rate	\$425 /night			\$310 /night		
Stabilized Occupancy	76% occupancy			76% occupancy		
<b>Revenue</b>	<b>Total</b>	<b>Per Room</b>	<b>%Gross</b>	<b>Total</b>	<b>Per Room</b>	<b>%Gross</b>
Room Revenues	\$35,370,000	\$117,900	55%	\$15,050,000	\$86,000	60%
Food & Beverage	\$19,290,000	\$64,300	30%	\$7,017,500	\$40,100	28%
Other Revenues	\$9,660,000	\$32,200	15%	\$3,010,000	\$17,200	12%
<Less> Operating Expenses	(\$46,950,000)	(\$156,500)	-73%	(\$17,850,000)	(\$102,000)	-71%
Net Operating Income	\$17,370,000	\$57,900	27%	\$7,227,500	\$41,300	29%
<i>Return on Cost</i>	7.50%			8.50%		
<b>Investment Supported</b>	\$231,600,000	\$772,000		\$85,032,500	\$485,900	
<b>Development Costs</b>		<b>Per Room</b>	<b>Per SF</b>		<b>Per Room</b>	<b>Per SF</b>
Site Work	\$13,080,000	\$43,600	\$36	\$5,722,500	\$32,700	\$36
Direct Costs (Incl. FF&E)	\$154,500,000	\$515,000	\$429	\$56,875,000	\$325,000	\$361
Fees & Permits	\$4,950,000	\$16,500	\$14	\$2,887,500	\$16,500	\$18
Workforce Housing Req'mt	Not included			Not included		
Other Indirect Costs	\$25,140,000	\$83,800	\$70	\$9,397,500	\$53,700	\$60
Financing	\$9,630,000	\$32,100	\$27	\$3,447,500	\$19,700	\$22
<b>Total Devel. Costs (excl. land)</b>	\$207,300,000	\$691,000	\$576	\$78,330,000	\$447,600	\$497
<b>Residual Land Value</b>						
Supportable Investment	\$231,600,000	\$772,000	\$643	\$85,032,500	\$485,900	\$540
<Less> Development Costs	(\$207,300,000)	(\$691,000)	(\$576)	(\$78,330,000)	(\$447,600)	(\$497)
<b>Residual Land Value (Per Room)</b>	<b>\$24,300,000</b>	<b>\$81,000</b>		<b>\$6,702,500</b>	<b>\$38,300</b>	
<i>Per Acre</i>		\$1,215,000			\$766,000	
<i>Per Sq. Ft. of Land Area (Gross)</i>		\$28			\$18	

**TABLE 4-10B  
FINANCIAL FEASIBILITY ANALYSIS - HOTEL, WITH WORKFORCE HOUSING REQUIREMENT  
INCLUSIONARY HOUSING ANALYSIS  
KAUAI COUNTY**

	Luxury Resort Hotel			Full-Service/ Lifestyle Hotel		
Number of Rooms (Keys)	300 Rooms			175 Rooms		
Hotel building area	360,000 sf			157,500 sf		
Sq.Ft. Per Room	1,200 sf/room			900 sf/room		
Site Area	15 acres			7 acres		
Gross Density	15.0 rooms/acre			20.0 rooms/acre		
Average Room Rate	\$425 /night			\$310 /night		
Stabilized Occupancy	76% occupancy			76% occupancy		
<b>Revenue</b>	<b>Total</b>	<b>Per Room</b>	<b>%Gross</b>	<b>Total</b>	<b>Per Room</b>	<b>%Gross</b>
Room Revenues	\$35,370,000	\$117,900	55%	\$15,050,000	\$86,000	60%
Food & Beverage	\$19,290,000	\$64,300	30%	\$7,017,500	\$40,100	28%
Other Revenues	\$9,660,000	\$32,200	15%	\$3,010,000	\$17,200	12%
<Less> Operating Expenses	(\$46,950,000)	(\$156,500)	-73%	(\$17,850,000)	(\$102,000)	-71%
Net Operating Income	\$17,370,000	\$57,900	27%	\$7,227,500	\$41,300	29%
<i>Return on Cost</i>	7.50%			8.50%		
<b>Investment Supported</b>	\$231,600,000	\$772,000		\$85,032,500	\$485,900	
<b>Development Costs</b>		<b>Per Room</b>	<b>Per SF</b>		<b>Per Room</b>	<b>Per SF</b>
Site Work	\$13,080,000	\$43,600	\$36	\$5,722,500	\$32,700	\$36
Direct Costs (Incl. FF&E)	\$154,500,000	\$515,000	\$429	\$56,875,000	\$325,000	\$361
Fees & Permits	\$4,950,000	\$16,500	\$14	\$2,887,500	\$16,500	\$18
Illustrative Workforce Housing Req'mt	\$13,500,000	\$45,000	\$38	\$2,275,000	\$13,000	\$14
Other Indirect Costs	\$25,140,000	\$83,800	\$70	\$9,397,500	\$53,700	\$60
Financing	\$9,630,000	\$32,100	\$27	\$3,447,500	\$19,700	\$22
<b>Total Devel. Costs (excl. land)</b>	\$220,800,000	\$736,000	\$613	\$80,605,000	\$460,600	\$512
<b>Residual Land Value</b>						
Supportable Investment	\$231,600,000	\$772,000	\$643	\$85,032,500	\$485,900	\$540
<Less> Development Costs	(\$220,800,000)	(\$736,000)	(\$613)	(\$80,605,000)	(\$460,600)	(\$512)
<b>Residual Land Value (Per Room)</b>	<b>\$10,800,000</b>	<b>\$36,000</b>		<b>\$4,427,500</b>	<b>\$25,300</b>	
<i>Per Acre</i>		\$540,000			\$506,000	
<i>Per Sq. Ft. of Land Area (Gross)</i>		\$12			\$12	

**TABLE 4-11  
FINANCIAL FEASIBILITY - COMMON ASSUMPTIONS  
INCLUSIONARY HOUSING ANALYSIS  
KAUAI COUNTY**

<b>Development Costs</b>		<b>Income/Revenues</b>	
<u>Direct Construction Costs</u>		<u>Luxury</u>	
Luxury Shell	\$435,000 /room	Room Rate	\$425 /room
Luxury FF&E	\$80,000 /room	Stabilized Occupancy	76% occ.
Full Service Shell	\$275,000 /room	Food & Beverage	30% gross
Full Service FF&E	\$50,000 /room	Other Revenues	15% gross
Parking	included above	<u>Full Service</u>	
Site Work (Luxury)	\$15 /SF site	Room Rate	\$310 /room
Site Work (Full Service)	\$15 /SF site	Stabilized Occupancy	76% occ.
<u>Indirect Construction Costs</u>		Food & Beverage	28% gross
Fees & Permits	\$16,500 /room	Other Revenues	12% gross
Other Soft Costs	15% of directs	<b>Operating Expenses</b>	
<u>Financing</u>		<u>Luxury</u>	
Const. Period	1.5 years	Room Dept.	22.0% gross
Avg. Outstanding Loan Balance	50% loan	Food & Beverage Dept.	70.0% gross
Financing Fees	1.0% loan	Other Dept.	50.0% gross
Interest Rate	5.5% interest	Undistributed (Luxury)	32.4% gross
Debt Load	65% LTV	<u>Full Service</u>	
Capitalization Rate (Luxury)	6%	Room Dept.	21.0% gross
Capitalization Rate (Full Service)	7%	Food & Beverage Dept.	70.0% gross
<b>Investment Thresholds</b>		Other Dept.	50.0% gross
Luxury Return	7.50% ROC	Undistributed (Full Service)	33.0% gross
Full Service Return	8.50% ROC		

## **5.0 RESIDENTIAL WORKFORCE HOUSING NEXUS ANALYSIS**

The residential workforce housing nexus analysis documents and quantifies linkages between development of new residential units in Kaua'i and the need for additional workforce housing. The analysis addresses residential units developed in Kaua'i, both inside and outside of the VDA. Residential units developed inside the VDA tend to be marketed more towards off-island buyers and have higher prices. A separate resort workforce housing nexus analysis is provided in Section 6 addressing visitor accommodations including hotels and vacation rentals.

### ***Nexus Concept***

The underlying concept of the analysis is that newly constructed residential units represent new households in Kaua'i who will consume goods and services. New consumption translates to new jobs and, based on the compensation levels of the new jobs, a share of the new workers cannot afford market rate units and therefore need affordable workforce housing.

### ***Methodology and Models Used***

The workforce housing impacts documented in the analysis are for workers in new jobs providing goods and services to residents of newly developed residential units. New jobs are in sectors such as retail, restaurants, health care, and other services to new residents.

The nexus analysis methodology starts with the sales price or rent of a new market rate residential unit, and moves through a series of linkages to the gross income of the household that purchased the unit, the income available for expenditures on goods and services, the jobs associated with purchase and delivery of those services, and the housing need by affordability level for workers who hold these jobs. The steps of the analysis from household income available for expenditures to jobs generated were performed using the IMPLAN model, a model widely used for the past 35 years to quantify the impacts of changes in a local economy, including employment impacts from changes in personal income. From job generation by industry, KMA used its own jobs housing nexus analysis methodology to quantify the income of worker households by affordability level.

To illustrate the linkages by looking at a simplified example, we can take an average household that buys a house at a certain price. From that price, we estimate the gross income of the household (from mortgage rates and lending practices) and the portion of income available for expenditures. Households will "purchase" or consume a range of goods and services, such as purchases at the supermarket or services at the bank. Purchases in the local economy in turn generate employment. The jobs generated are at different compensation levels. Some of the jobs are low paying and as a result, even when there is more than one worker in the household, there are some lower-income households who cannot afford market rate housing in Kaua'i.

### ***Net New Underlying Assumption***

An underlying assumption of the analysis is that households that purchase or rent new units represent net new households in Kaua'i. If purchasers or renters have relocated from elsewhere in Kaua'i, vacancies have been created that will be filled. An adjustment to new construction of units would be warranted if Kaua'i were experiencing demolitions or loss of existing housing inventory. However, the rate of housing unit removal is so low as to not warrant an adjustment or offset. On an individual project basis, if existing units are removed to redevelop a site to higher density, then there could be a need for recognition of the existing households in that all new units might not represent net new households, depending on the program design and number of units removed relative to new units.

Since the analysis addresses net new households in Kaua'i and the impacts generated by their consumption expenditures, it quantifies net new demands for workforce housing to accommodate new worker households. As such, the impact results do not address nor in any way include existing deficiencies in the supply of workforce housing.

### ***Geographic Area of Impact***

The analysis quantifies impacts occurring within the County of Kaua'i, which encompasses the island of Kaua'i. The vast majority of jobs related to services to new households are anticipated to be located on Kaua'i. The IMPLAN model computes the jobs generated on Kaua'i and sorts out any jobs located off-island. KMA then analyzes the income structure of the jobs and their worker households. In summary, the analysis quantifies job impacts occurring within Kaua'i and the related workforce housing need.

## **5.1 Market Rate Units and Household Income**

This section describes the prototypical market rate residential units and the income of the purchaser and renter households. Market rate prototypes are representative of new residential units currently being built in Kaua'i or that are likely to be built in Kaua'i over the next five to ten years. Household income is estimated based on the amount necessary for the mortgage or rent payments associated with the prototypical new market rate units and becomes the basis for the input to the IMPLAN model. These are the starting points of the chain of linkages that connect new market rate units to additional demand for workforce housing.

This section presents a summary of the market rate prototypes and the estimated household income of purchasers or renters of the market rate units.

### Market Rate Residential Project Types Addressed

The residential workforce housing nexus analysis addresses the same eight prototypical residential units as are analyzed in the financial feasibility analysis. The prototypes are intended to represent the range of unit types currently being built in Kaua'i or expected in the future. The unit size and price / rent estimates for the prototypical residential units are summarized in Table 5-1. VDA prototypes reflect unit types and pricing within the Visitor Destination Areas. Other prototypes reflect pricing and rents outside of the VDA.

Table 5-1: Prototypical New Residential Units for Kaua'i and Estimated Prices/Rents								
	<i>Luxury Resort Home VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Avg. Size	2,500 SF	1,800 SF	1,500 SF	1,200 SF	1,800 SF	1,500 SF	1,200 SF	900 SF
Avg. No. of Bedrooms	4	3	2.5	2	3	2.5	2	2
Price / Rent	\$4,125,000	\$1,080,000	\$900,000	\$870,000	\$756,000	\$600,000	\$534,000	Rent/Mo: \$2,250
Per Sq.Ft.	\$1,650 /SF	\$600 /SF	\$600 /SF	\$725 /SF	\$420 /SF	\$400 /SF	\$445 /SF	\$2.50 /SF

It is important to note that the residential prototypes analysis is intended to reflect average or typical residential projects in the local market rather than any specific project. It would be expected that specific projects would vary to some degree from the residential prototypes analyzed. See Section 3 for a discussion of market data used to identify the above prototypes.

After the prototypes are established, the next step in the analysis is to determine the income of the purchasing or renting households in the prototypical units.

#### *Income of Purchasers – New For-Sale Units*

To make the determination for ownership units, typical terms for the purchase of residential units are used to estimate the income required. The following assumptions are used in translating purchase price into the estimated household income required to afford the unit:

- *Down-payment* – A down-payment of 20%<sup>3</sup> is assumed based recent data on mortgages underwritten in Kaua'i. A higher down payment of 40% is assumed for the Luxury Resort Home prototype for purposes of estimating income. Recent purchases at the luxury end of the market have tended to be all cash.

<sup>3</sup> Down payment of 20% reflects the median for new purchase loans originated in zip codes corresponding to Kaua'i derived from Freddie Mac dataset for loans issued in the 2<sup>nd</sup> Quarter of 2017.

- *Interest rate* – the interest rate is estimated at 5%, slightly above the recent average of 4.86% as of October 2018 reported by the Freddie Mac Primary Mortgage Market Survey for 30-year fixed rate mortgages.
  
- *Other Housing Expenses* – all ownership product types include an estimate of homeowners’ insurance, homeowner association dues, and property taxes. These are included along with the mortgage payment as part of housing expenses for purposes of determining mortgage eligibility.<sup>4</sup> Property tax estimates for VDA prototypes assume the residential rate (\$6.05 / \$1,000) and no homeowner exemption. Property tax estimates for non-VDA prototypes assume the homestead property tax rate (\$3.05/1,000) and homeowner exemption eligibility. HOA dues are estimated based on a review of homeowner dues applicable to existing units sold on Kaua’i in the last year and built since 2000. Insurance costs were estimated by obtaining a quote for a hazard insurance policy in Kaua’i.
  
- *Relationship of Housing Costs to Income* – the analysis estimates gross household income based on the assumption that housing costs represent, on average, approximately 35% of gross income. The assumption that housing expenses represent 35% of gross income is reflective of the local average for new purchase loans<sup>5</sup> and is consistent with criteria used by lenders to determine mortgage eligibility.<sup>6</sup> For purposes of estimating the income of buyers, underwriting assumptions reflect use of the home as a principal residence as a conservative assumption although second home purchasers will tend to have higher incomes.

Estimates are presented in Table 5-2A.

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<sup>4</sup> Housing expenses are combined with other debt payments such as credit cards and auto loans to compute a Debt To Income (DTI) ratio which is a key criteria used for determining mortgage eligibility.

<sup>5</sup> Freddie Mac data on new purchase loans originated in zip codes corresponding to Kaua’i for the 2nd Quarter of 2017 indicates an average debt to income ratio of 38%; however, most households have other forms of debt such as credit cards, student loans, and auto loans that are included as part of this ratio and the ratio considering housing costs only would be lower. Selection of a lower percentage of income spent on housing would have resulted in a higher estimate of household income and greater impacts from expenditures. Application of a 35% ratio is also consistent with the standard for relating income to housing costs for ownership units used throughout housing policy.

<sup>6</sup> Fannie Mae mortgage underwriting eligibility criteria establishes a debt to income threshold of 36% above which tighter credit standards apply. A debt to income ratio of up to 45% is permitted for borrowers meeting specified credit criteria; however, most households have other forms of debt such as credit cards, student loans, and auto loans that would be considered as part of this ratio. Purchasers of high value homes may spend less than 35% of their income on housing; however, the analysis conservatively assumes 35% of income for purposes of estimating income. Selection of a lower percentage of income spent on housing would have resulted in a higher estimate of household income and greater impacts from expenditures.

**Table 5-2A: Estimated Household Income  
Purchasers of New Market Rate For-Sale Units**

	No. 1 Luxury Resort Homes VDA	No. 2 Single Family VDA	No. 3 Townhome VDA	No. 4 Condo VDA	No. 5 Single Family	No. 6 Townhome	No. 7 Condo
Unit Size	2,500 SF	1,800 SF	1,500 SF	1,200 SF	1,800 SF	1,500 SF	1,200 SF
Sales Price	\$4,125,000	\$1,080,000	\$900,000	\$870,000	\$756,000	\$600,000	\$534,000
Per Sq. Ft.	\$1,650 /SF	\$600 /SF	\$600 /SF	\$725 /SF	\$420 /SF	\$400 /SF	\$445 /SF
<b>Mortgage</b>							
Percent Down	40%	20%	20%	20%	20%	20%	20%
Loan Amount	\$2,475,000	\$864,000	\$720,000	\$696,000	\$604,800	\$480,000	\$427,200
Interest Rate	5%	5%	5%	5%	5%	5%	5%
Monthly Payment	\$13,300	\$4,600	\$3,900	\$3,700	\$3,300	\$2,600	\$2,300
Annual Payment	\$159,400	\$55,700	\$46,400	\$44,800	\$39,000	\$30,900	\$27,500
Property Taxes	\$24,956	\$6,534	\$5,445	\$5,264	\$1,818	\$1,342	\$1,141
<b>HOA Dues</b>							
Monthly	\$2,000	\$200	\$600	\$600	\$0	\$75	\$200
Annual	\$24,000	\$2,400	\$7,200	\$7,200	\$0	\$900	\$2,400
Hazard Insurance	\$2,480	\$650	\$540	\$520	\$450	\$360	\$320
Annual Housing Cost	\$210,836	\$65,284	\$59,585	\$57,784	\$41,268	\$33,502	\$31,361
% of Income Spent on Housing	35%	35%	35%	35%	35%	35%	35%
<b>Annual Household Income Required</b>	<b>\$602,000</b>	<b>\$187,000</b>	<b>\$170,000</b>	<b>\$165,000</b>	<b>\$118,000</b>	<b>\$96,000</b>	<b>\$90,000</b>

*Income of Renters – New Apartment Units*

Household income for renter households is estimated based on the assumption that housing costs, including rent and utilities, represents on average 30% of gross household income. The 30% factor was selected for consistency with the Housing Policy standard for relating income to affordable rent levels. Census data for Kaua'i from the American Community Survey for 2012 to 2016 indicates that around 90% of renter households earning \$75,000 or above spend less than 30% of their income on housing; however, selection of a percentage less than 30% would have resulted in a higher estimate of income and higher estimated workforce housing impact findings. Therefore, use of the 30% factor is a conservative assumption. Table 5-2B presents the estimate of household income for renter households.

**Table 5-2B: Estimated Household Income Renters of New Market Rate Apartments**

	<b>No. 8 Apartment</b>
Unit Size <sup>(1)</sup>	900 SF
Monthly Rent	\$2,250
Per Sq. Ft.	\$2.50
Monthly Utilities <sup>(2)</sup>	\$183
Total Monthly housing cost	\$2,436
Annual housing cost	\$29,226
% of Income Spent on Rent <sup>(3)</sup>	30%
<b>Annual Household Income Required</b>	<b>\$97,000</b>

(1) Based on the results of the market survey. Represents rent levels applicable to new units.

(2) Monthly utilities include direct-billed utilities and landlord reimbursements estimated based on County Housing Authority utility allowance schedule.

(3) While landlords may permit rental payments to represent a slightly higher share of total income, 30% represents an average. This relationship is used throughout housing policy to relate income to affordable rental housing costs.

### *Income Available for Expenditures*

The input into the IMPLAN model used in this analysis is the net income available for expenditures. To arrive at income available for expenditures, gross income must be adjusted for Federal and State income taxes, contributions to Social Security and Medicare, savings, and payments on household debt. Per KMA correspondence with the producers of the IMPLAN model (IMPLAN Group LLC), other taxes including sales tax and property tax are handled internally within the model as part of the analysis of expenditures. Payroll deduction for medical benefits and pre-tax medical expenditures are also handled internally within the model. Table 5-3 shows the calculation of the percentage of household income available for expenditures.

**Table 5-3: Percent of Income Available for Expenditures <sup>(1)</sup>**

	No. 1 Luxury Resort Homes VDA	No. 2 Single Family VDA	No. 3 Townhome VDA	No. 4 Condo VDA	No. 5 Single Family	No. 6 Townhome	No. 7 Condo	No. 8 Apartment
Gross Income	100%	100%	100%	100%	100%	100%	100%	100%
<u>Less:</u>								
Federal Taxes <sup>(2)</sup>	24.8%	12.3%	12.3%	12.3%	12.3%	12.3%	9.0%	10.2%
State Taxes <sup>(3)</sup>	7.0%	5.0%	5.0%	5.0%	5.0%	4.0%	4.0%	4.0%
FICA Tax Rate <sup>(4)</sup>	3.94%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Savings & other deductions <sup>(5)</sup>	20%	8%	8%	8%	8%	8%	8%	8%
<b>Percent Income Available for Expenditures <sup>(6)</sup></b>	<b>44%</b>	<b>67%</b>	<b>67%</b>	<b>67%</b>	<b>67%</b>	<b>68%</b>	<b>71%</b>	<b>70%</b>

(1) Gross income after deduction of taxes and savings. Income available for expenditures is the input to the IMPLAN model which is used to estimate the resulting employment impacts. Housing costs are not deducted as part of this adjustment step because they are addressed separately as expenditures within the IMPLAN model.

(2) Reflects average tax rates (as opposed to marginal) based on U.S. Internal Revenue Services, Tax Statistics, Tables 1.2 and 2.1 for 2015. Homeowners are assumed to itemize deductions. Tax rates reflect averages for applicable income range. Data reflective of tax law changes is not yet available. Use of historic tax rates likely provides a conservative estimate that will tend to overstate the share of income dedicated to taxes.

(3) Average tax rate estimated by KMA based on marginal rates per the Hawai'i Department of Taxation and ratios of taxable income to gross income estimated based on U.S. Internal Revenue Service data.

(4) For Social Security and Medicare. Social Security taxes estimated based upon the current ceiling on applicability of Social Security taxes of \$127,200 (ceiling applies per earner not per household) and the average number of earners per household.

(5) Household savings including retirement accounts like 401k / IRA and other deductions such as interest costs on credit cards, auto loans, etc, necessary to determine the amount of income available for expenditures. The 8% rate used in the analysis is based on a 20-year average computed from U.S. Bureau of Economic Analysis data, specifically the National Income and Product Accounts, Table 2.1 "Personal Income and Its Disposition."

(6) Deductions from gross income to arrive at the income available for expenditures are consistent with the way the IMPLAN model and National Income and Product Accounts (NIPA) defines income available for personal consumption expenditures. Income taxes, contributions to Social Security and Medicare, and savings are deducted; however, property taxes and sales taxes are not. Housing costs are not deducted as part of the adjustment because they are addressed separately as expenditures within the IMPLAN model.

Income available for expenditures is estimated at approximately 44% to 71% of gross income, depending on the market rate prototype. Federal tax rates are estimated based upon Internal Revenue Service data to range from 9% to 24.8%, depending on the estimated household income of the buyer. Households in for-sale units are assumed to itemize deductions while renter households are assumed to take the standard deduction. State taxes are estimated to average 4% to 7% of gross income based on tax rates per the Hawai'i Department of Taxation. The employee share of FICA payroll taxes for Social Security and Medicare is 7.65% of gross income. A ceiling of \$127,200 per employee applies to the 6.2% Social Security portion of this tax rate.

Savings and repayment of household debt represent another necessary adjustment to gross income. Savings includes various IRA and 401 K type programs as well as non-retirement household savings and investments. Debt repayment includes auto loans, credit cards, and all

other non-mortgage debt. Savings and repayment of debt are estimated to represent a combined 8% of gross income based on the 20-year average derived from United States Bureau of Economic Analysis data. For households in the Luxury Resort Homes, savings rates are estimated at 20% of income based on savings rates applicable to higher income households derived from data published by the National Bureau of Economic Research, "Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data," October 2014.

The percentage of income available for expenditure for input into the IMPLAN model is prior to deducting housing costs. The reason is for consistency with the IMPLAN model which defines housing costs as expenditures. The IMPLAN model addresses the fact that expenditures on housing do not generate employment to the degree other expenditures such as retail or restaurants do, but there is some maintenance and property management employment generated.

After deducting income taxes, Social Security, Medicare, savings, and repayment of debt, for purchasers of one of the new ownership prototypes, the estimated income available for expenditures ranges from 44% - 71%. These are the factors used to adjust from gross income to the income available for expenditures for input into the IMPLAN model. As indicated above, other forms of taxation such as property tax are handled internally within the IMPLAN model.

#### *Vacancy and Seasonal Use Adjustments*

Another adjustment made to spending is to account for standard operational vacancy in rental units of 5%, a level of vacancy considered average for rental units in a healthy market. For the VDA prototypes, an adjustment of between 10% and 30% is made to account for a share of units used as second homes and occupied only part of the year (vacation rental use of the units is addressed separately in Section 6).

Table 5-4 presents the estimate of household income available for expenditures in the local economy after adjustments to income available for expenditures, vacancy, and seasonal use adjustments:

**Table 5-4: Income Available for Expenditures**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Gross Household Income	\$602,000	\$187,000	\$170,000	\$165,000	\$118,000	\$96,000	\$90,000	\$97,000
Percent Income available for Expenditures	44%	67%	67%	67%	67%	71%	71%	70%
Spending Adjustment - Seasonal Use / Rental Vacancy <sup>(1)</sup>	70%	90%	90%	90%	N/A	N/A	N/A	95%
Income Available for Expenditure <sup>(2)</sup>	\$185,400	\$112,100	\$101,900	\$99,000	\$79,100	\$68,200	\$63,900	\$65,000

- (1) 2012 to 2016 American Community Survey Data indicates approximately 14% of housing units in Kaua'i are occupied on a seasonal or occasional basis, estimate assumes homes in the VDA are 50% more likely to be in seasonal use and that seasonal units are occupied either by the owner or as a vacation rental for approximately six months of the year, except for Luxury Resort Homes for which a higher adjustment is applied in recognition that high-income owners may be less likely to rent out their home when not occupied.
- (2) Calculated as gross household income X percent available for expenditures X spending adjustment for rental vacancy / second homes. Result includes the share of income spent on housing as the required input to the IMPLAN model is income after taxes but before deduction of housing costs as described above.

The nexus analysis is conducted on 100-unit modules for ease of presentation, and to avoid awkward fractions. The spending associated with 100 market rate residential units is the input into the IMPLAN model.

## 5.2 IMPLAN Model

Consumer spending by residents of new housing units will create jobs, particularly in sectors such as restaurants, health care, and retail, which are closely connected to the expenditures of residents. The widely used economic analysis tool, IMPLAN (Impact Analysis for PLANning), was used to quantify these new jobs by industry sector.

### ***IMPLAN Model Description***

The IMPLAN model is an economic analysis software package now commercially available through the IMPLAN Group, LLC. IMPLAN was originally developed by the U.S. Forest Service, the Federal Emergency Management Agency, and the U.S. Department of the Interior Bureau of Land Management and has been in use since 1979 and refined over time. It has become a widely used tool for analyzing economic impacts for a broad range of applications from major construction projects to natural resource programs.

IMPLAN is based on an input-output accounting of commodity flows within an economy from producers to intermediate and final consumers. The model establishes a matrix of supply chain

relationships between industries and also between households and the producers of household goods and services. Assumptions about the portion of inputs or supplies for a given industry likely to be met by local suppliers, and the portion supplied from outside the region or study area are derived internally within the model using data on the industrial structure of the region.

The output or result of the model is generated by tracking changes in purchases for final use (final demand) as they filter through the supply chain. Industries that produce goods and services for final demand or consumption must purchase inputs from other producers, which in turn, purchase goods and services. The model tracks these relationships through the economy to the point where leakages from the region stop the cycle. This allows the user to identify how a change in demand for one industry will affect a list of over 500 other industry sectors. The projected response of an economy to a change in final demand can be viewed in terms of economic output, employment, or income.

Data sets are available for each county and state, so the model can be tailored to the specific economic conditions of the region being analyzed. This analysis utilizes the data set for Kaua'i County. As will be discussed, much of the employment impact is in local-serving sectors, such as retail, eating and drinking establishments, and medical services. The vast majority of jobs are expected to be located in Kaua'i as most services to Kaua'i residents cannot be readily provided from off-shore. The IMPLAN model only includes employment on Kaua'i and sorts out jobs located elsewhere.

### ***Application of the IMPLAN Model to Estimate Job Growth***

The IMPLAN model was applied to link income to household expenditures to job growth. Employment generated by the household income of residents is analyzed in modules of 100 residential units to simplify communication of the results and avoid awkward fractions. The IMPLAN model distributes spending among various types of goods and services (industry sectors) based on data from the Consumer Expenditure Survey and the Bureau of Economic Analysis Benchmark input-output study, to estimate employment generated.

Job creation, driven by increased demand for products and services, was projected for each of the industries that will serve the new households. The employment generated by this new household spending is summarized in Table 5-5.

**Table 5-5: Jobs Generated Per 100 Units**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Annual Household Expenditure Per Unit	\$185,400	\$112,100	\$101,900	\$99,000	\$79,100	\$68,200	\$63,900	\$65,000
Total Jobs Generated from Spending: 100 Units [from IMPLAN model]	133.3	77.4	70.4	68.4	54.2	46.4	43.5	44.2

Note: See Table 5-6 for additional details.

Table 5-6 provides a detailed breakdown of the employment by industry sorted by projected employment. The Consumer Expenditure Survey published by the Bureau of Labor Statistics tracks expenditure patterns by income level. IMPLAN utilizes this data to reflect the pattern by income bracket. Estimated employment is shown for each IMPLAN industry sector representing 1% or more of total employment. The jobs that are generated are heavily retail jobs, jobs in restaurants and other eating establishments, and in services that are provided locally such as health care.

**TABLE 5-6  
IMPLAN MODEL OUTPUT  
EMPLOYMENT GENERATED  
RESIDENTIAL NEXUS ANALYSIS  
KAUA'I, HI**

<i>Per 100 Market Rate Units</i>	<i>No. 1</i>	<i>No. 2</i>	<i>No. 3</i>	<i>No. 4</i>	<i>No. 5</i>	<i>No. 6</i>	<i>No. 7</i>	<i>No. 8</i>	
	<b>Luxury Resort Homes VDA</b>	<b>Single Family VDA</b>	<b>Townhome VDA</b>	<b>Condo VDA</b>	<b>Single Family</b>	<b>Townhome</b>	<b>Condo</b>	<b>Apartment</b>	<b>% of Jobs</b>
<b>Household Expenditures</b> <i>(100 Market Rate Units)</i>	\$18,540,000	\$11,210,000	\$10,190,000	\$9,900,000	\$7,910,000	\$6,820,000	\$6,390,000	\$6,500,000	
<b>Jobs Generated by Industry <sup>1</sup></b>									
Full-service restaurants	7.8	5.0	4.6	4.4	3.4	3.0	2.8	2.9	6%
Limited-service restaurants	7.1	4.6	4.2	4.0	3.1	2.7	2.5	2.6	6%
All other food and drinking places	<u>2.6</u>	<u>1.6</u>	<u>1.5</u>	<u>1.4</u>	<u>1.1</u>	<u>1.0</u>	<u>0.9</u>	<u>0.9</u>	<u>2%</u>
Subtotal Restaurant	17.5	11.2	10.2	9.9	7.6	6.7	6.3	6.4	14%
Retail - Food and beverage stores	4.6	2.7	2.4	2.3	1.9	1.6	1.5	1.5	3%
Retail - General merchandise stores	4.1	2.4	2.1	2.1	1.6	1.4	1.3	1.4	3%
Personal care services	3.4	2.2	2.0	2.0	1.5	1.3	1.2	1.3	3%
Retail - Health and personal care stores	1.9	1.1	1.0	0.9	0.7	0.6	0.6	0.6	1%
Retail - Miscellaneous store retailers	1.8	1.1	1.0	0.9	0.7	0.6	0.6	0.6	1%
Retail - Building material and garden	1.8	1.0	0.9	0.9	0.7	0.6	0.6	0.6	1%
Other personal services	3.2	2.0	1.8	1.8	1.4	1.2	1.1	1.1	3%
Retail - Clothing and accessories	2.2	1.3	1.2	1.1	0.9	0.8	0.7	0.7	2%
Retail - Motor vehicle and parts dealers	1.6	0.9	0.8	0.8	0.6	0.6	0.5	0.5	1%
Retail - Nonstore retailers	<u>3.9</u>	<u>2.2</u>	<u>2.0</u>	<u>2.0</u>	<u>1.6</u>	<u>1.4</u>	<u>1.3</u>	<u>1.3</u>	<u>3%</u>
Subtotal Retail and Service	28.3	16.9	15.3	14.9	11.8	10.2	9.5	9.7	22%
Hospitals	2.8	3.0	2.7	2.6	1.9	1.8	1.7	1.7	3%
Nursing and community care facilities	1.2	0.7	0.7	0.7	0.6	0.6	0.5	0.5	1%
Home health care services	2.1	0.9	0.9	0.8	0.7	0.3	0.3	0.3	1%
Offices of physicians	3.2	2.0	1.9	1.8	1.5	1.4	1.3	1.3	3%
Offices of dentists	1.4	1.1	1.0	1.0	0.8	0.7	0.6	0.6	1%
Offices of other health practitioners	<u>2.3</u>	<u>1.3</u>	<u>1.2</u>	<u>1.2</u>	<u>0.8</u>	<u>0.7</u>	<u>0.7</u>	<u>0.7</u>	<u>2%</u>
Subtotal Healthcare	13.0	9.2	8.3	8.1	6.3	5.4	5.1	5.2	11%
Other educational services	2.9	1.0	0.9	0.9	0.6	0.5	0.4	0.4	1%
Elementary and secondary schools	<u>3.0</u>	<u>1.1</u>	<u>1.0</u>	<u>1.0</u>	<u>0.6</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>1%</u>
Subtotal Education	5.9	2.1	1.9	1.8	1.2	0.9	0.8	0.8	3%
Real estate	5.0	3.0	2.8	2.7	2.3	2.3	2.2	2.2	4%
Transit and ground passenger transportati	2.0	1.0	0.9	0.8	0.6	0.5	0.4	0.4	1%
Commercial Sports Except Racing	1.8	0.7	0.6	0.6	0.5	0.4	0.4	0.4	1%
Junior colleges, colleges, universities, and	1.8	1.1	1.0	1.0	0.5	0.3	0.3	0.3	1%
Gambling industries (except casino hotels)	0.7	0.2	0.2	0.2	0.7	0.4	0.4	0.4	1%
Individual and family services	5.4	2.5	2.3	2.2	1.7	1.5	1.4	1.4	3%
Religious organizations	2.4	1.6	1.5	1.4	1.2	1.0	1.0	1.0	2%
Employment services	1.1	0.7	0.6	0.6	0.5	0.5	0.4	0.4	1%
Wholesale trade	3.5	2.1	1.9	1.9	1.5	1.3	1.2	1.3	3%
Other financial investment activities	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1%
Services to buildings	2.3	1.3	1.2	1.1	0.9	0.7	0.7	0.7	2%
Services to private households	1.7	0.9	0.8	0.8	0.5	0.4	0.4	0.4	1%
Automotive repair and maintenance	1.6	1.1	1.0	1.0	0.9	0.7	0.7	0.7	1%
Labor and civic organizations	1.4	0.8	0.7	0.7	0.6	0.4	0.4	0.4	1%
Depository credit (banking)	1.2	0.8	0.7	0.7	0.7	0.7	0.6	0.6	1%
Child day care services	2.7	1.0	0.9	0.9	0.6	0.5	0.5	0.5	1%
Landscape and horticultural services	1.4	0.7	0.7	0.7	0.5	0.4	0.4	0.4	1%
Accounting, tax preparation, bookkeeping,	1.6	0.7	0.7	0.6	0.5	0.5	0.4	0.4	1%
Independent artists, writers, and performe	1.5	0.7	0.6	0.6	0.5	0.4	0.4	0.4	1%
Other amusement and recreation industrie	1.4	0.7	0.6	0.6	0.4	0.3	0.3	0.3	1%
All Other	27.3	15.8	14.4	14.0	11.2	9.5	8.9	9.0	20%
<b>Total Number of Jobs Generated</b>	<b>133.3</b>	<b>77.4</b>	<b>70.4</b>	<b>68.4</b>	<b>54.2</b>	<b>46.4</b>	<b>43.5</b>	<b>44.2</b>	<b>100%</b>

<sup>1</sup> Estimated employment generated by expenditures of households within 100 prototypical market rate units for Industries representing more than 1% of total employment. Employment estimates are based on the IMPLAN Group's economic model, IMPLAN, for Kaua'i, HI (uses 2016 IMPLAN data set, the most recent available as of August 2018). Includes both full- and part-time jobs.

### **5.3 Analysis of Workforce Housing Needs by Income Level**

This section presents a summary of the analysis linking the employment growth associated with the new residential units, or the output of the IMPLAN model (see Section 5.2), to the estimated number of housing units required in each of six income categories.

Analysis inputs are all local data to the extent possible and are fully documented in the following description. The analysis uses 2017 wage levels for Kaua'i reported by the Bureau of Labor Statistics and 2018 income limits published by the Kaua'i Department of Housing identified in Table 1-2.

Following is a description of the steps used in the analysis.

#### ***Step 1 – Estimate of Total New Employees***

The starting point of the analysis is the estimated total number of employees associated with the new residential units as summarized in Table 5-5. The employees were estimated based on household expenditures of the new residents using the IMPLAN model (see Section 5.2).

#### ***Step 2 – Changing Industries Adjustment and Net New Jobs***

Step 2 is an adjustment to account for declines, changes and shifts within the economy and to recognize that new jobs are not always 100% net new. The local economy, like that of the U.S. as a whole, is constantly evolving. In Kaua'i, employment in manufacturing, information (includes newspapers), and finance and insurance (banks are increasingly using ATMs and insurance carriers increasingly interact with customers on-line) have been declining. Jobs lost in these declining sectors were replaced by job growth in other sectors of the economy, especially hospitality and other tourism-oriented sectors. Long term declines in employment experienced in some sectors of the economy mean that some new jobs are likely to be filled by workers that have been displaced from another industry and who are presumed to already have housing locally. Existing workers downsized from declining industries are assumed to be available to fill a portion of the new jobs.

A 10% downward adjustment is utilized in the analysis as shown in Table 5-7 to recognize the likelihood of continuing changes in the local economy, and the assumption that added jobs are not always 100% net new.

**Table 5-7: Net New Jobs Per 100 Units**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Total Jobs Generated (from 100 Units)	133.3	77.4	70.4	68.4	54.2	46.4	43.5	44.2
Net New Jobs after 10% reduction for declining industries (100 units)	120.0	69.7	63.3	61.5	48.8	41.7	39.1	39.8

The 10% downward adjustment used for purposes of the analysis was derived from State of Hawai'i Department of Labor and Industrial Relations data on employment by industry in Kaua'i. Over the 27-year period from 1990 to 2017, approximately 700 jobs were lost in declining industry sectors. Over the same period, growing and stable industries added a total of 7,700 jobs. The figures are used to establish a ratio between jobs lost in declining industries to jobs gained in growing and stable industries at 10%.<sup>7</sup> The 10% factor is applied as an adjustment in the analysis, effectively assuming one in every ten new jobs is filled by a worker down-sized from a declining industry and who already lives locally. The discount for changing industries represents a conservative assumption because many displaced workers may exit the workforce entirely by retiring.

### **Step 3 – Adjustment from Employees to Employee Households**

This step (Table 5-8) converts the number of employees to the number of employee households, recognizing that there is, on average, more than one worker per household, and thus the number of housing units needed for new workers is less than the number of new workers. The workers-per-worker-household ratio eliminates from the equation all non-working households, such as retired persons and students.

<sup>7</sup> The 10% ratio is calculated as 700 jobs lost in declining sectors divided by 7,700 jobs gained in growing and stable sectors = 9.1% (rounded to 10%).

**Table 5-8: Number of New Workforce Housing Units  
Per 100 Market Rate Residential Units Developed**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Net New Jobs	120.0	69.7	63.3	61.5	48.8	41.7	39.1	39.8
Number of Housing Units Needed at all income levels [at 2.04 workers per worker household]	58.9	34.2	31.1	30.2	23.9	20.5	19.2	19.5

The Kaua'i average of 2.04 workers per worker household (from the U. S. Census Bureau 2012-2016 American Community Survey) is used for this step in the analysis. The number of jobs is divided by 2.04 to determine the number of worker households. This ratio is distinguished from the overall number of workers per household in that the denominator includes only households with at least one worker. If the average number of workers in all households were used, it would have produced a greater demand for housing units. The 2.04 ratio covers all workers, full and part time.

#### **Step 4 – Occupational Distribution of Employees**

The occupational breakdown of employees is the first step to arrive at income level. The output from the IMPLAN model provides the number of employees by industry sector, shown in Table 5-6. The IMPLAN output is then paired with data from the Department of Labor, Bureau of Labor Statistics May 2017 Occupational Employment Survey (OES) to estimate the occupational composition of employees for each industry sector. As shown in Table 5-9A, new jobs will be distributed across a variety of occupational categories. The three largest occupational categories are office and administrative support (15% - 16%), food preparation and serving (14% - 15%), and sales and related (14%). Table 5-9A indicates the percentage of employee households by occupation and Table 5-9B indicates the number of employee households associated with each residential prototype. See Appendix B see for additional detail regarding worker occupation categories.

**Table 5-9A: Percent of Workers by Major Occupation Category**

Occupation Category	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Luxury Resort Homes VDA	Single Family VDA	Townhome VDA	Condo VDA	Single Family	Townhome	Condo	Apartment
Management Occupations	4.2%	4.2%	4.2%	4.2%	4.3%	4.4%	4.4%	4.4%
Business and Financial	3.8%	3.8%	3.8%	3.8%	4.1%	4.3%	4.3%	4.3%
Computer and Mathematical	1.0%	1.1%	1.1%	1.1%	1.1%	1.2%	1.2%	1.2%
Architecture and Engineering	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Sciences	0.2%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%
Community & Social Services	1.9%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
Legal	0.4%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%
Education, and Library	4.9%	3.5%	3.5%	3.5%	3.0%	2.6%	2.6%	2.6%
Arts, Design, Entertainment	2.8%	2.3%	2.3%	2.3%	2.3%	2.2%	2.2%	2.2%
Healthcare Practitioners	5.7%	7.1%	7.1%	7.1%	6.8%	7.0%	7.0%	7.0%
Healthcare Support	3.3%	3.7%	3.7%	3.7%	3.6%	3.5%	3.5%	3.5%
Protective Service	1.1%	1.0%	1.0%	1.0%	1.1%	1.1%	1.1%	1.1%
Food Prep and Serving	14.2%	15.4%	15.4%	15.4%	15.1%	15.3%	15.3%	15.3%
Building and Grounds.	5.2%	4.9%	4.9%	4.9%	4.7%	4.7%	4.7%	4.7%
Personal Care and Service	9.2%	8.3%	8.3%	8.3%	8.5%	7.9%	7.9%	7.9%
Sales and Related	13.8%	13.7%	13.7%	13.7%	14.0%	14.3%	14.3%	14.3%
Office and Admin Support	14.9%	15.2%	15.2%	15.2%	15.5%	15.8%	15.8%	15.8%
Farming, Fishing, Forestry	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Construction and Extraction	1.1%	1.0%	1.0%	1.0%	1.1%	1.1%	1.1%	1.1%
Installation, Maint. and Repair	3.6%	3.8%	3.8%	3.8%	3.9%	4.1%	4.1%	4.1%
Production	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
Transportation	<u>6.7%</u>	<u>6.5%</u>	<u>6.5%</u>	<u>6.5%</u>	<u>6.4%</u>	<u>6.2%</u>	<u>6.2%</u>	<u>6.2%</u>
	100%	100%	100.0%	100%	100%	100%	100%	100%

**Table 5-9B  
Number of Worker Households Per 100 New Residential Units  
by Worker Occupation Category**

Occupation Category	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Luxury Resort Homes VDA	Single Family VDA	Townhome VDA	Condo VDA	Single Family	Townhome	Condo	Apartment
Management Occupations	2.5	1.4	1.3	1.3	1.0	0.9	0.8	0.9
Business and Financial	2.2	1.3	1.2	1.1	1.0	0.9	0.8	0.8
Computer and Mathematical	0.6	0.4	0.3	0.3	0.3	0.2	0.2	0.2
Architecture and Engineering	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sciences	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Community & Social Services	1.1	0.6	0.6	0.6	0.4	0.4	0.4	0.4
Legal	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Education, and Library	2.9	1.2	1.1	1.1	0.7	0.5	0.5	0.5
Arts, Design, Entertainment	1.6	0.8	0.7	0.7	0.6	0.4	0.4	0.4
Healthcare Practitioners	3.4	2.4	2.2	2.1	1.6	1.4	1.3	1.4
Healthcare Support	2.0	1.3	1.1	1.1	0.9	0.7	0.7	0.7
Protective Service	0.7	0.4	0.3	0.3	0.3	0.2	0.2	0.2
Food Prep and Serving	8.4	5.3	4.8	4.6	3.6	3.1	2.9	3.0
Building and Grounds.	3.1	1.7	1.5	1.5	1.1	1.0	0.9	0.9
Personal Care and Service	5.4	2.8	2.6	2.5	2.0	1.6	1.5	1.5
Sales and Related	8.1	4.7	4.3	4.1	3.3	2.9	2.7	2.8
Office and Admin Support	8.8	5.2	4.7	4.6	3.7	3.2	3.0	3.1
Farming, Fishing, Forestry	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Construction and Extraction	0.6	0.4	0.3	0.3	0.3	0.2	0.2	0.2
Installation, Maint. & Repair	2.1	1.3	1.2	1.1	0.9	0.8	0.8	0.8
Production	1.0	0.6	0.5	0.5	0.4	0.3	0.3	0.3
Transportation	<u>3.9</u>	<u>2.2</u>	<u>2.0</u>	<u>2.0</u>	<u>1.5</u>	<u>1.3</u>	<u>1.2</u>	<u>1.2</u>
Totals	58.9	34.2	31.1	30.2	23.9	20.5	19.2	19.5

**Step 5 – Estimate of Employee Wage and Salary Distribution**

The employee wage and salary distribution is based on the occupational distribution from Step 4 in combination with recent Kaua'i County wage and salary information for each occupation from the Bureau of Labor Statistics Occupational Employment Survey (OES) for 2017. In addition to the average compensation levels, the analysis also utilizes OES data regarding the percentile distribution of wages within individual occupation categories in estimating the distribution of worker compensation levels. The data on employee wages and salaries utilized in the analysis is presented in Appendix B.

**Step 6 – Household Size Distribution**

In this step, the household size distribution of workers is estimated using U.S. Census 2012-2016 ACS data for Kaua'i County. In addition to the distribution in household sizes, the data also accounts for a range in the number of workers in households of various sizes. Table 5-10 indicates the percentage distribution utilized in the analysis.

<b>Table 5-10: Percent of Households by Size and No. of Workers</b>		
<b>No. of Persons in Household</b>	<b>No. of Workers in Household</b>	<b>Percent of Total Households</b>
1	1	14.5%
2	1	15.5%
	2	17.9%
3	1	6.3%
	2	9.1%
	3+	3.0%
4	1	2.2%
	2	4.5%
	3+	3.7%
5	1	2.4%
	2	4.9%
	3+	4.0%
6	1	2.5%
	2	5.2%
	3+	4.3%
Total		100.0%

Source: 2012-2016 American Community Survey data for Kaua'i County.

### ***Step 7 – Estimate of Households by Income Category***

This step in the analysis calculates the number of employee households that fall into each income category for each size household. This calculation is based on the employee wage and salary income distribution (Step 5), the worker household distribution (Step 6) and the 2018 income limits for Kaua'i.

Household incomes are estimated based upon average ratios between individual employee income and household income derived from U.S. Census data for the State of Hawai'i as shown in Table 5-11. The ratios adjust employee incomes upward even for households with only one worker in consideration of non-wage/salary income sources such as child support, disability, social security, investment income and others.

**Table 5-11: Ratio of Household Income to Individual Worker Income**

Individual Worker Income	One Worker Households	Two Worker Households	Three or More Workers
\$0 to \$15,000	3.20	10.41	14.01
\$15,000 to \$25,000	1.41	3.26	4.16
\$25,000 to \$50,000	1.32	2.21	2.73
\$50,000 to \$75,000	1.18	1.81	2.03
\$75,000 to \$100,000	1.09	1.56	1.75
\$100,000 to \$150,000	1.08	1.44	1.52
\$150,000 to \$200,000	1.06	1.38	1.41
\$200,000 to \$250,000	1.15	1.31	1.34
\$250,000 to \$300,000	1.07	1.20	1.34
\$300,000 to \$500,000	1.05	1.18	1.22
\$500,000 and above	1.13	1.03	1.30

Source: KMA analysis of 2012 to 2016 American Community Survey PUMS data for the State of Hawai'i.

Estimated household incomes are compared to the income criteria shown in Table 1-2 to determine the percentage that qualify within each income category for each potential household size/number of workers combination. The result is then multiplied by the percentage of households by size and number of workers per household from Step 6 to calculate the distribution of worker households by income.

Tables 5-17A to 5-17F present the estimated number of households in each income tier by worker occupation category for each of the prototypes. It represents the output of the analysis, after completing Step #5 (employee compensation levels), Step #6 (household size distribution of worker households), and Step #7 which uses this information to calculate the number of households that fall into each income category.

#### **5.4 Number of Workforce Housing Units Need Per 100 Market Rate Units**

Table 5-12 indicates the results of the analysis for each of the residential prototypes. The table presents the number of households generated in each affordability category and the total number over 140% of Area Median Income per 100 market rate units.

**Table 5-12: New Worker Households per 100 Market Rate Units**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Under 30% AMI	0.8	0.4	0.4	0.4	0.3	0.3	0.2	0.2
30% to 50% AMI	6.0	3.4	3.1	3.0	2.4	2.0	1.9	1.9
50% to 80% AMI	15.2	8.8	8.0	7.8	6.2	5.0	4.7	4.8
80% to 100% AMI	11.5	6.6	6.0	5.9	4.6	3.8	3.5	3.6
100% to 120% AMI	11.6	6.6	6.0	5.8	4.6	3.8	3.6	3.6
120% to 140% AMI	6.2	3.6	3.2	3.1	2.4	2.0	1.9	1.9
<b>Total 0% to 140% AMI</b>	<b>51.2</b>	<b>29.4</b>	<b>26.8</b>	<b>26.0</b>	<b>20.6</b>	<b>16.8</b>	<b>15.7</b>	<b>16.0</b>
Greater than 140% AMI	7.7	4.7	4.3	4.2	3.4	3.7	3.5	3.5
<b>Total, New Households</b>	<b>58.9</b>	<b>34.2</b>	<b>31.1</b>	<b>30.2</b>	<b>23.9</b>	<b>20.5</b>	<b>19.2</b>	<b>19.5</b>

Workforce housing demand from 0% to 140% of AMI ranges from approximately 51 units per 100 market rate units for the luxury resort homes to 16 units per 100 market rate units for apartments. Housing demand is distributed across the income tiers with the greatest number of households in the 50% to 120% AMI income range. The finding that the jobs associated with household spending generate a need for worker housing at income levels of 140% of AMI and below is not surprising based on the pay levels associated with food preparation, administrative, retail sales and other jobs associated with providing goods and service to new residents.

### **5.5 Workforce Housing Percentage Requirement Sufficient to Mitigate Impacts**

The analysis findings identify how many lower income households are generated for every 100 market rate units. These findings are adjusted to an equivalent workforce housing percentage sufficient to fully address the need for workforce housing as documented in this residential workforce housing nexus analysis. The percentages are calculated including both market rate and workforce units (for example, 25 workforce units per 100 market rate units translates to a project of 125 units; 25 workforce units out of 125 total units equals 20%). Table 5-13 presents the results of the analysis. The supported percentages range from 21% to 34% in the VDA and 14% to 17% outside of the VDA. Findings assume residential use and would be higher if a portion of units are used as vacation rentals.

**Table 5-13: Workforce Housing Percentage Sufficient to Mitigate Workforce Housing Impacts of New Residential Development**

	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
A. Market Rate Units	100	100	100	100	100	100	100	100
B. Workforce Units Needed (0%-140% AM)	51.2	29.4	26.8	26.0	20.6	16.8	15.7	16.0
C. Total Units (Mkt + Workforce)	151.2	129.4	126.8	126.0	120.6	116.8	115.7	116.0
D. Workforce Housing Percentage Sufficient to Address Impacts								
%Total Units (B/C) (Mkt + Workforce)	34%	23%	21%	21%	17%	14%	14%	14%
%Market Units (B/A)	51%	29%	27%	26%	21%	17%	16%	16%

## 5.6 Mitigation Cost

This section takes the conclusions of the previous section on the number of households in the lower income categories associated with the market rate units and identifies the total cost of assistance required to make housing affordable. This section puts a cost on the units for each income level to produce the “total mitigation cost.”

As with the resort analysis, mitigation costs are based on an analysis of the affordability gap or net subsidy required to make the unit affordable to households in each of the six categories of Area Median Income. Table 5-14 summarizes the affordability gaps used in the analysis. See Section 7 for a discussion and calculations used to determine the affordability gaps.

**Table 5-14: Affordability Gaps  
(Net Cost Per Workforce Unit)**

Under 30% AMI	\$285,600
30% to 50% AMI	\$222,600
50% to 80% AMI	\$191,600
80% to 100% AMI	\$124,850
100% to 120% AMI	\$36,350
120% to 140% AMI	[no gap]

AMI = Area Median Income;  
See Section 7 for supporting analysis.

The cost of delivering workforce housing to the new households is combined with the estimated demand for workforce housing from Table 5-12 to calculate the mitigation cost per unit as illustrated below:

Affordability Gap (Table 5-14)	X	Number of Workforce Units needed per 100 Residential Units. (Table 5-12)	÷	100 Units	=	Workforce Housing Mitigation Cost Per Market Rate Unit
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The results are shown in Table 5-15, below:

<b>Table 5-15: Workforce Housing Mitigation Cost Per Market Rate Unit</b>								
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
Under 30% AMI	\$2,200	\$1,200	\$1,100	\$1,100	\$900	\$700	\$700	\$700
30% to 50% AMI	\$13,400	\$7,600	\$7,000	\$6,800	\$5,400	\$4,400	\$4,200	\$4,200
50% to 80% AMI	\$29,100	\$16,900	\$15,400	\$14,900	\$11,800	\$9,600	\$9,000	\$9,200
80% to 100% AMI	\$14,300	\$8,300	\$7,500	\$7,300	\$5,800	\$4,700	\$4,400	\$4,500
100% to 120% AMI	\$4,200	\$2,400	\$2,200	\$2,100	\$1,700	\$1,400	\$1,300	\$1,300
120% to 140% AMI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Mitigation Cost Per Market Rate Unit</b>	<b>\$63,200</b>	<b>\$36,400</b>	<b>\$33,200</b>	<b>\$32,200</b>	<b>\$25,600</b>	<b>\$20,800</b>	<b>\$19,600</b>	<b>\$19,900</b>

Findings from Table 5-16 are divided by the square foot size of the market rate residential prototypes to translate the findings into mitigation cost per square foot of net livable area.

<b>Table 5-16: Workforce Housing Mitigation Cost Per Sq. Ft.</b>								
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>	<i>Single Family</i>	<i>Townhome</i>	<i>Condo</i>	<i>Apartment</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>	<i>900 SF</i>
Under 30% AMI	\$0.90	\$0.70	\$0.70	\$0.90	\$0.50	\$0.50	\$0.60	\$0.80
30% to 50% AMI	\$5.40	\$4.20	\$4.70	\$5.70	\$3.00	\$2.90	\$3.50	\$4.70
50% to 80% AMI	\$11.60	\$9.40	\$10.30	\$12.40	\$6.60	\$6.40	\$7.50	\$10.20
80% to 100% AMI	\$5.70	\$4.60	\$5.00	\$6.10	\$3.20	\$3.10	\$3.70	\$5.00
100% to 120% AMI	\$1.70	\$1.30	\$1.50	\$1.80	\$0.90	\$0.90	\$1.10	\$1.40
120% to 140% AMI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Nexus Costs</b>	<b>\$25.30</b>	<b>\$20.20</b>	<b>\$22.20</b>	<b>\$26.90</b>	<b>\$14.20</b>	<b>\$13.80</b>	<b>\$16.40</b>	<b>\$22.10</b>

The above figures represent the cost of mitigating the additional workforce housing demand generated by development of market rate units in Kaua'i. Findings are technical impact analysis findings only and are not recommended levels for requirements. Findings assume residential occupancy of the units and would be higher with vacation rental use, as documented in Section 6.

Tables 5-17A through 5-17F provide additional analysis in support of steps 5 and 6 of the analysis identifying the number of worker households within each income tier by occupation category.

**TABLE 5-17A  
EXTREMELY LOW-INCOME (ELI) EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED  
RESIDENTIAL NEXUS ANALYSIS  
KAUA'I, HI**

*Per 100 Market Rate Units*

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Luxury Resort Homes VDA	Single Family VDA	Townhome VDA	Condo VDA	Single Family	Townhome	Condo	Apartment
<b>Step 5 &amp; 6 - Extremely Low Income Households (under 30% AMI) within Major Occupation Categories <sup>2</sup></b>								
Management	-	-	-	-	-	-	-	-
Business and Financial Operations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical	-	-	-	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-	-	-	-
Community and Social Services	-	-	-	-	-	-	-	-
Legal	-	-	-	-	-	-	-	-
Education Training and Library	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arts, Design, Entertainment, Sports, & Media	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Healthcare Practitioners and Technical	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Healthcare Support	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Protective Service	-	-	-	-	-	-	-	-
Food Preparation and Serving Related	0.16	0.10	0.09	0.09	0.07	0.06	0.06	0.06
Building Grounds and Maintenance	0.04	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Personal Care and Service	0.15	0.08	0.07	0.07	0.06	0.04	0.04	0.04
Sales and Related	0.14	0.08	0.07	0.07	0.05	0.05	0.04	0.05
Office and Admin	0.07	0.04	0.04	0.04	0.03	0.02	0.02	0.02
Farm, Fishing, and Forestry	-	-	-	-	-	-	-	-
Construction and Extraction	-	-	-	-	-	-	-	-
Installation Maintenance and Repair	0.00	0.00	0.00	0.00	0.00	-	-	-
Production	-	-	-	-	-	-	-	-
Transportation and Material Moving	0.06	0.03	0.03	0.03	0.03	0.02	0.02	0.02
<b>ELI Households - Major Occupations</b>	<b>0.67</b>	<b>0.38</b>	<b>0.35</b>	<b>0.34</b>	<b>0.27</b>	<b>0.22</b>	<b>0.21</b>	<b>0.21</b>
<b>ELI Households<sup>1</sup> - all other occupations</b>	<b>0.09</b>	<b>0.05</b>	<b>0.04</b>	<b>0.04</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>
<b>Total ELI Households<sup>1</sup></b>	<b>0.76</b>	<b>0.43</b>	<b>0.39</b>	<b>0.38</b>	<b>0.30</b>	<b>0.25</b>	<b>0.24</b>	<b>0.24</b>

(1) Includes households earning from zero through 30% of Kaua'i, HI Area Median Income.

(2) See Appendix B Tables 1 - 6 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix B Table 2, 4, and 6. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 5-17B**  
**VERY LOW-INCOME EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED**  
**RESIDENTIAL NEXUS ANALYSIS**  
**KAUA'I, HI**

*Per 100 Market Rate Units*

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Luxury Resort Homes VDA	Single Family VDA	Townhome VDA	Condo VDA	Single Family	Townhome	Condo	Apartment
<b>Step 5 &amp; 6 - Very Low Income Households (30%-50% AMI) within Major Occupation Categories <sup>2</sup></b>								
Management	-	-	-	-	-	-	-	-
Business and Financial Operations	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical	-	-	-	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-	-	-	-
Community and Social Services	-	-	-	-	-	-	-	-
Legal	-	-	-	-	-	-	-	-
Education Training and Library	0.14	0.06	0.06	0.05	0.04	0.03	0.03	0.03
Arts, Design, Entertainment, Sports, & Media	0.10	0.05	0.04	0.04	0.03	0.03	0.03	0.03
Healthcare Practitioners and Technical	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Healthcare Support	0.21	0.12	0.11	0.10	0.09	0.07	0.06	0.06
Protective Service	-	-	-	-	-	-	-	-
Food Preparation and Serving Related	1.17	0.74	0.67	0.65	0.50	0.44	0.41	0.42
Building Grounds and Maintenance	0.29	0.16	0.14	0.14	0.11	0.09	0.09	0.09
Personal Care and Service	1.05	0.55	0.50	0.48	0.39	0.31	0.29	0.29
Sales and Related	1.20	0.70	0.63	0.62	0.48	0.42	0.39	0.40
Office and Admin	0.67	0.40	0.36	0.35	0.28	0.23	0.21	0.21
Farm, Fishing, and Forestry	-	-	-	-	-	-	-	-
Construction and Extraction	-	-	-	-	-	-	-	-
Installation Maintenance and Repair	0.04	0.02	0.02	0.02	0.02	-	-	-
Production	-	-	-	-	-	-	-	-
Transportation and Material Moving	0.48	0.26	0.23	0.23	0.20	0.15	0.14	0.15
<b>Very Low Households - Major Occupations</b>	<b>5.36</b>	<b>3.05</b>	<b>2.77</b>	<b>2.69</b>	<b>2.13</b>	<b>1.76</b>	<b>1.65</b>	<b>1.68</b>
<b>Very Low Households<sup>1</sup> - all other occupations</b>	<b>0.68</b>	<b>0.38</b>	<b>0.35</b>	<b>0.34</b>	<b>0.27</b>	<b>0.23</b>	<b>0.21</b>	<b>0.22</b>
<b>Total Very Low Inc. Households<sup>1</sup></b>	<b>6.04</b>	<b>3.43</b>	<b>3.12</b>	<b>3.03</b>	<b>2.40</b>	<b>1.99</b>	<b>1.87</b>	<b>1.90</b>

(1) Includes households earning from 30% through 50% of Kaua'i, HI Area Median Income.

(2) See Appendix B Tables 1 - 6 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix B Table 2, 4, and 6. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 5-17C**  
**LOW-INCOME EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED**  
**RESIDENTIAL NEXUS ANALYSIS**  
**KAUA'I, HI**

*Per 100 Market Rate Units*

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Luxury Resort Homes VDA	Single Family VDA	Townhome VDA	Condo VDA	Single Family	Townhome	Condo	Apartment
<b>Step 5 &amp; 6 - Low Income Households (50%-80% AMI) within Major Occupation Categories<sup>2</sup></b>								
Management	0.09	0.05	0.05	0.05	0.04	0.04	0.03	0.03
Business and Financial Operations	0.17	0.10	0.09	0.09	0.07	0.07	0.06	0.06
Computer and Mathematical	-	-	-	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-	-	-	-
Community and Social Services	-	-	-	-	-	-	-	-
Legal	-	-	-	-	-	-	-	-
Education Training and Library	0.85	0.36	0.33	0.32	0.22	0.17	0.16	0.16
Arts, Design, Entertainment, Sports, & Media	0.36	0.18	0.16	0.16	0.12	0.10	0.09	0.10
Healthcare Practitioners and Technical	0.15	0.09	0.08	0.08	0.06	0.06	0.05	0.05
Healthcare Support	0.62	0.41	0.37	0.36	0.30	0.25	0.23	0.24
Protective Service	-	-	-	-	-	-	-	-
Food Preparation and Serving Related	2.29	1.43	1.30	1.27	1.01	0.86	0.80	0.82
Building Grounds and Maintenance	0.99	0.54	0.49	0.47	0.36	0.31	0.29	0.30
Personal Care and Service	1.25	0.66	0.60	0.59	0.48	0.38	0.35	0.36
Sales and Related	2.11	1.22	1.11	1.08	0.90	0.79	0.74	0.75
Office and Admin	3.05	1.81	1.64	1.60	1.29	1.09	1.02	1.04
Farm, Fishing, and Forestry	-	-	-	-	-	-	-	-
Construction and Extraction	-	-	-	-	-	-	-	-
Installation Maintenance and Repair	0.43	0.26	0.24	0.23	0.19	-	-	-
Production	-	-	-	-	-	-	-	-
Transportation and Material Moving	1.11	0.72	0.65	0.63	0.44	0.34	0.32	0.32
Low Households - Major Occupations	13.46	7.84	7.12	6.92	5.47	4.44	4.16	4.23
Low Households <sup>1</sup> - all other occupations	1.71	0.99	0.90	0.87	0.70	0.57	0.54	0.55
<b>Total Low Inc. Households<sup>1</sup></b>	<b>15.17</b>	<b>8.82</b>	<b>8.02</b>	<b>7.79</b>	<b>6.17</b>	<b>5.01</b>	<b>4.70</b>	<b>4.78</b>

(1) Includes households earning from 50% through 80% of Kaua'i, HI Area Median Income.

(2) See Appendix B Tables 1 - 6 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix B Table 2, 4, and 6. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 5-17D**  
**WORKFORCE: 80% TO 100% AMI EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED**  
**RESIDENTIAL NEXUS ANALYSIS**  
**KAUA'I, HI**

**Per 100 Market Rate Units**

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Luxury Resort Homes VDA	Single Family VDA	Townhome VDA	Condo VDA	Single Family	Townhome	Condo	Apartment
<b>Step 5 &amp; 6 - Workforce (80%-100% AMI) Employee Households within Major Occupation Categories<sup>2</sup></b>								
Management	0.22	0.13	0.12	0.11	0.09	0.08	0.08	0.08
Business and Financial Operations	0.33	0.19	0.17	0.17	0.14	0.13	0.12	0.12
Computer and Mathematical	-	-	-	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-	-	-	-
Community and Social Services	-	-	-	-	-	-	-	-
Legal	-	-	-	-	-	-	-	-
Education Training and Library	0.64	0.27	0.25	0.24	0.16	0.12	0.12	0.12
Arts, Design, Entertainment, Sports & Medi	0.27	0.14	0.12	0.12	0.11	0.08	0.08	0.08
Healthcare Practitioners and Technical	0.18	0.13	0.12	0.11	0.09	0.08	0.07	0.07
Healthcare Support	0.38	0.25	0.23	0.22	0.18	0.15	0.14	0.14
Protective Service	-	-	-	-	-	-	-	-
Food Preparation and Serving Related	1.75	1.10	1.00	0.97	0.75	0.65	0.61	0.62
Building Grounds and Maintenance	0.82	0.44	0.40	0.39	0.30	0.26	0.24	0.24
Personal Care and Service	1.12	0.58	0.53	0.52	0.41	0.32	0.30	0.30
Sales and Related	1.36	0.79	0.71	0.69	0.60	0.52	0.49	0.50
Office and Admin	1.88	1.11	1.01	0.98	0.79	0.68	0.64	0.65
Farm, Fishing, and Forestry	-	-	-	-	-	-	-	-
Construction and Extraction	-	-	-	-	-	-	-	-
Installation Maintenance and Repair	0.42	0.26	0.23	0.23	0.19	-	-	-
Production	-	-	-	-	-	-	-	-
Transportation and Material Moving	0.81	0.50	0.45	0.44	0.31	0.27	0.25	0.25
Households - Major Occupations	10.17	5.89	5.35	5.20	4.12	3.34	3.13	3.18
Households <sup>1</sup> - all other occupations	1.29	0.74	0.67	0.66	0.53	0.43	0.40	0.41
<b>Total Households (80% to 100% AMI)<sup>1</sup></b>	<b>11.46</b>	<b>6.63</b>	<b>6.02</b>	<b>5.85</b>	<b>4.64</b>	<b>3.77</b>	<b>3.53</b>	<b>3.59</b>

(1) Includes households earning from 80% through 100% of Kaua'i, HI Area Median Income.

(2) See Appendix B Tables 1 - 6 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix B Table 2, 4, and 6. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 5-17E**  
**WORKFORCE: 100% TO 120% AMI EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED**  
**RESIDENTIAL NEXUS ANALYSIS**  
**KAUA'I, HI**

*Per 100 Market Rate Units*

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Luxury Resort Homes VDA	Single Family VDA	Townhome VDA	Condo VDA	Single Family	Townhome	Condo	Apartment
<b>Step 5 &amp; 6 - Workforce (100%-120% AMI) Employee Households within Major Occupation Categories<sup>2</sup></b>								
Management	0.38	0.22	0.20	0.19	0.16	0.14	0.13	0.13
Business and Financial Operations	0.41	0.23	0.21	0.21	0.18	0.16	0.15	0.15
Computer and Mathematical	-	-	-	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-	-	-	-
Community and Social Services	-	-	-	-	-	-	-	-
Legal	-	-	-	-	-	-	-	-
Education Training and Library	0.47	0.20	0.18	0.17	0.11	0.08	0.07	0.07
Arts, Design, Entertainment, Sports & Medi	0.30	0.15	0.13	0.13	0.12	0.09	0.08	0.09
Healthcare Practitioners and Technical	0.23	0.17	0.16	0.15	0.12	0.11	0.10	0.10
Healthcare Support	0.43	0.26	0.24	0.23	0.18	0.14	0.13	0.13
Protective Service	-	-	-	-	-	-	-	-
Food Preparation and Serving Related	1.54	0.97	0.88	0.85	0.65	0.58	0.54	0.55
Building Grounds and Maintenance	0.50	0.27	0.25	0.24	0.19	0.16	0.15	0.15
Personal Care and Service	1.21	0.64	0.58	0.56	0.46	0.39	0.37	0.37
Sales and Related	2.14	1.22	1.11	1.08	0.83	0.72	0.68	0.69
Office and Admin	1.52	0.89	0.81	0.79	0.64	0.58	0.54	0.55
Farm, Fishing, and Forestry	-	-	-	-	-	-	-	-
Construction and Extraction	-	-	-	-	-	-	-	-
Installation Maintenance and Repair	0.48	0.29	0.26	0.26	0.21	-	-	-
Production	-	-	-	-	-	-	-	-
Transportation and Material Moving	0.65	0.32	0.29	0.28	0.25	0.22	0.21	0.21
Households - Major Occupations	10.27	5.83	5.30	5.15	4.08	3.36	3.15	3.20
Households <sup>1</sup> - all other occupations	1.30	0.74	0.67	0.65	0.52	0.43	0.41	0.41
<b>Total Households (100% to 120% AMI)<sup>1</sup></b>	<b>11.57</b>	<b>6.57</b>	<b>5.97</b>	<b>5.80</b>	<b>4.61</b>	<b>3.79</b>	<b>3.55</b>	<b>3.61</b>

(1) Includes households earning from 100% through 120% of Kaua'i, HI Area Median Income.

(2) See Appendix B Tables 1 - 6 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix B Table 2, 4, and 6. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 5-17F**  
**WORKFORCE: 120% TO 140% AMI EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED**  
**RESIDENTIAL NEXUS ANALYSIS**  
**KAUA'I, HI**

*Per 100 Market Rate Units*

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
	Luxury Resort Homes VDA	Single Family VDA	Townhome VDA	Condo VDA	Single Family	Townhome	Condo	Apartment
<b>Step 5 &amp; 6 - Workforce (120%-140% AMI) Employee Households within Major Occupation Categories<sup>2</sup></b>								
Management	0.44	0.25	0.23	0.22	0.18	0.16	0.15	0.15
Business and Financial Operations	0.42	0.25	0.22	0.22	0.19	0.17	0.16	0.16
Computer and Mathematical	-	-	-	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-	-	-	-
Community and Social Services	-	-	-	-	-	-	-	-
Legal	-	-	-	-	-	-	-	-
Education Training and Library	0.33	0.14	0.12	0.12	0.08	0.06	0.05	0.05
Arts, Design, Entertainment, Sports & Medi	0.24	0.12	0.11	0.10	0.08	0.06	0.06	0.06
Healthcare Practitioners and Technical	0.40	0.30	0.28	0.27	0.20	0.18	0.17	0.17
Healthcare Support	0.14	0.10	0.09	0.09	0.06	0.05	0.05	0.05
Protective Service	-	-	-	-	-	-	-	-
Food Preparation and Serving Related	0.66	0.42	0.38	0.37	0.28	0.25	0.23	0.24
Building Grounds and Maintenance	0.26	0.14	0.13	0.13	0.10	0.08	0.08	0.08
Personal Care and Service	0.24	0.13	0.12	0.11	0.09	0.07	0.07	0.07
Sales and Related	0.63	0.38	0.35	0.34	0.20	0.18	0.17	0.17
Office and Admin	0.89	0.53	0.48	0.47	0.38	0.34	0.32	0.32
Farm, Fishing, and Forestry	-	-	-	-	-	-	-	-
Construction and Extraction	-	-	-	-	-	-	-	-
Installation Maintenance and Repair	0.31	0.19	0.17	0.17	0.14	-	-	-
Production	-	-	-	-	-	-	-	-
Transportation and Material Moving	0.50	0.22	0.20	0.19	0.19	0.17	0.15	0.16
<b>Households - Major Occupations</b>	<b>5.48</b>	<b>3.16</b>	<b>2.87</b>	<b>2.79</b>	<b>2.17</b>	<b>1.76</b>	<b>1.65</b>	<b>1.68</b>
<b>Households<sup>1</sup> - all other occupations</b>	<b>0.70</b>	<b>0.40</b>	<b>0.36</b>	<b>0.35</b>	<b>0.28</b>	<b>0.23</b>	<b>0.21</b>	<b>0.22</b>
<b>Total Households (120% to 140% AMI)<sup>1</sup></b>	<b>6.18</b>	<b>3.56</b>	<b>3.23</b>	<b>3.14</b>	<b>2.44</b>	<b>1.99</b>	<b>1.86</b>	<b>1.89</b>

(1) Includes households earning from 120% through 140% of Kaua'i, HI Area Median Income.

(2) See Appendix B Tables 1 - 6 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix B Table 2, 4, and 6. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

## **6.0 RESORT WORKFORCE HOUSING NEXUS ANALYSIS**

The workforce housing nexus analysis provides an analysis of the linkages between new resort development in Kaua'i and the need for additional workforce housing. The analysis addresses workforce housing needs associated with new visitor accommodation units in Kaua'i including:

- Hotels; and
- Vacation Rentals.

The hotel analyzed in the resort workforce housing nexus analysis is based on the full-service prototype addressed in Section 4. Luxury hotels are not separately addressed for purposes of the nexus analysis but would generally have above average workforce housing impacts based on their higher number of workers relative to the number of rooms/keys and the higher level of visitor spending by guests at luxury properties.

The vacation rental analysis addresses the same four Visitor Destination Area residential unit types as Section 5 including (Luxury Resort Homes, Single Family, Townhomes and Condominiums) with a vacation rental use rather than residential occupancy. Workforce housing impacts are higher when used as a vacation rental due to higher visitor spending and staff required to clean and maintain the unit as a vacation rental.

### **6.1 Workforce Housing Impacts Included**

Development of additional visitor accommodation units on Kaua'i results in additional jobs at the hotels and resorts themselves including housekeeping, grounds, maintenance, food service, and other jobs. In addition, visitors that occupy the units make expenditures at local restaurants, gas stations, rental car agencies, grocery stores, entertainment and tours in connection with their stay. A portion of visitor spending is captured on-site within the resort development at on-site retail, restaurants, and other amenities of the resort property. Other spending occurs off-site within the Visitor Destination Areas and throughout Kaua'i. Accordingly, the workforce housing nexus analysis addresses workforce housing needs associated with:

- On-site hotel and resort employment; and
- Off-resort employment generated through visitor spending.

The analysis quantifies the linkages between development of visitor accommodation units, increases in visitor spending, added jobs, and additional workforce housing needs in Kaua'i.

### **6.2 Overview of Resort Nexus Analysis Steps**

The analysis is conducted based on a methodology that KMA has developed for application in many jurisdictions for which the firm has conducted similar analyses. The model inputs are all local data to the extent possible and are fully documented. Following is a description of each step of the analysis:

The basic steps in the analysis are as follows:

- A. Visitor Spending** – Estimate additional visitor spending on Kaua'i generated by development of new visitor accommodation units.
- B. Number of Workers** – Identify number of employees associated with development of new resorts including direct employees of the resort and those associated with visitor spending.
- C. Number of Households** – Adjust from the number of workers to the number of households recognizing many workers are members of households where more than one person is employed.
- D. Household Income** – The number of worker households within each of the six income categories addressed in the analysis is estimated based on data on worker incomes and relationships between worker and household incomes developed from Census data.
- E. Mitigation Cost and Maximum Fee Level** – The final step is to determine the cost of providing affordable housing to the new worker households qualifying in one of the six affordability tiers. This represents the full mitigation cost for the workforce housing impacts and the ceiling for any workforce housing mitigation that may be imposed. Mitigation cost findings are expressed per visitor accommodation unit and per square foot.

Following is a more detailed step-by-step discussion of the analysis steps and the data sources that are used.

### **6.3 Visitor Spending Estimate**

The first step in the resort workforce housing nexus analysis is to identify the visitor spending generated by hotel and vacation rentals on Kaua'i. Estimates are based on the estimated average daily rate applicable to the five visitor accommodation unit types analyzed, an occupancy assumption of 76% consistent with the market data, and a ratio between expenditures on lodging and other items such as food, entertainment and transportation derived from Hawai'i Tourism Authority data.

Visitor survey data from the Hawai'i Tourism Authority for 2017, shown in Table 6-1, indicates air visitors to Kaua'i spend about 1.2 times the cost of their lodging on restaurants, shopping, entertainment, transportation, and other items.

<b>Table 6-1: Kaua'i Average Daily Spending Per Air Visitor</b>	
Lodging Expense Per Visitor	\$82.00
Other Spending Per Visitor <sup>(1)</sup>	\$100.80
<b>Ratio: Other Expense to Lodging Expense</b>	<b>1.2 X</b>

Source: Hawai'i Tourism Authority. 2017.

<sup>(1)</sup> Excludes "all other" spending category that relates to cruise package spending on U.S. Flagged Hawai'i home-ported ships.

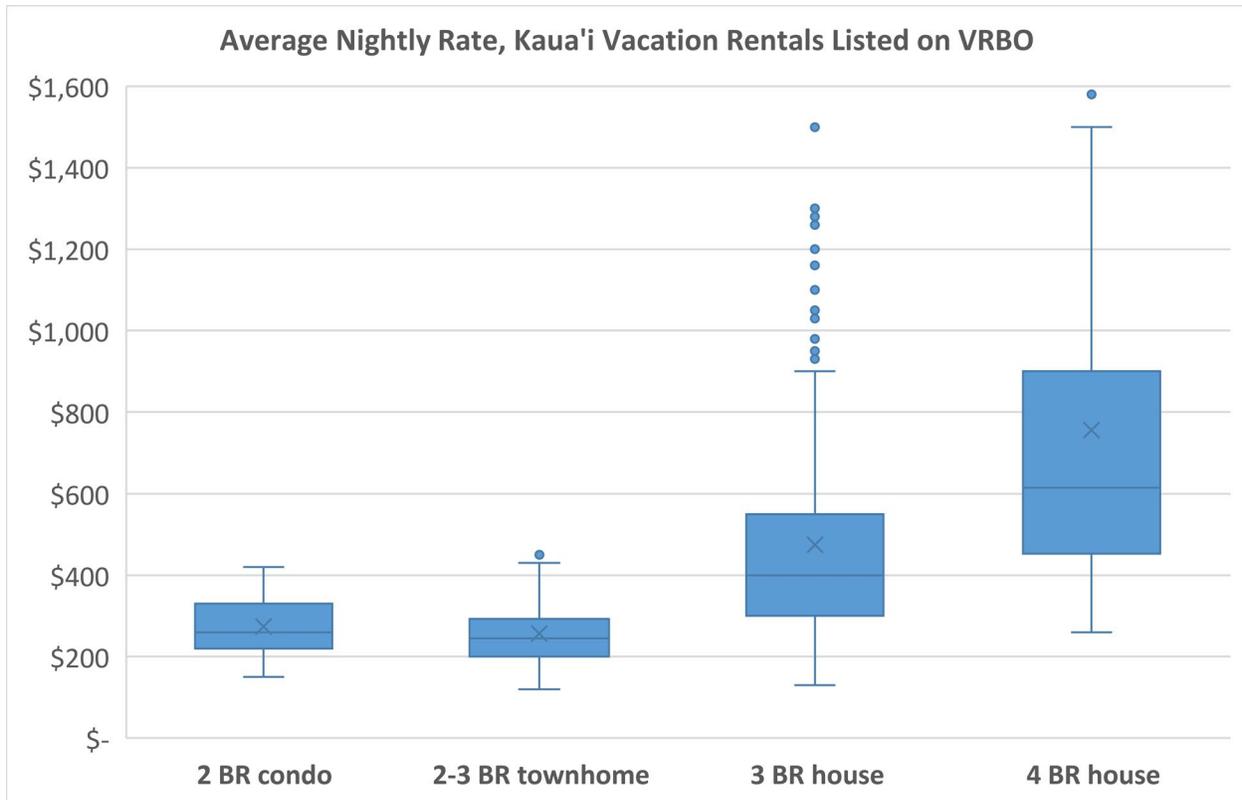
Table 6-2 uses the relationship between lodging expenditures and other types of visitor spending to estimate the amount of visitor spending associated with each type of visitor accommodation unit. An estimated average daily rate for each prototypical visitor accommodation unit was estimated based on a review of market data for visitor accommodation units in Kaua'i, as described below. Then, the ratio identified in Table 6-1 is applied to estimate non-lodging spending. Estimates range from \$7.9 million to \$18.3 million per year in visitor spending per 100 visitor accommodation units. Larger units that accommodate more visitors and higher priced units that accommodate higher-income visitors are estimated to generate greater levels of non-lodging visitor spending. For the luxury resort home, a discount factor of 50% is applied based on the conservative assumption that other spending will not maintain the same proportion to lodging expense at the luxury end of the market.

<b>Table 6-2: Visitor Spending Estimate</b>					
	<b>Hotel</b>	<b>Luxury Resort Homes - Vacation Rental</b>	<b>Single Family - Vacation Rental</b>	<b>Townhome - Vacation Rental</b>	<b>Condo - Vacation Rental</b>
No. of Bedrooms	1	4	3	2.5	2
Estimated Average Daily Rate (reflects new construction)	\$310	\$1,100	\$400	\$300	\$240
Occupancy	76%	76%	76%	76%	76%
Annual Lodging Revenue Per Unit Per 100 Units	\$86,000 \$8,600,000	\$305,100 \$30,510,000	\$111,000 \$11,100,000	\$83,200 \$8,320,000	\$66,600 \$6,660,000
Adjustment to spending <sup>(1)</sup>	N/A	50%	N/A	N/A	N/A
<b>Estimated non-lodging spending @1.2 X Lodging Cost, less adjustment</b>	<b>\$10,320,000</b>	<b>\$18,306,000</b>	<b>\$13,320,000</b>	<b>\$9,984,000</b>	<b>\$7,992,000</b>

<sup>(1)</sup> Adjustment for Luxury Resort Homes recognizes that high lodging expenses may not translate proportionately to other spending categories.

The chart below summarizes average nightly rates for approximately 800 Kaua'i vacation rental listings identified on the Vacation Rental by Owner (VRBO) platform. This data, along with a review of vacation rental listings available through parishkauai.com informed the estimated

average nightly rate assumptions used in the analysis. Estimates reflect that newly developed vacation rentals will generally command a premium over existing units of comparable size and amenities. The luxury resort homes are intended as representative of the upper end of the market and exceed average or typical rates for 4-bedroom homes. KMA’s review identified 61 Kaua’i 4-bedroom homes listed for \$1,000 per night or more on VRBO and pariskuai.com, representing roughly the top 20% of pricing for 4-bedroom vacation rentals.



Source: 804 Kaua’i vacation rental listings on VRBO accessed on 11/8/2018. Additional listings above \$1,600 nightly are not shown on the chart.

Solid blue boxes on the chart indicate the 25<sup>th</sup> and 75<sup>th</sup> quartile nightly rental rates. The lines (“whiskers”) extending above and below the solid blue boxes indicate minimum and maximum values, except for outliers. Outliers have nightly rates significantly above the median and are indicated as dots. The small “x” denotes the mean.

## Visitor Spending by Category

Spending estimated in Table 6-2 is distributed by category based on Hawai'i Tourism Authority data on visitor spending patterns for Kaua'i summarized in Table 6-3. Industry categories selected as representative for each category of spending noted in Table 6-3 are for purposes of analyzing employment generation using the IMPLAN model as described in the next step.

<b>Table 6-3: Percentage of Kaua'i Non-Lodging Visitor Spending by Category</b>		
<b>Category</b>	<b>% Share of Non-Lodging Expenditure</b>	<b>Representative IMPLAN Industry Sector</b>
<b>Food and beverage</b>	<b>39.1%</b>	
Restaurant food	24.0%	70% full-service 30% limited svc restaurant
Dinner shows and cruises	4.6%	Full-service restaurants
Groceries and snacks	10.4%	Retail - Food and beverage stores
<b>Entertainment &amp; Recreation</b>	<b>22.4%</b>	Performing arts companies
<b>Transportation</b>	<b>23.5%</b>	
Interisland airfare	3.6%	Air transportation
Ground transportation	0.4%	Ground passenger transportation
Rental vehicles	18.5%	Automotive equipment rental and leasing
Gasoline, parking, etc.	0.9%	Retail - Gasoline stores
<b>Shopping</b>	<b>15.0%</b>	
Fashion and clothing	6.2%	Retail - Clothing and clothing accessories
Jewelry and watches	2.3%	Retail - Clothing and clothing accessories
Cosmetics, perfume	0.3%	Retail - Health and personal care stores
Leather goods	0.1%	Retail - Clothing and clothing accessories
Hawai'i food products	2.1%	Retail - Food and beverage stores
Souvenirs	4.0%	Retail - Miscellaneous store retailers
<b>Total Non-Lodging Visitor Spend <sup>(1)</sup></b>	<b>100.0%</b>	

(1) Excludes "all other " spending category that relates to cruise package spending on U.S. Flagged Hawai'i home-ported ships.

Source: 2017 Hawai'i Tourism Authority data for Kaua'i Air Visitors.

## 6.4 Employment Estimates

Visitor accommodation units require staff to operate and maintain them. Spending by the visitors who stay in the units on restaurants, shopping, groceries, tours, results in additional jobs. This section describes the approach to estimating direct and visitor spending related employment.

## Employment from Visitor Spending

The IMPLAN model, described in Section 5, was applied to link visitor expenditures to job growth in Kaua'i. The estimated total visitor expenditures identified in Table 6-2 were distributed by industry category using the percentages identified in Table 6-3 and input into the IMPLAN model to estimate employment generation. A summary of the total employment estimated to be generated by visitor spending is summarized in Table 6-4. As shown, between 103 and 236 jobs are estimated to be generated by non-lodging visitor spending, depending on the type of visitor accommodation unit. Estimates include those located in on-site resort restaurants and amenities and jobs generated by visitor spending at visitor-oriented retail, amenities, and services elsewhere on Kaua'i.

<b>Table 6-4: Jobs Generated from Visitor Spending Per 100 Visitor Accommodation Units</b>					
	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
Annual Non-Lodging Visitor Spend Per 100 Units [input to IMPLAN]	\$10,320,000	\$18,306,000	\$13,320,000	\$9,984,000	\$7,992,000
Jobs Generated from Visitor Spend per 100 units [from IMPLAN]	133.1	236.1	171.8	128.8	103.1

Job creation, driven by increased visitor spending, was projected for each sector of the local economy impacted by visitor spending. Table 6-6 provides a detailed breakdown of estimated employment by sector. Restaurants and retail are the sectors where the greatest level of employment is projected based on visitor spending.

### Direct Visitor Accommodation Employees

The direct on-site employees associated with operation of the visitor accommodation units is estimated as follows:

- *Hotel Employment* – estimated at 0.5 direct employees per room. This ratio covers a range from higher service resort hotels, which are far more employment intensive to more limited service accommodations. The average used in the analysis is based on data from the Hawai'i Tourism Authority 2017 Visitor Plant Inventory, indicating a total of 80,336 visitor accommodation units statewide and Quarterly Census of Employment and Wages data for the 1<sup>st</sup> quarter of 2018 indicating a total of 41,800 jobs in visitor accommodation in the State of Hawai'i. The relationship between these two figures results in an average of approximately 0.5 employees per room. While resort developments may include additional jobs in on-site retail, restaurant and amenities, these jobs are captured in the analysis of jobs generated by visitor spending.

- *Vacation Rental Direct Employment* – For vacation rentals, housekeeping, landscaping and property management employment associated with vacation rentals is estimated to range from 11 to 17 jobs per 100 vacation rental units based on an estimate of the number of hours required per unit, converted to full-time equivalent employment per 100 units. Footnotes to Table 6-5 provide additional details. Vacation rentals require fewer employees than hotels because housekeeping is usually between occupancies rather than daily and services such as front desk, bell services, etc. are typically not provided.

**Table 6-5: Estimated Direct Employment Per 100 Visitor Accommodation Units**

	Cleaning <sup>(1)</sup>	Landscaping <sup>(2)</sup>	Management <sup>(3)</sup>	Total Direct Jobs
Hotel	See Appendix C for detail by occupation			50.0
Luxury Resort Homes - Vacation Rental	7.6	8.6	1.0	17.2
Single Family - Vacation Rental	6.5	8.6	1.0	16.1
Townhome - Vacation Rental	5.4	7.2	1.0	13.6
Condo - Vacation Rental	4.4	5.7	1.0	11.1

(1) Reflects estimate of 2.5, 3, and 3.5 worker-hours to clean a 2, 3, and 4-bedroom unit, respectively, one cleaning per week, 76% occupancy, 2,000 work hours per employee annually.

(2) Reflects estimate of 2 hours per week for a 2-bedroom unit and 3 hours per week for a 3 or 4-bedroom unit and, 2,000 work hours per employee annually.

(3) Estimate at one worker per 100 vacation rentals.

### ***Total Estimated Employment***

Table 6-6 identifies the total employment by category associated the visitor accommodation units including on-site workers who operate the units and those associated with visitor spending. In resorts with on-site restaurants and amenities, much of the visitor spending may be captured on-site. For developments with few amenities on-site, most jobs associated with visitor spending will be off-site.

**Table 6-6: Employment Generated Per 100 Visitor Accommodation Units**

Category	No. 1	No. 2	No. 3	No. 4	No. 5	% of Jobs
	Hotel	Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental	
<b>Direct Visitor Accommodation Jobs</b>	50.0	17.2	16.1	13.6	11.1	8%
<b>Jobs from Visitor Spending</b> [From IMPLAN] (1)						
Full-service restaurants	42.1	74.6	54.3	40.7	32.6	29%
Limited-service restaurants	8.7	15.4	11.2	8.4	6.7	6%
All other food and drinking	<u>0.4</u>	<u>0.8</u>	<u>0.6</u>	<u>0.4</u>	<u>0.3</u>	<u>0%</u>
Subtotal Restaurant	51.2	90.8	66.1	49.5	39.6	35%
Food and beverage stores	5.3	9.3	6.8	5.1	4.1	4%
Personal care services	0.4	0.8	0.6	0.4	0.3	0%
Miscellaneous store retailers	3.8	6.8	4.9	3.7	3.0	3%
Other personal services	1.1	1.9	1.4	1.1	0.8	1%
Clothing and accessories	<u>4.6</u>	<u>8.2</u>	<u>6.0</u>	<u>4.5</u>	<u>3.6</u>	<u>3%</u>
Subtotal Retail and Service	15.2	27.0	19.7	14.7	11.8	10%
Artists, writers, performers	13.1	23.3	17.0	12.7	10.2	9%
Real estate	3.1	5.6	4.1	3.0	2.4	2%
Offices of physicians	0.4	0.8	0.5	0.4	0.3	0%
Hospitals	0.5	0.9	0.7	0.5	0.4	0%
Religious organizations	0.3	0.6	0.4	0.3	0.3	0%
Commercial Sports	0.6	1.1	0.8	0.6	0.5	0%
Other Health practitioners	0.2	0.4	0.3	0.2	0.2	0%
Child day care services	0.0	0.0	0.0	0.0	0.0	0%
Automotive repair	0.4	0.7	0.5	0.4	0.3	0%
Ground transportation	1.2	2.1	1.5	1.1	0.9	1%
All Other Visitor Related Jobs	<u>46.7</u>	<u>82.8</u>	<u>60.2</u>	<u>45.1</u>	<u>36.1</u>	<u>32%</u>
Total Visitor-Spending Jobs	133.1	236.1	171.8	128.8	103.1	92%
<b>Total Jobs</b>	<b>183.1</b>	<b>253.3</b>	<b>187.9</b>	<b>142.4</b>	<b>114.2</b>	<b>100%</b>

(1) Estimated employment generated by expenditures of households within 100 prototypical visitor accommodation units for industries representing more than 1% of total employment. Employment estimates are based on the IMPLAN Group's economic model, IMPLAN, for Kaua'i, HI (uses 2016 IMPLAN data set, the most recent available as of August 2018). Includes both full- and part-time jobs.

## 6.5 Analysis of Workforce Housing Needs by Income Level

This section presents a summary of the analysis linking the employment growth associated with the new visitor accommodation units, or the output of the IMPLAN model (see Section 6.4), to the estimated number of housing units required in each of six income categories. The methodology is the same as that used for the residential workforce housing nexus analysis described in Section 5.

Analysis inputs are all local data to the extent possible and are fully documented in the following description. The analysis uses 2017 wage levels for Kaua'i reported by the Bureau of Labor Statistics and 2018 income limits published by the Kaua'i Department of Housing identified in Table 1-2. Following is a description of the steps of the analysis.

**Step 1 – Estimate of Total New Employees**

The starting point of the analysis is the estimated number of employees associated with the new visitor accommodation units as summarized in Table 6-6.

**Step 2 – Changing Industries Adjustment and Net New Jobs**

Step 2 makes an adjustment to take ongoing changes in the economy into account recognizing that jobs added are not 100% net new in all cases. A 10% adjustment is utilized based on the long-term shifts in employment that have occurred in some sectors of the local economy and the likelihood of continuing changes in the future. This is the same factor as applied in the residential workforce housing nexus analysis presented in Section 5. See Section 5 for additional information about this adjustment.

Table 6-7 presents the estimated employment before and after the adjustment made in Step 2.

<b>Table 6-7: Net New Jobs Per 100 Visitor Accommodation Units</b>					
	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
Total Jobs Generated (from 100 Units)	183.1	253.3	187.9	142.4	114.2
Net New Jobs after 10% reduction for declining industries (100 units)	164.8	228.0	169.1	128.1	102.7

**Step 3 – Adjustment from Employees to Employee Households**

This step (Table 6-8) converts the number of employees to the number of employee households, recognizing that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers is reduced. The ratio of 2.04 workers-per-worker-household as the same as applied in the residential workforce housing nexus analysis.

**Table 6-8: Number of New Workforce Housing Units  
Per 100 Visitor Accommodation Units**

	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
Net New Jobs	164.8	228.0	169.1	128.1	102.7
Number of Housing Units Needed at all income levels (at 2.04 workers per household)	80.9	111.9	83.0	62.9	50.4

**Step 4 – Occupational Distribution of Employees**

The occupational breakdown of employees is the first step to arrive at income level. The output from the IMPLAN model provides the number of employees by industry sector, shown in Table 6-6. The IMPLAN output is then paired with data from the Department of Labor, Bureau of Labor Statistics May 2017 Occupational Employment Survey (OES) to estimate the occupational composition of employees for each industry sector. Table 6-9A and B indicate the percentage and number of employee households by occupation associated with each visitor accommodation unit prototype. As shown, new jobs will be distributed across a variety of occupational categories. Food preparation and serving is by far the largest occupational category at between 35% and 36% of employment, followed by office and administrative support, building and grounds, and art, design, entertainment, sports and media.

**Table 6-9A: Percent of Workers by Occupation Category**

Occupation Category	No. 1	No. 2	No. 3	No. 4	No. 5
	Hotel	Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental
Management Occupations	4.0%	3.9%	4.0%	4.0%	4.0%
Business and Financial	2.6%	2.9%	2.8%	2.8%	2.8%
Computer and Mathematical	0.4%	0.5%	0.5%	0.5%	0.5%
Architecture and Engineering	0.1%	0.1%	0.1%	0.1%	0.1%
Sciences	0.0%	0.1%	0.1%	0.1%	0.1%
Community & Social Services	0.1%	0.2%	0.2%	0.2%	0.2%
Legal	0.0%	0.0%	0.0%	0.0%	0.0%
Education, and Library	1.0%	1.2%	1.2%	1.2%	1.2%
Arts, Design, Entertainment	9.8%	12.5%	12.3%	12.1%	12.1%
Healthcare Practitioners	0.6%	0.8%	0.8%	0.8%	0.8%
Healthcare Support	0.4%	0.3%	0.3%	0.3%	0.3%
Protective Service	0.8%	0.5%	0.5%	0.5%	0.5%
Food Prep and Serving	35.0%	36.2%	35.6%	35.2%	35.1%
Building and Grounds.	9.8%	8.0%	9.6%	10.5%	10.7%
Personal Care and Service	3.4%	3.0%	2.9%	2.9%	2.9%
Sales and Related	10.1%	12.0%	11.8%	11.7%	11.7%
Office and Admin Support	11.7%	8.1%	7.9%	7.8%	7.8%
Farming, Fishing, Forestry	0.0%	0.0%	0.0%	0.0%	0.0%
Construction and Extraction	0.6%	0.7%	0.7%	0.7%	0.7%
Installation, Maint. and Repair	3.1%	2.1%	2.1%	2.0%	2.0%
Production	1.5%	1.1%	1.1%	1.1%	1.1%
Transportation	<u>4.8%</u>	<u>5.8%</u>	<u>5.7%</u>	<u>5.6%</u>	<u>5.6%</u>
<b>Totals</b>	100.0%	100.0%	100.0%	100.0%	100.0%

See Appendix C for additional information on worker occupation categories.

**Table 6-9B  
Number of Worker Households by Occupation Category  
Per 100 Visitor Accommodation Units**

	No. 1	No. 2	No. 3	No. 4	No. 5
		Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental
Occupation Category	Hotel				
Management Occupations	3.2	4.4	3.3	2.5	2.0
Business and Financial	2.1	3.2	2.3	1.8	1.4
Computer and Mathematical	0.3	0.6	0.4	0.3	0.2
Architecture and Engineering	0.1	0.1	0.1	0.0	0.0
Sciences	0.0	0.1	0.0	0.0	0.0
Community & Social Services	0.1	0.2	0.1	0.1	0.1
Legal	0.0	0.0	0.0	0.0	0.0
Education, and Library	0.8	1.4	1.0	0.7	0.6
Arts, Design, Entertainment	7.9	14.0	10.2	7.6	6.1
Healthcare Practitioners	0.5	0.9	0.7	0.5	0.4
Healthcare Support	0.3	0.4	0.3	0.2	0.2
Protective Service	0.7	0.6	0.4	0.3	0.2
Food Prep and Serving	28.3	40.5	29.5	22.1	17.7
Building and Grounds.	7.9	8.9	8.0	6.6	5.4
Personal Care and Service	2.8	3.3	2.4	1.8	1.4
Sales and Related	8.1	13.5	9.8	7.3	5.9
Office and Admin Support	9.5	9.0	6.6	4.9	3.9
Farming, Fishing, Forestry	0.0	0.0	0.0	0.0	0.0
Construction and Extraction	0.5	0.8	0.5	0.4	0.3
Installation, Maint. and Repair	2.5	2.4	1.7	1.3	1.0
Production	1.2	1.3	0.9	0.7	0.6
Transportation	<u>3.9</u>	<u>6.5</u>	<u>4.7</u>	<u>3.5</u>	<u>2.8</u>
<b>Totals</b>	<b>80.9</b>	<b>111.9</b>	<b>83.0</b>	<b>62.9</b>	<b>50.4</b>

See Appendix C for additional information on worker occupation categories.

### **Step 5 – Estimate of Employee Wage and Salary Distribution**

The employee wage and salary distribution is based on the occupational distribution from Step 4 in combination with recent Kaua'i County wage and salary information for each occupation from the Bureau of Labor Statistics Occupational Employment Survey (OES) for 2017. In addition to the average compensation levels, the analysis also utilizes OES data regarding the percentile distribution of wages within individual occupation categories in estimating the distribution of worker compensation levels. The data on employee wages and salaries utilized in the analysis is presented in Appendix C.

### **Step 6 – Household Size Distribution**

In this step, the household size distribution of workers is estimated using U.S. Census 2012-2016 ACS data for Kaua'i County. In addition to the distribution in household sizes, the data also accounts for a range in the number of workers in households of various sizes. The

percentage distribution is the same as used for the residential workforce housing nexus analysis, presented in Table 5-10.

**Step 7 – Estimate of Households that meet Household Size and Income Criteria**

This step in the analysis calculates the number of employee households that fall into each income category for each size household. This calculation is based on the employee wage and salary income distribution (Step 5), the worker household size distribution (Step 6) and the 2018 income limits for Kaua’i.

Household incomes are estimated based upon ratios between individual employee income and household income derived from U.S. Census data for the State of Hawai’i. Ratios are the same as those utilized in the residential workforce housing analysis presented in Table 5-11.

Estimated household incomes are compared to income criteria to determine the percentage that qualify within each income category. The comparison is made for each potential household size/number of workers combination. The result is multiplied by the percentage distribution of household sizes and number of workers per household from Step 6 to calculate the distribution of worker households by income.

Tables 6-15A to 6-15F present the estimated number of households in each income tier by worker occupation category for each of the prototypes. It represents the output of the analysis, after completing Step #5 (employee compensation levels), Step #6 (household size distribution of worker households), and Step #7 which uses this information to calculate the number of households that fall into each income category.

**6.6 Number of Workforce Housing Units Need Per 100 Visitor Accommodation Units**

Table 6-10 indicates the results of the analysis for each 100 visitor accommodation units. The table presents the number of households generated in each affordability category and the total number over 140% of Area Median Income per 100 accommodation units.

<b>Table 6-10: New Worker Households Per 100 Visitor Accommodation Units</b>					
	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
Under 30% AMI	1.1	1.7	1.2	0.9	0.7
30% to 50% AMI	8.0	12.4	9.1	6.8	5.5
50% to 80% AMI	21.7	29.7	22.1	16.8	13.4
80% to 100% AMI	16.4	22.4	16.6	12.6	10.1
100% to 120% AMI	16.6	22.1	16.4	12.4	10.0
120% to 140% AMI	9.0	11.9	8.8	6.7	5.4
<b>Total, Less than 140% AMI</b>	<b>72.9</b>	<b>100.1</b>	<b>74.2</b>	<b>56.2</b>	<b>45.1</b>
Greater than 140% AMI	8.0	11.7	8.7	6.6	5.3
<b>Total, New Households</b>	<b>80.9</b>	<b>111.9</b>	<b>83.0</b>	<b>62.9</b>	<b>50.4</b>

Workforce housing demand from 0% to 140% of AMI ranges from approximately 100 units per 100 visitor accommodation units for the Luxury Resort Homes to 45 units per 100 visitor accommodation units with the condominium vacation rentals. Housing demand is distributed across the income tiers with the greatest number of households in the 50% to 120% AMI income range. The finding that the jobs associated with visitor serving uses results in a need for worker housing at income levels of 140% of AMI and below is not surprising based on the pay levels associated with food preparation, housekeeping, administrative, retail and other jobs related to visitor accommodation.

### 6.7 Ratio: Worker Housing Units to Visitor Accommodation Units

The analysis findings identify how many workforce housing units are needed for each 100 visitor accommodation units. These findings can be translated into a ratio of workforce housing units needed for each visitor accommodation unit to fully address the need for workforce housing as documented in this resort workforce housing nexus analysis. The findings are summarized in Table 6-11.

<b>Table 6-11: Workforce Housing Units Needed Per Visitor Accommodation Unit to Fully Mitigate Impacts</b>					
	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
A. Vacation Rental Units	100	100	100	100	100
B. Workforce Units Needed (0%-140% AM)	72.9	100.1	74.2	56.2	45.1
C. Workforce Housing Units Needed Per Visitor Accommodation Unit (B. / A.)	0.73	1.00	0.74	0.56	0.45

### 6.8 Mitigation Cost

This section takes the conclusions of the previous section on the number of households in the lower income categories associated with the market rate units and identifies the total cost of assistance required to make housing affordable. This section puts a cost on the units for each income level to produce the “total mitigation cost.”

As with the resort analysis, mitigation costs are based on an analysis of the affordability gap or net subsidy required to make the unit affordable to households in each of the six categories of Area Median Income. Table 6-12 summarizes the affordability gaps used in the analysis. See Section 7 for a discussion and calculations used to determine the affordability gaps.

<b>Table 6-12: Affordability Gaps (Net Cost Per Workforce Unit)</b>	
Under 30% AMI	\$285,600
30% to 50% AMI	\$222,600
50% to 80% AMI	\$191,600
80% to 100% AMI	\$124,850
100% to 120% AMI	\$36,350
120% to 140% AMI	[no gap]

AMI = Area Median Income;  
See Section 7 for supporting analysis.

The cost of delivering workforce housing to the new households is combined with the estimated demand for workforce housing from Table 6-10 to calculate the mitigate cost per unit as illustrated below:

Affordability Gap (Table 6-12)	X	Number of Workforce Units needed per 100 Visitor Accommodation Units. (Table 6-10)	÷	100 Units	=	Workforce Housing Mitigation Cost Per Visitor Accommodation Unit
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The results are shown in Table 6-13, below:

<b>Table 6-13: Workforce Housing Mitigation Cost Per Visitor Accommodation Unit</b>					
<i>Income Category</i>	<i>Hotel</i>	<i>Luxury Resort Homes - Vacation Rental</i>	<i>Single Family - Vacation Rental</i>	<i>Townhome - Vacation Rental</i>	<i>Condo - Vacation Rental</i>
	Under 30% AMI	\$3,000	\$4,900	\$3,500	\$2,600
30% to 50% AMI	\$17,900	\$27,600	\$20,200	\$15,200	\$12,100
50% to 80% AMI	\$41,600	\$56,800	\$42,300	\$32,100	\$25,800
80% to 100% AMI	\$20,500	\$27,900	\$20,700	\$15,700	\$12,600
100% to 120% AMI	\$6,000	\$8,000	\$6,000	\$4,500	\$3,600
120% to 140% AMI	\$0	\$0	\$0	\$0	\$0
<b>Total Workforce Housing Mitigation Cost Per Visitor Accommodation Unit</b>	<b>\$89,000</b>	<b>\$125,200</b>	<b>\$92,700</b>	<b>\$70,100</b>	<b>\$56,200</b>

Findings from Table 6-13 are divided by the square foot size of the visitor accommodation prototype units to translate findings into mitigation cost per square foot of building area. Findings for the hotel are per square foot of gross hotel building area while findings for the vacation rentals are per square foot of net livable area.

**Table 6-14: Workforce Housing Mitigation Cost Per Sq. Ft.**

<i>Average Square Feet Per Unit</i>	<i>Hotel</i>	<i>Luxury Resort Homes – Vacation Rental</i>	<i>Single Family – Vacation Rental</i>	<i>Townhome – Vacation Rental</i>	<i>Condo – Vacation Rental</i>
	<i>900 SF gross</i>	<i>2,500 SF net livable</i>	<i>1,800 SF net livable</i>	<i>1,500 SF net livable</i>	<i>1,200 SF net livable</i>
Under 30% AMI	\$3.30	\$2.00	\$1.90	\$1.70	\$1.80
30% to 50% AMI	\$19.90	\$11.00	\$11.20	\$10.10	\$10.10
50% to 80% AMI	\$46.20	\$22.70	\$23.50	\$21.40	\$21.50
80% to 100% AMI	\$22.80	\$11.20	\$11.50	\$10.50	\$10.50
100% to 120% AMI	\$6.70	\$3.20	\$3.30	\$3.00	\$3.00
120% to 140% AMI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$98.90</b>	<b>\$50.10</b>	<b>\$51.40</b>	<b>\$46.70</b>	<b>\$46.90</b>

The figures in Table 6-14 represent the cost of addressing the additional workforce housing demand generated by development of visitor accommodation units in Kaua'i. Findings may be applied to visitor accommodation units in a timeshare ownership structure based on the most applicable unit type and size. Findings are technical impact analysis findings only and are not recommended levels for requirements.

Tables 6-15A through 6-15F provide additional analysis in support of steps 5 and 6 of the analysis identifying the number of worker households within each income tier by occupation category.

## **6.9 Findings for Mix of Vacation Rentals and Residential Use**

To address the potential that individual units within a larger project may be used for a mix of vacation rental and residential use, findings from this Section 6 are combined with that of Section 5 as a weighted average at percentages of units in vacation rental use from 10% of units to 90%. See Tables 6-16A to I. According to data from the 2017 Visitor Plant Inventory prepared by the Hawai'i Tourism Authority, around 70% of all units in Princeville and Kōloa, are used as vacation rentals while other areas of the County have a lower share of residential units used as vacation rentals.

**TABLE 6-15A  
EXTREMELY LOW-INCOME (ELI) EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED  
WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS  
KAUA'I, HI**

*Per 100 Market Rate Units*

	No. 1	No. 2	No. 3	No. 4	No. 5
	Hotel	Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental

**Step 5 & 6 - Extremely Low Income Households (under 30% AMI) within Major Occupation Categories <sup>2</sup>**

Management	-	-	-	-	-
Business and Financial Operations	0.00	0.00	0.00	0.00	0.00
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	-	-	-	-	-
Legal	-	-	-	-	-
Education Training and Library	0.01	0.01	0.01	0.01	0.01
Arts, Design, Entertainment, Sports, & Media	0.14	0.26	0.19	0.14	0.11
Healthcare Practitioners and Technical	0.00	0.00	0.00	0.00	0.00
Healthcare Support	0.00	0.00	0.00	0.00	0.00
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	0.51	0.79	0.58	0.43	0.35
Building Grounds and Maintenance	0.03	0.03	0.02	0.01	0.01
Personal Care and Service	0.04	0.06	0.04	0.03	0.03
Sales and Related	0.14	0.24	0.17	0.13	0.10
Office and Admin	0.04	0.06	0.05	0.04	0.03
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.00	0.00	0.00	0.00	0.00
Production	0.00	-	-	-	-
Transportation and Material Moving	0.06	0.11	0.08	0.06	0.05
<b>ELI Households - Major Occupations</b>	<b>0.98</b>	<b>1.56</b>	<b>1.14</b>	<b>0.85</b>	<b>0.68</b>
<b>ELI Households<sup>1</sup> - all other occupations</b>	<b>0.08</b>	<b>0.14</b>	<b>0.10</b>	<b>0.07</b>	<b>0.06</b>
<b>Total ELI Households<sup>1</sup></b>	<b>1.06</b>	<b>1.70</b>	<b>1.24</b>	<b>0.93</b>	<b>0.74</b>

(1) Includes households earning from zero through 30% of Kaua'i, HI Area Median Income.

(2) See Appendix C Tables 1 - 5 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix C. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 6-15B**  
**VERY LOW-INCOME EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

**Per 100 Market Rate Units**

	No. 1	No. 2	No. 3	No. 4	No. 5
		Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental
	Hotel				

**Step 5 & 6 - Very Low Income Households (30%-50% AMI) within Major Occupation Categories<sup>2</sup>**

Management	-	-	-	-	-
Business and Financial Operations	0.01	0.01	0.01	0.01	0.01
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	-	-	-	-	-
Legal	-	-	-	-	-
Education Training and Library	0.07	0.13	0.09	0.07	0.06
Arts, Design, Entertainment, Sports, & Media	0.61	1.09	0.79	0.59	0.48
Healthcare Practitioners and Technical	0.00	0.00	0.00	0.00	0.00
Healthcare Support	0.02	0.03	0.02	0.01	0.01
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	3.72	5.71	4.15	3.11	2.49
Building Grounds and Maintenance	0.36	0.38	0.32	0.25	0.20
Personal Care and Service	0.36	0.47	0.34	0.25	0.20
Sales and Related	1.22	2.07	1.50	1.13	0.90
Office and Admin	0.49	0.66	0.48	0.36	0.29
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.03	0.03	0.03	0.02	0.02
Production	0.04	-	-	-	-
Transportation and Material Moving	0.47	0.84	0.61	0.46	0.37
<b>Very Low Households - Major Occupations</b>	<b>7.41</b>	<b>11.42</b>	<b>8.35</b>	<b>6.28</b>	<b>5.03</b>
<b>Very Low Households<sup>1</sup> - all other occupations</b>	<b>0.61</b>	<b>0.98</b>	<b>0.71</b>	<b>0.53</b>	<b>0.43</b>
<b>Total Very Low Inc. Households<sup>1</sup></b>	<b>8.03</b>	<b>12.40</b>	<b>9.06</b>	<b>6.81</b>	<b>5.45</b>

(1) Includes households earning from 30% through 50% of Kaua'i, HI Area Median Income.

(2) See Appendix C Tables 1 - 5 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix C. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 6-15C**  
**LOW-INCOME EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

*Per 100 Market Rate Units*

	No. 1	No. 2	No. 3	No. 4	No. 5
	Hotel	Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental
<b>Step 5 &amp; 6 - Low Income Households (50%-80% AMI) within Major Occupation Categories <sup>2</sup></b>					
Management	0.11	0.15	0.11	0.08	0.07
Business and Financial Operations	0.16	0.29	0.21	0.16	0.13
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	-	-	-	-	-
Legal	-	-	-	-	-
Education Training and Library	0.31	0.55	0.40	0.30	0.24
Arts, Design, Entertainment, Sports, & Media	1.72	3.04	2.22	1.66	1.33
Healthcare Practitioners and Technical	0.03	0.06	0.04	0.03	0.03
Healthcare Support	0.06	0.11	0.08	0.06	0.05
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	7.54	10.93	7.96	5.96	4.77
Building Grounds and Maintenance	2.83	2.96	2.65	2.20	1.79
Personal Care and Service	0.67	0.78	0.57	0.42	0.34
Sales and Related	2.09	3.45	2.51	1.88	1.51
Office and Admin	3.03	3.05	2.22	1.67	1.33
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.49	0.45	0.33	0.24	0.20
Production	0.20	-	-	-	-
Transportation and Material Moving	0.93	1.64	1.20	0.90	0.72
Low Households - Major Occupations	20.16	27.47	20.49	15.57	12.49
Low Households <sup>1</sup> - all other occupations	1.57	2.18	1.59	1.19	0.95
<b>Total Low Inc. Households<sup>1</sup></b>	<b>21.73</b>	<b>29.66</b>	<b>22.08</b>	<b>16.76</b>	<b>13.44</b>

(1) Includes households earning from 50% through 80% of Kaua'i, HI Area Median Income.

(2) See Appendix C Tables 1 - 5 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix C. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 6-15D**

**WORKFORCE: 80% TO 100% AMI EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED  
WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS  
KAUA'I, HI**

**Per 100 Market Rate Units**

	No. 1	No. 2	No. 3	No. 4	No. 5
	Hotel	Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental

**Step 5 & 6 - Workforce (80%-100% AMI) Employee Households within Major Occupation Categories<sup>2</sup>**

Management	0.30	0.39	0.28	0.21	0.17
Business and Financial Operations	0.28	0.50	0.36	0.27	0.22
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	-	-	-	-	-
Legal	-	-	-	-	-
Education Training and Library	0.18	0.33	0.24	0.18	0.14
Arts, Design, Entertainment, Sports & Media	1.43	2.53	1.84	1.38	1.11
Healthcare Practitioners and Technical	0.03	0.05	0.04	0.03	0.02
Healthcare Support	0.04	0.07	0.05	0.04	0.03
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	5.86	8.40	6.11	4.58	3.67
Building Grounds and Maintenance	1.87	2.06	1.83	1.51	1.23
Personal Care and Service	0.49	0.54	0.39	0.29	0.23
Sales and Related	1.43	2.35	1.71	1.28	1.02
Office and Admin	2.08	1.89	1.38	1.03	0.83
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.49	0.45	0.33	0.25	0.20
Production	0.13	-	-	-	-
Transportation and Material Moving	0.64	1.13	0.82	0.62	0.49
<b>Households - Major Occupations</b>	<b>15.26</b>	<b>20.69</b>	<b>15.39</b>	<b>11.68</b>	<b>9.36</b>
<b>Households<sup>1</sup> - all other occupations</b>	<b>1.19</b>	<b>1.75</b>	<b>1.29</b>	<b>0.98</b>	<b>0.78</b>
<b>Total Households (80% to 100% AMI)<sup>1</sup></b>	<b>16.45</b>	<b>22.45</b>	<b>16.68</b>	<b>12.65</b>	<b>10.15</b>

(1) Includes households earning from 80% through 100% of Kaua'i, HI Area Median Income.

(2) See Appendix C Tables 1 - 5 for additional information on Major Occupation Categories. Note that the model places individual employee into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix C. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 6-15E**

**WORKFORCE: 100% TO 120% AMI EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED  
WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS  
KAUA'I, HI**

**Per 100 Market Rate Units**

	No. 1	No. 2	No. 3	No. 4	No. 5
	Hotel	Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental
<b>Step 5 &amp; 6 - Workforce (100%-120% AMI) Employee Households within Major Occupation Categories <sup>2</sup></b>					
Management	0.51	0.62	0.45	0.34	0.27
Business and Financial Operations	0.33	0.58	0.43	0.32	0.26
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	-	-	-	-	-
Legal	-	-	-	-	-
Education Training and Library	0.08	0.14	0.10	0.08	0.06
Arts, Design, Entertainment, Sports & Media	1.21	2.15	1.57	1.17	0.94
Healthcare Practitioners and Technical	0.04	0.06	0.05	0.03	0.03
Healthcare Support	0.04	0.06	0.05	0.04	0.03
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	5.32	7.32	5.33	3.99	3.20
Building Grounds and Maintenance	1.84	1.83	1.66	1.38	1.12
Personal Care and Service	0.75	0.94	0.69	0.51	0.41
Sales and Related	2.07	3.41	2.48	1.86	1.49
Office and Admin	1.90	1.61	1.17	0.88	0.70
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.61	0.54	0.39	0.29	0.24
Production	0.07	-	-	-	-
Transportation and Material Moving	0.67	1.19	0.87	0.65	0.52
Households - Major Occupations	15.43	20.47	15.22	11.55	9.26
Households <sup>1</sup> - all other occupations	1.19	1.74	1.28	0.97	0.78
<b>Total Households (100% to 120% AMI)<sup>1</sup></b>	<b>16.63</b>	<b>22.21</b>	<b>16.51</b>	<b>12.52</b>	<b>10.04</b>

(1) Includes households earning from 100% through 120% of Kaua'i, HI Area Median Income.

(2) See Appendix C Tables 1 - 5 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix C. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

**TABLE 6-15F**

**WORKFORCE: 120% TO 140% AMI EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED  
WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS  
KAUA'I, HI**

**Per 100 Market Rate Units**

	No. 1	No. 2	No. 3	No. 4	No. 5
	Hotel	Luxury Resort Homes - Vacation Rental	Single Family - Vacation Rental	Townhome - Vacation Rental	Condo - Vacation Rental

**Step 5 & 6 - Workforce (120%-140% AMI) Employee Households within Major Occupation Categories<sup>2</sup>**

Management	0.59	0.73	0.53	0.40	0.32
Business and Financial Operations	0.35	0.61	0.45	0.34	0.27
Computer and Mathematical	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-
Community and Social Services	-	-	-	-	-
Legal	-	-	-	-	-
Education Training and Library	0.06	0.11	0.08	0.06	0.05
Arts, Design, Entertainment, Sports & Media	0.97	1.72	1.25	0.94	0.75
Healthcare Practitioners and Technical	0.05	0.09	0.07	0.05	0.04
Healthcare Support	0.02	0.03	0.02	0.02	0.01
Protective Service	-	-	-	-	-
Food Preparation and Serving Related	2.40	3.11	2.26	1.70	1.36
Building Grounds and Maintenance	0.86	0.98	0.89	0.74	0.60
Personal Care and Service	0.27	0.30	0.22	0.16	0.13
Sales and Related	0.61	0.99	0.72	0.54	0.43
Office and Admin	1.10	0.91	0.66	0.50	0.40
Farm, Fishing, and Forestry	-	-	-	-	-
Construction and Extraction	-	-	-	-	-
Installation Maintenance and Repair	0.40	0.36	0.26	0.20	0.16
Production	0.05	-	-	-	-
Transportation and Material Moving	0.60	1.07	0.78	0.58	0.47
<b>Households - Major Occupations</b>	<b>8.32</b>	<b>11.02</b>	<b>8.19</b>	<b>6.22</b>	<b>4.99</b>
<b>Households<sup>1</sup> - all other occupations</b>	<b>0.64</b>	<b>0.93</b>	<b>0.69</b>	<b>0.52</b>	<b>0.42</b>
<b>Total Households (120% to 140% AMI)<sup>1</sup></b>	<b>8.97</b>	<b>11.95</b>	<b>8.88</b>	<b>6.74</b>	<b>5.40</b>

(1) Includes households earning from 120% through 140% of Kaua'i, HI Area Median Income.

(2) See Appendix C Tables 1 - 5 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix C. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

TABLE 6-16A

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 10% of units as vacation rentals and 90% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	0.9	0.5	0.4	0.4
30% to 50% AMI	6.7	4.0	3.5	3.3
50% to 80% AMI	16.6	10.1	8.9	8.4
80% to 100% AMI	12.6	7.6	6.7	6.3
100% to 120% AMI	12.6	7.6	6.6	6.2
120% to 140% AMI	6.8	4.1	3.6	3.4
<b>Total, Less than 140% AMI</b>	<b>56.1</b>	<b>33.9</b>	<b>29.7</b>	<b>27.9</b>
Greater than 140% AMI	8.1	5.1	4.5	4.3
<b>Total, New Households</b>	<b>64.2</b>	<b>39.1</b>	<b>34.3</b>	<b>32.2</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	36%	25%	23%	22%
%Market Units Only	56%	34%	30%	28%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$2,400	\$1,500	\$1,300	\$1,200
30% to 50% AMI	\$14,900	\$8,900	\$7,800	\$7,300
50% to 80% AMI	\$31,800	\$19,400	\$17,000	\$16,000
80% to 100% AMI	\$15,700	\$9,500	\$8,300	\$7,800
100% to 120% AMI	\$4,600	\$2,700	\$2,400	\$2,300
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$69,400</b>	<b>\$42,000</b>	<b>\$36,800</b>	<b>\$34,600</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$27.80</b>	<b>\$23.30</b>	<b>\$24.50</b>	<b>\$28.80</b>

TABLE 6-16B

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 20% of units as vacation rentals and 80% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	0.9	0.6	0.5	0.5
30% to 50% AMI	7.3	4.6	3.9	3.5
50% to 80% AMI	18.1	11.5	9.8	8.9
80% to 100% AMI	13.6	8.6	7.3	6.7
100% to 120% AMI	13.7	8.5	7.3	6.6
120% to 140% AMI	7.3	4.6	3.9	3.6
<b>Total, Less than 140% AMI</b>	<b>61.0</b>	<b>38.4</b>	<b>32.7</b>	<b>29.8</b>
Greater than 140% AMI	8.5	5.5	4.8	4.4
<b>Total, New Households</b>	<b>69.5</b>	<b>43.9</b>	<b>37.4</b>	<b>34.2</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	38%	28%	25%	23%
%Market Units Only	61%	38%	33%	30%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$2,700	\$1,700	\$1,400	\$1,300
30% to 50% AMI	\$16,300	\$10,200	\$8,600	\$7,800
50% to 80% AMI	\$34,600	\$22,000	\$18,700	\$17,100
80% to 100% AMI	\$17,000	\$10,800	\$9,200	\$8,400
100% to 120% AMI	\$5,000	\$3,100	\$2,600	\$2,400
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$75,600</b>	<b>\$47,800</b>	<b>\$40,500</b>	<b>\$37,000</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$30.20</b>	<b>\$26.60</b>	<b>\$27.00</b>	<b>\$30.80</b>

TABLE 6-16C

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 30% of units as vacation rentals and 70% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	1.0	0.7	0.6	0.5
30% to 50% AMI	8.0	5.1	4.2	3.8
50% to 80% AMI	19.5	12.8	10.6	9.5
80% to 100% AMI	14.7	9.6	8.0	7.1
100% to 120% AMI	14.7	9.5	7.9	7.1
120% to 140% AMI	7.9	5.1	4.3	3.8
<b>Total, Less than 140% AMI</b>	<b>65.9</b>	<b>42.9</b>	<b>35.6</b>	<b>31.7</b>
Greater than 140% AMI	8.9	5.9	5.0	4.5
<b>Total, New Households</b>	<b>74.8</b>	<b>48.8</b>	<b>40.6</b>	<b>36.3</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	40%	30%	26%	24%
%Market Units Only	66%	43%	36%	32%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$3,000	\$1,900	\$1,600	\$1,400
30% to 50% AMI	\$17,700	\$11,400	\$9,400	\$8,400
50% to 80% AMI	\$37,400	\$24,500	\$20,400	\$18,200
80% to 100% AMI	\$18,400	\$12,000	\$10,000	\$8,900
100% to 120% AMI	\$5,400	\$3,500	\$2,900	\$2,600
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$81,900</b>	<b>\$53,300</b>	<b>\$44,300</b>	<b>\$39,500</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$32.80</b>	<b>\$29.60</b>	<b>\$29.50</b>	<b>\$32.90</b>

TABLE 6-16D

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 40% of units as vacation rentals and 60% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	1.1	0.8	0.6	0.5
30% to 50% AMI	8.6	5.7	4.6	4.0
50% to 80% AMI	21.0	14.1	11.5	10.1
80% to 100% AMI	15.8	10.6	8.6	7.5
100% to 120% AMI	15.8	10.5	8.6	7.5
120% to 140% AMI	8.5	5.7	4.6	4.0
<b>Total, Less than 140% AMI</b>	<b>70.8</b>	<b>47.4</b>	<b>38.5</b>	<b>33.6</b>
Greater than 140% AMI	9.3	6.3	5.2	4.6
<b>Total, New Households</b>	<b>80.1</b>	<b>53.7</b>	<b>43.8</b>	<b>38.3</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	41%	32%	28%	25%
%Market Units Only	71%	47%	39%	34%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$3,200	\$2,200	\$1,700	\$1,500
30% to 50% AMI	\$19,100	\$12,700	\$10,200	\$8,900
50% to 80% AMI	\$40,200	\$27,100	\$22,100	\$19,300
80% to 100% AMI	\$19,800	\$13,300	\$10,800	\$9,400
100% to 120% AMI	\$5,700	\$3,800	\$3,100	\$2,700
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$88,000</b>	<b>\$59,100</b>	<b>\$47,900</b>	<b>\$41,800</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$35.20</b>	<b>\$32.80</b>	<b>\$31.90</b>	<b>\$34.80</b>

TABLE 6-16E

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 50% of units as vacation rentals and 50% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	1.2	0.8	0.7	0.6
30% to 50% AMI	9.2	6.2	5.0	4.2
50% to 80% AMI	22.4	15.5	12.4	10.6
80% to 100% AMI	16.9	11.6	9.3	8.0
100% to 120% AMI	16.8	11.5	9.2	7.9
120% to 140% AMI	9.0	6.2	5.0	4.3
<b>Total, Less than 140% AMI</b>	<b>75.7</b>	<b>51.8</b>	<b>41.5</b>	<b>35.5</b>
Greater than 140% AMI	9.7	6.7	5.5	4.8
<b>Total, New Households</b>	<b>85.4</b>	<b>58.6</b>	<b>47.0</b>	<b>40.3</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	43%	34%	29%	26%
%Market Units Only	76%	52%	41%	36%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$3,500	\$2,400	\$1,900	\$1,600
30% to 50% AMI	\$20,500	\$13,900	\$11,100	\$9,400
50% to 80% AMI	\$42,900	\$29,600	\$23,700	\$20,300
80% to 100% AMI	\$21,100	\$14,500	\$11,600	\$10,000
100% to 120% AMI	\$6,100	\$4,200	\$3,300	\$2,900
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$94,100</b>	<b>\$64,600</b>	<b>\$51,600</b>	<b>\$44,200</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$37.60</b>	<b>\$35.90</b>	<b>\$34.40</b>	<b>\$36.80</b>

TABLE 6-16F

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 60% of units as vacation rentals and 40% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	1.3	0.9	0.7	0.6
30% to 50% AMI	9.9	6.8	5.3	4.5
50% to 80% AMI	23.9	16.8	13.3	11.2
80% to 100% AMI	18.0	12.6	10.0	8.4
100% to 120% AMI	17.9	12.5	9.9	8.3
120% to 140% AMI	9.6	6.7	5.3	4.5
<b>Total, Less than 140% AMI</b>	<b>80.6</b>	<b>56.3</b>	<b>44.4</b>	<b>37.5</b>
Greater than 140% AMI	10.1	7.1	5.7	4.9
<b>Total, New Households</b>	<b>90.7</b>	<b>63.5</b>	<b>50.2</b>	<b>42.3</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	45%	36%	31%	27%
%Market Units Only	81%	56%	44%	37%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$3,800	\$2,600	\$2,000	\$1,700
30% to 50% AMI	\$21,900	\$15,200	\$11,900	\$10,000
50% to 80% AMI	\$45,700	\$32,100	\$25,400	\$21,400
80% to 100% AMI	\$22,500	\$15,700	\$12,400	\$10,500
100% to 120% AMI	\$6,500	\$4,500	\$3,600	\$3,000
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$100,400</b>	<b>\$70,100</b>	<b>\$55,300</b>	<b>\$46,600</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$40.20</b>	<b>\$38.90</b>	<b>\$36.90</b>	<b>\$38.80</b>

TABLE 6-16G

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 70% of units as vacation rentals and 30% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	1.4	1.0	0.8	0.6
30% to 50% AMI	10.5	7.4	5.7	4.7
50% to 80% AMI	25.3	18.1	14.1	11.7
80% to 100% AMI	19.1	13.6	10.6	8.8
100% to 120% AMI	19.0	13.5	10.5	8.7
120% to 140% AMI	10.2	7.3	5.7	4.7
<b>Total, Less than 140% AMI</b>	<b>85.5</b>	<b>60.8</b>	<b>47.4</b>	<b>39.4</b>
Greater than 140% AMI	10.5	7.5	5.9	5.0
<b>Total, New Households</b>	<b>96.0</b>	<b>68.3</b>	<b>53.3</b>	<b>44.3</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	46%	38%	32%	28%
%Market Units Only	85%	61%	47%	39%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$4,000	\$2,800	\$2,200	\$1,800
30% to 50% AMI	\$23,400	\$16,400	\$12,700	\$10,500
50% to 80% AMI	\$48,500	\$34,700	\$27,100	\$22,500
80% to 100% AMI	\$23,800	\$17,000	\$13,300	\$11,000
100% to 120% AMI	\$6,900	\$4,900	\$3,800	\$3,200
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$106,600</b>	<b>\$75,800</b>	<b>\$59,100</b>	<b>\$49,000</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$42.60</b>	<b>\$42.10</b>	<b>\$39.40</b>	<b>\$40.80</b>

TABLE 6-16H

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 80% of units as vacation rentals and 20% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	1.5	1.1	0.8	0.7
30% to 50% AMI	11.1	7.9	6.1	5.0
50% to 80% AMI	26.8	19.4	15.0	12.3
80% to 100% AMI	20.2	14.6	11.3	9.2
100% to 120% AMI	20.0	14.5	11.2	9.1
120% to 140% AMI	10.8	7.8	6.0	4.9
<b>Total, Less than 140% AMI</b>	<b>90.4</b>	<b>65.3</b>	<b>50.3</b>	<b>41.3</b>
Greater than 140% AMI	10.9	7.9	6.2	5.1
<b>Total, New Households</b>	<b>101.3</b>	<b>73.2</b>	<b>56.5</b>	<b>46.4</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	47%	39%	33%	29%
%Market Units Only	90%	65%	50%	41%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$4,300	\$3,100	\$2,300	\$1,900
30% to 50% AMI	\$24,800	\$17,700	\$13,500	\$11,100
50% to 80% AMI	\$51,300	\$37,200	\$28,800	\$23,600
80% to 100% AMI	\$25,200	\$18,200	\$14,100	\$11,500
100% to 120% AMI	\$7,300	\$5,300	\$4,100	\$3,300
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$112,900</b>	<b>\$81,500</b>	<b>\$62,800</b>	<b>\$51,400</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$45.20</b>	<b>\$45.30</b>	<b>\$41.90</b>	<b>\$42.80</b>

TABLE 6-16I

**WORKFORCE HOUSING IMPACT FINDINGS WITH BLEND OF RESIDENTIAL / VACATION RENTAL USE  
KAUA'I, HI**

*Findings with 90% of units as vacation rentals and 10% of units with residential occupancy.  
[represents weighted average of Section 5 and Section 6 impact analysis findings]*

<b>New Worker Households per 100 Units</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	1.6	1.2	0.9	0.7
30% to 50% AMI	11.8	8.5	6.4	5.2
50% to 80% AMI	28.2	20.8	15.9	12.9
80% to 100% AMI	21.3	15.6	11.9	9.7
100% to 120% AMI	21.1	15.4	11.8	9.6
120% to 140% AMI	11.3	8.3	6.4	5.1
<b>Total, Less than 140% AMI</b>	<b>95.2</b>	<b>69.8</b>	<b>53.3</b>	<b>43.2</b>
Greater than 140% AMI	11.3	8.3	6.4	5.2
<b>Total, New Households</b>	<b>106.6</b>	<b>78.1</b>	<b>59.7</b>	<b>48.4</b>

<b>Workforce Housing Percentage Sufficient to Mitigate Impacts</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
%Total Units (Mkt + Workforce)	49%	41%	35%	30%
%Market Units Only	95%	70%	53%	43%

<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>				
<i>Income Category</i>	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
Under 30% AMI	\$4,600	\$3,300	\$2,500	\$2,000
30% to 50% AMI	\$26,200	\$18,900	\$14,300	\$11,600
50% to 80% AMI	\$54,000	\$39,800	\$30,400	\$24,700
80% to 100% AMI	\$26,600	\$19,500	\$14,900	\$12,100
100% to 120% AMI	\$7,700	\$5,600	\$4,300	\$3,500
120% to 140% AMI	\$0	\$0	\$0	\$0
<b>Workforce Housing Mitigation Cost Per Market Rate Unit</b>	<b>\$119,100</b>	<b>\$87,100</b>	<b>\$66,400</b>	<b>\$53,900</b>

<b>Workforce Housing Mitigation Cost Per Sq. Ft.</b>				
	<i>Luxury Resort Homes VDA</i>	<i>Single Family VDA</i>	<i>Townhome VDA</i>	<i>Condo VDA</i>
<i>Unit Size (Sq Ft)</i>	<i>2,500 SF</i>	<i>1,800 SF</i>	<i>1,500 SF</i>	<i>1,200 SF</i>
<b>Total Workforce Housing Mitigation Cost Per Square Foot</b>	<b>\$47.60</b>	<b>\$48.40</b>	<b>\$44.30</b>	<b>\$44.90</b>

## 7.0 AFFORDABILITY GAP ANALYSIS

This section identifies the affordability gap representing the cost of assistance required to deliver workforce housing in Kaua'i for households within each of the income categories from 0% through 140% of median. Affordability gaps are based on the difference between the estimated development costs and the restricted sales price or available funding sources to offset the cost of providing the new workforce housing units.

### 7.1 Workforce Housing Prototypes

For estimating the affordability gap, there is a need to match a household of each income level with a unit type and size according to governmental regulations and County practices and policies. The analysis assumes that the County will assist households from 80% to 140% of median with for-sale units. Provision of ownership units to households in income tiers over 80% of AMI is consistent with plans for the 550-unit County workforce housing project Lima Ola for which most of the units designated for households earning 80% of AMI and above are planned to be for-sale units. The prototype affordable unit should reflect a modest unit consistent with what the County is likely to assist and appropriate for housing the average worker household in these income tiers, which in the case of Kaua'i is assumed to be a four-person household in a three-bedroom attached unit.

The analysis assumes households earning less than 80% of Area Median Income will be assisted in rental units. The analysis uses a two-bedroom affordable rental prototype, and assumes that the project will receive 4% tax credits and tax-exempt financing.

### 7.2 Workforce Housing Development Costs

KMA prepared an estimate of total development cost for a typical two-bedroom affordable rental unit (inclusive of land, all fees and permits, financing and other indirect costs) based on a review of development costs for affordable multi-family projects in Hawai'i. On this basis, KMA estimated the total development costs for new affordable rental units at \$396,000 per unit (\$440 per square foot). For ownership units, total development costs for a typical three-bedroom, 1,300 square foot attached home were estimated by KMA to be \$518,500 per unit (\$399 per square foot).

<i>Income Group</i>	<i>Tenure / Type</i>	<i>Type</i>	<i>Development Cost</i>
0% through 80% AMI	Rental	2BR Apartment	\$396,000
80% through 140% AMI	Ownership	3BR Townhome	\$518,500

Development cost estimates are somewhat higher than comparable market rate developments in part because a significant developer fee is typically included as part of the indirect project cost. The developer fee provides compensation to the workforce housing developer given there

is no profit earned on the sale of units, and for rental units, the net rental income after debt service is very limited due to the affordability restrictions.

### 7.3 Workforce Housing Unit Values / Funding Sources

For affordable ownership units, unit values are the affordable purchase prices. Affordable purchase prices for ownership units are calculated by the County of Kaua'i and assume an interest rate of 5%. For a three-bedroom unit, the affordable sales prices published by the County are \$393,650 for the 100% AMI Tier, \$482,150 for the 120% AMI Tier and \$570,550 for the 140% AMI Tier. The County's schedule of prices without condominium property regime are used.

For households from 0% to 80% of AMI, the affordable rental unit values are estimated based on the amount of permanent financing that can be supported by the project's net operating income (NOI) combined with the market value of 4% federal tax credits plus state tax credits, and a small deferred developer fee, which is a common source of upfront financing for affordable apartment projects. The highly competitive 9% federal tax credits are not assumed because allocation of 9% credits is subject to a volume cap and there are a limited number of projects that can receive an allocation in any given year. Other affordable housing subsidy sources are also limited and difficult to obtain and therefore are not assumed in this analysis as available to offset the cost of mitigating the affordable housing impacts of new development.

<i>Income Group</i>	<i>Unit Tenure</i>	<i>Household Size</i>	<i>Unit Values / Funding Sources</i>
Under 30% AMI	Rental	3 persons	\$110,400
30% to 50% AMI	Rental	3 persons	\$173,400
50% to 80% AMI	Rental	3 persons	\$204,400
80% to 100% AMI	Ownership	4 persons	\$393,650
100% to 120% AMI	Ownership	4 persons	\$482,150
120% to 140% AMI	Ownership	4 persons	\$570,550

### 7.4 Affordability Gap

The affordability gap is the difference between the cost of developing a new workforce housing unit and the affordable sales prices or funding sources that are available. The resulting affordability gaps are as follows:

<b>Table 7-3: Affordability Gap Calculation</b>			
<i>Income Group</i>	<i>Unit Value / Funding Sources</i>	<i>Development Cost</i>	<i>Affordability Gap</i>
Under 30% AMI	\$110,400	\$396,000	\$285,600
30% to 50% AMI	\$173,400	\$396,000	\$222,600
50% to 80% AMI	\$204,400	\$396,000	\$191,600
80% to 100% AMI	\$393,650	\$518,500	\$124,850
100% to 120% AMI	\$482,150	\$518,500	\$36,350
120% to 140% AMI	\$570,550	\$518,500	[no gap]

For the 140% AMI tier, the affordable sales price exceeds the development cost for the unit, so there is no affordability gap for that income tier when affordable units are provided in a modestly-sized attached unit.

Table 7-4 provides the supporting analysis for the rental affordability gaps. Table 7-5A provides supporting analysis for the for-sale affordability gaps.

Table 7-5B and 7-5C provide additional affordability gap calculations for 4-bedroom and 2-bedroom for-sale units, respectively. These additional bedroom sizes are not used for purposes of the mitigation cost analysis but are used in estimating the cost of providing on-site and off-site affordable units in Section 3.9.

**Table 7-4**  
**Workforce Housing Mitigation Cost Analysis: Rental Units from 0% to 60% AMI**  
**Workforce Housing Nexus and Financial Feasibility Analysis**  
**Kaua'i, HI**

		30% AMI	50% AMI	60% AMI	80% AMI
<b>I. Workforce Rental Prototype</b>					
Tax Credit-Assisted Rental Units					
Average Number of Bedrooms		2 Bedrooms			
Average Household Size		3 Person			
Average unit size		900 SF			
Density		12 du/acre			
<b>II. Affordable Rent - Per Unit</b>					
Affordable Rent Including Utilities <sup>(1)</sup>		\$594	\$991	\$1,189	The tax credit rent standard for Low Income is 60% of AMI
(Less) Utility Allowance <sup>(2)</sup>		<u>(\$183)</u>	<u>(\$183)</u>	<u>(\$183)</u>	
Maximum Monthly Rent		\$411	\$808	\$1,006	
<b>III. Net Operating Income - Per Unit</b>					
Annual Rental Income		\$4,932	\$9,696	\$12,072	
Other Income		\$125	\$125	\$125	
(Less) Vacancy	5.0%	<u>(\$253)</u>	<u>(\$491)</u>	<u>(\$610)</u>	
Effective Gross Income (EGI)		\$4,804	\$9,330	\$11,587	
(Less) Operating Expenses		<u>(\$8,500)</u>	<u>(\$8,500)</u>	<u>(\$8,500)</u>	
Net Operating Income (NOI)		<u>(\$3,696)</u>	\$830	\$3,087	
<b>IV. Affordability Gap - Per Unit</b>					
<u>Sources of Funds</u>					
Supported Mortgage		(\$51,000) <sup>(3)</sup>	\$12,000	\$43,000	
4% Tax Credit Financing <sup>(4)</sup>		\$158,400	\$158,400	\$158,400	
Deferred Developer Fee		<u>\$3,000</u>	<u>\$3,000</u>	<u>\$3,000</u>	
Total Sources		\$110,400	\$173,400	\$204,400	
(Less) Total Development Costs <sup>(5)</sup>		<u>(\$396,000)</u>	<u>(\$396,000)</u>	<u>(\$396,000)</u>	
Affordability Gap		<u>(\$285,600)</u>	<u>(\$222,600)</u>	<u>(\$191,600)</u>	

<sup>(1)</sup> Source: Hawaii Housing Finance and Development Corporation. 2018 Affordable Rent Guidelines for Kauai County.

<sup>(2)</sup> Utility allowances assume electricity, gas cooking and hot water, and water.

<sup>(3)</sup> Negative mortgage amount for 30% AMI units represents capitalized operating subsidy required.

<sup>(4)</sup> Federal 4% (non-volume cap) and state tax credits are estimated to provide funding for approximately 40% of total development costs.

<sup>(5)</sup> Development costs based on the average development cost per square foot for two recent tax credit projects in Kauai (Waimea Huakai and Loa'e), excluding site acquisition, multiplied by the average unit size, plus a land estimated at \$10/square foot of land and a density of 12 units to the acre.

**Table 7-4A**

**Workforce Housing Mitigation Cost Analysis: For-Sale Units from 80% to 140% - 3 BR Units**  
**Workforce Housing Nexus and Financial Feasibility Analysis**  
**Kaua'i, HI**

**I. Workforce For-Sale Prototype**

Number of Bedrooms	3-BR
Household Size	4-Person HH
Unit Type	2 story attached
Unit Size	1,300 SF
Density	11 du/acre

	80% AMI	100% AMI	120% AMI	140% AMI
	(80% AMI for-sale unit used for off-site project analysis only)			

<b>II. Affordable Sale Price</b>	\$290,100 <sup>(1)</sup>	\$393,650 <sup>(1)</sup>	\$482,150 <sup>(1)</sup>	\$570,550 <sup>(1)</sup>
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**III. Development Costs - Per Unit**

Land + Site Improvements	\$99,000 <sup>(2)</sup>	\$99,000 <sup>(2)</sup>	\$99,000 <sup>(2)</sup>	\$99,000 <sup>(2)</sup>
Direct Construction	\$279,500 <sup>(3)</sup>	\$279,500 <sup>(3)</sup>	\$279,500 <sup>(3)</sup>	\$279,500 <sup>(3)</sup>
Indirects, Financing, Developer Fee	\$140,000 <sup>(4)</sup>	\$140,000 <sup>(4)</sup>	\$140,000 <sup>(4)</sup>	\$140,000 <sup>(4)</sup>
<b>Total Costs</b>	<b>\$518,500</b>	<b>\$518,500</b>	<b>\$518,500</b>	<b>\$518,500</b>

**IV. Affordability Gap - Per Unit**

Affordable Sale Price	\$290,100	\$393,650	\$482,150	\$570,550
(Less) Development Costs	<u>(\$518,500)</u>	<u>(\$518,500)</u>	<u>(\$518,500)</u>	<u>(\$518,500)</u>
<b>Affordability Gap</b>	<b>(\$228,400)</b>	<b>(\$124,850)</b>	<b>(\$36,350)</b>	<b>\$52,050</b> <i>[no gap]</i>

<sup>(1)</sup> County of Kauai affordable sale price calculations with a 5% interest rate.

<sup>(2)</sup> Site acquisition and improvement costs based on estimates prepared for the financial feasibility analysis.

<sup>(3)</sup> Estimated consistent with financial feasibility analysis

<sup>(4)</sup> Indirect costs financing and developer fee estimated at 50% of direct construction costs based on recent all-affordable projects in Kaua'i and Oahu

**Table 7-4B**  
**Workforce Housing Mitigation Cost Analysis: For-Sale Units from 80% to 140% - 4 BR Units**  
**Income Tiers from 100% to 140% of AMI**  
**Workforce Housing Nexus and Financial Feasibility Analysis**  
**Kaua'i, HI**

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**I. Workforce For-Sale Prototype**

Number of Bedrooms	4-BR
Household Size	5-Person HH
Unit Type	2 story attached
Unit Size	1,500 SF
Density	9 du/acre

	80% AMI	100% AMI	120% AMI	140% AMI
	(80% AMI for-sale unit used for off-site project analysis only)			
<b>II. Affordable Sale Price</b>	\$351,100 <sup>(1)</sup>	\$444,700 <sup>(1)</sup>	\$543,500 <sup>(1)</sup>	\$642,000 <sup>(1)</sup>
<b>III. Development Costs - Per Unit</b>				
Land + Site Improvements	\$121,000 <sup>(2)</sup>	\$121,000 <sup>(2)</sup>	\$121,000 <sup>(2)</sup>	\$121,000 <sup>(2)</sup>
Direct Construction	\$292,500 <sup>(3)</sup>	\$292,500 <sup>(3)</sup>	\$292,500 <sup>(3)</sup>	\$292,500 <sup>(3)</sup>
Indirects, Financing, Developer Fee	\$146,000 <sup>(4)</sup>	\$146,000 <sup>(4)</sup>	\$146,000 <sup>(4)</sup>	\$146,000 <sup>(4)</sup>
<b>Total Costs</b>	\$559,500	\$559,500	\$559,500	\$559,500
<b>IV. Affordability Gap - Per Unit</b>				
Affordable Sale Price	\$351,100	\$444,700	\$543,500	\$642,000
(Less) Development Costs	(\$559,500)	(\$559,500)	(\$559,500)	(\$559,500)
<b>Affordability Gap</b>	(\$208,400)	(\$114,800)	(\$16,000)	\$82,500 <i>[no gap]</i>

<sup>(1)</sup> County of Kauai affordable sale price calculations with a 5% interest rate.

<sup>(2)</sup> Site acquisition and improvement costs based on estimates prepared for the financial feasibility analysis.

<sup>(3)</sup> Estimated consistent with financial feasibility analysis

<sup>(4)</sup> Indirect costs financing and developer fee estimated at 50% of direct construction costs based on recent all-affordable projects in Kaua'i and Oahu

**Table 7-4C**  
**Workforce Housing Mitigation Cost Analysis: For-Sale Units from 80% to 140% - 2 BR Units**  
**Workforce Housing Nexus and Financial Feasibility Analysis**  
**Kaua'i, HI**

**I. Workforce For-Sale Prototype**

Number of Bedrooms	2-BR
Household Size	3-Person HH
Unit Type	condominium
Unit Size	1,100 SF
Density	17 du/acre

	80% AMI	100% AMI	120% AMI	140% AMI
	(80% AMI for-sale unit used for off-site project analysis only)			

<b>II. Affordable Sale Price</b>	\$222,200 <sup>(1)</sup>	\$294,900 <sup>(1)</sup>	\$371,600 <sup>(1)</sup>	\$448,200 <sup>(1)</sup>
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**III. Development Costs - Per Unit**

Land + Site Improvements	\$64,000 <sup>(2)</sup>	\$64,000 <sup>(2)</sup>	\$64,000 <sup>(2)</sup>	\$64,000 <sup>(2)</sup>
Direct Construction	\$264,000 <sup>(3)</sup>	\$264,000 <sup>(3)</sup>	\$264,000 <sup>(3)</sup>	\$264,000 <sup>(3)</sup>
Indirects, Financing, Developer Fee	\$132,000 <sup>(4)</sup>	\$132,000 <sup>(4)</sup>	\$132,000 <sup>(4)</sup>	\$132,000 <sup>(4)</sup>
<b>Total Costs</b>	<b>\$460,000</b>	<b>\$460,000</b>	<b>\$460,000</b>	<b>\$460,000</b>

**IV. Affordability Gap - Per Unit**

Affordable Sale Price	\$222,200	\$294,900	\$371,600	\$448,200
(Less) Development Costs	<u>(\$460,000)</u>	<u>(\$460,000)</u>	<u>(\$460,000)</u>	<u>(\$460,000)</u>
<b>Affordability Gap</b>	<b>(\$237,800)</b>	<b>(\$165,100)</b>	<b>(\$88,400)</b>	<b>(\$11,800)</b>
				<i>[small gap]</i>

<sup>(1)</sup> County of Kauai affordable sale price calculations with a 5% interest rate and assuming condominium property regime sales prices.

<sup>(2)</sup> Site acquisition and improvement costs based on estimates prepared for the financial feasibility analysis.

<sup>(3)</sup> Estimated consistent with financial feasibility analysis

<sup>(4)</sup> Indirect costs financing and developer fee estimated at 50% of direct construction costs based on recent all-affordable projects in Kaua'i and Oahu

**Table 7-4D**  
**Cost to Provide On-Site Rental Units from 80% to 140% - 2 BR Units**  
**Workforce Housing Nexus and Financial Feasibility Analysis**  
**Kaua'i, HI**

	Apartment	
Average Unit Size - Market	900 sf	
Average Number of Bedrooms	2.0 bedrooms	
<b>Revenue</b>	<b>Per SF</b>	<b>Per Unit</b>
Gross Rent - 80%-140% AMI Workforce <sup>(1)</sup>	\$2.01	\$21,730
Other Income		\$600
Vacancy / Operating Expense		(\$8,616)
Net Operating Income		\$13,713
<i>Return on Cost</i>		6.25%
<b>Investment Supported</b>		\$219,000
<b>Investment Supported with Mkt Rate</b>		\$300,000
<b>Cost Per On-Site Workforce Rental Unit</b> <i>difference in supported investment</i>		(\$81,000)

(1) Rents per County of Kaua'i without utilities

80% AMI	20%	\$1,275	
100% AMI	30%	\$1,647	
120% AMI	30%	\$2,039	
140% AMI	<u>20%</u>	<u>\$2,250</u>	limited to mkt rent
Average Rent	100%	\$1,811	

**APPENDIX A: RESIDENTIAL MARKET DATA**

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**APPENDIX A, TABLE 1  
RECENTLY BUILT FOR-SALE RESIDENTIAL PROJECTS  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUA'I, HI**

Source: Zillow.com, property websites, County Tax Office

Project	Bd	Ba	Sq Ft	Price	\$/SF	Comments
<i>Page 1 of 2</i>						
<b>Visitor Destination Area</b>						
<b><u>South Kaua'i</u></b>						
<b>Pilimai At Poipu<sup>1</sup></b>						
Plans 1, 3, 7	2	3.0	1,260	\$695,681	\$552	<i>Selling; attached THs/condos 191 units, built 2016-2018 0.6 mi to ocean</i>
Plans 2, 4, 6	3	3.0	1,496	\$753,362	\$504	
Plan 5	4	4.0	1,850	\$866,466	\$468	
<b>Emerald Homes Wainani<sup>2</sup></b>						
Plan 1	3	3.5	2,080	\$1,237,958	\$595	<i>Sold out; SF detached 69 homes/lots, built 2015 \$320,000 per lot (\$1.6M/Ac) 0.2 mi to ocean</i>
Plan 2	3	3.0	1,938	\$1,174,000	\$606	
Plan 3	3	3.5	2,296	\$1,065,000	\$464	
<b>Koloa Landing<sup>3</sup></b>						
Plan B2	2	2.0	1,098	\$1,079,722	\$983	<i>Sold out; Condos (4 stories) 323 units; built 2007-17 Includes vacation rentals 0.2 mi to ocean</i>
Plan D2, E2	2	2.5	1,317	\$1,406,040	\$1,068	
Plan G3, J3	3	3.0	1,740	\$1,901,078	\$1,092	
<b>Kukui'ula<sup>2</sup></b>						
Club Bungalows	2	2.0	1,236	\$1,995,100	\$1,614	<i>Selling; SF detached/ THs 1,500 units entitled; ~60 built Lots \$50-200/SF 0 - 0.4 mi to ocean</i>
Club Cottage	3	3.0	2,056	\$2,831,000	\$1,377	
Other Single Family	3	3.5	2,499	\$3,303,312	\$1,322	
Club Villas	4	4.5	2,682	\$4,450,818	\$1,659	
<b><u>North Shore</u></b>						
<b>Nihlani at Princeville<sup>3</sup></b>						
2BR Avg.	2	2.5	1,528	\$620,300	\$406	<i>Sold out; attached THs 102 units; built 2005 0.5 mi to ocean</i>
3BR Avg.	3	2.5	1,899	\$719,375	\$379	
<b>Kaiulani of Princeville<sup>3</sup></b>						
2BR Avg.	2	2.5	1,815	\$818,750	\$451	<i>Sold out; attached THs 77 units; built 2006 1.0 mi to ocean</i>
3BR Avg.	3	3.5	2,855	\$1,472,125	\$516	
<b><u>East Kaua'i</u></b>						
<b>Waipouli Beach Resort<sup>3</sup></b>						
2BR Avg.	2	3.0	1,186	\$791,042	\$667	<i>Sold out; condos (4 stories) 190 units; built 2005 0 mi to ocean</i>

**APPENDIX A, TABLE 1  
RECENTLY BUILT FOR-SALE RESIDENTIAL PROJECTS  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUA'I, HI**

Source: Zillow.com, property websites, County Tax Office

Project	Bd	Ba	Sq Ft	Price	\$/SF	Comments
<i>Page 2 of 2</i>						
<b>Primary Residential</b>						
<b><u>Līhu'e</u></b>						
<b>Hooluana at Kohea Loa<sup>1</sup></b>						
Plan 1, 2	3	2.0	1,316	\$555,000	\$422	<i>Selling; SF detached &amp; duplex 151 units, built 2017/18 On-site affordable (21%) 0.6 mi to ocean</i>
Plan 6, 6a (Duplex)	3	2.5	1,322	\$515,000	\$390	
Plan 3, 4	4	2.5	1,493	\$597,000	\$400	
Plan 5	4	3.0	1,630	\$615,000	\$377	
<b>Regency Hule'ia<sup>3</sup></b>						
1BR Avg.	1	1.5	1,032	\$440,000	\$426	<i>Sold; attached THs 83 units; built 2005 2.0 mi to ocean</i>
2BR Avg.	2	2.5	1,242	\$436,213	\$351	
3BR Avg.	3	2.5	1,404	\$533,750	\$380	
<b><u>Hanapēpē-'Ele'ele</u></b>						
<b>Keala'ula at Port Allen<sup>2</sup></b>	3	2.0	1,185	\$416,175	\$351	<i>Sold; SF detached 58 units; built 2007 Appreciation covenants 0.3 mi to ocean</i>

<sup>1</sup> Based on list price.

<sup>2</sup> Based on original sales prices.

<sup>3</sup> Based on resale prices.

**APPENDIX A, TABLE 2  
MARKET AREA HOME SALES, NEW HOMES  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUAI, HI**

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**RECENTLY CONSTRUCTED HOMES<sup>1</sup>**

<b>Unit Type</b>	<b>Single Family Homes</b>				<b>Condominiums</b>		
	<b>Sample Size</b>	<b>Home Median Price (\$000s)</b>	<b>Change 2017-2018</b>	<b>Home Price/SF</b>	<b>Sample Size</b>	<b>Condo Median Price (\$000s)</b>	<b>Change 2017-2018</b>
1-Bedroom	15	\$500	3.10%	\$353	4	\$514	53.40%
2-Bedroom	13	\$595	6.30%	\$357	8	\$410	-6.40%
3-Bedroom	33	\$570	9.60%	\$385	12	\$299	9.40%
4-Bedroom	20	\$530	6.50%	\$356	10	\$421	10.10%
5+ Bedroom	14	\$610	8.90%	\$360	1	\$355	-1.40%
Overall	1,799	\$758	8.20%	\$406	770	\$487	8.20%

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Source: CoreLogic August 2018

<sup>1</sup> Includes all homes built 2017-2018

**APPENDIX A, TABLE 3  
RESIDENTIAL LAND SALES COMPARABLES  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUA'I, HI**

Source: County Tax Records

	<u>Zoning</u>	<u>Acres</u>	<u>Sale Price</u>	<u>\$/Acre</u>	<u>\$/SF</u>	<u>Sale Date</u>	<u>Comments</u>
<b><u>East Kaua'i</u></b>							
LOKOMAIKAI PL	R1	1.0	\$400,000	\$395,648	\$9.08	2016	Subdivision lot
LOKELANI RD	R2	1.3	\$360,000	\$267,857	\$6.15	2018	
LAIPO RD	R4	10.1	\$1,070,000	\$105,867	\$2.43	2016	
3352 WAIKOMO RD	R6	9.4	\$2,625,000	\$278,190	\$6.39	2017	
<b><u>Lihu'e</u></b>							
WAA RD	R4	2.1	\$315,000	\$152,027	\$3.49	2016	
<b><u>North Shore</u></b>							
5151 WAINIHA POWERHOUSE RD	OP	1.3	\$570,000	\$455,635	\$10.46	2017	Utilites, homesite
ALAMIHI RD	R4	2.6	\$775,000	\$303,564	\$6.97	2017	
ANANALU RD	OP	1.1	\$260,000	\$226,481	\$5.20	2018	
WAINIHA POWERHOUSE RD	OP	2.7	\$390,000	\$145,740	\$3.35	2017	
WAINIHA POWERHOUSE RD	OP	1.7	\$154,700	\$93,418	\$2.14	2017	
KAUI RD	R4	27.5	\$1,500,000	\$54,617	\$1.25	2016	
KUHIO HWY	R4	1.2	\$62,500	\$53,464	\$1.23	2017	
4541 WAINIHA POWERHOUSE RD	R4	1.7	\$62,500	\$37,493	\$0.86	2017	
<b><u>South Kaua'i</u></b>							
WELIWELI RD	OP	3.5	\$3,397,000	\$958,251	\$22.00	2017	Subdivision lot
HALALU ST	R4	1.0	\$650,000	\$643,373	\$14.77	2018	Subdivision lot
POIPU RD	R10	1.5	\$900,000	\$614,334	\$14.10	2018	Infill lot
HALAU ST	R4	1.0	\$602,500	\$577,328	\$13.25	2016	Utilities, homesite
1039 A PUU RD	R1	1.5	\$725,000	\$485,925	\$11.16	2016	Utilities, homesite
OMAO RD	R2	1.3	\$300,000	\$222,883	\$5.12	2017	
4300 UPA RD	OP	2.0	\$355,000	\$176,441	\$4.05	2017	
2836 Kolepa St		19.9	\$3,382,860	\$169,737	\$3.90	2016	
OMAO RD	OP	1.9	\$230,200	\$120,524	\$2.77	2016	
<b><u>Waimea-Kekaha</u></b>							
Habitat for Humanity Project	PD	6.6	\$1,400,000	\$213,333	\$4.90	2017	
KAUMUALII HWY	OP	4.2	\$550,000	\$129,748	\$2.98	2017	
<b>Residential Average</b>					<b>\$6.58</b>		
<b>Raw Land transactions</b>					<b>\$3.51</b>		
<b>Infill or Finished lots</b>					<b>\$14.29</b>		

**APPENDIX A, TABLE 4A**  
**SINGLE FAMILY DWELLING UNIT SALES**  
**NORTH SHORE SUBMARKET**  
**KAUAI, HI**

Address	City	Zip	Sale Date	Yr Built	Beds	Baths	SF	Sale Amount	Price/SF
4-4910 Kuhio Hwy #5	Anahola	96703	2/9/2018	2010	0	1	1168	\$975,000	\$834.76
				<b>Average</b>	<b>2010</b>		<b>Average</b>	<b>1,168</b>	<b>\$975,000</b>
							<b>Median</b>	<b>1,168</b>	<b>\$975,000</b>
								<b>Weighted Average</b>	<b>\$834.76</b>
Address	City	Zip	Sale Date	Yr Built	Beds	Baths	SF	Sale Amount	Price/SF
2771 Kauapea Rd Unit B	Kilauea	96754	6/28/2018	2005	1	1	480	\$2,635,000	\$5,489.58
2550-E Halaulani Rd #2	Kilauea	96754	12/14/2016	2007	1	1.5	792	\$1,000,500	\$1,263.26
4327 Kahili Makai	Kilauea	96754	3/15/2018	2013	1	1	795	\$1,320,500	\$1,661.01
				<b>Average</b>	<b>2008</b>		<b>Average</b>	<b>689</b>	<b>\$1,652,000</b>
							<b>Median</b>	<b>792</b>	<b>\$1,320,500</b>
								<b>Weighted Average</b>	<b>\$2,804.62</b>
									<b>\$1,661.01</b>
								<b>Weighted Average</b>	<b>\$2,397.68</b>
Address	City	Zip	Sale Date	Yr Built	Beds	Baths	SF	Sale Amount	Price/SF
4-4961-K Kuhio Hwy	Anahola	96703	1/10/2018	2005	2	2	1184	\$885,000	\$747.47
6049-B Halaulani Pl #2	Kilauea	96754	4/5/2017	2008	2	1.5	1260	\$1,265,000	\$1,003.97
5-7107 Kuhio Hwy Unit B	Hanalei	96714	1/17/2017	2006	2	2	1229	\$926,000	\$753.46
1636 Huli Rd #2	Kilauea	96754	1/5/2017	2007	2	2	1200	\$1,050,000	\$875.00
5-1105 Kuhio Hwy Unit A	Kilauea	96754	11/10/2016	2007	2	2.5	2679	\$1,675,000	\$625.23
4316-Y Kahili Makai Rd Unit C	Kilauea	96754	2/5/2018	2012	2	1.75	1158	\$3,000,000	\$2,590.67
4641 Wainiha Power Hse Rd	Hanalei	96714	10/25/2017	2017	2	2	1341	\$975,000	\$727.07
5395 Weke Rd	Hanalei	96714	3/16/2018	2014	2	1	813	\$6,250,000	\$7,687.58
				<b>Average</b>	<b>2010</b>		<b>Average</b>	<b>1,358</b>	<b>\$2,003,250</b>
							<b>Median</b>	<b>1,215</b>	<b>\$1,157,500</b>
								<b>Weighted Average</b>	<b>\$1,475.15</b>
2978 Halaulani Dr #4	Kilauea	96754	1/11/2018	2011	3	4.5	3313	\$3,050,000	\$920.62
6820-A Koolau Rd Unit A	Anahola	96754	12/16/2016	2008	3	2.75	1904	\$750,000	\$393.91
4131 Aloalii Dr	Princeville	96722	7/21/2017	2006	3	3.5	4090	\$2,900,000	\$709.05
4681 Wailapa Rd Unit B	Kilauea	96754	7/28/2017	2009	3	3.5	2918	\$1,400,000	\$479.78
2737-A Halaulani #2	Kilauea	96754	10/17/2016	2009	3	3	2088	\$1,467,500	\$702.83
4108 Aloalii Dr	Princeville	96722	10/5/2016	2012	3	2	2302	\$1,100,000	\$477.85
2740-A Halaulani Rd #1	Kilauea	96754	5/24/2018	2005	3	4.5	3172	\$1,850,000	\$583.23
4140 Aloalii Dr	Princeville	96722	6/29/2018	2007	3	3	3435	\$1,600,000	\$465.79
5071 Hanalei Plantation Rd	Princeville	96722	5/30/2018	2009	3	3.5	2488	\$4,400,000	\$1,768.49
				<b>Average</b>	<b>2008</b>		<b>Average</b>	<b>2,857</b>	<b>\$2,057,500</b>
							<b>Median</b>	<b>2,918</b>	<b>\$1,600,000</b>
								<b>Weighted Average</b>	<b>\$722.39</b>
								<b>Weighted Average</b>	<b>\$583.23</b>
								<b>Weighted Average</b>	<b>\$720.25</b>
Address	City	Zip	Sale Date	Yr Built	Beds	Baths	SF	Sale Amount	Price/SF
5201 Papaa Rd Unit 1D	Anahola	96703	2/20/2018	2007	4	3	2416	\$1,750,000	\$724.34
4971 Hanalei Plantation	Princeville	96722	8/22/2016	2007	4	5.5	5834	\$5,000,000	\$857.04
4727-A&B Hanalei Plant Rd U	Princeville	96722	8/8/2016	2009	4	5	5752	\$3,960,000	\$688.46
3580 Anini Rd	Kilauea	96754	1/23/2017	2005	4	6.5	4807	\$11,000,000	\$2,288.33
3998 Aloalii Dr	Princeville	96722	6/15/2017	2006	4	4.5	3770	\$1,225,007	\$324.94
4695-F Kuawa Rd #3	Kilauea	96754	3/28/2017	2014	4	2.5	2937	\$1,500,000	\$510.73
4615-A Hanalei Plant Rd	Princeville	96722	5/19/2017	2010	4	4.5	3542	\$2,561,050	\$723.05
5001 Hanalei Plantation Rd	Princeville	96722	5/4/2017	2005	4	2	1802	\$1,400,000	\$776.91
5136 Napookala Cir	Princeville	96722	11/10/2016	2015	4	3	2440	\$1,352,500	\$554.30
4154M N Waiakalua Rd #3	Kilauea	96754	-	2009	4	6	7755	\$757,550	\$97.69
5028 Emmalani Dr	Princeville	96722	10/20/2017	2014	4	3.5	3273	\$1,300,000	\$397.19
4036 Kaikioewa Pl	Princeville	96722	10/30/2017	2008	4	4.25	3474	\$1,200,000	\$345.42
				<b>Average</b>	<b>2009</b>		<b>Average</b>	<b>3,984</b>	<b>\$2,750,509</b>
							<b>Median</b>	<b>3,508</b>	<b>\$1,450,000</b>
								<b>Weighted Average</b>	<b>\$690.70</b>
								<b>Weighted Average</b>	<b>\$621.38</b>
								<b>Weighted Average</b>	<b>\$690.48</b>
Address	City	Zip	Sale Date	Yr Built	Beds	Baths	SF	Sale Amount	Price/SF
4473 Anini Vista Dr Unit E	Kilauea	96754	7/10/2017	2015	5	4.5	4243	\$4,600,000	\$1,084.14
5-3000 Kuhio Hwy Unit B	Kilauea	96754	11/10/2016	2011	5	4	5000	\$7,300,000	\$1,460.00
4141 Kilauea Rd #1	Kilauea	96754	2/22/2018	2007	5	5.5	3647	\$2,302,500	\$631.34
				<b>Average</b>	<b>2011</b>		<b>Average</b>	<b>4,297</b>	<b>\$4,734,167</b>
							<b>Median</b>	<b>4,243</b>	<b>\$4,600,000</b>
								<b>Weighted Average</b>	<b>\$1,058.49</b>
								<b>Weighted Average</b>	<b>\$1,101.82</b>

**APPENDIX A, TABLE 4B  
 CONDOMINIUM SALES  
 NORTH SHORE SUBMARKET  
 KAUAI, HI**

<u>Home Type</u>	<u>Address</u>	<u>City</u>	<u>Zip</u>	<u>Sale Date</u>	<u>Yr Built</u>	<u>Beds</u>	<u>Baths</u>	<u>SF</u>	<u>Sale Price</u>	<u>Price/SF</u>
Condo/Co-op	4919 Pepelani Loop Unit 25B	Princeville	96722	9/5/2017	2006	2	2.5	1567	\$625,000	\$398.85
Condo/Co-op	4919 Pepelani Loop Unit 32B	Princeville	96722	9/21/2017	2005	2	2	1406	\$618,000	\$439.54
Condo/Co-op	4919 Pepelani Loop Unit 14B	Princeville	96722	12/6/2017	2005	2	2.5	1567	\$554,000	\$353.54
Condo/Co-op	4919 Pepelani Loop Unit 32C	Princeville	96722	3/16/2018	2005	2	3	1972	\$739,000	\$374.75
Condo/Co-op	4919 Pepelani Loop Unit 28A	Princeville	96722	4/11/2018	2006	2	2	1412	\$659,000	\$466.71
Condo/Co-op	4919 Pepelani Loop Unit 8B	Princeville	96722	6/5/2018	2005	2	2.5	1567	\$638,000	\$407.15
Condo/Co-op	4919 Pepelani Loop Unit 30B	Princeville	96722	7/16/2018	2005	2	2	1406	\$640,000	\$455.19
Condo/Co-op	4100 Queen Emma Dr #71	Princeville	96722	3/8/2018	2007	2	2.5	1892	\$765,000	\$404.33
Condo/Co-op	4100 Queen Emma Dr #75	Princeville	96722	7/2/2018	2007	2	2.5	1892	\$950,000	\$502.11
Condo/Co-op	4100 Queen Emma Dr #67	Princeville	96722	7/5/2017	2007	2	2.5	1738	\$775,000	\$445.91
Condo/Co-op	4919 Pepelani Loop Unit 22B	Princeville	96722	6/5/2017	2005	2	2.5	1567	\$595,000	\$379.71
Condo/Co-op	4919 Pepelani Loop Unit 18A	Princeville	96722	6/7/2017	2005	2	2	1406	\$560,000	\$398.29
Condo/Co-op	4919 Pepelani Loop Unit 26B	Princeville	96722	5/30/2017	2005	2	2	1406	\$575,000	\$408.96
						<b>Average</b>	<b>2006</b>	<b>Average 1,600</b>	<b>\$668,692</b>	<b>\$418.08</b>
								<b>Median 1,567</b>	<b>\$638,000</b>	<b>\$407.15</b>
								<b>Weighted Average</b>		<b>\$417.97</b>
Condo/Co-op	4919 Pepelani Loop Unit 21A	Princeville	96722	7/31/2017	2005	3	2.5	1874	\$640,000	\$341.52
Condo/Co-op	4919 Pepelani Loop Unit 11B	Princeville	96722	10/20/2017	2005	3	2.5	1874	\$690,000	\$368.20
Condo/Co-op	4919 Pepelani Loop Unit 19A	Princeville	96722	1/19/2018	2005	3	2.5	1874	\$699,000	\$373.00
Condo/Co-op	4919 Pepelani Loop Unit 25C	Princeville	96722	3/1/2018	2005	3	2.5	1874	\$800,000	\$426.89
Condo/Co-op	4771 Pepelani Loop #322	Princeville	96722	3/19/2018	2006	3	3	1318	\$635,000	\$481.79
Condo/Co-op	4919 Pepelani Loop Unit 3C	Princeville	96722	6/18/2018	2005	3	2.5	1874	\$770,000	\$410.89
Condo/Co-op	4919 Pepelani Loop Unit 23C	Princeville	96722	7/30/2018	2005	3	3	1972	\$812,000	\$411.76
Condo/Co-op	4100 Queen Emma Dr #43	Princeville	96722	8/24/2017	2007	3	3.5	2443	\$1,175,000	\$480.97
Condo/Co-op	4100 Queen Emma Dr #5	Princeville	96722	2/16/2018	2007	3	3.5	2843	\$1,275,000	\$448.47
Condo/Co-op	4100 Queen Emma Dr #12	Princeville	96722	9/1/2017	2008	3	3.5	2864	\$1,200,000	\$418.99
Condo/Co-op	4100 Queen Emma Dr #13	Princeville	96722	4/18/2018	2007	3	3.5	2843	\$1,225,000	\$430.88
Condo/Co-op	4100 Queen Emma Dr #29	Princeville	96722	1/26/2018	2007	3	3.5	2864	\$1,200,000	\$418.99
Condo/Co-op	4100 Queen Emma Dr #16	Princeville	96722	8/18/2016	2007	3	3.5	2843	\$1,975,000	\$694.69
Condo/Co-op	4919 Pepelani Loop Unit 13A	Princeville	96722	8/31/2016	2005	3	2.5	1874	\$658,500	\$351.39
Condo/Co-op	4919 Pepelani Loop Unit 7C	Princeville	96722	12/11/2016	2007	3	3	1972	\$640,000	\$324.54
Condo/Co-op	4919 Pepelani Loop Unit 21A	Princeville	96722	7/31/2017	2005	3	2.5	1874	\$640,000	\$341.52
Condo/Co-op	4100 Queen Emma Dr #2	Princeville	96722	3/28/2017	2007	3	3.5	2843	\$1,000,000	\$351.74
Condo/Co-op	4100 Queen Emma Dr #15	Princeville	96722	11/7/2016	2007	3	3.5	2843	\$1,220,000	\$429.12
						<b>Average</b>	<b>2006</b>	<b>Average 2,265</b>	<b>\$958,583</b>	<b>\$416.96</b>
								<b>Median 1,972</b>	<b>\$806,000</b>	<b>\$415.38</b>
								<b>Weighted Average</b>		<b>\$423.26</b>

**APPENDIX A, TABLE 4C  
TOWNHOME SALES  
NORTH SHORE SUBMARKET  
KAUAI, HI**

<u>Home Type</u>	<u>Address</u>	<u>City</u>	<u>Zip</u>	<u>Sale Date</u>	<u>Yr Built</u>	<u>Beds</u>	<u>Baths</u>	<u>SF</u>	<u>Sale Price</u>	<u>Price/SF</u>	
Townhouse	4100 Queen Emma Dr #70	Princeville	96722	1/10/2018	2007	2	2.5	1738	\$785,000	\$451.67	
						<b>Average</b>	<b>2007</b>	<b>Average</b>	<b>1,738</b>	<b>\$785,000</b>	<b>\$451.67</b>
								<b>Median</b>	<b>1,738</b>	<b>\$785,000</b>	<b>\$451.67</b>
								<b>Weighted Average</b>	<b>\$451.67</b>		
Townhouse	4919 Pelelani Loop Unit 26C	Princeville	96722	11/15/2017	2005	3	3	1972	\$658,000	\$333.67	
Townhouse	4919 Pelelani Loop Unit 9B	Princeville	96722	6/1/2018	2005	3	2.5	1874	\$810,000	\$432.23	
Townhouse	4919 Pelelani Loop Unit 29C	Princeville	96722	7/13/2018	2005	3	2.5	1874	\$815,000	\$434.90	
Townhouse	4100 Queen Emma Dr #1	Princeville	96722	4/13/2018	2007	3	3.5	2843	\$1,075,000	\$378.12	
Townhouse	4100 Queen Emma Dr #4	Princeville	96722	8/1/2017	2008	3	3.5	2843	\$1,100,000	\$386.92	
Townhouse	4100 Queen Emma Dr #34	Princeville	96722	7/5/2018	2008	3	3.5	2864	\$2,000,000	\$698.32	
Townhouse	4100 Queen Emma Dr #37	Princeville	96722	3/19/2018	2007	3	3.5	3671	\$2,750,000	\$749.11	
Townhouse	4100 Queen Emma Dr #50	Princeville	96722	5/31/2018	2007	3	3.5	2443	\$1,250,000	\$511.67	
Townhouse	4100 Queen Emma Dr #7	Princeville	96722	8/17/2016	2008	3	3.5	2864	\$1,310,000	\$457.40	
Townhouse	4100 Queen Emma Dr #47	Princeville	96722	1/24/2017	2007	3	3.5	2443	\$1,399,000	\$572.66	
Townhouse	4100 Queen Emma Dr #38	Princeville	96722	3/1/2017	2007	3	3.5	3327	\$2,400,000	\$721.37	
						<b>Average</b>	<b>2007</b>	<b>Average</b>	<b>2,638</b>	<b>\$1,415,182</b>	<b>\$516.03</b>
								<b>Median</b>	<b>2,843</b>	<b>\$1,250,000</b>	<b>\$457.40</b>
								<b>Weighted Average</b>	<b>\$536.46</b>		

**APPENDIX A, TABLE 4D  
SINGLE FAMILY DWELLING UNIT SALES  
EAST SIDE SUBMARKET  
KAUAI, HI**

<u>Address</u>	<u>City</u>	<u>Zip</u>	<u>Sale Date</u>	<u>Yr Built</u>	<u># Bed</u>	<u># Bath</u>	<u>SF</u>	<u>Sale Amount</u>	<u>Price/SF</u>
6234-C Helena Ln Unit C	Kapaa	96746	3/12/2018	2012	1	1	480	\$590,000	\$1,229.17
4864-A Laipo Rd #0002	Kapaa	96746	8/2/2017	2014	1	1	770	\$440,000	\$571.43
5565-A Hauiki Rd #3	Kapaa	96746	3/2/2017	2006	1	1	937	\$444,000	\$473.85
			<b>Average</b>	<b>2011</b>		<b>Average</b>	<b>729</b>	<b>\$491,333</b>	<b>\$758.15</b>
						<b>Median</b>	<b>770</b>	<b>\$444,000</b>	<b>\$571.43</b>
								<b>Weighted Average</b>	<b>\$673.98</b>
2110 Kaneka St Apt 136	Lihue	96766	-	2005	2	2.5	1265	\$295,000	\$233.20
2110 Kaneka St #17	Lihue	96766	-	2005	2	2.5	1265	\$495,000	\$391.30
2435 Waipuna Rd #12	Lihue	96766	11/9/2017	2007	2	2	1510	\$695,000	\$460.26
111 Pokukala St	Kapaa	96746	7/27/2018	2005	2	2	1720	\$615,000	\$357.56
396 Pua Rd	Kapaa	96746	1/19/2018	2009	2	1.5	864	\$495,000	\$572.92
4880-A Nunu Rd Unit A1	Kapaa	96746	8/22/2017	2005	2	2	960	\$480,000	\$500.00
6635-K Waipouli Rd #6	Kapaa	96746	7/13/2017	2007	2	2	1116	\$1,225,000	\$1,097.67
5116 Kahana St	Kapaa	96746	10/10/2016	2014	2	1	896	\$549,000	\$612.72
4906 Ea Rd Unit A	Kapaa	96746	8/23/2016	2016	2	2	1288	\$499,000	\$387.42
3140 Unahe St	Lihue	96766	8/22/2016	2011	2	2	1320	\$635,000	\$481.06
			<b>Average</b>	<b>2008</b>		<b>Average</b>	<b>1,220</b>	<b>\$598,300</b>	<b>\$509.41</b>
						<b>Median</b>	<b>1,265</b>	<b>\$524,000</b>	<b>\$470.66</b>
								<b>Weighted Average</b>	<b>\$490.25</b>
4362 Kauila St	Lihue	96766	8/15/2017	2009	3	2	1882	\$703,000	\$373.54
2365 Wiliko St	Lihue	96766	11/21/2017	2014	3	2	1646	\$795,000	\$482.99
4373 Kauila St	Lihue	96766	12/19/2017	2007	3	3	2446	\$1,325,000	\$541.70
2275 Wiliko St	Lihue	96766	6/20/2018	2008	3	2	1888	\$790,000	\$418.43
3231 Kalapaki Cir Unit A	Lihue	96766	5/24/2018	2005	3	2.5	3018	\$2,300,000	\$762.09
4475 Amo St	Lihue	96766	3/15/2018	2018	3	2.5	1284	\$491,131	\$382.50
4276 Lehu Pl	Lihue	96766	6/3/2018	2018	3	2.5	1284	\$473,360	\$368.66
4282 Lehu Pl Ph II	Lihue	96766	6/14/2018	2018	3	2	1316	\$531,625	\$403.97
4124 Kawili St Unit B	Lihue	96766	5/23/2018	2009	3	2.5	1775	\$665,000	\$374.65
1951 Puu Kaa St	Kapaa	96746	2/23/2018	2005	3	2.5	1400	\$565,000	\$403.57
5617 Hoku Rd #2	Kapaa	96746	9/22/2017	2005	3	2	1560	\$770,000	\$493.59
6405 Kawaihau Rd Unit B	Kapaa	96746	8/14/2017	2007	3	2.5	1256	\$629,000	\$500.80
1791-A Makaleha Pl Unit A	Kapaa	96746	2/6/2018	2005	3	4	2354	\$764,194	\$324.64
4614 Haleilio Rd #1	Kapaa	96746	9/25/2017	2012	3	2	1260	\$535,000	\$424.60
4616 Haleilio Rd Unit C	Kapaa	96746	2/16/2018	2012	3	2	1176	\$540,000	\$459.18
5165 Kahana St	Kapaa	96746	2/23/2018	2008	3	3	1904	\$725,000	\$380.78
5422 Kumole St	Kapaa	96746	11/7/2017	2007	3	2.5	2174	\$605,000	\$278.29
6355-A Opaekaa Rd Unit A	Kapaa	96746	11/29/2017	2005	3	2.75	2184	\$918,000	\$420.33
6355A Opaekaa Rd #1	Kapaa	96746	-	2005	3	3	2184	\$918,000	\$420.33
5871-A Kololia Pl Unit C	Kapaa	96746	11/2/2017	2007	3	3.5	4735	\$2,300,000	\$485.74
4660-B Hauaala Rd Unit B	Kapaa	96746	8/1/2017	2007	3	3	2048	\$508,169	\$248.13
4691 Pelehu Rd	Kapaa	96746	3/29/2018	2005	3	4	2524	\$930,000	\$368.46
4821 Ohu Rd	Kapaa	96746	9/27/2017	2005	3	2	1200	\$500,000	\$416.67
4967 Moa Rd	Kapaa	96746	5/21/2018	2016	3	2	1104	\$575,000	\$520.83
6355 Opaekaa Rd Unit A	Kapaa	96746	9/30/2016	2005	3	3	2184	\$865,000	\$396.06
6428 Kipapa Rd	Kapaa	96746	8/31/2016	2010	3	2	1600	\$775,000	\$484.38
5718 Olohena Rd #7	Kapaa	96746	11/15/2016	2009	3	2	1113	\$640,000	\$575.02
6473 Kuamoo Rd	Kapaa	96746	8/5/2016	2016	3	2	1200	\$577,000	\$480.83
6828 Kuamoo Rd	Kapaa	96746	3/31/2016	2013	3	3	2306	\$1,200,000	\$520.38
6038 Kawaihau Rd	Kapaa	96746	6/13/2017	2011	3	2.5	1472	\$590,000	\$400.82
5829 Halakahiki Pl Unit B	Kapaa	96746	7/10/2017	2007	3	3	1836	\$699,900	\$381.21
1810 Kaehulua Pl	Kapaa	96746	10/31/2016	2006	3	2	960	\$410,000	\$427.08
2990 Mokoi St	Lihue	96766	2/28/2017	2006	3	3.5	3731	\$1,387,000	\$371.75
4850 Hauaala Rd	Kapaa	96746	10/7/2016	2005	3	2	1032	\$559,000	\$541.67
5430-C Kaehulua Rd #2	Kapaa	96746	11/4/2016	2011	3	2.5	2586	\$930,000	\$359.63

5284 Kahala St #1	Kapaa	96746	4/28/2017	2006	3	3	2606	\$551,200	\$211.51
5541 Kuamoo Rd	Kapaa	96746	5/5/2017	2007	3	2.5	2024	\$755,000	\$373.02
4904 Ea Rd Unit B	Kapaa	96746	8/18/2016	2016	3	2	1288	\$500,000	\$388.20
1760-A Makaleha Pl Unit A	Kapaa	96746	2/24/2017	2013	3	2.5	2072	\$1,405,000	\$678.09
4127 Puaole St #2	Lihue	96766	11/29/2016	2016	3	2	1157	\$555,000	\$479.69
4127-A A, Puaole St #1	Lihue	96766	8/22/2016	2016	3	2	1157	\$565,000	\$488.33
2210 Makaa St	Lihue	96766	1/9/2017	2007	3	3	2024	\$765,000	\$377.96
2307 Wiliko St	Lihue	96766	6/1/2017	2014	3	3	2096	\$912,000	\$435.11
2339 Wiliko St	Lihue	96766	1/31/2017	2010	3	2.5	2286	\$875,000	\$382.76
4124 Puahala Pl	Lihue	96766	6/22/2017	2007	3	3	2390	\$1,175,000	\$491.63
4286 Kauila St	Lihue	96766	12/30/2016	2013	3	2.5	1912	\$749,500	\$392.00
2794 Mokoī St #2	Lihue	96766	6/1/2017	2012	3	2	1984	\$918,000	\$462.70
		<b>Average</b>	<b>2010</b>			<b>Average</b>	<b>1,885</b>	<b>\$813,087</b>	<b>\$433.07</b>
						<b>Median</b>	<b>1,888</b>	<b>\$725,000</b>	<b>\$418.43</b>
								<b>Weighted Average</b>	<b>\$431.23</b>
4190-A Kaana St #2	Lihue	96766	8/1/2017	2006	4	3	2189	\$725,000	\$331.20
4190A Kaana St #2	Lihue	96766	-	2006	4	3	2189	\$725,000	\$331.20
4466 Amo Ph II	Lihue	96766	2/9/2018	2017	4	2	1493	\$589,373	\$394.76
4283 Akilolo St	Lihue	96766	2/27/2018	2018	4	2	1183	\$557,095	\$470.92
4285 Akilolo St	Lihue	96766	2/23/2018	2018	4	2.5	1635	\$569,760	\$348.48
4464 Amo St	Lihue	96766	2/27/2018	2018	4	3	1884	\$609,570	\$323.55
4476 Amo St #2039	Lihue	96766	4/27/2018	2018	4	2.5	1559	\$596,270	\$382.47
4266 Lehu Pl Ph II	Lihue	96766	6/14/2018	2018	4	3	1630	\$593,678	\$364.22
1756 Makaleha Pl Unit A	Kapaa	96746	10/20/2017	2007	4	3.5	2703	\$979,000	\$362.19
1444 Kanepoohui Rd Unit D	Kapaa	96746	6/20/2018	2010	4	2.5	2160	\$880,000	\$407.41
6604 Alahale St	Kapaa	96746	3/15/2017	2006	4	2	1200	\$575,000	\$479.17
4850 Iiwi Rd	Kapaa	96746	5/5/2017	2014	4	2.5	1486	\$660,000	\$444.15
1780-A Makaleha Pl #1	Kapaa	96746	2/28/2017	2006	4	4.5	3014	\$1,450,000	\$481.09
2181 Maka'a St	Lihue	96766	7/5/2017	2014	4	4	4962	\$500,000	\$100.77
392 Keoki Aina Pl	Kapaa	96746	11/30/2016	2016	4	3	3068	\$755,000	\$246.09
		<b>Average</b>	<b>2013</b>			<b>Average</b>	<b>2,157</b>	<b>\$717,650</b>	<b>\$364.51</b>
						<b>Median</b>	<b>1,884</b>	<b>\$609,570</b>	<b>\$364.22</b>
								<b>Weighted Average</b>	<b>\$332.71</b>
2410 Akoki St	Lihue	96766	6/22/2018	2005	5	4.5	4261	\$1,000,000	\$234.69
4274 'ala'ihī Pl Ph II	Lihue	96766	4/3/2018	2018	5	3	1890	\$609,152	\$322.30
368 Keoki Aina Pl	Kapaa	96746	-	2017	5	3	2832	\$765,000	\$270.13
4660 Hauaala Rd #2	Kapaa	96746	-	2007	5	3	2048	\$508,200	\$248.14
4292 Kauila St	Lihue	96766	5/31/2017	2009	5	3.5	3018	\$800,000	\$265.08
		<b>Average</b>	<b>2011</b>			<b>Average</b>	<b>2,810</b>	<b>\$736,470</b>	<b>\$268.07</b>
						<b>Median</b>	<b>2,832</b>	<b>\$765,000</b>	<b>\$265.08</b>
								<b>Weighted Average</b>	<b>\$262.11</b>
3260 Fujii St	Lihue	96766	6/29/2018	2006	6	5.5	3968	\$685,000	\$172.63
		<b>Average</b>	<b>2006</b>			<b>Average</b>	<b>3,968</b>	<b>\$685,000</b>	<b>\$172.63</b>
						<b>Median</b>	<b>3,968</b>	<b>\$685,000</b>	<b>\$172.63</b>
								<b>Weighted Average</b>	<b>\$172.63</b>
4021 Palikea St	Lihue	96766	9/7/2016	2015	8	4	3024	\$660,000	\$218.25
		<b>Average</b>	<b>2015</b>			<b>Average</b>	<b>3,024</b>	<b>\$660,000</b>	<b>\$218.25</b>
						<b>Median</b>	<b>3,024</b>	<b>\$660,000</b>	<b>\$218.25</b>
								<b>Weighted Average</b>	<b>\$218.25</b>

**APPENDIX A, TABLE 4E  
 CONDOMINIUM SALES  
 EAST SIDE SUBMARKET  
 KAUAI, HI**

<u>Home Type</u>	<u>Address</u>	<u>City</u>	<u>Zip</u>	<u>Sale Date</u>	<u>Yr Built</u>	<u>Beds</u>	<u>Baths</u>	<u>SF</u>	<u>Sale Price</u>	<u>Price/SF</u>
Condo/Co-op	2110 Kaneka St #115 #15	Lihue	96766	March-29-20	2005	1	1.5	1032	\$445,000	\$431.20
Condo/Co-op	2110 Kaneka St #3	Lihue	96766	September-2	2005	1	1.5	1032	\$435,000	\$421.51
Condo/Co-op	4-818 Kuhio Hwy Unit A305	Kapaa	96746	November-2	2006	1	2	823	\$390,000	\$473.88
<b>Average 2005</b>							<b>Average</b>	<b>962</b>	<b>\$423,333</b>	<b>\$442.20</b>
							<b>Median</b>	<b>1,032</b>	<b>\$435,000</b>	<b>\$431.20</b>
								<b>Weighted Average</b>	<b>\$439.90</b>	
Condo/Co-op	2080 Manawalea St #408	Lihue	96766	5/1/2018	2006	2	2	788	\$319,000	\$404.82
Condo/Co-op	2080 Manawalea St #409	Lihue	96766	5/3/2018	2006	2	2	752	\$320,000	\$425.53
Condo/Co-op	4-820 Kuhio Hwy Unit G302	Kapaa	96746	2/21/2017	2005	2	3	1158	\$937,500	\$809.59
Condo/Co-op	2080 Manawalea St #704	Lihue	96766	1/17/2017	2006	2	2	785	\$280,000	\$356.69
Condo/Co-op	2080 Manawalea St #708	Lihue	96766	2/3/2017	2006	2	2	788	\$280,000	\$355.33
Condo/Co-op	2110 Kaneka St #79	Lihue	96766	4/12/2017	2005	2	2.5	1265	\$430,000	\$339.92
Condo/Co-op	2110 Kaneka St #167	Lihue	96766	8/23/2016	2005	2	2.5	1265	\$429,000	\$339.13
Condo/Co-op	2110 Kaneka St #11	Lihue	96766	4/21/2017	2005	2	2.5	1265	\$445,000	\$351.78
Condo/Co-op	2110 Kaneka St #76	Lihue	96766	9/6/2016	2005	2	2.5	1265	\$445,000	\$351.78
Condo/Co-op	2110 Kaneka St #61	Lihue	96766	6/12/2017	2005	2	1.5	1032	\$424,125	\$410.97
Condo/Co-op	4-820 Kuhio Hwy Unit C301	Kapaa	96746	5/12/2017	2005	2	3	1158	\$560,000	\$483.59
Condo/Co-op	4-820 Kuhio Hwy Unit A404	Kapaa	96746	5/23/2017	2005	2	3	1158	\$1,150,000	\$993.09
Condo/Co-op	4-820 Kuhio Hwy Unit G201	Kapaa	96746	3/14/2017	2005	2	3	1414	\$925,000	\$654.17
Condo/Co-op	4-820 Kuhio Hwy Unit F303	Kapaa	96746	7/21/2017	2005	2	3	1158	\$585,000	\$505.18
Condo/Co-op	4-820 Kuhio Hwy Unit C205	Kapaa	96746	7/17/2017	2005	2	3	1158	\$550,000	\$474.96
Condo/Co-op	4-820 Kuhio Hwy Unit B101	Kapaa	96746	6/13/2017	2005	2	3	1158	\$515,000	\$444.73
Condo/Co-op	40-820 Kuhio Hwy Unit G205	Kapaa	96746	5/24/2017	2005	2	3	1158	\$539,000	\$465.46
Condo/Co-op	4-820 Kuhio Hwy Unit B304	Kapaa	96746	7/24/2017	2005	2	3	1158	\$850,000	\$734.02
Condo/Co-op	4-820 Kuhio Hwy Unit A106	Kapaa	96746	12/20/2016	2005	2	3	1158	\$950,000	\$820.38
Condo/Co-op	4-820 Kuhio Hwy Unit D401	Kapaa	96746	1/27/2017	2006	2	3	1158	\$570,000	\$492.23
Condo/Co-op	4-820 Kuhio Hwy Unit A204	Kapaa	96746	4/12/2017	2005	2	3	1158	\$1,077,000	\$930.05
Condo/Co-op	4-820 Kuhio Hwy Unit F204	Kapaa	96746	4/19/2017	2005	2	3	1158	\$769,000	\$664.08
Condo/Co-op	4-820 Kuhio Hwy Unit C204	Kapaa	96746	11/4/2016	2005	2	3	1158	\$700,000	\$604.49
Condo/Co-op	4-820 Kuhio Hwy Unit C202	Kapaa	96746	7/13/2017	2005	2	3	1158	\$737,500	\$636.87
Condo/Co-op	4-820 Kuhio Hwy Unit A207	Kapaa	96746	6/29/2017	2005	2	3	1414	\$1,150,000	\$813.30
Condo/Co-op	4-820 Kuhio Hwy Unit H205	Kapaa	96746	6/22/2017	2005	2	3	1158	\$845,000	\$729.71
Condo/Co-op	4-820 Kuhio Hwy Unit H303	Kapaa	96746	6/29/2017	2005	2	3	1158	\$828,750	\$715.67
<b>Average 2005</b>							<b>Average</b>	<b>1,132</b>	<b>\$652,255</b>	<b>\$566.95</b>
							<b>Median</b>	<b>1,158</b>	<b>\$570,000</b>	<b>\$492.23</b>
								<b>Weighted Average</b>	<b>\$576.25</b>	
Condo/Co-op	2110 Kaneka St #57	Lihue	96766	7/26/2018	2005	3	2.5	1404	\$600,000	\$427.35
Condo/Co-op	3102 Tbd Aa'oli Rd #3102	Hokuala	96766	6/5/2018	2018	3	4	3444	\$8,700,000	\$2,526.13
Condo/Co-op	2407 Tbd Ala'oli Rd #2407	Hokuala	96766	6/27/2018	2018	3	3.5	2026	\$3,840,000	\$1,895.36
Condo/Co-op	2080 Manawalea St #502	Lihue	96766	8/30/2017	2006	3	2.5	1357	\$395,000	\$291.08
Condo/Co-op	2080 Manawalea St #103	Lihue	96766	8/3/2017	2006	3	2.5	1357	\$390,000	\$287.40
Condo/Co-op	1912 Hokunui Pl #18	Lihue	96766	11/23/2017	2005	3	2.5	1392	\$371,500	\$266.88
Condo/Co-op	1989 Hokunui Pl #43	Lihue	96766	3/19/2018	2005	3	2.5	1392	\$505,200	\$362.93
Condo/Co-op	1927 Hokulei Pl #92	Lihue	96766	4/1/2018	2005	3	2.5	1392	\$497,500	\$357.40
Condo/Co-op	4048 Puali Pl #47	Lihue	96766	4/13/2017	2005	3	2.5	1392	\$460,007	\$330.46
Condo/Co-op	1928 Hokulei Pl #84	Lihue	96766	8/22/2016	2005	3	2.5	1392	\$462,000	\$331.90
Condo/Co-op	4046 Puali Pl #48	Lihue	96766	1/27/2017	2005	3	2.5	1392	\$465,000	\$334.05
Condo/Co-op	1971 Haleukana St #53	Lihue	96766	6/14/2017	2005	3	2	1392	\$487,000	\$349.86
Condo/Co-op	2080 Manawalea St #612	Lihue	96766	6/1/2017	2006	3	2	969	\$320,000	\$330.24
Condo/Co-op	2080 Hookena-manawalea S	Lihue	96766	1/10/2017	2006	3	2	974	\$330,000	\$338.81
Condo/Co-op	2110 Kaneka St #18	Lihue	96766	5/15/2017	2005	3	2.5	1404	\$505,000	\$359.69
Condo/Co-op	2110 Kaneka St #45	Lihue	96766	5/26/2017	2005	3	2.5	1404	\$475,000	\$338.32
<b>Average 2007</b>							<b>Average</b>	<b>1,505</b>	<b>\$1,175,200</b>	<b>\$570.49</b>
							<b>Median</b>	<b>1,392</b>	<b>\$470,000</b>	<b>\$338.56</b>
								<b>Weighted Average</b>	<b>\$780.77</b>	
Condo/Co-op	3257 Kalapaki Cir Unit A	Lihue	96766	March-2-201	2005	4	4	3175	\$2,400,000	\$755.91
<b>Average 2005</b>							<b>Average</b>	<b>3,175</b>	<b>\$2,400,000</b>	<b>\$755.91</b>
							<b>Median</b>	<b>3,175</b>	<b>\$2,400,000</b>	<b>\$755.91</b>
								<b>Weighted Average</b>	<b>\$755.91</b>	

APPENDIX A, TABLE 4F  
TOWNHOME SALES  
EAST SIDE SUBMARKET  
KAUAI, HI

<u>Home Type</u>	<u>Address</u>	<u>City</u>	<u>Zip</u>	<u>Sale Date</u>	<u>Yr Built</u>	<u>Beds</u>	<u>Baths</u>	<u>SF</u>	<u>Sale Price</u>	<u>Price/SF</u>
Townhouse	2110 Kaneka St #62	Lihue	96766	7/31/2017	2005	2	2.5	1265	\$475,000	\$375.49
Townhouse	2110 Kaneka St #41	Lihue	96766	2/6/2017	2005	2	2.5	1265	\$435,000	\$343.87
Townhouse	2110 Kaneka St #62	Lihue	96766	7/31/2017	2005	2	2.5	1265	\$475,000	\$375.49
Townhouse	2110 Kaneka St #44	Lihue	96766	8/12/2016	2005	2	2.5	1265	\$375,000	\$296.44
Townhouse	2110 Kaneka St #67	Lihue	96766	8/30/2016	2005	2	2.5	1265	\$429,000	\$339.13
<b>Average</b>						<b>2005</b>	<b>Average</b>	<b>1,265</b>	<b>\$437,800</b>	<b>\$346.09</b>
							<b>Median</b>	<b>1,265</b>	<b>\$435,000</b>	<b>\$343.87</b>
							<b>Weighted Average</b>			<b>\$346.09</b>
Townhouse	2110 Kaneka St #49	Lihue	96766	9/29/2017	2005	3	2.5	1404	\$555,000	\$395.30
Townhouse	1945 Hokunui Pl #32	Lihue	96766	10/20/2017	2005	3	2	1392	\$510,000	\$366.38
Townhouse	1913 Haleukana St #2	Lihue	96766	2/28/2018	2005	3	2.5	1392	\$490,000	\$352.01
Townhouse	1918 Haleukana St #102	Lihue	96766	2/26/2018	2005	3	2.5	1392	\$480,000	\$344.83
Townhouse	1914 Hokunui Pl #17	Lihue	96766	10/19/2016	2005	3	2.5	1392	\$450,000	\$323.28
<b>Average</b>						<b>2005</b>	<b>Average</b>	<b>1,394</b>	<b>\$497,000</b>	<b>\$356.36</b>
							<b>Median</b>	<b>1,392</b>	<b>\$490,000</b>	<b>\$352.01</b>
							<b>Weighted Average</b>			<b>\$356.43</b>

**APPENDIX A, TABLE 4G**  
**SINGLE FAMILY DWELLING UNIT SALES**  
**SOUTH SHORE SUBMARKET**  
**KAUAI, HI**

<u>Address</u>	<u>City</u>	<u>Zip</u>	<u>Sale Date</u>	<u>Yr Built</u>	<u># Bed</u>	<u># Bath</u>	<u>SF</u>	<u>Sale Price</u>	<u>Price/SF</u>
5415 Makale'a St	Koloa	96756	6/21/2018	2015	2	1.75	1214	\$999,000	\$822.90
3608 Kua Aina St	Kalaheo	96741	5/7/2018	2005	2	2.5	2220	\$950,000	\$427.93
Papalina Unit A	Kalaheo	96741	5/15/2017	2016	2	2	1349	\$539,000	\$399.56
5036 Lau Nahele St	Koloa	96756	3/1/2017	2011	2	2.5	1402	\$1,450,000	\$1,034.24
5262 Paanau Rd	Koloa	96756	6/14/2017	2005	2	2	1476	\$675,000	\$457.32
3575-A Alalohe Pl Unit B	Lawai	96765	10/26/2016	2008	2	2	1322	\$585,000	\$442.51
4077 Pai St Unit A	Koloa	96756	10/27/2016	2015	2	2.5	1355	\$630,000	\$464.94
4386 Upa Rd #2	Koloa	96756	10/20/2016	2016	2	2	1264	\$649,000	\$513.45
				<b>Average</b>	<b>2011</b>	<b>Average</b>	<b>1,450</b>	<b>\$809,625</b>	<b>\$570.36</b>
						<b>Median</b>	<b>1,352</b>	<b>\$662,000</b>	<b>\$461.13</b>
							<b>Weighted Average</b>		<b>\$558.27</b>
<hr/>									
5145 Lau Nahele St	Koloa	96756	2/28/2018	2012	3	3	1621	\$1,750,000	\$1,079.58
4956 Kaulu St Lot 5	Kukuiula	96756	12/18/2017	2016	3	3	1876	\$1,875,000	\$999.47
5427 aalu Pl #8	Koloa	96756	-	2009	3	2.5	1456	\$680,000	\$467.03
5427 Aalu Pl #8	Koloa	96756	11/17/2017	2009	3	2	1456	\$680,000	\$467.03
2856 Kolepa St	Koloa	96756	11/14/2017	2014	3	3.5	2223	\$1,100,000	\$494.83
5388 Kolepa Pl	Koloa	96756	12/21/2017	2015	3	3.5	2037	\$1,195,000	\$586.65
2931 Kolepa St	Koloa	96756	2/1/2018	2015	3	3.5	2037	\$1,195,000	\$586.65
2836 Kolepa St	Koloa	96756	3/23/2018	2014	3	3.5	2071	\$1,295,000	\$625.30
3053 Lauae Pl	Koloa	96756	4/23/2018	2005	3	3	2269	\$1,560,000	\$687.53
2859 Kolepa St	Koloa	96756	5/14/2018	2015	3	3.5	2283	\$1,020,000	\$446.78
2848 Kolepa St	Koloa	96756	4/24/2018	2015	3	3.5	2429	\$1,110,000	\$456.98
3014 Kiahuna Plantation Dr	Koloa	96756	5/30/2018	2015	3	3.5	1814	\$1,150,000	\$633.96
3004 Kiahuna Plantation Dr	Koloa	96756	4/23/2018	2008	3	3.5	2098	\$1,350,000	\$643.47
5355 Nakoa St	Koloa	96756	7/31/2017	2014	3	3.5	2001	\$1,285,000	\$642.18
2894 Milo Hae Loop	Koloa	96756	2/6/2018	2005	3	3.5	3367	\$2,325,000	\$690.53
5388 Nakoa St	Koloa	96756	-	2017	3	3.5	2	\$395,000	\$197,500.00
5427 Makale'a	Koloa	96756	7/26/2018	2017	3	4.5	2948	\$1,650,000	\$559.70
2785 Ke Alaula St #7	Koloa	96756	9/15/2017	2013	3	3.5	1983	\$2,750,000	\$1,386.79
4 Club Cottage #4	Koloa	96756	6/8/2018	2011	3	3.5	2048	\$2,805,000	\$1,369.63
1730 Keleka Rd	Koloa	96756	12/29/2017	2006	3	4	2739	\$1,320,000	\$481.93
1661-A Keleka Rd	Koloa	96756	6/21/2018	2007	3	4.5	3415	\$1,650,000	\$483.16
1134-A Puu Rd Unit B	Kalaheo	96741	10/4/2017	2007	3	3.5	2927	\$1,250,000	\$427.06
1231 Nohea St	Kalaheo	96741	5/29/2018	2009	3	2	3891	\$854,500	\$219.61
3611 Kua Aina St	Kalaheo	96741	7/25/2018	2005	3	2.5	2260	\$950,000	\$420.35
4273 Kai Ikena Dr	Kalaheo	96741	12/27/2017	2007	3	2	1821	\$795,000	\$436.57
2494 Puu Rd #1	Kalaheo	96741	1/31/2018	2012	3	2	1177	\$597,321	\$507.49
2497-D Puu Rd #2	Kalaheo	96741	6/8/2018	2007	3	2.5	1248	\$600,000	\$480.77
5143 Kupulau Pl	Koloa	96756	3/30/2017	2011	3	3.5	2492	\$2,750,000	\$1,103.53
2831 Ke Alaula St #13	Koloa	96756	4/28/2017	2014	3	3.5	1983	\$2,750,000	\$1,386.79
5008-G Puuwai Rd	Kalaheo	96741	5/9/2017	2008	3	2	1376	\$685,000	\$497.82
2842 Kolepa St	Koloa	96756	8/9/2016	2015	3	3.5	2037	\$1,352,400	\$663.92
2867 Kolepa St	Koloa	96756	6/30/2017	2015	3	3	1942	\$1,160,000	\$597.32
2873 Kolepa St	Koloa	96756	7/11/2017	2015	3	3.5	2037	\$1,169,000	\$573.88
2883 Kolepa St	Koloa	96756	5/5/2017	2015	3	3.5	2429	\$1,218,000	\$501.44
5376 Kolepa Pl Lot 76	Koloa	96756	8/12/2016	2015	3	3.5	2037	\$1,278,390	\$627.58
3361-A Waikomo Rd	Koloa	96756	11/18/2016	2009	3	2	2396	\$739,000	\$308.43
3547 Kua Aina St	Kalaheo	96741	12/9/2016	2012	3	2	1684	\$850,000	\$504.75
3630 Kua Aina St	Kalaheo	96741	10/26/2016	2007	3	3	2660	\$1,065,000	\$400.38
5424 Nakoa St	Koloa	96756	11/30/2016	2012	3	2.5	2360	\$1,300,000	\$550.85
5407 Makale'a	Koloa	96756	5/24/2017	2014	3	3	2404	\$1,490,000	\$619.80
5355 Nakoa St	Koloa	96756	7/31/2017	2014	3	3.5	2001	\$1,285,000	\$642.18
5329 Makalea St	Koloa	96756	2/8/2017	2015	3	3	2500	\$1,475,000	\$590.00
2753 Ke Alaula St	Koloa	96756	11/10/2016	2011	3	3.25	2048	\$2,910,000	\$1,420.90
4366 Puu Kulana Pl	Kalaheo	96741	1/20/2017	2005	3	3	1500	\$520,000	\$346.67
4347 Puu Kulana Pl	Kalaheo	96741	12/22/2016	2005	3	3.5	1840	\$650,000	\$353.26
Papalina Unit B	Kalaheo	96741	7/21/2017	2016	3	2	1176	\$510,000	\$433.67
4363-A Puu Kulana Pl #1	Kalaheo	96741	11/10/2016	2009	3	3	1916	\$568,000	\$296.45
2289 Nalo Rd #1	Koloa	96756	<b>8/26/2016</b>	<b>2015</b>	<b>3</b>	<b>3</b>	<b>1752</b>	<b>\$1,150,000</b>	<b>\$656.39</b>
				<b>Average</b>	<b>2011</b>	<b>Average</b>	<b>2,085</b>	<b>\$1,292,950</b>	<b>\$4,726.19</b>
						<b>Median</b>	<b>2,037</b>	<b>\$1,195,000</b>	<b>\$566.79</b>
							<b>Weighted Average</b>		<b>\$620.20</b>

5105 Lau Nahele St	Koloa	96756	10/6/2017	2016	4	4.5	2914	\$3,182,500	\$1,092.14
4927 Mahua St	Koloa	96756	3/29/2018	2017	4	3.5	2793	\$3,800,000	\$1,360.54
3049 Kalahiki St	Koloa	96756	3/29/2018	2016	4	4.5	3590	\$5,125,000	\$1,427.58
5475 Malino Nei Pl Lot 10	Koloa	96756	11/2/2017	2017	4	5.5	3170	\$4,850,000	\$1,529.97
5465 Malino Nei Pl Lot 9	Koloa	96756	8/8/2017	2017	4	4.5	2670	\$4,600,000	\$1,722.85
5493 Malino Nei Pl Lot 12	Koloa	96756	12/22/2017	2017	4	5.5	3170	\$4,345,000	\$1,370.66
1171 Nohea St	Kalaheo	96741	10/3/2017	2007	4	3.5	3198	\$975,000	\$304.88
4284 Kai Ikena Dr	Kalaheo	96741	10/10/2017	2008	4	3.5	2988	\$999,900	\$334.64
4152 Pai St Unit A	Kalaheo	96741	6/29/2018	2006	4	2.5	2608	\$939,000	\$360.05
4299 Kai Ikena Dr	Kalaheo	96741	7/9/2018	2007	4	3	2776	\$997,000	\$359.15
7 Malino Nei Pl Lot 7	Koloa	96756	6/22/2017	2016	4	4.5	2670	\$4,650,000	\$1,741.57
8 Malino Nei Pl Lot 8	Koloa	96756	12/15/2016	2016	4	5	3170	\$4,745,000	\$1,496.85
1224 Kaena St	Kalaheo	96741	12/19/2016	2009	4	4.5	4517	\$1,199,000	\$265.44
3712 Kakela Makai Dr	Kalaheo	96741	1/18/2017	2012	4	2.5	2192	\$967,000	\$441.15
2344 Halali'i	Koloa	96756	4/27/2017	2014	4	2.5	2220	\$1,249,000	\$562.61
4443 Kai Ikena Dr	Kalaheo	96741	<b>8/24/2016</b>	<b>2005</b>	4	<b>2.75</b>	<b>2824</b>	<b>\$870,000</b>	<b>\$308.07</b>
			Average	2013		<b>Average</b>	<b>2,967</b>	<b>\$2,718,338</b>	<b>\$917.38</b>
						<b>Median</b>	<b>2,869</b>	<b>\$2,215,750</b>	<b>\$827.38</b>
								<b>Weighted Average</b>	<b>\$916.23</b>
3001 Kahalawai St	Koloa	96756	6/25/2018	2016	5	5.5	3544	\$6,500,000	\$1,834.09
3664 Omao Rd #2	Koloa	96756	6/27/2018	2005	5	5	7049	\$3,500,000	\$496.52
3009 Ua Noe Pl Lot 22	Koloa	96756	<b>5/15/2017</b>	<b>2015</b>	5	<b>5.5</b>	<b>3559</b>	<b>\$5,875,000</b>	<b>\$1,650.74</b>
			Average	2012		<b>Average</b>	<b>4,717</b>	<b>\$5,291,667</b>	<b>\$1,327.12</b>
						<b>Median</b>	<b>3,559</b>	<b>\$5,875,000</b>	<b>\$1,650.74</b>
								<b>Weighted Aver:</b>	<b>\$1,121.75</b>

**APPENDIX A, TABLE 4H  
 CONDOMINIUM SALES  
 SOUTH SHORE SUBMARKET  
 KAUAI, HI**

<u>Home Type</u>	<u>Address</u>	<u>City</u>	<u>Zip</u>	<u>Sale Date</u>	<u>Yr Built</u>	<u>Beds</u>	<u>Baths</u>	<u>SF</u>	<u>Sale Price</u>	<u>Price/SF</u>	
Condo/Co-op	2840 Ke Alaula St Unit 1B	Koloa	96756	7/27/2018	2017	1	1	766	\$1,256,000	\$1,639.69	
Condo/Co-op	2840 Ke Alaula St #9	Koloa	96756	12/2/2016	2016	1	1	766	\$1,695,000	\$2,212.79	
Condo/Co-op	2840 Ke Alaula St #8	Koloa	96756	5/5/2017	2016	1	1	766	\$1,785,000	\$2,330.29	
						<b>Average</b>	<b>2016</b>	<b>Average</b>	<b>766</b>	<b>\$1,578,667</b>	<b>\$2,060.92</b>
								<b>Median</b>	<b>766</b>	<b>\$1,695,000</b>	<b>\$2,212.79</b>
								<b>Weighted Average</b>		<b>\$2,060.92</b>	
Condo/Co-op	2611 Kiahuna Plantation Ur Koloa		96756	8/17/2017	2017	2	2.5	1208	\$609,500	\$504.55	
Condo/Co-op	2611 Kiahuna Plantation Ur Poipu		96756	10/20/2017	2017	2	2.5	1229	\$788,422	\$641.52	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/21/2017	2017	2	2	1277	\$635,538	\$497.68	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/21/2017	2017	2	2.5	1208	\$624,338	\$516.84	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/21/2017	2017	2	2.5	1296	\$649,156	\$500.89	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/22/2017	2017	2	2.5	1229	\$622,838	\$506.78	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	1/10/2018	2017	2	2	1277	\$767,771	\$601.23	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	5/30/2018	2018	2	2.5	1208	\$644,938	\$533.89	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	6/8/2018	2018	2	2	1277	\$651,038	\$509.82	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	6/12/2018	2018	2	2.5	1229	\$632,338	\$514.51	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	6/15/2018	2018	2	2.5	1296	\$664,856	\$513.01	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	5/17/2018	2015	2	2.5	1229	\$639,000	\$519.93	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	8/15/2017	2015	2	2.5	1229	\$599,500	\$487.79	
Condo/Co-op	2611 Kiahuna Plantation Ur Koloa		96756	11/3/2017	2017	2	2.5	1297	\$750,539	\$578.67	
Condo/Co-op	2840 Ke Alaula St #10	Koloa	96756	11/15/2016	2016	2	2	1113	\$2,475,000	\$2,223.72	
Condo/Co-op	2823 Ala Pualeikukui St #3	Koloa	96756	6/27/2017	2017	2	2	1429	\$2,759,022	\$1,930.74	
Condo/Co-op	2611 Kiahuna Plantation D Koloa		96756	10/18/2016	2015	2	2.5	1208	\$720,000	\$596.03	
Condo/Co-op	2611 Kiahuna Plantation D Koloa		96756	10/21/2016	2015	2	2.5	1296	\$621,000	\$479.17	
Condo/Co-op	2611 Kiahuna Plantation Ur Koloa		96756	2/9/2017	2007	2	2.5	1208	\$693,350	\$573.97	
Condo/Co-op	2611 Kiahuna Plantation Ur Koloa		96756	11/29/2016	2015	2	2.5	1229	\$711,250	\$578.72	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	2/28/2017	2015	2	2.5	1296	\$663,568	\$512.01	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/23/2016	2015	2	2.5	1208	\$593,050	\$490.94	
Condo/Co-op	2611 Kiahuna Plantation D Koloa		96756	6/27/2017	2015	2	2.5	1277	\$705,000	\$552.08	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	9/29/2016	2015	2	2.5	1277	\$599,250	\$469.26	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	5/11/2017	2015	2	2.5	1296	\$625,650	\$482.75	
						<b>Average</b>	<b>2016</b>	<b>Average</b>	<b>1,253</b>	<b>\$817,836</b>	<b>\$652.66</b>
								<b>Median</b>	<b>1,229</b>	<b>\$649,156</b>	<b>\$514.51</b>
								<b>Weighted Average</b>		<b>\$652.68</b>	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	8/29/2017	2015	3	3	1478	\$769,000	\$520.30	
Condo/Co-op	2611 Kiahuna Plantation D Koloa		96756	10/4/2017	2015	3	3	1443	\$745,000	\$516.29	
Condo/Co-op	2611 Kiahuna Plantation Ur Poipu		96756	10/6/2017	2017	3	3	1476	\$815,888	\$552.77	
Condo/Co-op	2611 Kiahuna Plantation D Poipu		96756	10/9/2017	2017	3	3	1478	\$823,548	\$557.20	
Condo/Co-op	2611 Kiahuna Plantation D Poipu		96756	10/17/2017	2017	3	2.5	1576	\$855,729	\$542.98	
Condo/Co-op	2611 Kiahuna Plantation D Poipu		96756	11/14/2017	2017	3	2.5	1602	\$842,238	\$525.74	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/12/2017	2017	3	2.5	1576	\$723,838	\$459.29	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/22/2017	2017	3	3	1443	\$698,448	\$484.02	
Condo/Co-op	2611 Kiahuna Plantation Ur Koloa		96756	10/9/2017	2017	3	3	1443	\$705,000	\$488.57	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	6/15/2018	2018	3	3	1476	\$728,788	\$493.76	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	6/8/2018	2018	3	3	1476	\$728,748	\$493.73	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	6/7/2018	2015	3	2.5	1602	\$814,948	\$508.71	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	6/14/2018	2018	3	3	1443	\$720,500	\$499.31	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	6/8/2018	2018	3	3	1443	\$744,748	\$516.11	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	9/19/2017	2015	3	3	1443	\$695,000	\$481.64	
Condo/Co-op	2611 Kiahuna Plantation Ur Poipu		96756	2/13/2018	2017	3	3	1443	\$828,000	\$573.80	
Condo/Co-op	2611 Kiahuna Plantation D Poipu		96756	10/5/2017	2017	3	3	1443	\$830,948	\$575.85	
Condo/Co-op	2611 Kiahuna Plantation D Poipu		96756	10/5/2017	2017	3	3	1443	\$804,000	\$557.17	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	10/5/2017	2017	3	3	1443	\$824,266	\$571.22	
Condo/Co-op	2611 Kiahuna Plantation D Poipu		96756	10/20/2017	2017	3	3	1443	\$820,000	\$568.26	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/14/2017	2017	3	3	1443	\$708,548	\$491.02	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/22/2017	2017	3	3	1443	\$695,448	\$481.95	
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa		96756	12/12/2017	2017	3	2.5	1602	\$728,738	\$454.89	

Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	12/13/2017	2017	3	3	1443	\$727,248	\$503.98		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	12/21/2017	2017	3	3	1476	\$699,748	\$474.08		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	1/4/2018	2017	3	3	1476	\$675,348	\$457.55		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	6/13/2018	2018	3	3	1443	\$728,648	\$504.95		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	6/5/2018	2018	3	2.5	1602	\$728,738	\$454.89		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	6/20/2018	2018	3	3	1443	\$722,120	\$500.43		
Condo/Co-op	2611 Kiahuna Plant Dr Unit Koloa	96756	8/22/2016	2015	3	3	1443	\$730,040	\$505.92		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	1/6/2017	2016	3	3	1446	\$649,000	\$448.82		
Condo/Co-op	2611 Kiahuna Plantation D Koloa	96756	9/1/2016	2015	3	2.5	1576	\$776,300	\$492.58		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	10/11/2016	2015	3	3	1478	\$649,500	\$439.45		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	12/20/2016	2015	3	2.5	1576	\$690,000	\$437.82		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	2/22/2017	2015	3	3	1443	\$660,150	\$457.48		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	8/31/2016	2015	3	3	2453	\$648,050	\$264.19		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	4/7/2017	2015	3	2.5	1576	\$818,000	\$519.04		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	2/21/2017	2015	3	3	1443	\$675,000	\$467.78		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	6/9/2017	2015	3	3	1478	\$708,498	\$479.36		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	3/29/2017	2015	3	3	1443	\$770,598	\$534.02		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	3/29/2017	2015	3	3	1443	\$649,000	\$449.76		
					<b>Average</b>	<b>2016</b>		<b>Average</b>	<b>1,507</b>	<b>\$740,423</b>	<b>\$495.28</b>
								<b>Median</b>	<b>1,443</b>	<b>\$728,738</b>	<b>\$493.76</b>
								<b>Weighted Average</b>			<b>\$491.36</b>
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Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	3/29/2018	2017	4	3.5	1850	\$825,884	\$446.42		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	6/13/2018	2018	4	3.5	1850	\$842,584	\$455.45		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	-	2017	4	3.5	1850	\$825,880	\$446.42		
Condo/Co-op	2707 Ohana Aina Pl #1 Kalaheo	96741	9/16/2016	2008	4	2	1735	\$535,000	\$308.36		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	3/14/2017	2015	4	3.5	1850	\$773,550	\$418.14		
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	3/3/2017	2015	4	3.5	1850	\$805,000	\$435.14		
					<b>Average</b>	<b>2015</b>		<b>Average</b>	<b>1,831</b>	<b>\$767,983</b>	<b>\$418.32</b>
								<b>Median</b>	<b>1,850</b>	<b>\$815,440</b>	<b>\$440.78</b>
								<b>Weighted Average</b>			<b>\$419.47</b>
<hr/>											
Condo/Co-op	2611 Kiahuna Plantation Dr Koloa	96756	June-29-2018	2018	6	5	3178	\$744,338	\$234.22		
					<b>Average</b>	<b>2018</b>		<b>Average</b>	<b>3,178</b>	<b>\$744,338</b>	<b>\$234.22</b>
								<b>Median</b>	<b>3,178</b>	<b>\$744,338</b>	<b>\$234.22</b>
								<b>Weighted Average</b>			<b>\$234.22</b>

**APPENDIX A, TABLE 5  
 CURRENT MARKET AREA RENTS BY UNIT TYPE (YTD)  
 WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
 KAUAI, HI**

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<b>Unit Type</b>	<b>Units in Sample</b>	<b>Avg SF</b>	<b>Current Rent YTD</b>	<b>5-Year Avg Rent</b>	<b>Average Rent PSF</b>	<b>Vacancy</b>
<b>Studio / Efficiency</b>	20	375	\$1,241	\$1,127	\$3.57	5.5%
<b>One Bedroom</b>	195	635	\$1,385	\$1,354	\$2.13	2.9%
<b>Two Bedroom</b>	120	873	\$1,320	\$1,295	\$1.56	2.5%
<b>Three Bedroom</b>	39	1108	\$1,998	\$2,032	\$1.78	1.5%
<b>Overall</b>	<b>374</b>	<b>747</b>	<b>\$1,420</b>	<b>\$1,394</b>	<b>\$1.99</b>	<b>2.8%</b>

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Source: Costar 8/2018

**APPENDIX A, TABLE 6  
MARKET AREA RENT TRENDS  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUA'I, HI**

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<u>Year</u>	<u>Asking Rent Trends</u>		<u>Effective Rent Trends</u>			<u>Average Vacancy</u>
	Avg. Rent	Rent/SF	Avg. Rent	Rent/SF	% Growth	
2014/Q2	\$1,342	\$1.80	\$1,339	\$1.80	-4.8%	3.8%
2014/Q3	\$1,338	\$1.80	\$1,334	\$1.79	-5.4%	3.7%
2014/Q4	\$1,336	\$1.79	\$1,333	\$1.79	0.9%	3.6%
2015/Q1	\$1,344	\$1.80	\$1,326	\$1.78	-0.7%	9.1%
2015/Q2	\$1,353	\$1.82	\$1,341	\$1.80	0.0%	5.1%
2015/Q3	\$1,365	\$1.83	\$1,358	\$1.82	1.7%	3.8%
2015/Q4	\$1,374	\$1.84	\$1,366	\$1.83	2.5%	3.3%
2016/Q1	\$1,383	\$1.86	\$1,378	\$1.85	4.0%	3.1%
2016/Q2	\$1,392	\$1.87	\$1,387	\$1.86	3.4%	3.1%
2016/Q3	\$1,392	\$1.87	\$1,387	\$1.86	2.1%	3.0%
2016/Q4	\$1,395	\$1.87	\$1,389	\$1.86	1.6%	3.3%
2017/Q1	\$1,395	\$1.87	\$1,389	\$1.86	0.7%	7.0%
2017/Q2	\$1,395	\$1.87	\$1,389	\$1.86	0.0%	4.2%
2017/Q3	\$1,395	\$1.87	\$1,389	\$1.86	0.0%	3.4%
2017/Q4	\$1,394	\$1.87	\$1,388	\$1.86	-0.2%	3.1%
2018/Q1	\$1,394	\$1.87	\$1,388	\$1.86	-0.2%	3.0%
2018/Q2	\$1,399	\$1.87	\$1,393	\$1.86	0.2%	3.0%
QTD	\$1,401	\$1.88	\$1,396	\$1.87	0.4%	2.9%

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Source: Costar 8/2018

**APPENDIX A, TABLE 7  
APARTMENTS IN KAUAI COUNTY AND NEIGHBORING COUNTIES  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUAI, HI**

	<b>Bedrooms</b>	<b>Baths</b>	<b>Square Feet</b>	<b># Units</b>	<b>Asking Rents</b>	<b>Asking Rents / SF</b>
<b>Kauai County</b>						
<b>Kapaa Town Lofts, 4585 Lehua St</b> Built 1986 Market	0	1	375 sf	13	\$1,337	\$3.57
<b>4517 Kala Rd</b> Built 1940 Market	2	1	-	10	\$830	-
<b>Courtyards at Waipouli, 401 Papaloa Rd</b> Built 2008 Market/Affordable	1 2 3	1 1 2	715 sf 985 sf 1,121 sf	30 30 22	\$1,506 \$1,481 \$1,998	\$2.11 \$1.50 \$1.78
<b>Kaniko'o, 4215 Hoala Street</b> Built 2015 Affordable, Senior	1 2	1 1	606 sf 1,128 sf	30 30	\$865 \$1,039	\$1.43 \$0.92
<b>Kekaha Plantation, 8210 Iwipolena Rd</b> Built 1982 Affordable, Senior	1	1	680 sf	36	\$1,665	\$2.45
<b>Hale Ohana Apts, 3985 Oluohu St</b> Built 1985 Affordable	1 2	1 1	550 sf 848 sf	18 30	\$1,490 \$1,545	\$2.71 \$1.82
<b>Neighboring Counties</b>						
<b>Honolulu County</b>						
<b>Hale Maluniu, 101-117 Maluniu Ave</b> Built 2017 Market	0 1 2	1 1 2	419 sf 593 sf 808 sf	9 9 20	\$1,598 \$1,940 \$2,323	\$3.81 \$3.27 \$2.88
<b>Kapolei Lofts - 761 Wakea St</b> Built 2017 Market/ Affordable	1 2 3	1 2 2	601 sf 928 sf 1,293 sf	230 231 33	\$2,039 \$2,356 \$3,254	\$3.39 \$2.54 \$2.52
<b>Maui County</b>						
<b>Waterfront Apts. at Kahului - 50 Vevau St</b> Built 2008 Market	0 1 2	1 1 1.5	275 sf 500 sf 762 sf	2 107 4	\$1,395 \$1,744 \$1,933	\$5.07 \$3.49 \$2.54
<b>Piilani Garden Apts. - 150 Manino Cir</b> Built 2002 Market	2	2	817 sf	200	\$1,777	\$2.18

Source: CoStar, August 2018

**APPENDIX B: SUPPORTING DATA FOR THE  
RESIDENTIAL WORKFORCE HOUSING NEXUS ANALYSIS**

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**RESIDENTIAL NEXUS APPENDIX B TABLE 1  
 WORKER OCCUPATION DISTRIBUTION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$70 TO \$100K, RESIDENT SERVICES  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI, HI**

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<b>Worker Occupation Distribution<sup>1</sup>          Services to Households Earning          \$70k to \$100k</b>
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**Major Occupations (2% or more)**

Management Occupations	4.2%
Business and Financial Operations Occupations	4.1%
Education, Training, and Library Occupations	2.5%
Arts, Design, Entertainment, Sports, and Media Occupations	2.1%
Healthcare Practitioners and Technical Occupations	6.7%
Healthcare Support Occupations	3.4%
Food Preparation and Serving Related Occupations	14.7%
Building and Grounds Cleaning and Maintenance Occupations	4.5%
Personal Care and Service Occupations	7.6%
Sales and Related Occupations	13.7%
Office and Administrative Support Occupations	15.2%
Installation, Maintenance, and Repair Occupations	3.9%
Transportation and Material Moving Occupations	6.0%
All Other Worker Occupations - Services to Households Earning \$70k to \$100k	<u>11.4%</u>
<b>INDUSTRY TOTAL</b>	<b>100.0%</b>

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<sup>1</sup> Distribution of employment by industry is per the IMPLAN model and the distribution of occupational employment within those industries is based on the Bureau of Labor Statistics Occupational Employment Survey.

**RESIDENTIAL NEXUS APPENDIX B TABLE 2  
AVERAGE ANNUAL WORKER COMPENSATION, 2017  
SERVICES TO HOUSEHOLDS EARNING \$70K TO \$100K  
RESIDENTIAL NEXUS ANALYSIS  
KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<b>Page 1 of 4</b>			
<i>Management Occupations</i>			
General and Operations Managers	\$93,700	36.1%	1.5%
Sales Managers	\$87,800	4.7%	0.2%
Administrative Services Managers	\$75,300	3.2%	0.1%
Financial Managers	\$100,500	8.2%	0.3%
Food Service Managers	\$64,700	5.3%	0.2%
Medical and Health Services Managers	\$106,400	5.4%	0.2%
Property, Real Estate, and Community Association Managers	\$61,800	11.4%	0.5%
Managers, All Other	\$78,000	3.5%	0.1%
All other Management Occupations (Avg. All Categories)	<u>\$86,800</u>	<u>22.2%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$86,800</b>	<b>100.0%</b>	<b>4.2%</b>
<i>Business and Financial Operations Occupations</i>			
Buyers and Purchasing Agents	\$52,800	3.7%	0.2%
Human Resources Specialists	\$55,200	5.2%	0.2%
Management Analysts	\$77,200	5.4%	0.2%
Training and Development Specialists	\$66,400	3.4%	0.1%
Market Research Analysts and Marketing Specialists	\$49,500	8.7%	0.4%
Business Operations Specialists, All Other	\$61,400	9.2%	0.4%
Accountants and Auditors	\$61,400	20.6%	0.8%
Financial Analysts	\$76,600	6.5%	0.3%
Loan Officers	\$76,200	4.7%	0.2%
All Other Business and Financial Operations Occupations (Avg. All Categories)	<u>\$61,900</u>	<u>32.6%</u>	<u>1.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$62,600</b>	<b>100.0%</b>	<b>4.1%</b>
<i>Education, Training, and Library Occupations</i>			
Preschool Teachers, Except Special Education	\$37,200	19.5%	0.5%
Elementary School Teachers, Except Special Education	\$58,600	7.1%	0.2%
Secondary School Teachers, Except Special and Career/Technical Education	\$59,000	5.2%	0.1%
Self-Enrichment Education Teachers	\$37,600	13.5%	0.3%
Teachers and Instructors, All Other, Except Substitute Teachers	\$39,400	6.4%	0.2%
All Other Education, Training, and Library Occupations (Avg. All Categories)	<u>\$42,700</u>	<u>48.3%</u>	<u>1.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$42,700</b>	<b>100.0%</b>	<b>2.5%</b>
<i>Arts, Design, Entertainment, Sports, and Media Occupations</i>			
Graphic Designers	\$34,500	7.4%	0.2%
Merchandise Displayers and Window Trimmers	\$32,300	3.9%	0.1%
Producers and Directors	\$86,000	4.1%	0.1%
Coaches and Scouts	\$49,400	9.1%	0.2%
Music Directors and Composers	\$39,500	3.1%	0.1%
Public Relations Specialists	\$53,000	7.6%	0.2%
Writers and Authors	\$49,600	3.5%	0.1%
Audio and Video Equipment Technicians	\$56,100	4.1%	0.1%
All Other Arts, Design, Entertainment, Sports, and Media Occupations (Avg. All Categories)	<u>\$48,700</u>	<u>57.2%</u>	<u>1.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$49,000</b>	<b>100.0%</b>	<b>2.1%</b>

RESIDENTIAL NEXUS APPENDIX B TABLE 2  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$70K TO \$100K  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUA'I, HI

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<i>Page 2 of 4</i>			
<i>Healthcare Practitioners and Technical Occupations</i>			
Pharmacists	\$117,500	5.3%	0.4%
Physicians and Surgeons, All Other	\$186,000	4.3%	0.3%
Physical Therapists	\$89,300	3.3%	0.2%
Registered Nurses	\$93,100	26.5%	1.8%
Clinical Laboratory Technologists and Technicians	\$55,300	3.2%	0.2%
Dental Hygienists	\$79,100	4.7%	0.3%
Pharmacy Technicians	\$36,000	7.2%	0.5%
Licensed Practical and Licensed Vocational Nurses	\$50,300	5.8%	0.4%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Ca	<u>\$100,000</u>	<u>39.7%</u>	<u>2.7%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>6.7%</b>
<i>Healthcare Support Occupations</i>			
Home Health Aides	\$25,600	15.8%	0.5%
Nursing Assistants	\$32,100	21.6%	0.7%
Massage Therapists	\$49,900	8.2%	0.3%
Dental Assistants	\$32,100	14.7%	0.5%
Medical Assistants	\$37,600	19.8%	0.7%
Veterinary Assistants and Laboratory Animal Caretakers	\$30,600	3.3%	0.1%
All Other Healthcare Support Occupations (Avg. All Categories)	<u>\$33,900</u>	<u>16.5%</u>	<u>0.6%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>3.4%</b>
<i>Food Preparation and Serving Related Occupations</i>			
First-Line Supervisors of Food Preparation and Serving Workers	\$38,800	7.0%	1.0%
Cooks, Fast Food	\$33,000	4.0%	0.6%
Cooks, Restaurant	\$37,500	9.7%	1.4%
Food Preparation Workers	\$29,000	6.1%	0.9%
Bartenders	\$53,700	5.9%	0.9%
Combined Food Preparation and Serving Workers, Including Fast Food	\$24,300	27.3%	4.0%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$26,100	3.3%	0.5%
Waiters and Waitresses	\$48,200	19.8%	2.9%
Dining Room and Cafeteria Attendants and Bartender Helpers	\$36,000	3.0%	0.4%
Dishwashers	\$27,700	3.9%	0.6%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$31,700	3.2%	0.5%
All Other Food Preparation and Serving Related Occupations (Avg. All Ca	<u>\$35,200</u>	<u>6.9%</u>	<u>1.0%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>14.7%</b>

**RESIDENTIAL NEXUS APPENDIX B TABLE 2  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$70K TO \$100K  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI, HI**

<b>Occupation <sup>3</sup></b>	<b>2017 Avg. Compensation <sup>1</sup></b>	<b>% of Total Occupation Group <sup>2</sup></b>	<b>% of Total No. of Service Workers</b>
<i>Page 3 of 4</i>			
<i>Building and Grounds Cleaning and Maintenance Occupations</i>			
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeepin	\$56,900	3.6%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$29,400	43.4%	2.0%
Maids and Housekeeping Cleaners	\$36,800	11.2%	0.5%
Pest Control Workers	\$34,900	3.6%	0.2%
Landscaping and Groundskeeping Workers	\$36,900	33.0%	1.5%
All Other Building and Grounds Cleaning and Maintenance Occupations (/	<u>\$34,100</u>	<u>5.2%</u>	<u>0.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$34,100</b>	<b>100.0%</b>	<b>4.5%</b>
<i>Personal Care and Service Occupations</i>			
First-Line Supervisors of Personal Service Workers	\$50,200	3.9%	0.3%
Nonfarm Animal Caretakers	\$32,300	10.9%	0.8%
Amusement and Recreation Attendants	\$31,700	3.0%	0.2%
Hairdressers, Hairstylists, and Cosmetologists	\$28,200	17.2%	1.3%
Manicurists and Pedicurists	\$26,300	5.4%	0.4%
Childcare Workers	\$22,100	7.7%	0.6%
Personal Care Aides	\$25,200	29.0%	2.2%
Fitness Trainers and Aerobics Instructors	\$53,100	5.4%	0.4%
Recreation Workers	\$36,600	3.3%	0.3%
All Other Personal Care and Service Occupations (Avg. All Categories)	<u>\$29,800</u>	<u>14.1%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$30,000</b>	<b>100.0%</b>	<b>7.6%</b>
<i>Sales and Related Occupations</i>			
First-Line Supervisors of Retail Sales Workers	\$43,300	9.1%	1.2%
Cashiers	\$25,800	27.7%	3.8%
Counter and Rental Clerks	\$32,400	5.1%	0.7%
Retail Salespersons	\$29,400	34.0%	4.7%
Securities, Commodities, and Financial Services Sales Agents	\$95,400	3.6%	0.5%
Sales Representatives, Services, All Other	\$47,900	4.6%	0.6%
Sales Representatives, Wholesale and Manufacturing, Except Technical a	\$45,100	4.4%	0.6%
All Other Sales and Related Occupations (Avg. All Categories)	<u>\$34,300</u>	<u>11.5%</u>	<u>1.6%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$34,300</b>	<b>100.0%</b>	<b>13.7%</b>
<i>Office and Administrative Support Occupations</i>			
First-Line Supervisors of Office and Administrative Support Workers	\$53,200	6.7%	1.0%
Bookkeeping, Accounting, and Auditing Clerks	\$40,200	7.6%	1.2%
Customer Service Representatives	\$36,400	11.9%	1.8%
Receptionists and Information Clerks	\$31,400	8.6%	1.3%
Stock Clerks and Order Fillers	\$29,300	11.6%	1.8%
Medical Secretaries	\$38,300	3.9%	0.6%
Secretaries and Administrative Assistants, Except Legal, Medical, and Exc	\$39,100	11.2%	1.7%
Office Clerks, General	\$32,600	13.9%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Categor	<u>\$39,200</u>	<u>24.6%</u>	<u>3.7%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$37,100</b>	<b>100.0%</b>	<b>15.2%</b>

**RESIDENTIAL NEXUS APPENDIX B TABLE 2  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$70K TO \$100K  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<i>Installation, Maintenance, and Repair Occupations</i>			
First-Line Supervisors of Mechanics, Installers, and Repairers	\$62,300	7.8%	0.3%
Telecommunications Equipment Installers and Repairers, Except Line Inst	\$64,200	3.1%	0.1%
Automotive Body and Related Repairers	\$48,700	5.1%	0.2%
Automotive Service Technicians and Mechanics	\$42,000	16.3%	0.6%
Bus and Truck Mechanics and Diesel Engine Specialists	\$52,100	3.6%	0.1%
Maintenance and Repair Workers, General	\$47,500	36.0%	1.4%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Cate	<u>\$50,100</u>	<u>28.2%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$49,200</b>	<b>100.0%</b>	<b>3.9%</b>
<i>Transportation and Material Moving Occupations</i>			
First-Line Supervisors of Transportation and Material Moving Workers, Ex	\$49,600	4.0%	0.2%
Bus Drivers, School or Special Client	\$37,600	7.7%	0.5%
Driver/Sales Workers	\$26,900	7.6%	0.5%
Heavy and Tractor-Trailer Truck Drivers	\$42,700	9.5%	0.6%
Light Truck or Delivery Services Drivers	\$33,200	8.1%	0.5%
Taxi Drivers and Chauffeurs	\$30,900	5.1%	0.3%
Parking Lot Attendants	\$25,700	12.1%	0.7%
Cleaners of Vehicles and Equipment	\$28,000	6.5%	0.4%
Laborers and Freight, Stock, and Material Movers, Hand	\$32,600	19.1%	1.1%
Packers and Packagers, Hand	\$26,300	6.5%	0.4%
All Other Transportation and Material Moving Occupations (Avg. All Categ	<u>\$38,100</u>	<u>13.8%</u>	<u>0.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$33,400</b>	<b>100.0%</b>	<b>6.0%</b>
			88.6%

<sup>1</sup> The methodology utilized by the Bureau of Labor Statistics (BLS) assumes hourly paid employees are employed full-time. Annual compensation is calculated by BLS by multiplying hourly wages by 40 hours per work week by 52 weeks.

<sup>2</sup> Occupation percentages are based on the 2017 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on Occupational Employment Survey data applicable to Kaua'i as of 2017.

<sup>3</sup> Including occupations representing 3% or more of the major occupation group.

**RESIDENTIAL NEXUS APPENDIX B TABLE 3  
 WORKER OCCUPATION DISTRIBUTION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$100 - \$150K, RESIDENT SERVICES  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUA'I, HI**

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<b>Worker Occupation Distribution<sup>1</sup></b> <b>Services to Households Earning</b> <b>\$100,000 to \$150,000</b>
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**Major Occupations (2% or more)**

Management Occupations	4.1%
Business and Financial Operations Occupations	4.0%
Education, Training, and Library Occupations	2.8%
Arts, Design, Entertainment, Sports, and Media Occupations	2.3%
Healthcare Practitioners and Technical Occupations	6.6%
Healthcare Support Occupations	3.5%
Food Preparation and Serving Related Occupations	14.5%
Building and Grounds Cleaning and Maintenance Occupations	4.6%
Personal Care and Service Occupations	8.1%
Sales and Related Occupations	13.4%
Office and Administrative Support Occupations	14.9%
Installation, Maintenance, and Repair Occupations	3.8%
Transportation and Material Moving Occupations	6.1%
All Other Worker Occupations - Services to Households Earning \$100,000 to \$150,000	<u>11.4%</u>
<b>INDUSTRY TOTAL</b>	<b>100.0%</b>

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<sup>1</sup> Distribution of employment by industry is per the IMPLAN model and the distribution of occupational employment within those industries is based on the Bureau of Labor Statistics Occupational Employment Survey.

**RESIDENTIAL NEXUS APPENDIX B TABLE 4**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2017**  
**SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000**  
**RESIDENTIAL NEXUS ANALYSIS**  
**KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<b>Page 1 of 4</b>			
<i>Management Occupations</i>			
General and Operations Managers	\$93,700	36.8%	1.5%
Sales Managers	\$87,800	4.7%	0.2%
Administrative Services Managers	\$75,300	3.2%	0.1%
Financial Managers	\$100,500	8.0%	0.3%
Food Service Managers	\$64,700	5.3%	0.2%
Medical and Health Services Managers	\$106,400	5.4%	0.2%
Property, Real Estate, and Community Association Managers	\$61,800	9.9%	0.4%
Managers, All Other	\$78,000	3.6%	0.1%
All other Management Occupations (Avg. All Categories)	<u>\$87,300</u>	<u>23.1%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$87,300</b>	<b>100.0%</b>	<b>4.1%</b>
<i>Business and Financial Operations Occupations</i>			
Buyers and Purchasing Agents	\$52,800	3.8%	0.2%
Human Resources Specialists	\$55,200	5.4%	0.2%
Management Analysts	\$77,200	5.3%	0.2%
Training and Development Specialists	\$66,400	3.5%	0.1%
Market Research Analysts and Marketing Specialists	\$49,500	8.8%	0.3%
Business Operations Specialists, All Other	\$61,400	9.3%	0.4%
Accountants and Auditors	\$61,400	20.8%	0.8%
Financial Analysts	\$76,600	6.2%	0.2%
Loan Officers	\$76,200	4.7%	0.2%
All Other Business and Financial Operations Occupations (Avg. All Categories)	<u>\$62,800</u>	<u>32.0%</u>	<u>1.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$62,800</b>	<b>100.0%</b>	<b>4.0%</b>
<i>Education, Training, and Library Occupations</i>			
Preschool Teachers, Except Special Education	\$37,200	18.3%	0.5%
Elementary School Teachers, Except Special Education	\$58,600	7.7%	0.2%
Middle School Teachers, Except Special and Career/Technical Education	\$58,200	3.1%	0.1%
Secondary School Teachers, Except Special and Career/Technical Education	\$59,000	5.6%	0.2%
Self-Enrichment Education Teachers	\$37,600	12.4%	0.4%
Teachers and Instructors, All Other, Except Substitute Teachers	\$39,400	6.2%	0.2%
All Other Education, Training, and Library Occupations (Avg. All Categories)	<u>\$44,200</u>	<u>46.7%</u>	<u>1.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$44,200</b>	<b>100.0%</b>	<b>2.8%</b>
<i>Arts, Design, Entertainment, Sports, and Media Occupations</i>			
Graphic Designers	\$34,500	7.0%	0.2%
Merchandise Displayers and Window Trimmers	\$32,300	3.6%	0.1%
Producers and Directors	\$86,000	4.1%	0.1%
Coaches and Scouts	\$49,400	9.9%	0.2%
Public Relations Specialists	\$53,000	7.2%	0.2%
Writers and Authors	\$49,600	3.3%	0.1%
Audio and Video Equipment Technicians	\$56,100	4.0%	0.1%
All Other Arts, Design, Entertainment, Sports, and Media Occupations (Avg. All Categories)	<u>\$50,300</u>	<u>61.0%</u>	<u>1.4%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$50,300</b>	<b>100.0%</b>	<b>2.3%</b>

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN  
 Keyser Marston Associates, Inc.  
 \\SF-FS2\wp\15\15011\001\Kauai Residential Nexus 11-25-18; 6/17/2019; dd

RESIDENTIAL NEXUS APPENDIX B TABLE 4  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI, HI

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<i>Page 2 of 4</i>			
<i>Healthcare Practitioners and Technical Occupations</i>			
Pharmacists	\$117,500	5.2%	0.3%
Physicians and Surgeons, All Other	\$186,000	4.1%	0.3%
Physical Therapists	\$89,300	3.6%	0.2%
Registered Nurses	\$93,100	26.2%	1.7%
Clinical Laboratory Technologists and Technicians	\$55,300	3.1%	0.2%
Dental Hygienists	\$79,100	4.7%	0.3%
Pharmacy Technicians	\$36,000	7.2%	0.5%
Licensed Practical and Licensed Vocational Nurses	\$50,300	6.3%	0.4%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Ca	<u>\$102,100</u>	<u>39.6%</u>	<u>2.6%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>6.6%</b>
	<b>\$93,000</b>		
<i>Healthcare Support Occupations</i>			
Home Health Aides	\$25,600	21.2%	0.7%
Nursing Assistants	\$32,100	20.2%	0.7%
Massage Therapists	\$49,900	7.9%	0.3%
Dental Assistants	\$32,100	13.6%	0.5%
Medical Assistants	\$37,600	18.1%	0.6%
Veterinary Assistants and Laboratory Animal Caretakers	\$30,600	3.3%	0.1%
All Other Healthcare Support Occupations (Avg. All Categories)	<u>\$33,300</u>	<u>15.6%</u>	<u>0.5%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>3.5%</b>
	<b>\$33,300</b>		
<i>Food Preparation and Serving Related Occupations</i>			
First-Line Supervisors of Food Preparation and Serving Workers	\$38,800	6.9%	1.0%
Cooks, Fast Food	\$33,000	3.9%	0.6%
Cooks, Restaurant	\$37,500	9.6%	1.4%
Food Preparation Workers	\$29,000	6.1%	0.9%
Bartenders	\$53,700	6.1%	0.9%
Combined Food Preparation and Serving Workers, Including Fast Food	\$24,300	27.0%	3.9%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$26,100	3.3%	0.5%
Waiters and Waitresses	\$48,200	19.7%	2.9%
Dishwashers	\$27,700	3.9%	0.6%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$31,700	3.2%	0.5%
All Other Food Preparation and Serving Related Occupations (Avg. All Ca	<u>\$35,200</u>	<u>10.2%</u>	<u>1.5%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>14.5%</b>
	<b>\$35,200</b>		

RESIDENTIAL NEXUS APPENDIX B TABLE 4  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI, HI

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<i>Page 3 of 4</i>			
<i>Building and Grounds Cleaning and Maintenance Occupations</i>			
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeepin	\$56,900	3.7%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$29,400	43.6%	2.0%
Maids and Housekeeping Cleaners	\$36,800	10.4%	0.5%
Pest Control Workers	\$34,900	3.7%	0.2%
Landscaping and Groundskeeping Workers	\$36,900	33.8%	1.5%
All Other Building and Grounds Cleaning and Maintenance Occupations (	<u>\$34,200</u>	<u>4.8%</u>	<u>0.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$34,200</b>	<b>100.0%</b>	<b>4.6%</b>
<i>Personal Care and Service Occupations</i>			
First-Line Supervisors of Personal Service Workers	\$50,200	3.8%	0.3%
Nonfarm Animal Caretakers	\$32,300	10.6%	0.9%
Amusement and Recreation Attendants	\$31,700	3.5%	0.3%
Hairdressers, Hairstylists, and Cosmetologists	\$28,200	16.1%	1.3%
Manicurists and Pedicurists	\$26,300	5.1%	0.4%
Childcare Workers	\$22,100	7.9%	0.6%
Personal Care Aides	\$25,200	28.7%	2.3%
Fitness Trainers and Aerobics Instructors	\$53,100	6.1%	0.5%
Recreation Workers	\$36,600	3.4%	0.3%
All Other Personal Care and Service Occupations (Avg. All Categories)	<u>\$28,100</u>	<u>14.7%</u>	<u>1.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$30,000</b>	<b>100.0%</b>	<b>8.1%</b>
<i>Sales and Related Occupations</i>			
First-Line Supervisors of Retail Sales Workers	\$43,300	9.1%	1.2%
Cashiers	\$25,800	28.0%	3.8%
Counter and Rental Clerks	\$32,400	4.8%	0.6%
Retail Salespersons	\$29,400	34.2%	4.6%
Securities, Commodities, and Financial Services Sales Agents	\$95,400	3.4%	0.5%
Sales Representatives, Services, All Other	\$47,900	4.7%	0.6%
Sales Representatives, Wholesale and Manufacturing, Except Technical s	\$45,100	4.5%	0.6%
All Other Sales and Related Occupations (Avg. All Categories)	<u>\$34,100</u>	<u>11.2%</u>	<u>1.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$34,100</b>	<b>100.0%</b>	<b>13.4%</b>

**RESIDENTIAL NEXUS APPENDIX B TABLE 4**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2017**  
**SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000**  
**RESIDENTIAL NEXUS ANALYSIS**  
**KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<i>Office and Administrative Support Occupations</i>			
First-Line Supervisors of Office and Administrative Support Workers	\$53,200	6.7%	1.0%
Bookkeeping, Accounting, and Auditing Clerks	\$40,200	7.6%	1.1%
Customer Service Representatives	\$36,400	11.9%	1.8%
Receptionists and Information Clerks	\$31,400	8.7%	1.3%
Stock Clerks and Order Fillers	\$29,300	11.6%	1.7%
Medical Secretaries	\$38,300	3.8%	0.6%
Secretaries and Administrative Assistants, Except Legal, Medical, and Ex	\$39,100	11.1%	1.7%
Office Clerks, General	\$32,600	14.0%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Categor	<u>\$36,700</u>	<u>24.6%</u>	<u>3.7%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$36,500</b>	<b>100.0%</b>	<b>14.9%</b>
<i>Installation, Maintenance, and Repair Occupations</i>			
First-Line Supervisors of Mechanics, Installers, and Repairers	\$62,300	7.8%	0.3%
Automotive Body and Related Repairers	\$48,700	5.3%	0.2%
Automotive Service Technicians and Mechanics	\$42,000	17.0%	0.6%
Bus and Truck Mechanics and Diesel Engine Specialists	\$52,100	3.8%	0.1%
Maintenance and Repair Workers, General	\$47,500	33.7%	1.3%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Cate	<u>\$48,200</u>	<u>32.5%</u>	<u>1.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$48,200</b>	<b>100.0%</b>	<b>3.8%</b>
<i>Transportation and Material Moving Occupations</i>			
First-Line Supervisors of Transportation and Material Moving Workers, Ex	\$49,600	4.0%	0.2%
Bus Drivers, School or Special Client	\$37,600	8.5%	0.5%
Driver/Sales Workers	\$26,900	7.3%	0.4%
Heavy and Tractor-Trailer Truck Drivers	\$42,700	9.3%	0.6%
Light Truck or Delivery Services Drivers	\$33,200	7.8%	0.5%
Taxi Drivers and Chauffeurs	\$30,900	5.4%	0.3%
Parking Lot Attendants	\$25,700	12.3%	0.8%
Cleaners of Vehicles and Equipment	\$28,000	6.4%	0.4%
Laborers and Freight, Stock, and Material Movers, Hand	\$32,600	18.6%	1.1%
Packers and Packagers, Hand	\$26,300	6.2%	0.4%
All Other Transportation and Material Moving Occupations (Avg. All Categ	<u>\$32,700</u>	<u>14.2%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$32,700</b>	<b>100.0%</b>	<b>6.1%</b>
			88.6%

<sup>1</sup> The methodology utilized by the Bureau of Labor Statistics (BLS) assumes hourly paid employees are employed full-time. Annual compensation is calculated by BLS by multiplying hourly wages by 40 hours per work week by 52 weeks.

<sup>2</sup> Occupation percentages are based on the 2017 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on Occupational Employment Survey data applicable to Kaua'i as of 2017.

<sup>3</sup> Including occupations representing 3% or more of the major occupation group

**RESIDENTIAL NEXUS APPENDIX B TABLE 5  
 WORKER OCCUPATION DISTRIBUTION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$150K - \$200K, RESIDENT SERVICES  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI, HI**

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<b>Major Occupations (2% or more)</b>	<b>Worker Occupation Distribution<sup>1</sup> Services to Households Earning \$150k - \$200k</b>
Management Occupations	4.0%
Business and Financial Operations Occupations	3.6%
Education, Training, and Library Occupations	3.4%
Arts, Design, Entertainment, Sports, and Media Occupations	2.3%
Healthcare Practitioners and Technical Occupations	6.9%
Healthcare Support Occupations	3.5%
Food Preparation and Serving Related Occupations	14.8%
Building and Grounds Cleaning and Maintenance Occupations	4.7%
Personal Care and Service Occupations	8.0%
Sales and Related Occupations	13.2%
Office and Administrative Support Occupations	14.6%
Installation, Maintenance, and Repair Occupations	3.6%
Transportation and Material Moving Occupations	6.2%
All Other Worker Occupations - Services to Households Earning \$150k - \$200k	<u>11.2%</u>
<b>INDUSTRY TOTAL</b>	100.0%

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<sup>1</sup> Distribution of employment by industry is per the IMPLAN model and the distribution of occupational employment within those industries is based on the Bureau of Labor Statistics Occupational Employment Survey.

**RESIDENTIAL NEXUS APPENDIX B TABLE 6  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$150K - \$200K  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<b>Page 1 of 4</b>			
<i>Management Occupations</i>			
General and Operations Managers	\$93,700	37.0%	1.5%
Sales Managers	\$87,800	4.6%	0.2%
Administrative Services Managers	\$75,300	3.3%	0.1%
Financial Managers	\$100,500	7.1%	0.3%
Food Service Managers	\$64,700	5.6%	0.2%
Medical and Health Services Managers	\$106,400	5.8%	0.2%
Property, Real Estate, and Community Association Managers	\$61,800	9.5%	0.4%
Managers, All Other	\$78,000	3.5%	0.1%
All other Management Occupations (Avg. All Categories)	<u>\$87,300</u>	<u>23.7%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$87,300</b>	<b>100.0%</b>	<b>4.0%</b>
<i>Business and Financial Operations Occupations</i>			
Buyers and Purchasing Agents	\$52,800	4.1%	0.2%
Human Resources Specialists	\$55,200	5.7%	0.2%
Management Analysts	\$77,200	5.5%	0.2%
Training and Development Specialists	\$66,400	3.9%	0.1%
Market Research Analysts and Marketing Specialists	\$49,500	9.2%	0.3%
Business Operations Specialists, All Other	\$61,400	10.2%	0.4%
Accountants and Auditors	\$61,400	21.3%	0.8%
Financial Analysts	\$76,600	5.3%	0.2%
Loan Officers	\$76,200	4.1%	0.1%
All Other Business and Financial Operations Occupations (Avg. All Categories)	<u>\$62,400</u>	<u>30.7%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$62,400</b>	<b>100.0%</b>	<b>3.6%</b>
<i>Education, Training, and Library Occupations</i>			
Preschool Teachers, Except Special Education	\$37,200	16.7%	0.6%
Elementary School Teachers, Except Special Education	\$58,600	7.6%	0.3%
Middle School Teachers, Except Special and Career/Technical Education	\$58,200	3.2%	0.1%
Secondary School Teachers, Except Special and Career/Technical Education	\$59,000	5.6%	0.2%
Self-Enrichment Education Teachers	\$37,600	11.6%	0.4%
Teachers and Instructors, All Other, Except Substitute Teachers	\$39,400	6.1%	0.2%
All Other Education, Training, and Library Occupations (Avg. All Categories)	<u>\$44,500</u>	<u>49.2%</u>	<u>1.7%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$44,500</b>	<b>100.0%</b>	<b>3.4%</b>
<i>Arts, Design, Entertainment, Sports, and Media Occupations</i>			
Graphic Designers	\$34,500	6.7%	0.2%
Merchandise Displayers and Window Trimmers	\$32,300	3.5%	0.1%
Producers and Directors	\$86,000	4.3%	0.1%
Coaches and Scouts	\$49,400	11.2%	0.3%
Public Relations Specialists	\$53,000	7.2%	0.2%
Writers and Authors	\$49,600	3.4%	0.1%
Audio and Video Equipment Technicians	\$56,100	4.1%	0.1%
All Other Arts, Design, Entertainment, Sports, and Media Occupations (Avg. All Categories)	<u>\$50,700</u>	<u>59.5%</u>	<u>1.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$50,700</b>	<b>100.0%</b>	<b>2.3%</b>

RESIDENTIAL NEXUS APPENDIX B TABLE 6  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$150K - \$200K  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUA'I, HI

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<i>Page 2 of 4</i>			
<i>Healthcare Practitioners and Technical Occupations</i>			
Pharmacists	\$117,500	5.1%	0.4%
Physicians and Surgeons, All Other	\$186,000	4.0%	0.3%
Physical Therapists	\$89,300	3.7%	0.3%
Registered Nurses	\$93,100	26.8%	1.8%
Clinical Laboratory Technologists and Technicians	\$55,300	3.5%	0.2%
Dental Hygienists	\$79,100	4.5%	0.3%
Pharmacy Technicians	\$36,000	7.0%	0.5%
Licensed Practical and Licensed Vocational Nurses	\$50,300	5.8%	0.4%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Categories)	<u>\$101,300</u>	<u>39.7%</u>	<u>2.7%</u>
	<b>Weighted Mean Annual Wage</b>	<b>\$92,800</b>	<b>100.0%</b>
<i>Healthcare Support Occupations</i>			
Home Health Aides	\$25,600	20.1%	0.7%
Nursing Assistants	\$32,100	19.7%	0.7%
Physical Therapist Assistants	\$55,000	3.2%	0.1%
Massage Therapists	\$49,900	8.1%	0.3%
Dental Assistants	\$32,100	13.7%	0.5%
Medical Assistants	\$37,600	18.1%	0.6%
Veterinary Assistants and Laboratory Animal Caretakers	\$30,600	3.3%	0.1%
Phlebotomists	\$37,800	3.1%	0.1%
All Other Healthcare Support Occupations (Avg. All Categories)	<u>\$34,300</u>	<u>10.7%</u>	<u>0.4%</u>
	<b>Weighted Mean Annual Wage</b>	<b>\$34,300</b>	<b>100.0%</b>
<i>Food Preparation and Serving Related Occupations</i>			
First-Line Supervisors of Food Preparation and Serving Workers	\$38,800	7.0%	1.0%
Cooks, Fast Food	\$33,000	4.0%	0.6%
Cooks, Restaurant	\$37,500	9.8%	1.4%
Food Preparation Workers	\$29,000	6.0%	0.9%
Bartenders	\$53,700	6.0%	0.9%
Combined Food Preparation and Serving Workers, Including Fast Food	\$24,300	27.4%	4.0%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$26,100	3.3%	0.5%
Waiters and Waitresses	\$48,200	20.0%	3.0%
Dining Room and Cafeteria Attendants and Bartender Helpers	\$36,000	3.0%	0.4%
Dishwashers	\$27,700	3.9%	0.6%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$31,700	3.2%	0.5%
All Other Food Preparation and Serving Related Occupations (Avg. All Categories)	<u>\$35,300</u>	<u>6.4%</u>	<u>1.0%</u>
	<b>Weighted Mean Annual Wage</b>	<b>\$35,300</b>	<b>100.0%</b>

**RESIDENTIAL NEXUS APPENDIX B TABLE 6  
AVERAGE ANNUAL WORKER COMPENSATION, 2017  
SERVICES TO HOUSEHOLDS EARNING \$150K - \$200K  
RESIDENTIAL NEXUS ANALYSIS  
KAUA'I, HI**

<b>Occupation <sup>3</sup></b>	<b>2017 Avg. Compensation <sup>1</sup></b>	<b>% of Total Occupation Group <sup>2</sup></b>	<b>% of Total No. of Service Workers</b>
<b>Page 3 of 4</b>			
<i>Building and Grounds Cleaning and Maintenance Occupations</i>			
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeepir	\$56,900	3.7%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$29,400	42.9%	2.0%
Maids and Housekeeping Cleaners	\$36,800	10.1%	0.5%
Pest Control Workers	\$34,900	3.8%	0.2%
Landscaping and Groundskeeping Workers	\$36,900	33.8%	1.6%
All Other Building and Grounds Cleaning and Maintenance Occupations (	<u>\$34,200</u>	<u>5.7%</u>	<u>0.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$34,200</b>	<b>100.0%</b>	<b>4.7%</b>
<i>Personal Care and Service Occupations</i>			
First-Line Supervisors of Personal Service Workers	\$50,200	3.9%	0.3%
Nonfarm Animal Caretakers	\$32,300	10.7%	0.9%
Amusement and Recreation Attendants	\$31,700	3.7%	0.3%
Hairdressers, Hairstylists, and Cosmetologists	\$28,200	16.5%	1.3%
Manicurists and Pedicurists	\$26,300	5.2%	0.4%
Childcare Workers	\$22,100	8.8%	0.7%
Personal Care Aides	\$25,200	29.0%	2.3%
Fitness Trainers and Aerobics Instructors	\$53,100	6.8%	0.5%
Recreation Workers	\$36,600	3.5%	0.3%
All Other Personal Care and Service Occupations (Avg. All Categories)	<u>\$28,100</u>	<u>11.9%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$30,100</b>	<b>100.0%</b>	<b>8.0%</b>
<i>Sales and Related Occupations</i>			
First-Line Supervisors of Retail Sales Workers	\$43,300	9.3%	1.2%
Cashiers	\$25,800	28.4%	3.7%
Counter and Rental Clerks	\$32,400	4.8%	0.6%
Retail Salespersons	\$29,400	34.9%	4.6%
Sales Representatives, Services, All Other	\$47,900	4.8%	0.6%
Sales Representatives, Wholesale and Manufacturing, Except Technical a	\$45,100	4.5%	0.6%
All Other Sales and Related Occupations (Avg. All Categories)	<u>\$31,700</u>	<u>13.3%</u>	<u>1.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$31,700</b>	<b>100.0%</b>	<b>13.2%</b>
<i>Office and Administrative Support Occupations</i>			
First-Line Supervisors of Office and Administrative Support Workers	\$53,200	6.6%	1.0%
Bookkeeping, Accounting, and Auditing Clerks	\$40,200	7.5%	1.1%
Customer Service Representatives	\$36,400	11.7%	1.7%
Receptionists and Information Clerks	\$31,400	8.9%	1.3%
Stock Clerks and Order Fillers	\$29,300	11.9%	1.7%
Medical Secretaries	\$38,300	4.0%	0.6%
Secretaries and Administrative Assistants, Except Legal, Medical, and Ex	\$39,100	11.2%	1.6%
Office Clerks, General	\$32,600	14.2%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Catego	<u>\$36,600</u>	<u>24.0%</u>	<u>3.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$36,400</b>	<b>100.0%</b>	<b>14.6%</b>

RESIDENTIAL NEXUS APPENDIX B TABLE 6  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$150K - \$200K  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI, HI

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<b>Page 4 of 4</b>			
<i>Installation, Maintenance, and Repair Occupations</i>			
First-Line Supervisors of Mechanics, Installers, and Repairers	\$62,300	7.7%	0.3%
Automotive Body and Related Repairers	\$48,700	5.1%	0.2%
Automotive Service Technicians and Mechanics	\$42,000	16.8%	0.6%
Bus and Truck Mechanics and Diesel Engine Specialists	\$52,100	4.0%	0.1%
Maintenance and Repair Workers, General	\$47,500	33.3%	1.2%
Installation, Maintenance, and Repair Workers, All Other	\$45,300	3.1%	0.1%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Cat)	<u>\$48,100</u>	<u>29.9%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$48,100</b>	<b>100.0%</b>	<b>3.6%</b>
<i>Transportation and Material Moving Occupations</i>			
First-Line Supervisors of Transportation and Material Moving Workers, Ex	\$49,600	4.0%	0.2%
Bus Drivers, Transit and Intercity	\$37,200	3.2%	0.2%
Bus Drivers, School or Special Client	\$37,600	9.4%	0.6%
Driver/Sales Workers	\$26,900	7.3%	0.5%
Heavy and Tractor-Trailer Truck Drivers	\$42,700	9.2%	0.6%
Light Truck or Delivery Services Drivers	\$33,200	7.7%	0.5%
Taxi Drivers and Chauffeurs	\$30,900	5.6%	0.4%
Parking Lot Attendants	\$25,700	11.9%	0.7%
Cleaners of Vehicles and Equipment	\$28,000	6.0%	0.4%
All Other Transportation and Material Moving Occupations (Avg. All Categ)	<u>\$33,600</u>	<u>35.6%</u>	<u>2.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$33,600</b>	<b>100.0%</b>	<b>6.2%</b>
			88.8%

<sup>1</sup> The methodology utilized by the Bureau of Labor Statistics (BLS) assumes hourly paid employees are employed full-time. Annual compensation is calculated by BLS by multiplying hourly wages by 40 hours per work week by 52 weeks.

<sup>2</sup> Occupation percentages are based on the 2017 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on Occupational Employment Survey data applicable to Kauai as of 2017.

<sup>3</sup> Including occupations representing 3% or more of the major occupation group

**RESIDENTIAL NEXUS APPENDIX B TABLE 7  
 WORKER OCCUPATION DISTRIBUTION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$200K+, RESIDENT SERVICES  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI, HI**

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<b>Major Occupations (2% or more)</b>	<b>Worker Occupation Distribution<sup>1</sup> Services to Households Earning \$200k+</b>
Management Occupations	4.1%
Business and Financial Operations Occupations	3.6%
Education, Training, and Library Occupations	4.7%
Arts, Design, Entertainment, Sports, and Media Occupations	2.7%
Healthcare Practitioners and Technical Occupations	5.5%
Healthcare Support Occupations	3.2%
Food Preparation and Serving Related Occupations	13.7%
Building and Grounds Cleaning and Maintenance Occupations	5.0%
Personal Care and Service Occupations	8.8%
Sales and Related Occupations	13.2%
Office and Administrative Support Occupations	14.3%
Installation, Maintenance, and Repair Occupations	3.5%
Transportation and Material Moving Occupations	6.4%
All Other Worker Occupations - Services to Households Earning \$200k+	<u>11.3%</u>
<b>INDUSTRY TOTAL</b>	100.0%

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<sup>1</sup> Distribution of employment by industry is per the IMPLAN model and the distribution of occupational employment within those industries is based on the Bureau of Labor Statistics Occupational Employment Survey.

**RESIDENTIAL NEXUS APPENDIX B TABLE 8  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$200K+  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<b>Page 1 of 4</b>			
<i>Management Occupations</i>			
General and Operations Managers	\$93,700	37.5%	1.5%
Sales Managers	\$87,800	4.6%	0.2%
Administrative Services Managers	\$75,300	3.2%	0.1%
Financial Managers	\$100,500	6.9%	0.3%
Food Service Managers	\$64,700	5.1%	0.2%
Medical and Health Services Managers	\$106,400	4.6%	0.2%
Property, Real Estate, and Community Association Managers	\$61,800	9.0%	0.4%
Managers, All Other	\$78,000	3.5%	0.1%
All other Management Occupations (Avg. All Categories)	<u>\$87,400</u>	<u>25.7%</u>	<u>1.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$87,400</b>	<b>100.0%</b>	<b>4.1%</b>
<i>Business and Financial Operations Occupations</i>			
Buyers and Purchasing Agents	\$52,800	4.0%	0.1%
Human Resources Specialists	\$55,200	5.8%	0.2%
Management Analysts	\$77,200	5.3%	0.2%
Training and Development Specialists	\$66,400	4.3%	0.2%
Market Research Analysts and Marketing Specialists	\$49,500	9.4%	0.3%
Business Operations Specialists, All Other	\$61,400	10.1%	0.4%
Accountants and Auditors	\$61,400	23.2%	0.8%
Financial Analysts	\$76,600	4.6%	0.2%
Loan Officers	\$76,200	3.8%	0.1%
All Other Business and Financial Operations Occupations (Avg. All Categories)	<u>\$62,100</u>	<u>29.4%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$62,100</b>	<b>100.0%</b>	<b>3.6%</b>
<i>Education, Training, and Library Occupations</i>			
Preschool Teachers, Except Special Education	\$37,200	17.0%	0.8%
Elementary School Teachers, Except Special Education	\$58,600	8.4%	0.4%
Middle School Teachers, Except Special and Career/Technical Education	\$58,200	3.6%	0.2%
Secondary School Teachers, Except Special and Career/Technical Education	\$59,000	6.2%	0.3%
Self-Enrichment Education Teachers	\$37,600	11.9%	0.6%
Teachers and Instructors, All Other, Except Substitute Teachers	\$39,400	6.9%	0.3%
All Other Education, Training, and Library Occupations (Avg. All Categories)	<u>\$44,800</u>	<u>46.1%</u>	<u>2.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$44,800</b>	<b>100.0%</b>	<b>4.7%</b>
<i>Arts, Design, Entertainment, Sports, and Media Occupations</i>			
Graphic Designers	\$34,500	6.5%	0.2%
Merchandise Displayers and Window Trimmers	\$32,300	3.0%	0.1%
Producers and Directors	\$86,000	4.8%	0.1%
Coaches and Scouts	\$49,400	13.4%	0.4%
Public Relations Specialists	\$53,000	6.4%	0.2%
Writers and Authors	\$49,600	3.5%	0.1%
Audio and Video Equipment Technicians	\$56,100	4.2%	0.1%
All Other Arts, Design, Entertainment, Sports, and Media Occupations (Avg. All Categories)	<u>\$51,300</u>	<u>58.2%</u>	<u>1.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$51,300</b>	<b>100.0%</b>	<b>2.7%</b>

**RESIDENTIAL NEXUS APPENDIX B TABLE 8  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$200K+  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI', HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<i>Page 2 of 4</i>			
<i>Healthcare Practitioners and Technical Occupations</i>			
Pharmacists	\$117,500	5.9%	0.3%
Physicians and Surgeons, All Other	\$186,000	3.9%	0.2%
Physical Therapists	\$89,300	4.3%	0.2%
Registered Nurses	\$93,100	23.9%	1.3%
Clinical Laboratory Technologists and Technicians	\$55,300	2.1%	0.1%
Dental Hygienists	\$79,100	4.3%	0.2%
Pharmacy Technicians	\$36,000	8.3%	0.5%
Licensed Practical and Licensed Vocational Nurses	\$50,300	6.8%	0.4%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Categories)	<u>\$103,300</u>	<u>40.3%</u>	<u>2.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$93,100</b>	<b>100.0%</b>	<b>5.5%</b>
<i>Healthcare Support Occupations</i>			
Home Health Aides	\$25,600	27.1%	0.9%
Nursing Assistants	\$32,100	18.5%	0.6%
Physical Therapist Assistants	\$55,000	3.3%	0.1%
Massage Therapists	\$49,900	8.1%	0.3%
Dental Assistants	\$32,100	11.4%	0.4%
Medical Assistants	\$37,600	17.2%	0.6%
Veterinary Assistants and Laboratory Animal Caretakers	\$30,600	3.0%	0.1%
Phlebotomists	\$37,800	1.4%	0.0%
All Other Healthcare Support Occupations (Avg. All Categories)	<u>\$33,700</u>	<u>9.9%</u>	<u>0.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$33,700</b>	<b>100.0%</b>	<b>3.2%</b>
<i>Food Preparation and Serving Related Occupations</i>			
First-Line Supervisors of Food Preparation and Serving Workers	\$38,800	6.9%	0.9%
Cooks, Fast Food	\$33,000	3.9%	0.5%
Cooks, Restaurant	\$37,500	9.6%	1.3%
Food Preparation Workers	\$29,000	6.2%	0.8%
Bartenders	\$53,700	6.1%	0.8%
Combined Food Preparation and Serving Workers, Including Fast Food	\$24,300	27.1%	3.7%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$26,100	3.5%	0.5%
Waiters and Waitresses	\$48,200	19.8%	2.7%
Dining Room and Cafeteria Attendants and Bartender Helpers	\$36,000	3.0%	0.4%
Dishwashers	\$27,700	3.8%	0.5%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$31,700	3.2%	0.4%
All Other Food Preparation and Serving Related Occupations (Avg. All Categories)	<u>\$35,200</u>	<u>6.8%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$35,300</b>	<b>100.0%</b>	<b>13.7%</b>

**RESIDENTIAL NEXUS APPENDIX B TABLE 8  
 AVERAGE ANNUAL WORKER COMPENSATION, 2017  
 SERVICES TO HOUSEHOLDS EARNING \$200K+  
 RESIDENTIAL NEXUS ANALYSIS  
 KAUAI', HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<b>Page 3 of 4</b>			
<i>Building and Grounds Cleaning and Maintenance Occupations</i>			
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeepir	\$56,900	3.8%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$29,400	43.0%	2.2%
Maids and Housekeeping Cleaners	\$36,800	8.9%	0.4%
Pest Control Workers	\$34,900	3.9%	0.2%
Landscaping and Groundskeeping Workers	\$36,900	34.7%	1.7%
All Other Building and Grounds Cleaning and Maintenance Occupations (	<u>\$34,200</u>	<u>5.6%</u>	<u>0.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$34,200</b>	<b>100.0%</b>	<b>5.0%</b>
<i>Personal Care and Service Occupations</i>			
First-Line Supervisors of Personal Service Workers	\$50,200	3.8%	0.3%
Nonfarm Animal Caretakers	\$32,300	9.2%	0.8%
Amusement and Recreation Attendants	\$31,700	4.1%	0.4%
Hairdressers, Hairstylists, and Cosmetologists	\$28,200	13.2%	1.2%
Manicurists and Pedicurists	\$26,300	4.1%	0.4%
Childcare Workers	\$22,100	10.7%	0.9%
Personal Care Aides	\$25,200	32.3%	2.9%
Fitness Trainers and Aerobics Instructors	\$53,100	7.1%	0.6%
Recreation Workers	\$36,600	3.5%	0.3%
All Other Personal Care and Service Occupations (Avg. All Categories)	<u>\$27,800</u>	<u>12.0%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$29,900</b>	<b>100.0%</b>	<b>8.8%</b>
<i>Sales and Related Occupations</i>			
First-Line Supervisors of Retail Sales Workers	\$43,300	9.3%	1.2%
Cashiers	\$25,800	28.2%	3.7%
Counter and Rental Clerks	\$32,400	4.8%	0.6%
Retail Salespersons	\$29,400	34.9%	4.6%
Sales Representatives, Services, All Other	\$47,900	5.0%	0.7%
Sales Representatives, Wholesale and Manufacturing, Except Technical a	\$45,100	4.4%	0.6%
All Other Sales and Related Occupations (Avg. All Categories)	<u>\$31,700</u>	<u>13.6%</u>	<u>1.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$31,700</b>	<b>100.0%</b>	<b>13.2%</b>
<i>Office and Administrative Support Occupations</i>			
First-Line Supervisors of Office and Administrative Support Workers	\$53,200	6.6%	0.9%
Bookkeeping, Accounting, and Auditing Clerks	\$40,200	7.7%	1.1%
Customer Service Representatives	\$36,400	11.7%	1.7%
Receptionists and Information Clerks	\$31,400	8.5%	1.2%
Stock Clerks and Order Fillers	\$29,300	12.1%	1.7%
Medical Secretaries	\$38,300	3.3%	0.5%
Secretaries and Administrative Assistants, Except Legal, Medical, and Ex	\$39,100	11.5%	1.6%
Office Clerks, General	\$32,600	14.5%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Catego	<u>\$36,700</u>	<u>24.1%</u>	<u>3.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$36,400</b>	<b>100.0%</b>	<b>14.3%</b>

**RESIDENTIAL NEXUS APPENDIX B TABLE 8  
AVERAGE ANNUAL WORKER COMPENSATION, 2017  
SERVICES TO HOUSEHOLDS EARNING \$200K+  
RESIDENTIAL NEXUS ANALYSIS  
KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Service Workers
<b>Page 4 of 4</b>			
<i>Installation, Maintenance, and Repair Occupations</i>			
First-Line Supervisors of Mechanics, Installers, and Repairers	\$62,300	7.8%	0.3%
Automotive Body and Related Repairers	\$48,700	4.7%	0.2%
Automotive Service Technicians and Mechanics	\$42,000	16.2%	0.6%
Bus and Truck Mechanics and Diesel Engine Specialists	\$52,100	4.3%	0.1%
Maintenance and Repair Workers, General	\$47,500	34.6%	1.2%
Installation, Maintenance, and Repair Workers, All Other	\$45,300	3.3%	0.1%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Cat)	<u>\$48,100</u>	<u>29.3%</u>	<u>1.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$48,100</b>	<b>100.0%</b>	<b>3.5%</b>
<i>Transportation and Material Moving Occupations</i>			
First-Line Supervisors of Transportation and Material Moving Workers, Ex	\$49,600	3.8%	0.2%
Bus Drivers, Transit and Intercity	\$37,200	3.7%	0.2%
Bus Drivers, School or Special Client	\$37,600	11.2%	0.7%
Driver/Sales Workers	\$26,900	6.8%	0.4%
Heavy and Tractor-Trailer Truck Drivers	\$42,700	9.1%	0.6%
Light Truck or Delivery Services Drivers	\$33,200	7.4%	0.5%
Taxi Drivers and Chauffeurs	\$30,900	6.1%	0.4%
Parking Lot Attendants	\$25,700	10.6%	0.7%
Cleaners of Vehicles and Equipment	\$28,000	5.3%	0.3%
Laborers and Freight, Stock, and Material Movers, Hand	\$32,600	18.2%	1.2%
Packers and Packagers, Hand	\$26,300	5.9%	0.4%
All Other Transportation and Material Moving Occupations (Avg. All Categ)	<u>\$33,700</u>	<u>11.8%</u>	<u>0.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$33,200</b>	<b>100.0%</b>	<b>6.4%</b>
			88.7%

<sup>1</sup> The methodology utilized by the Bureau of Labor Statistics (BLS) assumes hourly paid employees are employed full-time. Annual compensation is calculated by BLS by multiplying hourly wages by 40 hours per work week by 52 weeks.

<sup>2</sup> Occupation percentages are based on the 2017 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on Occupational Employment Survey data applicable to Kaua'i as of 2017.

<sup>3</sup> Including occupations representing 3% or more of the major occupation group

**APPENDIX C: SUPPORTING DATA FOR THE  
RESORT WORKFORCE HOUSING NEXUS ANALYSIS**

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**APPENDIX C - TABLE 1**  
**2017 NATIONAL HOTEL WORKER DISTRIBUTION BY OCCUPATION**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

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Major Occupations (2% or more)	2017 National Hotel Industry Occupation Distribution	
Management Occupations	73,120	4.5%
Food Preparation and Serving Related Occupations	401,080	24.8%
Building and Grounds Cleaning and Maintenance Occupations	506,430	31.3%
Personal Care and Service Occupations	65,690	4.1%
Sales and Related Occupations	40,000	2.5%
Office and Administrative Support Occupations	323,340	20.0%
Installation, Maintenance, and Repair Occupations	87,380	5.4%
Production Occupations	37,370	2.3%
All Other Hotel Occupations	<u>85,460</u>	<u>5.3%</u>
<b>INDUSTRY TOTAL</b>	1,619,870	100.0%

Excludes casino hotels.

**APPENDIX C - TABLE 2**  
**AVERAGE ANNUAL COMPENSATION, 2017**  
**HOTEL WORKER OCCUPATIONS**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

<u>Occupation</u> <sup>1</sup>	<u>2017 Avg. Compensation</u> <sup>2</sup>	<u>% of Total Occupation Group</u> <sup>3</sup>	<u>% of Total Hotel Workers</u>
<i>Page 1 of 2</i>			
<i>Management Occupations</i>			
General and Operations Managers	\$93,700	21.1%	1.0%
Sales Managers	\$87,800	7.4%	0.3%
Administrative Services Managers	\$75,300	4.0%	0.2%
Financial Managers	\$100,500	4.2%	0.2%
Food Service Managers	\$64,700	9.9%	0.4%
Lodging Managers	\$80,800	44.3%	2.0%
All Other Management Occupations (Avg. All Categories)	<u>\$90,400</u>	<u>9.0%</u>	<u>0.4%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$83,900</b>	<b>100.0%</b>	<b>4.5%</b>
<i>Food Preparation and Serving Related Occupations</i>			
First-Line Supervisors of Food Preparation and Serving Workers	\$38,800	5.8%	1.4%
Cooks, Restaurant	\$37,500	15.1%	3.7%
Bartenders	\$53,700	7.8%	1.9%
Waiters and Waitresses	\$48,200	30.8%	7.6%
Food Servers, Nonrestaurant	\$35,500	6.8%	1.7%
Dining Room and Cafeteria Attendants and Bartender Helpers	\$36,000	11.3%	2.8%
Dishwashers	\$27,700	6.0%	1.5%
All Other Business and Financial Operations (Avg. All Categories)	<u>\$37,200</u>	<u>16.4%</u>	<u>4.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$41,200</b>	<b>100.0%</b>	<b>24.8%</b>
<i>Building and Grounds Cleaning and Maintenance Occupations</i>			
First-Line Supervisors of Housekeeping and Janitorial Workers	\$44,700	6.1%	1.9%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$29,400	5.6%	1.8%
Maids and Housekeeping Cleaners	\$36,800	85.8%	26.8%
All Other Building and Grounds Cleaning and Maintenance Occupations (	<u>\$35,400</u>	<u>2.5%</u>	<u>0.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$36,800</b>	<b>100.0%</b>	<b>31.3%</b>
<i>Personal Care and Service Occupations</i>			
First-Line Supervisors of Personal Service Workers	\$50,200	5.3%	0.2%
Amusement and Recreation Attendants	\$31,700	14.2%	0.6%
Locker Room, Coatroom, and Dressing Room Attendants	\$35,300	4.9%	0.2%
Baggage Porters and Bellhops	\$30,100	31.8%	1.3%
Concierges	\$42,700	18.8%	0.8%
Recreation Workers	\$36,600	6.8%	0.3%
All Other Personal Care and Service Occupations (Avg. All Categories)	<u>\$32,500</u>	<u>18.3%</u>	<u>0.7%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$34,900</b>	<b>100.0%</b>	<b>4.1%</b>

Sources: Bureau of Labor Statistics

Prepared by: Keyser Marston Associates, Inc.

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<u>Occupation</u> <sup>1</sup>	<u>2017 Avg. Compensation</u> <sup>2</sup>	<u>% of Total Occupation Group</u> <sup>3</sup>	<u>% of Total Hotel Workers</u>
<i>Sales and Related Occupations</i>			
Cashiers	\$25,800	18.0%	0.4%
Retail Salespersons	\$29,400	12.6%	0.3%
Sales Representatives, Services, All Other	\$47,900	54.4%	1.3%
All Other Sales and Related Occupations (Avg. All Categories)	<u>\$33,600</u>	<u>15.0%</u>	<u>0.4%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$39,400</b>	<b>100.0%</b>	<b>2.5%</b>
<i>Office and Administrative Support Occupations</i>			
First-Line Supervisors of Office and Administrative Support Workers	\$53,200	8.3%	1.7%
Bookkeeping, Accounting, and Auditing Clerks	\$40,200	5.6%	1.1%
Hotel, Motel, and Resort Desk Clerks	\$39,200	71.6%	14.3%
All Other Office and Administrative Support Occupations (Avg. All Categories)	<u>\$37,800</u>	<u>14.4%</u>	<u>2.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$40,200</b>	<b>100.0%</b>	<b>20.0%</b>
<i>Installation, Maintenance, and Repair Occupations</i>			
First-Line Supervisors of Mechanics, Installers, and Repairers	\$62,300	7.5%	0.4%
Maintenance and Repair Workers, General	\$47,500	90.0%	4.9%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	<u>\$50,300</u>	<u>2.5%</u>	<u>0.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$48,700</b>	<b>100.0%</b>	<b>5.4%</b>
<i>Production Occupations</i>			
Bakers	\$35,500	7.3%	0.2%
Laundry and Dry-Cleaning Workers	\$34,600	85.4%	2.0%
All Other Production Occupations (Avg. All Categories)	<u>\$40,400</u>	<u>7.3%</u>	<u>0.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$35,100</b>	<b>100.0%</b>	<b>2.3%</b>
<b>Weighted Average Annual Wage - All Occupations</b>	<b>\$42,000</b>		92.4%

<sup>1</sup> Including occupations representing 4% or more of the major occupation group.

<sup>2</sup> The methodology utilized by the Bureau of Labor Statistics (BLS) assumes hourly paid employees are employed full-time. Annual compensation is calculated by BLS by multiplying hourly wages by 40 hours per work week by 52 weeks.

<sup>3</sup> Occupation percentages are based on the 2017 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on Occupational Employment Survey data applicable to Kaua'i as of 2017.

**APPENDIX C - TABLE 3  
 WORKER OCCUPATION DISTRIBUTION, 2017  
 WORKERS IN SERVICES TO VISITORS / JOBS GENERATED BY VISITOR SPENDING  
 WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS  
 KAUAI, HI**

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Major Occupations (2% or more)	Worker Occupation Distribution <sup>1</sup> Services to Visitors
Management Occupations	3.6%
Business and Financial Operations Occupations	2.9%
Education, Training, and Library Occupations	1.3%
Arts, Design, Entertainment, Sports, and Media Occupations	12.8%
Healthcare Practitioners and Technical Occupations	0.8%
Healthcare Support Occupations	0.3%
Food Preparation and Serving Related Occupations	37.0%
Building and Grounds Cleaning and Maintenance Occupations	1.6%
Personal Care and Service Occupations	3.0%
Sales and Related Occupations	12.3%
Office and Administrative Support Occupations	8.2%
Installation, Maintenance, and Repair Occupations	2.1%
Transportation and Material Moving Occupations	5.9%
All Other Worker Occupations - Services to Visitors	<u>8.0%</u>
<b>INDUSTRY TOTAL</b>	<b>100.0%</b>

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<sup>1</sup> Distribution of employment by industry is per the IMPLAN model and the distribution of occupational employment within those industries is based on the Bureau of Labor Statistics Occupational Employment Survey.

**APPENDIX C - TABLE 4**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2017**  
**WORKERS IN SERVICES TO VISITORS / JOBS GENERATED BY VISITOR SPENDING**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Visitor Serving-Workers
<i>Page 1 of 4</i>			
<i>Management Occupations</i>			
General and Operations Managers	\$93,700	44.0%	1.6%
Sales Managers	\$87,800	4.0%	0.1%
Administrative Services Managers	\$75,300	2.7%	0.1%
Financial Managers	\$100,500	4.4%	0.2%
Food Service Managers	\$64,700	16.0%	0.6%
Medical and Health Services Managers	\$106,400	0.6%	0.0%
Property, Real Estate, and Community Association Managers	\$61,800	6.1%	0.2%
Managers, All Other	\$78,000	4.2%	0.2%
All other Management Occupations (Avg. All Categories)	<u>\$84,400</u>	<u>17.9%</u>	<u>0.6%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$84,400</b>	<b>100.0%</b>	<b>3.6%</b>
<i>Business and Financial Operations Occupations</i>			
Buyers and Purchasing Agents	\$52,800	2.8%	0.1%
Human Resources Specialists	\$55,200	4.8%	0.1%
Management Analysts	\$77,200	5.2%	0.2%
Training and Development Specialists	\$66,400	3.5%	0.1%
Market Research Analysts and Marketing Specialists	\$49,500	15.3%	0.4%
Business Operations Specialists, All Other	\$61,400	10.8%	0.3%
Accountants and Auditors	\$61,400	21.2%	0.6%
Financial Analysts	\$76,600	1.8%	0.1%
Loan Officers	\$76,200	1.0%	0.0%
All Other Business and Financial Operations Occupations (Avg. All Catego	<u>\$60,000</u>	<u>33.7%</u>	<u>1.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$60,000</b>	<b>100.0%</b>	<b>2.9%</b>
<i>Education, Training, and Library Occupations</i>			
Preschool Teachers, Except Special Education	\$37,200	1.2%	0.0%
Elementary School Teachers, Except Special Education	\$58,600	0.3%	0.0%
Middle School Teachers, Except Special and Career/Technical Education	\$58,200	0.0%	0.0%
Secondary School Teachers, Except Special and Career/Technical Educati	\$59,000	0.2%	0.0%
Self-Enrichment Education Teachers	\$37,600	71.1%	0.9%
Teachers and Instructors, All Other, Except Substitute Teachers	\$39,400	4.5%	0.1%
All Other Education, Training, and Library Occupations (Avg. All Categories	<u>\$37,900</u>	<u>22.7%</u>	<u>0.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$37,900</b>	<b>100.0%</b>	<b>1.3%</b>

**APPENDIX C - TABLE 4**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2017**  
**WORKERS IN SERVICES TO VISITORS / JOBS GENERATED BY VISITOR SPENDING**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Visitor Serving-Workers
<i>Arts, Design, Entertainment, Sports, and Media Occupations</i>			
Graphic Designers	\$34,500	1.4%	0.2%
Merchandise Displayers and Window Trimmers	\$32,300	0.4%	0.1%
Actors	\$44,720	18.3%	2.3%
Producers and Directors	\$86,000	11.0%	1.4%
Coaches and Scouts	\$49,400	0.4%	0.1%
Musicians and Singers	\$40,248	16.7%	2.1%
Public Relations Specialists	\$53,000	2.4%	0.3%
Writers and Authors	\$49,600	5.1%	0.7%
Audio and Video Equipment Technicians	\$56,100	7.2%	0.9%
Photographers	\$49,608	1.0%	0.1%
All Other Arts, Design, Entertainment, Sports, and Media Occupations (Avg)	<u>\$52,300</u>	<u>36.0%</u>	<u>4.6%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$52,400</b>	<b>100.0%</b>	<b>12.8%</b>
<i>Healthcare Practitioners and Technical Occupations</i>			
Pharmacists	\$117,500	10.8%	0.1%
Physicians and Surgeons, All Other	\$186,000	3.6%	0.0%
Physical Therapists	\$89,300	2.9%	0.0%
Registered Nurses	\$93,100	20.6%	0.2%
Clinical Laboratory Technologists and Technicians	\$55,300	2.0%	0.0%
Dental Hygienists	\$79,100	4.5%	0.0%
Pharmacy Technicians	\$36,000	15.6%	0.1%
Licensed Practical and Licensed Vocational Nurses	\$50,300	3.5%	0.0%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Cat)	<u>\$105,800</u>	<u>36.6%</u>	<u>0.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$91,800</b>	<b>100.0%</b>	<b>0.8%</b>
<i>Healthcare Support Occupations</i>			
Home Health Aides	\$25,600	10.9%	0.0%
Nursing Assistants	\$32,100	14.6%	0.0%
Physical Therapist Assistants	\$55,000	3.5%	0.0%
Massage Therapists	\$49,900	10.5%	0.0%
Dental Assistants	\$32,100	17.8%	0.1%
Medical Assistants	\$37,600	21.4%	0.1%
Veterinary Assistants and Laboratory Animal Caretakers	\$30,600	5.5%	0.0%
Phlebotomists	\$37,800	1.5%	0.0%
All Other Healthcare Support Occupations (Avg. All Categories)	<u>\$35,800</u>	<u>14.5%</u>	<u>0.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$35,800</b>	<b>100.0%</b>	<b>0.3%</b>

**APPENDIX C - TABLE 4**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2017**  
**WORKERS IN SERVICES TO VISITORS / JOBS GENERATED BY VISITOR SPENDING**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Visitor Serving-Workers
<i>Food Preparation and Serving Related Occupations</i>			
First-Line Supervisors of Food Preparation and Serving Workers	\$38,800	7.1%	2.6%
Cooks, Fast Food	\$33,000	4.8%	1.8%
Cooks, Restaurant	\$37,500	11.0%	4.1%
Food Preparation Workers	\$29,000	5.1%	1.9%
Bartenders	\$53,700	3.7%	1.4%
Combined Food Preparation and Serving Workers, Including Fast Food	\$24,300	29.0%	10.7%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$26,100	3.0%	1.1%
Waiters and Waitresses	\$48,200	22.5%	8.3%
Dining Room and Cafeteria Attendants and Bartender Helpers	\$36,000	3.1%	1.2%
Dishwashers	\$27,700	3.8%	1.4%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$31,700	3.8%	1.4%
All Other Food Preparation and Serving Related Occupations (Avg. All Cat)	<u>\$35,500</u>	<u>3.0%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$35,100</b>	<b>100.0%</b>	<b>37.0%</b>
<i>Building and Grounds Cleaning and Maintenance Occupations</i>			
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping	\$56,900	2.6%	0.0%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$29,400	53.0%	0.9%
Maids and Housekeeping Cleaners	\$36,800	9.5%	0.2%
Pest Control Workers	\$34,900	2.2%	0.0%
Landscaping and Groundskeeping Workers	\$36,900	26.1%	0.4%
All Other Building and Grounds Cleaning and Maintenance Occupations (A)	<u>\$33,100</u>	<u>6.7%</u>	<u>0.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$33,100</b>	<b>100.0%</b>	<b>1.6%</b>
<i>Personal Care and Service Occupations</i>			
First-Line Supervisors of Personal Service Workers	\$50,200	4.3%	0.1%
Nonfarm Animal Caretakers	\$32,300	11.9%	0.4%
Amusement and Recreation Attendants	\$31,700	7.0%	0.2%
Hairdressers, Hairstylists, and Cosmetologists	\$28,200	5.3%	0.2%
Manicurists and Pedicurists	\$26,300	1.6%	0.0%
Childcare Workers	\$22,100	0.6%	0.0%
Personal Care Aides	\$25,200	7.6%	0.2%
Fitness Trainers and Aerobics Instructors	\$53,100	1.0%	0.0%
Recreation Workers	\$36,600	1.9%	0.1%
All Other Personal Care and Service Occupations (Avg. All Categories)	<u>\$31,800</u>	<u>58.8%</u>	<u>1.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$32,100</b>	<b>100.0%</b>	<b>3.0%</b>
<i>Sales and Related Occupations</i>			
First-Line Supervisors of Retail Sales Workers	\$43,300	9.8%	1.2%
Cashiers	\$25,800	31.2%	3.8%
Counter and Rental Clerks	\$32,400	11.3%	1.4%
Retail Salespersons	\$29,400	35.1%	4.3%
Sales Representatives, Services, All Other	\$47,900	3.7%	0.5%
Sales Representatives, Wholesale and Manufacturing, Except Technical ar	\$45,100	2.0%	0.2%
All Other Sales and Related Occupations (Avg. All Categories)	<u>\$31,100</u>	<u>6.8%</u>	<u>0.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$31,100</b>	<b>100.0%</b>	<b>12.3%</b>

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, IMPLAN  
 Keyser Marston Associates, Inc.  
 \\SF-FS2\wp\15\15011\001\Kauai Visitor Accom Nexus 11-25-18; 6/17/2019; dd

**APPENDIX C - TABLE 4**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2017**  
**WORKERS IN SERVICES TO VISITORS / JOBS GENERATED BY VISITOR SPENDING**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

Occupation <sup>3</sup>	2017 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total No. of Visitor Serving-Workers
<i>Office and Administrative Support Occupations</i>			
First-Line Supervisors of Office and Administrative Support Workers	\$53,200	6.4%	0.5%
Bookkeeping, Accounting, and Auditing Clerks	\$40,200	9.5%	0.8%
Customer Service Representatives	\$36,400	11.4%	0.9%
Receptionists and Information Clerks	\$31,400	4.0%	0.3%
Stock Clerks and Order Fillers	\$29,300	13.9%	1.1%
Medical Secretaries	\$38,300	0.8%	0.1%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$39,100	14.5%	1.2%
Office Clerks, General	\$32,600	18.0%	1.5%
All Other Office and Administrative Support Occupations (Avg. All Categories)	<u>\$37,000</u>	<u>21.5%</u>	<u>1.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$36,500</b>	<b>100.0%</b>	<b>8.2%</b>
<i>Installation, Maintenance, and Repair Occupations</i>			
First-Line Supervisors of Mechanics, Installers, and Repairers	\$62,300	7.6%	0.2%
Automotive Body and Related Repairers	\$48,700	2.3%	0.0%
Automotive Service Technicians and Mechanics	\$42,000	11.3%	0.2%
Bus and Truck Mechanics and Diesel Engine Specialists	\$52,100	13.3%	0.3%
Maintenance and Repair Workers, General	\$47,500	36.2%	0.8%
Installation, Maintenance, and Repair Workers, All Other	\$45,300	3.9%	0.1%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	<u>\$48,900</u>	<u>25.4%</u>	<u>0.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$48,900</b>	<b>100.0%</b>	<b>2.1%</b>
<i>Transportation and Material Moving Occupations</i>			
First-Line Supervisors of Transportation and Material Moving Workers, Except Heavy and Tractor-Trailer Truck Drivers	\$49,600	2.5%	0.1%
Bus Drivers, Transit and Intercity	\$37,200	3.0%	0.2%
Bus Drivers, School or Special Client	\$37,600	6.2%	0.4%
Driver/Sales Workers	\$26,900	13.1%	0.8%
Heavy and Tractor-Trailer Truck Drivers	\$42,700	3.7%	0.2%
Light Truck or Delivery Services Drivers	\$33,200	6.1%	0.4%
Taxi Drivers and Chauffeurs	\$30,900	8.5%	0.5%
Parking Lot Attendants	\$25,700	4.8%	0.3%
Cleaners of Vehicles and Equipment	\$28,000	7.9%	0.5%
Laborers and Freight, Stock, and Material Movers, Hand	\$32,600	27.1%	1.6%
Packers and Packagers, Hand	\$26,300	4.2%	0.2%
All Other Transportation and Material Moving Occupations (Avg. All Categories)	<u>\$32,200</u>	<u>13.0%</u>	<u>0.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$32,000</b>	<b>100.0%</b>	<b>5.9%</b>
			<b>92.0%</b>

<sup>1</sup> The methodology utilized by the Bureau of Labor Statistics (BLS) assumes hourly paid employees are employed full-time. Annual compensation is calculated by BLS by multiplying hourly wages by 40 hours per work week by 52 weeks.

<sup>2</sup> Occupation percentages are based on the 2017 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on Occupational Employment Survey data applicable to Kaua'i as of 2017.

<sup>3</sup> Including occupations representing 3% or more of the major occupation group

**APPENDIX C - TABLE 5**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2017**  
**VACATION RENTAL WORKERS - HOUSEKEEPING, GROUNDS, PROPERTY MANAGEMENT**  
**WORKFORCE HOUSING / VISITOR ACCOMODATION NEXUS**  
**KAUA'I, HI**

<b>Occupation</b>	<b>2017 Avg. Compensation <sup>1</sup></b>	<b>% of Total Vacation Rental Workers<sup>2</sup></b>
First-Line Supervisors of Housekeeping and Janitorial Workers	\$44,700	4.0%
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Wc	\$56,900	4.5%
Maids and Housekeeping Cleaners	\$36,800	40.3%
Landscaping and Groundskeeping Workers	\$36,900	45.3%
Lodging Managers	\$80,800	5.8%
		100.0%

<sup>1</sup> The methodology utilized by the Bureau of Labor Statistics (BLS) assumes hourly paid employees are employed full-time. Annual compensation is calculated by BLS by multiplying hourly wages by 40 hours per work week by 52 weeks.

<sup>2</sup> Estimated by KMA.

**APPENDIX D: HOTEL AND RESORT MARKET DATA**

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**APPENDIX D, TABLE 1  
 KAUAI COUNTY SELECT HOTELS WEEKLY PERFORMANCE - LAST 12 MONTHS  
 WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
 KAUAI, HI**

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**Kauai County Select Hotels | Luxury & Upper Upscale**

Weekly Averages

	Sun	Mon	Tues	Weds	Thurs	Fri	Sat
Occupancy	76.3%	76.4%	76.5%	77.7%	78.9%	79.1%	78.4%
ADR	\$ 362.04	\$ 362.95	\$ 362.92	\$ 363.68	\$ 365.23	\$ 358.18	\$ 361.90
REVPAR	\$ 276.37	\$ 277.41	\$ 277.55	\$ 282.69	\$ 288.03	\$ 283.19	\$ 283.64

**Kauai County Hotels | All Hotels**

Weekly Averages

	Sun	Mon	Tues	Weds	Thurs	Fri	Sat
Occupancy	75.4%	75.6%	75.7%	76.4%	78.0%	78.5%	78.0%
ADR	\$ 279.39	\$ 279.24	\$ 280.03	\$ 282.13	\$ 282.35	\$ 278.34	\$ 279.29
REVPAR	\$ 210.66	\$ 211.16	\$ 212.05	\$ 215.63	\$ 220.17	\$ 218.49	\$ 217.81

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(1) Source: Smith Travel Research August 2018

**APPENDIX D, TABLE 2  
ANNUAL CHANGE IN OCCUPANCY, ADR & REVPAR  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUAI', HI**

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**Kauai County Select Hotels | Luxury & Upper Upscale**

<b>Period</b>	<b>Occupancy</b>	<b>ADR</b>	<b>REVPAR</b>
2012-2013	3.87%	3.32%	7.31%
2013-2014	2.26%	-0.43%	1.85%
2014-2015	0.65%	7.64%	8.36%
2015-2016	1.55%	2.79%	4.34%
2016-2017	-1.78%	4.54%	2.68%
2017-2018	3.63%	10.71%	14.91%

**Kauai County Hotels | All Hotels**

<b>Period</b>	<b>Occupancy</b>	<b>ADR</b>	<b>REVPAR</b>
2012-2013	2.07%	4.35%	6.48%
2013-2014	1.74%	1.12%	2.97%
2014-2015	1.42%	6.54%	8.11%
2015-2016	2.11%	4.34%	6.51%
2016-2017	4.13%	4.26%	8.53%
2017-2018	4.62%	11.65%	16.90%

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(1) Source: Smith Travel Research August 2018

**APPENDIX D, TABLE 3  
HOTEL MARKET PERFORMANCE  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUA'I, HI**

**Kauai County Select Hotels | Luxury & Upper Upscale**

	<u>Occupancy</u>	<u>Average Daily Rate</u>	<u>Annual Supply</u>	<u>Annual Demand</u>	<u>Room Nights Change</u>	<u>RevPar</u>	<u>RevPar Change</u>
2012	72.4%	\$ 286.79	813,950	588,979		\$ 207.53	
2013	75.2%	\$ 296.30	816,342	613,559	4.2%	\$ 222.70	7.3%
2014	76.9%	\$ 295.02	818,695	629,393	2.6%	\$ 226.81	1.8%
2015	77.4%	\$ 317.55	818,602	633,577	0.7%	\$ 245.78	8.4%
2016	78.6%	\$ 326.42	832,818	654,260	3.3%	\$ 256.44	4.3%
2017	77.2%	\$ 341.23	908,436	700,996	7.1%	\$ 263.31	2.7%
CAC 2012-2017		3.54%	2.22%	3.54%		4.88%	

**Kauai County Hotels | All Hotels**

	<u>Occupancy</u>	<u>Average Daily Rate</u>	<u>Annual Supply</u>	<u>Annual Demand</u>	<u>Room Nights Change</u>	<u>RevPar</u>	<u>RevPar Change</u>
2012	67.6%	\$ 215.82	1,572,538	1,062,658		\$ 145.84	
2013	69.0%	\$ 225.20	1,569,384	1,082,225	1.8%	\$ 155.29	6.5%
2014	70.2%	\$ 227.72	1,554,170	1,091,255	0.8%	\$ 159.90	3.0%
2015	71.2%	\$ 242.62	1,541,302	1,098,123	0.6%	\$ 172.86	8.1%
2016	72.7%	\$ 253.15	1,538,364	1,118,852	1.9%	\$ 184.12	6.5%
2017	75.7%	\$ 263.93	1,624,566	1,230,021	9.9%	\$ 199.83	8.5%
CAC 2012-2017		4.11%	0.65%	2.97%		6.50%	

(1) Source: Smith Travel Research August 2018

**APPENDIX D, TABLE 4  
HOTEL INVENTORY  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUA'I, HI**

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<b>Name</b>	<b>Class</b>	<b>Year Opened</b>	<b>Rooms</b>
<b><u>South Kaua'i</u></b>			
Koloa Landing Resort @ Poipu	Upper Upscale Class	2010	298
Koa Kea Hotel & Resort	Luxury Class	2009	121
Aston Hotel @ Poipu Kai	Upscale Class	1997	94
Makahuena @ Poipu Resort	Upper Upscale Class	1997	29
Grand Hyatt Kauai Resort & Spa	Luxury Class	1990	604
Parrish Collection Kauai	Luxury Class	1982	253
Poipu Shores Resort	Upper Upscale Class	1977	27
Kiahuna Plantation Resort Kauai By Outrigger	Upscale Class	1974	146
Kiahuna Plantation & The Beach Bungalows Resort	Upper Upscale Class	1973	109
Sheraton Hotel Kauai Resort	Upper Upscale Class	1968	389
Waimea Plantation Cottages a Coast Resort	Upscale Class	1985	61
			<u>2,131</u>
<b><u>East Kaua'i</u></b>			
Waipouli Beach Resort & Spa Kauai By Outrigger	Upscale Class	2006	71
Kauai Shores Hotel	Upscale Class	1979	200
Lanikai Resort	Upscale Class	1979	18
Pono Kai Resort	Upscale Class	1979	15
Courtyard Kauai @ Coconut Beach	Upscale Class	1978	311
Wailua Bay View Resort	Upper Midscale Class	1978	36
Lae Nani Resort Kauai By Outrigger	Upscale Class	1978	11
Plantation Hale Suites	Upscale Class	1974	82
Aston Hotel Islander On The Beach	Upscale Class	1970	198
Hilton Garden Inn Kauai Wailua Bay	Upscale Class	1968	216
Hotel Coral Reef	Upper Midscale Class	1955	21
			<u>1,179</u>
<b><u>Lihu'e</u></b>			
Marriott Kauai Resort	Upper Upscale Class	1995	356
Aqua Kauai Beach Resort	Upper Midscale Class	1986	325
Kaha Lani Resort	Upscale Class	1976	33
Garden Island Inn	Upper Midscale Class	1976	21
Tip Top Motel	Economy Class	1965	34
Kauai Inn	Upper Midscale Class	n/a	48
			<u>817</u>
<b><u>North Shore</u></b>			
St Regis Princeville Resort	Luxury Class	1985	251
Castle @ Princeville	Upper Upscale Class	1972	20
Hanalei Colony Resort	Upper Upscale Class	1969	47
			<u>318</u>
			<u><u>4,445</u></u>

Source: Smith Travel Research August 2018

**APPENDIX D, TABLE 5  
COMMERCIAL LAND SALES COMPARABLES  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUA'I, HI**

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<u>No.</u>	<u>Description</u>	<u>Address</u>	<u>City</u>	<u>Sale Date</u>	<u>Size (AC)</u>	<u>Sales Price</u>	<u>Price Per SF</u>	<u>Note</u>
1	Hotel/Resort	Kuhio Hwy & Aleka Loop	Kapaa	4/15/2015	11.78	\$3,657,500	\$7	102 condo hotel plus 6 hotel rooms
2	Hotel/Resort	Aleka Loop	Kapaa	4/15/2016	20.97	\$12,500,000	\$14	Entitled for 343 timeshare units & 6 hotel rooms, sold at auction
3	Hotel/Resort	Coco Palms	Kapaa	5/6/2016	31.51	\$11,750,000	\$9	Proposed to be developed as 350-key Hyatt- operated resort, site of dilapidated existing resort
<b>Weighted Average</b>							<b>\$10</b>	

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Source: Costar 8/2018

**APPENDIX D, TABLE 6  
HOTEL SALES COMPARABLES  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUAI, HI**

<b>Kauai Hotel Sales</b>												
<u>No.</u>	<u>Building Name</u>	<u>Address</u>	<u>City</u>	<u>Sale Date</u>	<u>Year Built</u>	<u>Number of Rooms</u>	<u>GBA (SF)</u>	<u>Land (SF)</u>	<u>Sales Price</u>	<u>Price Per SF GBA</u>	<u>Price Per SF Land</u>	<u>Price Per Room</u>
1	Coutyard by Marriott Kaua'i at Cocon	650 Aleka Loop	Kapaa	8/17/2017	1978	311	216,271	452,153	\$61,679,900	\$285	\$136	\$198,328
2	Hilton Garden Inn	3-5920 Kuhio Hwy	Lihue	6/1/2017	1978	216	139,922	374,180	\$44,000,000	\$314	\$118	\$203,704
3	Ko'a Kea Hotel & Resort at Poipu Be	2251 Poipu Rd	Koloa	1/14/2016	1967	120	100,000	43,996	\$50,000,000	\$500	\$1,136	\$416,667
4	St. Regis Princeville	5520 Ka Haku Rd	Princeville	9/14/2018	1985	251	237,633	1,001,880	\$225,000,000	\$947	\$225	\$896,414
<b>Weighted Average</b>										<b>\$834</b>	<b>\$437</b>	<b>\$423,920</b>
<b>Minimum Price/SF</b>										<b>\$285</b>	<b>\$118</b>	<b>\$198,328</b>
<b>Maximum Price/SF</b>										<b>\$947</b>	<b>\$1,136</b>	<b>\$896,414</b>

<b>Oahu Hotel Sales</b>												
<u>No.</u>	<u>Building Name</u>	<u>Address</u>	<u>City</u>	<u>Sale Date</u>	<u>Year Built</u>	<u>Number of Rooms</u>	<u>GBA (SF)</u>	<u>Land (SF)</u>	<u>Sales Price</u>	<u>Price Per SF GBA</u>	<u>Price Per SF Land</u>	<u>Price Per Room</u>
1	The Modern Honolulu	1775 Ala Moana Blvd	Honolulu	4/18/2018	1965	360	342,600	71,438	\$215,070,820	\$628	\$3,011	\$597,418.94
2	Ewa Hotel Waikiki	2555 Cartwright Rd	Honolulu	12/10/2015	1972	92	46,728	14,810	\$14,000,000	\$300	\$945	\$152,174
3	Kahala Hotel & Resort	5000 Kahala Ave	Honolulu	10/14/2014	1963	338	247,612	282,487	\$290,000,000	\$1,171	\$1,027	\$857,988
4	Sheraton Princess Kaiulani	120 Kaiulani Ave	Honolulu	6/4/2014	1955	1,142	699,704	122,809	\$159,325,000	\$228	\$1,297	\$139,514
5	Polynesian Plaza	2131 Kalakaua Ave	Honolulu	9/22/2015	1958	56	39,969	14,057	\$10,600,000	\$265	\$754	\$189,286
6	Aston Waikiki Beach Hotel	2570 Kalakaua Ave	Honolulu	2/14/2014	1969	645	365,259	57,926	\$183,000,000	\$501	\$3,159	\$283,721
7	Kaimana Beach Hotel	2863 Kalakaua Ave	Honolulu	5/31/2016	1954	156	73,170	28,906	\$31,791,192	\$434	\$1,100	\$203,790
8	Alohilani Resort at Waikiki Beach	2490 Kalakaua Ave	Honolulu	4/17/2017	1969	837	277,005	126,324	\$515,000,000	\$1,859	\$4,077	\$615,293
9	Aston Waikiki Beach Hotel	2570 Kalakaua Ave	Honolulu	3/14/2018	1969	645	365,259	57,926	\$200,000,000	\$548	\$3,453	\$310,078
10	Turtle Bay Resort	57-091 Kamehameha H	Kahuku	12/19/2017	1972	443	529,932	#####	\$332,500,000	\$627	\$9	\$750,564
11	Queen Kapiolani Hotel	150 Kapahulu Ave	Honolulu	5/1/2015	1969	312	219,340	36,155	\$51,300,000	\$234	\$1,419	\$164,423
12	Ambassador Hotel	2028-2040 Kuhio Ave	Honolulu	4/3/2014	1968	298	128,338	68,825	\$71,500,000	\$557	\$1,039	\$239,933
13	Aqua Waikiki Wave Hotel	2299 Kuhio Ave	Honolulu	1/16/2014	1969	247	176,332	31,799	\$52,000,000	\$295	\$1,635	\$210,526
14	Hilton Garden Inn	2330 Kuhio Ave	Honolulu	3/28/2018	1971	623	349,771	41,160	\$212,000,000	\$606	\$5,151	\$340,289
15	Hotel Renew	129 Paoakalani Ave	Honolulu	1/5/2018	1967	72	50,000	7,266	\$25,750,000	\$515	\$3,544	\$357,639
<b>Weighted Average</b>										<b>\$604</b>	<b>\$65</b>	<b>\$377,248</b>
<b>Minimum Price/SF</b>										<b>\$228</b>	<b>\$9</b>	<b>\$139,514</b>
<b>Maximum Price/SF</b>										<b>\$1,859</b>	<b>\$5,151</b>	<b>\$857,988</b>

**APPENDIX D, TABLE 6  
HOTEL SALES COMPARABLES  
WORKFORCE HOUSING ANALYSIS - SUPPORTING MARKET DATA  
KAUA'I, HI**

<b>Maui Hotel Sales</b>												
<u>No.</u>	<u>Building Name</u>	<u>Address</u>	<u>City</u>	<u>Sale Date</u>	<u>Year Built</u>	<u>Number of Rooms</u>	<u>GBA (SF)</u>	<u>Land (SF)</u>	<u>Sales Price</u>	<u>Price Per SF GBA</u>	<u>Price Per SF Land</u>	<u>Price Per Room</u>
1	Hana Oceanfront Cottages	522 Hana Hwy	Hana	3/22/2018	2000	3	1,984	15,873	\$2,742,000	\$1,382	\$173	\$914,000
2	2121 Iliili Rd	2121 Iliili Rd	Kihei	2/23/2017	-	8	4,282	-	\$2,900,000	\$677	-	\$362,500
3	Wailea Inn	2141 Iliili Rd	Kihei	12/28/2017	1986	14	8,964	13,234	\$6,463,048	\$721	\$488	\$461,646
4	Maui Beach Hotel	130 W Kaahumanu Ave	Kahului	7/3/2014	1968	147	81,702	407,417	\$20,000,000	\$245	\$49	\$136,054
5	The Westin Maui Resort & Spa	2365 Kaanapali Pky	Lahaina	4/3/2017	1972	759	520,402	522,167	\$317,000,000	\$609	\$607	\$417,655
6	Courtyard Maui Kahului Airport	532 Keolani Pl	Kahului	5/19/2017	2011	138	40,398	145,708	\$69,000,000	\$1,708	\$474	\$500,000
7	Kohea Kai	551 Kihei Rd	Kihei	8/26/2016	1977	26	11,206	40,032	\$8,000,000	\$714	\$200	\$307,692
8	Aston Maui Lu	575 S Kihei Rd	Kihei	10/2/2014	1958	120	35,809	1,219,680	\$60,000,000	\$1,676	\$49	\$500,000
9	254 Pualei Dr	254 Pualei Dr	Lahaina	4/21/2015	-	4	760	998	\$2,025,000	\$2,664	\$2,029	\$506,250
10	48 Puamelia Pl	48 Puamelia Pl	Lahaina	4/17/2015	-	4	1,274	-	\$1,100,000	\$863	-	\$275,000
11	Ritz Carlton Kapalua	1 Ritz-Carlton Dr	Lahaina	11/18/2016	1992	297	605,000	1,446,192	\$173,000,000	\$286	\$120	\$582,492
12	Wailea Beach Marriott Resort & Spa	3700 Wailea Alanui Dr	Kihei	7/17/2014	1976	543	493,078	906,919	\$325,700,000	\$661	\$359	\$599,816
13	Andaz Maui at Wailea	3550 Wailea Alanui Dr	Kihei	3/29/2018	1978	301	263,174	675,180	\$456,793,843	\$1,736	\$677	\$1,517,588
<b>Weighted Average</b>										<b>\$699</b>	<b>\$267</b>	<b>\$611,135</b>
<b>Minimum Price/SF</b>										<b>\$245</b>	<b>\$49</b>	<b>\$136,054</b>
<b>Maximum Price/SF</b>										<b>\$2,664</b>	<b>\$2,029</b>	<b>\$1,517,588</b>

Source: Costar 8/2018